IN THE COMPETITION APPEAL TRIBUNAL

Case Nos. 1275/1/12/17
1276/1/12/17

Victoria House,
Bloomsbury Place,
London WC1A 2EB

14th November 2017

Before:

PETER FREEMAN CBE QC (Hon)
(Chairman)
PAUL LOMAS
PROFESSOR MICHAEL WATERSON

(Sitting as a Tribunal in England and Wales)

BETWEEN:

FLYNN PHARMA LTD AND FLYNN PHARMA (HOLDINGS) LTD Appellant

- and -

COMPETITION AND MARKETS AUTHORITY Respondent

- and -

PFIZER INC. AND PFIZER LIMITED Appellant

- and -

COMPETITION AND MARKETS AUTHORITY Respondent

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Official Court Reporters and Audio Transcribers
5 New Street Square, London EC4A 3BF
Tel: 020 7831 5627 Fax: 020 7831 7737
civil@opus2.digital

HEARING – Day 9

A P P E A R AN C E S

Kelyn Bacon QC, Ronit Kreisberger and Tom Pascoe (instructed by Macfarlanes LLP)

Mark Brealey QC, Robert O'Donoghue QC and Tim Johnston (instructed by Clifford Chance LLP)

Mark Hoskins QC, David Bailey, Hugo Leith and Jennifer MacLeod (instructed by CMA)

Tuesday, 14 November 2017

(10.30 am)

MR GREG HARMAN (continued)

Cross-examination by MS BACON (continued)

THE CHAIRMAN: Good morning.

MS BACON: Sir.

THE CHAIRMAN: We will crack on?

MS BACON: We will crack on, yes.

Mr Harman, we finished the day yesterday by starting to look at your evidence on gross margins. Can you take up bundle F again, your evidence bundle.

A. Yes.

Q. I think it is a good idea to have bundle D close to hand too. Can you turn to paragraph 4.75.

A. Of my first report?

Q. Of your first report. Do you see that that is headed (iii), "Other Measures of Analysis, Gross Margins"?

A. Yes.

Q. I just want to focus on this section, I will come to the later parts of your report a bit later.

First question: is this section of your report addressing both Flynn's comparison with its own gross margins for other product and its comparison with the gross margins of other generic companies?

A. Let me just refamiliarise myself. (Pause) I think it is both.

Q. Yes. So we are looking at the section up to the end of 4.84.

A. Yes.

Q. So I just want to then make sure I have understood the arguments you make in these paragraphs, so 4.75 to 4.84. The first actual argument I think comes in at 4.77 to 4.79 and my understanding is this is an argument about the comparability of the various companies in the different generic samples, Mr Williams' and Mr Davies' generic samples, is that right?

A. Yes.

Q. So that is the first argument. You agree that that goes to the comparisons with the other generics but not Flynn?

A. Yes, I think that is right.

Q. So the next argument as I see it is at paragraphs 4.81 and 4.82?

A. Yes.

Q. I skipped over 4.80 because there you are just setting out what Flynn's arguments are. Then you start to respond to it, 4.81 and 4.82. I am trying to summarise those in one sentence and can I put it like this: my understanding is that the argument in these paragraphs is about different products having different direct costs and you say that this means that the gross margin measure is incomplete, is that a correct summary?

A. Yes. Basically, if you have other costs to recover from your gross margin, such as sales costs, then obviously you need a higher gross margin to be able to cover those costs.

Q. So that is argument number two. Do you agree that you are using this argument in relation to both Flynn's gross margin comparisons and also other generics?

A. Yes, I think it applies to both.

Q. That is how I understood it but I just wanted to check.

Your third argument then is the in addition point, 4.83, and that is about different ways of accounting for costs?

A. Correct.

Q. You refer back to what you have said about valuing stock, and that is the footnote 247. Then you also add a point, and this is the second sentence about where costs are recorded?

A. Correct.

Q. So do you agree that this argument only goes to the other generic companies?

A. Correct.

Q. So we have three arguments here: the first and the third go to other generics, the second argument applies to both Flynn and other generics?

A. Yes, and there is a fourth blanket point which applies to all percentage margins, that you have to be able to compare products that have the same level of investment, level of risk, volumes and unit costs. That applies to all benchmarks --

Q. I will be coming back to that point, strangely enough. I had covered that off, it is a point you made yesterday. But the points here are the three points that you make that I have just gone through.

A. Yes.

Q. So I have dealt with the first of those yesterday, so I asked you a few questions on those so I will not cover that again today. Let us go to the second point and that is the point at 4.81 to 4.82 and that is about other costs. As I understand it, when we are talking about Flynn, your point is that it is not meaningful to compare Flynn's gross margin on Phenytoin with the gross margins on its other products because by reference to your graph or your bar chart, you say some products have significant direct costs and your point, as you have just explained it, is that you needed higher gross margin to cover those off?

A. Yes.

Q. So can we start with a definitional point so we know we

are talking about the same thing. When you talk about other direct costs and other costs, am I right in thinking you mean costs that are not COGS but are directly attributable, in other words things like distribution, sales, marketing costs and amortisation?
A. Yes.
Q. I would propose to call those directly attributable costs because, of course, sometimes when you say direct cost you mean COGS plus those?
A. Yes.
Q. So let us call those directly attributable costs. And when I say direct costs, I mean directly attributable costs plus COGS.
A. Okay.
Q. So these directly attributable costs are the costs that would be taken into account in a product contribution analysis?
A. Yes.
Q. That is the light blue lines on your bar chart.
A. Yes.
Q. And you call that a direct margin analysis, but are you happy with me just sticking with product contribution?
A. Yes.
Q. So those costs would not be taken into account in a gross margin analysis but they are taken into account

in a product contribution analysis?

A. Yes.

Q. So looking at your figure 4.4, this is the bar chart. You set out gross margins and direct margins, so gross margin analysis and product contribution analysis. I will not say the names of the products because I think they are confidential. Can you just take a pencil or pen or something and can you draw a box round the part of the chart which starts from the seventh product onwards and includes the seventh product, can you then do a box essentially around the right-hand half of the chart.

A. Yes.

Q. Do you agree that the products in that subset are the products for which there are either no or very few directly attributable costs?

A. Yes, I agree with that.

Q. Now can we pick up CRA because they have done something very similar and that is in bundle D. Can you look at tab 2.

A. Yes.

Q. Can you turn to pages 25 and 26.

A. Yes.

Q. These present essentially the same information for that subset to the boxed subset but broken down by year. Do

you see that?
A. I do.
Q. So they do gross margins on page 25 and then product contributions on page 26.
A. Yes.
Q. So do you agree that those then contain just a more detailed version of your bar graph?
A. Yes.
Q. Just to note that there is one product which has been excluded from CRA's analysis, that is in the text at the bottom of page 25, note 3. Then there is another product that you will see only comes into 2015 because it did not have sales before then and you will see that is a product which is three bars up from the bottom of 2015. I will not name it.
A. Yes.
Q. The question is this: given that for this subset of products we have agreed that there are no or almost no directly attributable costs, do you agree that your objection about gross margins versus product contributions does not hold for that subset?
A. Yes, but let me just -- not caveat it, but just to explain that it is right that that controls for that, but if you were going to control for it then you might as well just look at the product contribution analysis

on the second page because it then tells you exactly the same thing, so it was just my point yesterday that when you start to control for some of those things, they all start to point in the same direction because they are obviously all margins but just at different levels. So page 25 is consistent with page 26.
Q. Yes. So then going back to your three points in this section of your report, do you agree then that the objection that you make in 4.82 does not hold for the subset of Flynn's products that do not have significant directly attributable costs?
A. For that particular issue, yes.
Q. I am just talking about that issue. So that is your box or CRA's subset analysis.
A. Correct.
Q. So you agree that this paragraph was also talking about generic companies, a point you say goes to both?
A. Yes.
Q. So let us turn to look at the generic companies. Is your point in relation to other generic companies that some of the products in their portfolios might have had higher directly attributable costs than Phenytoin?
A. Yes.
Q. And do you say that because you have looked at Flynn's portfolio, that is your bar graph, and you can see that

there are some products with higher directly attributable costs, so you say, well, I can see that in Flynn --
A. Yes.
Q. -- so that might be the case for some generics?
A. As I know that, yes, Flynn has sales and marketing costs, my assumption is that other generic costs will obviously have some sales and marketing. What I do know is that Phenytoin has zero, so it is reasonable to assume that other drugs will at least have zero or potentially more.
Q. So your train of logic is this, I think. You say I can see that some of Flynn's products have directly attributable costs that are significant, at least not zero, therefore it stands to reason, I think you just said, that some generic companies might have products with significant directly attributable costs?
A. Yes.
Q. And therefore you say looking at the gross margins of those companies is not a meaningful comparison?
A. Correct.
Q. Because you would not be controlling for the fact that some of them had directly attributable costs.

Did you do any research into the extent to which the various comparator companies put forward by Flynn and

its experts do incur significant directly attributable costs?
A. I cannot recall in the comparator analysis whether they also show the direct margins, because if they do show the direct margins, if they differ from the gross margins, then empirically obviously they would have had direct costs associated with them.
Q. But they do not because, as you recall, we do not have all of the breakdown of the figures for all of those generic subsets. So what has been done on the generic comparators is to look at the ROS and the gross margins. It is Flynn's product portfolio that we have the product contribution for.
A. That is a fair point. I have not looked.
Q. Have you done any research into what types of pharmaceutical products are more likely to incur higher directly attributable costs?
A. No, but I would imagine new generic companies coming into the marketplace have to have a level of sales and marketing because they are trying to win market share against an originator. So I think it is reasonable to assume that a new entrant into the market would have sales and marketing costs.
Q. But you have not looked in general where you would expect to see direct --

A. As you have just said, your experts were unable to find that out from the statutory accounts, so if they are not able, I am not able.
Q. Did you consider which of the products in your bar chart of Flynn's portfolio are generics as opposed to branded?
A. No.
Q. Can I just give you a list. (Handed)
A. Thank you.
Q. Do you see then, if you put your list against your bar chart, that all of the products that are outside the box, so the products on the left-hand side, which have significant directly attributable costs are branded products?
A. I can see that.
Q. Do you see that all the generic products are products with lower or no costs. So all of the generics, the unbranded ones, are in your box?
A. Yes, I can see that.
Q. With some others. So if you go back to your paragraph 4.82, would it be right to say here, qualify what you are saying, by saying that some of Flynn's branded products incur significant directly attributable costs which are not accounted for in gross margins but that Flynn's generic products do not incur significant directly attributable costs?

A. That is a fair statement.
Q. So if that is correct, then does that tend to suggest that companies selling generic products might not have significant directly attributable costs?
A. From this subset that is a statement that could be made, but I think that it is probably likely that there is a whole set of drugs, whether they are branded or unbranded, some of which need marketing and some of them which do not need marketing.
Q. But you said you did not do any specific empirical investigation of that as a phenomenon.
A. No, I did not.
Q. So is it fair to say that you do not positively know that there is a comparability problem here, you are just saying there might be an issue arising from this point?
A. Within Flynn or across generics?
Q. We are talking about generics.
A. My assumption is there will be companies that have marketing and sales costs and that does make, as a matter of theory, an issue that you would be concerned about. And that is in the back of your mind when you are selecting a comparator: is this a potential issue? It is a potential issue.
Q. Can we move on to paragraph 4.83. So that is your third point, this is the cost accounting point. I have asked

you about valuing stocks, I am not going over that again, I want to just look at the other point you make in this paragraph about where costs are recorded. Have you investigated what sorts of costs might be recorded at different levels in a gross profit calculation and how much of a difference that is likely to make to the calculation?

A. I have not obviously looked at it empirically. As an accountant, I know there is a degree of latitude as to where you record certain costs.

Q. So do you take it from your last answer that you have not investigated whether any of the generic comparators do in fact record costs at different levels?

A. I have not and nor have the other witnesses.

Q. So is this another "might be" a problem?

A. I know as an accountant it is a general issue as to where you account for things. That is why I say if you want to have the most reasonable comparison you take out those issues and you just look at the product contribution, because the two issues that we have just discussed are not present in the product contribution analysis. So if you ask me as an economist and an accountant faced with two sets of evidence which would I prefer, I would prefer the product contribution because I know that those two risks are unlikely to occur with that potential benchmark.

Q. So is this a preference point then? If you have gross margins and product contributions is it your evidence that you could look at them both but you would prefer the product contribution?

A. I think that because there are more issues associated with gross profits I would prefer product contribution. What I say is that they are probably both going to point in the same direction. What I would not want to do is add twice the amount of weight because I have two different measures, I would just select the better of the two and take that as my evidence.

Q. Because what you said at paragraph 4.82, the last sentence, is that for the reason you have given, this is the direct cost point, you say:

"... it cannot be used to compare the reasonableness of product margins."

And then you say at 4.84:

"Consequently, for accounting and completeness reasons, I consider that gross margin comparisons are not meaningful."

Is what you are saying now -- is that a bit then too strong, because I think what you were just saying to the tribunal was a more moderate proposition, which is if you have both you would give more weight to the product contribution analysis.

A. I think that I would have reservations of using a gross margin approach. If I had no other evidence, then I might be able to place some weight on it. If I had two, I would prefer the more complete measure.

Q. So it is a weight point when one is choosing between different comparators?

A. Yes.

Q. Can we go and look at the profitability figures that Mr Williams has set out for comparator companies. Did you have a chance to look at the letter that we sent to the tribunal yesterday? You probably did not because you were in purdah.

A. No, I did not.

Q. Do not worry, the tribunal has seen that, and Mr Hoskins can make any submissions. I have not been told there are any submissions to make on it but there we are.

THE CHAIRMAN: I am not sure which question you want us to answer.

MS BACON: No, I was just drawing your attention to the fact that the annex I am going to take the witness to is the annex which is referred to in the letter that we sent yesterday morning. I had just brought to the tribunal's attention the fact that we had seen some errors in that annex, typos, so I am going to --

THE CHAIRMAN: Mr Harman would have seen an earlier version.
MS BACON: Exactly. He will have seen the version that is in the bundle. When we go through it I am just going to draw your attention to the figures that are wrong when I am looking at them, but I am obviously not --
THE CHAIRMAN: You will give him just a few seconds to --
MS BACON: No, I am not asking him to comment on the new figures, they do not really make --
THE CHAIRMAN: -- catch up with the new information.
MS BACON: So can we look at the second report of Mr Williams and the annex 3 which is the last couple of pages.
A. Which tab?
Q. Sorry, tab 12 in bundle D.
A. Annex 3?
Q. Annex 3, exactly.
A. Yes.
Q. Let us just focus for now on the figures for the non-manufacturing companies and those are identified here. So these are all non-confidential so we can read them out.
So Alliance's gross profit figures, 59 per cent and 58 per cent are the two most recent years that Mr Williams had. And then if you see the figures for companies other than Alliance, do you see then the

aggregate figure at the bottom of page 23? That is the aggregate from the most recent years presented in the figures and the figure then is consistent across both periods, 41 per cent in both?
A. So the bottom of page ...
Q. Bottom of page 23, but it is the aggregate non-manufacturers figures rather than the aggregate all companies figures.
A. Yes.
Q. Just to note, none of those figures are affected by the point in the letter from yesterday. So just to remind you what Phenytoin's gross profits were, because I cannot say that figure in open court, we get those figures from CRA's second report at page 25, the one we were just looking at. That is the red bars.
A. Which page again?
Q. Page 25 of CRA 2 which is at tab 2 of the bundle.
A. Yes.
Q. So you see what Phenytoin's gross profits were. Do you agree that those figures are sufficiently below the Alliance figure, starting with that, that even if there is some trimming around the edges because of different ways of cost accounting, or, for example, because Alliance has a patented product in its portfolio, the point you made yesterday, Phenytoin's profitability

would still be well below the portfolio average of that comparator, would it not?

A. Of that comparator, but I know nothing of its risk or investment.

Q. Yes, that is the point you made yesterday.

A. Or its size, yes. But that is of fundamental importance. At the moment I do not know if I am comparing like-with-like.

Q. If you look at the average across the samples, that is the 41 per cent figure, do you agree that Phenytoin's profits are below that level too?

A. Yes. But I do note that there is a lot of variation in that sample, there are some very high margins and there are some very low, so I am not sure what I can take from an average when there is a high degree of dispersion.

Q. But if one did look at the average, even if one were again to take into account things like different methods of cost accounting and maybe the fact that some of them might have the odd patented product in their portfolio, the average figure would tend to indicate that Phenytoin is not excessively profitable?

A. Let me give an example of it just to consolidate the point. Let us say that a firm had two different drugs, one was niche and not subject to competitive constraint and one was a commodity and was subject to competitive constraint, and they are selling in equal numbers. Let us say the niche one had a 20 per cent margin and the commodity had a 10 per cent margin. If I take the average of those two I get 15 per cent.

If I was to compare that to Phenytoin could I take anything off that margin? Not really, because it has combined two very different types of drugs, one is a commodity and one is niche. And what one has to ask is how does Phenytoin stack up against that average? Should I be comparing it to the niche or should I be comparing it to the commodity? If we believed in this simple example it should be more towards the commodity, then obviously the average would tell us nothing. But similarly if we thought it was relevant to compare it to the niche, again the average would not tell us anything.

So that is the problem with the average, that it contains a lot of moving parts.

Q. So your point is that there are different products within a portfolio and you need to compare with something that is more precisely similar to Phenytoin?

A. I do. And just to --

Q. Sorry, I just want to establish that. It is the point you have just made to the tribunal.

Now, the question is this: when we were talking about the PPRS yesterday you were saying it all comes out in the wash because you are looking at lots of products. Is that not exactly the same for looking at generic samples?

A. No, because what did we do when we looked at the PPRS? With the PPRS we said let us start with the average and then consider where we think it is likely to be, below or above the average.

Q. Yes, you could do that with the generic comparators too, could you not?

A. You could. But this is the point I made yesterday: if you had a generic comparator and that average told you 10, and you had a branded PPRS and it told you 5, and you did this qualitative analysis and you thought that it is below both of those samples, then you do not need to start with the generic, you just start with the PPRS, because you know that it is going to be below the generic and it is going to keep going and then go below the branded of the PPRS.

That is why if you think that the PPRS is sufficient, and all of the other checks that I have done, then you do not need to look at the generics because you already have sufficient information to make a determination as to reasonableness.

Q. Right. So I am now going to come to your umbrella point that you made at the start. You said in addition to

your three points in the section of your report that we were looking at, you have this overarching point that you have to adjust for investment, risk and so on.
A. Correct.
Q. You say there are four variables here: investment, risk, volumes and unit costs. I addressed investment and risk yesterday, I took you to Mr Davies and I asked you some questions on that so I am not going to go over that again today. I want to talk about volumes and unit costs this morning.
So starting with your basic point, as I understand it you were saying that Phenytoin has high unit costs and high volumes and before you can say that another generic company is a good comparator you want to know whether it also has products that have high unit costs and high volumes?
A. Correct.
Q. So can I just test the point of principle first. By high unit costs and high volumes, do you mean direct costs that are similar to those of Phenytoin and volumes that are similar to those of Phenytoin or do you mean something else?
A. I think it is -- I think it is a relative point and maybe it is best explained by reference to the formula that I am using which can be found in my second report.

Q. No, we have gone over that basic --
A. Okay, but it is a relative point.
Q. What do you mean by relative? Do mean it has to be relative to the products in the generic company's portfolio?
A. The level of volumes and the level of unit costs has to be relative to the amount of capital that is invested and the level of risk that is contained.
Q. So when you say we need to find a company which has got sufficiently close comparators, you are saying that in order to do that, the CMA, if it were to do this analysis, would need to look at the cost of capital of a generic company and then work out, by reference to that and your finance theory points, whether there was a product that had, you say, relatively high unit costs and relatively high volumes. Where do you draw the cut-off line? Is there a numerical formula?
A. Okay, putting the relative point to one side --
Q. No, I am trying to explore the relative point and find out what you mean by the relative point.
A. I think if a product had similar levels of volume and similar levels of unit cost, putting to the side whether it also required similar levels of investment, if it had those two dimensions then I think that would be a sufficient comparator, but it has to have both.

Q. So that is an absolute point, not a relative point?
A. Yes.
Q. So actually now you are saying it is absolute?
A. I am saying that it is relative, but that would make the analysis very difficult. So if I was to go out to try and find a return on sales that I thought was broadly comparable then I think I could start by looking at the same level of volumes and the same level of unit costs.
Q. So if there is a generic company that is absolutely huge and it has a huge portfolio of products and some of them are as successful as Phenytoin in terms of volumes and have similar unit costs and some of them are way higher, you would say that the similar products are ones which, irrespective of the size of the generic company's portfolio and irrespective of its profits, are the ones that have similar volumes and similar unit costs to Phenytoin?
A. It has to. Because if you think about it this way, a very large supermarket chain survives on very thin margins, the margins are something like 2 per cent, and it is able to do that because it has a massive amount of sales across its network so the margins are very small. It would be very, very different to your local high street retailer that just has one shop selling in low volumes and it has a particular shop that it has to

recover all its costs from. In my experience, when it is smaller it requires a higher return. It is just something that we observe as a matter of fact. The bigger you are you get to spread the recovery of your return across more products. That is just a simple fact which I showed mathematically in my report.

Q. But now you are discounting the mathematics and you are saying it is actually an absolute point. So in order to be a good comparator, you say now, the CMA should look to see whether the generic company has a product in its portfolio that sells in similar volumes to Phenytoin and has similar unit costs, I think that is what you are saying?

A. I am not changing what I say. This is why I said if we went to my formula I would show you exactly that the formula for a return on sales is a product of the level of risk multiplied by your invested capital --

Q. Yes, I know what your --

A. -- divided by your return on sale -- return by revenue. And revenue is a function of two things, costs, the level of costs, and the level of volumes. So obviously if you want -- and this is the problem of using return on sales percentages. Unfortunately they are impacted by those components. And therefore if I am comparing to another company to come up with a meaningful return on sales I have to control for those.

Q. Mr Harman, we are talking about gross margins here and I am trying to work out what you say the CMA would have to do if it were to look for a suitable comparator. You started off saying it would have to have relatively similar volumes and unit costs and now we have got to absolutely similar volumes and unit costs. So I understand then you say --

THE CHAIRMAN: Sorry, I am beginning to lose track of this. We are searching for a comparator company, right?

A. Yes.

THE CHAIRMAN: And the company is assumed to be a company that has a portfolio of products.

A. Yes.

THE CHAIRMAN: Is the logic of what you are saying that the only possible comparator for this exercise is a company that almost mimics the profile of Flynn? In other words, it has a spread of products with exactly similar characteristics including one with high unit costs and high volumes? That is almost defining the comparator out of existence, is it not, because you are most unlikely to find one of those?

A. So I agree with the complexity of this. When you start with the conceptual framework, which says that companies should be rewarded for the risk and the level of capital invested, that is an easy proposition. We talked about this yesterday.

THE CHAIRMAN: Deceptively easy, I would think.

A. It has some problems. As soon as you want to convert that into a return on sales and we introduce the issue of unit costs and volumes, as you have to, that does complicate the problem. Empirically, as I look at the data, I see that the return on sales are massively divergent. When we look at Flynn's portfolio they are massively divergent. And they are divergent because the return, the relevant return, has to -- has to -- depend on all three of those factors. You cannot control for one. That makes it difficult.

THE CHAIRMAN: But your instructions required you to assume that return on sales was a valid approach in this context. So you have not gone behind that and questioned that.

A. I have not gone behind that but I did do a return on capital employed cross-check.

THE CHAIRMAN: Yes, I am aware of that. But you are talking about the difficulties of the return on sales metric, that is the chosen metric, so --

A. It is.

THE CHAIRMAN: -- we are stuck with that, as it were.

A. So I think what one has to do is one does have to control for those factors. We are able to control them when we get to Flynn, we have enough data to look at Flynn, and we are able to see when we control for those factors, because we have the data, that Phenytoin is an outlier when you control for those factors. Now, I do not have the data of others, other companies, but if I did I would be able to do a similar type of analysis. But we do have some data for Flynn.

THE CHAIRMAN: But if you were looking for another comparable company you would want it to have an outlier, does that follow from what you are saying?

A. Not necessarily. If I was to do the analysis, what would I want to do if I could do it? What I would want to do is I would want to find a portfolio that had a broadly similar mix of drugs, I would want to find one of similar size in terms of sales, and I would like to look at the distribution of those products within there. So I do not think it is impossible to do. But you can control for certain items, so size is one of them, and you could also look at average unit costs, that would also be a helpful dimension.

But I do not think that once you get into those comparators it is a simple mathematical output. What you would have to do is say what I know about that comparator and the dimensions that I know about

Phenytoin, do I think it is likely to be above or below the benchmark? So there is a qualitative assessment that goes into comparing these margins in the same way as we have done with the PPRS.

PROFESSOR WATERSON: Just to clarify, this would require information about the potential comparator company about its individual product line.

A. Correct.

PROFESSOR WATERSON: Which you would not be able to do. Possibly the CMA could if they chose to issue Section 26 notices to other companies.

A. Yes.

PROFESSOR WATERSON: But otherwise not.

A. As I have said all along, it is very difficult to take much out of a comparator without understanding what it makes up.

THE CHAIRMAN: Just to finish my enquiry, and I realise I am trespassing on valuable cross-examination time. Assuming you did find a comparable company with a product that you thought was sufficiently similar to Phenytoin in terms of volume and high unit costs, you would be concerned to understand the reasons for those high costs and high volumes in the context of your overarching intellectual framework.

A. Yes.

THE CHAIRMAN: But you would not be looking at what I might call competition issues in relation to the outlier? You would not be concerned as to whether that outlying product was in a dominant position and its high unit costs were explained by that? That would be outside the scope of your analysis, I suspect.

A. I do not know. It may be relevant. If you were looking at another niche product, let us say they were niche products and you looked at another niche product and it had a very high return, I think it would be relevant to ask whether that was a fair comparator, ie was its price a competitive price?

THE CHAIRMAN: Does that come within your framework of risk and investment and so on?

A. I think that it does. This is why I go back to if you were starting from the PPRS, if that was a starting point --

THE CHAIRMAN: I am not starting from the PPRS. Bear with me because I am just trying to follow what you are saying. So you would probably try and deal with issues of the competitive price of the outlier in terms of its risk --

A. Yes.

THE CHAIRMAN: -- characteristics, for example. But you would find a way.

A. You would look at its market shares and you would see -- yes.

THE CHAIRMAN: Thank you. I think that probably concludes the questioning for the moment.

MS BACON: That covered off some of the questions I was going to ask also.

A. Sorry, I did not mean to do that.

MS BACON: No, I am very grateful for you to put my questions to the witness.

One final question then. Going back to what I said at the end of the discussion about Flynn, about preferability or whether something is to be thrown out of the basket altogether. Are you saying that unless a generic comparator does have similarly high volumes and unit costs and so on you throw it out of the basket of comparators as being completely uninformative, or do you say you put it in the basket and it is then a question of weight?

A. I think that I would have a tendency to not have regard to it. And if I was to place any weight on it, it would be very low weight.

Q. So you are saying that the CMA should place little or no weight on the comparison or should not even put it in the basket unless you can control for those factors?

A. If you can control for those factors and you know some of the qualitative factors that we have just discussed in terms of the types of product they are, it is almost like trying to compare two things but you do not know what you are comparing to. And I say that predicated on the fact that when we looked at the returns of those different companies they varied significantly. And when we look at Flynn's portfolio those returns vary significantly.

If they were all tightly bunched, if all generic companies had 21 per cent, and when I looked at Flynn every one had 21 per cent, then I would say yes, you can use that as a comparator. But when there is a high degree of dispersion I do not think you can.

MS BACON: Let us move on to product contributions unless the tribunal has any other questions on gross margins?

THE CHAIRMAN: No, please continue.

MS BACON: Shall we just start with CRA's product contribution analysis, that is back to CRA's second report. I think it is page 24, yes. So that is their product contribution analysis and you see where Phenytoin falls in that range.

Now let us pick up your objections to that at paragraph 4.88 of your first report. Again let us be a bit careful about terminology here. Your objection in this refers to direct costs, but then you go on to talk

about sales force promotion amortisation. So are you saying here that some products have higher directly attributable costs, that is what I have called them, the other costs?
A. Yes.
Q. And so on your analysis, your theoretical analysis, you think they should get a higher return, all else being equal?
A. Yes, my logic flows as follows: if you have a particular drug that you have to spend more on in terms of sales and marketing, you do that because obviously you are in competition and you have to make expenditure to try and win in competition. So if you are performing those activities I think it is reasonable to assume that that possibly means that that drug has a higher risk profile, it faces more competition.
Q. So higher return means, as I understand it, higher product contribution in terms of per cent?
A. Yes.
Q. So your point is that a product that has higher sales and marketing, what I call directly attributable costs, should get in principle, as a matter of theory, a higher product contribution in per cent terms than a product that has lower or no directly attributable costs?
A. In theory, all else equal, yes.

Q. Have you tested Flynn's portfolio to see whether it fits your theory?
A. I have not.
Q. Could we do a very quick and dirty empirical analysis now. Could we look at a few products in Flynn's portfolio which have quite large directly attributable costs. You have set these out in a spreadsheet in tab 4 of this bundle. I will tell you where it is and then I will hand up a bigger version of it. So it is in tab 4 towards the end. Towards the middle, if I can just hold up what it looks like (indicates), it is this spreadsheet.
I am going to hand up a larger version because this is completely illegible and actually there are a few points on here that are negative figures but you do not see the minus signs on this. I am actually going to use mine because I marked up my illegible version.
What we have also done, because there is a confidential issue here, everything on this spreadsheet is confidential, so we cannot read out any names of products or any figures.
THE CHAIRMAN: We can clear the court if you prefer.
MS BACON: No, I am going to try to do it with numbers because I have put numbers -- that is the royal "I", as in the people behind me have put numbers on the --

THE CHAIRMAN: This is the legible version, is it?

MS BACON: Yes, that is the legible version. It is just a larger version.

So what you will see is there are numbers above the product lines, so we can refer to the numbers rather than the actual names of the products. So I just want to look at a few products in Flynn's portfolio that have fairly large directly attributable costs.

Do you see that numbers 3 and 7 have quite large figures for directly attributable costs?

A. Yes.

Q. And you can see that also from your bar graph, cannot you, because you can see those are the products for which there is a quite a big difference between the gross profit and the product contribution?

A. Yes.

Q. If you look at your bar graph -- actually, let us look at the more detailed one in CRA. Let us take CRA 2, page 24, which we were just looking at because that has more detailed figures broken down by year.

A. This is ...?

Q. CRA 2, D2, page 24. It is the one we were looking at.

A. We're looking at gross profits?

Q. No, that is product contribution.

THE CHAIRMAN: Figure 7.

A. Yes, I am just look at the bottom of the chart which also says gross profit.

MS BACON: We had that discussion yesterday. This is a product contribution analysis because the notes say it takes accounts of COGS distribution and sales force and marketing. I think the ledger is just wrong.

A. Okay.

Q. So if we look at products 3 and 4, you will see that those actually across the period in general have got product contribution in the lower end of the range.

PROFESSOR WATERSON: 3 and 7, did you mean?

MS BACON: 3 and 7. The numbers are actually slightly to the right of the ...

PROFESSOR WATERSON: Yes.

MS BACON: Sorry, my numbers are wrong. I might be reading out the wrong ... I am sorry. No, that is right.

PROFESSOR WATERSON: 3 and 7.

MS BACON: Yes, it is 3 and 7.

THE CHAIRMAN: You did say it was quick and dirty.

MS BACON: I think what I have not done is number the first product but I was not going to go to that.

A. I am getting a little bit confused --

PROFESSOR WATERSON: I think the numbers have not been centred in the spreadsheet.

MS BACON: They have not been centred in the spreadsheet.

So actually what we are looking at is the fourth column across is what has been numbered 3.
A. And the name is slightly to the left --
Q. The name is slightly to the left of the number.
A. Okay.
Q. And with the number 7 the name is slightly to the left of that. So you can then see what products they are and you can see those have large distribution costs.
A. Yes.
Q. I have just drawn boxes around the distribution costs, and large sales force and promotion costs. You can see, if you look across, that those are the largest of any of the products in Flynn's portfolio?
A. Yes.
Q. So now I go back to CRA's product contribution analysis. And if you look at those products you can see that the product contributions of those products are among the lowest in the range.
A. Yes, because what also is happening at the same time, as I have been saying, is that you cannot just look at two percentages without taking into account what its unit costs are and what its volumes are. So unless you control for those two items at the same time, I cannot compare those two, because I know that high volume, high unit costs require, all else equal, a lower return.

Q. I am just testing --
A. And I think --
Q. -- your hypothesis in paragraph 4.88 and I am just trying to see whether that hypothesis, which you have just explained to us, corresponds to Flynn's portfolio. And I am just showing you that the two products with the highest directly attributable costs do not have comparatively higher product contributions, and I am just putting to you that Flynn's portfolio at least does not support that hypothesis. Do you agree?
A. No. Because what I am saying is that you have to control at the same time for unit costs and for volumes.
Q. That is not what you say in paragraph --
A. But that is --
Q. -- 4.88. I am just trying to test 4.88, I am not --
A. What I am saying is --
Q. -- testing any other paragraph of your report.
A. It is the point I raise in my first and second report. You can isolate one factor and say look, this is what it shows us. And I say you have to control for all items at the same time. That is what my report does, it takes all of this into account at the same time, and once everything is controlled for these factors are in their right order.
The problem I think is that these two drugs that you

have noted are in very high volumes, I think, and/or have high unit costs, I cannot remember which way round it is, and if that is true then all else being equal they will have a lower return.
Q. Mr Harman, that point you have just been talking about is made later in your report. I am trying to just focus on paragraph 4.88. I am --
A. It is --
Q. -- trying to test your first objection to this. We have gone through that. So just isolating 4.88, do you agree therefore that Flynn's portfolio does not support your hypothesis?
A. No, I am saying -- I said as a general proposition, all else equal, that is true. But if you do not control for those two you cannot look at the percentage returns here and make that conclusion. You just cannot do that.
Q. Have you tested that hypothesis on the portfolio of any other generic company?
A. I have not. It is just a general rule of economics and finance theory that if you have higher direct costs and you need a return on them, it is likely you are going to be riskier as a business. You would not spend those costs for no reason, it is obviously that you are in competition, and if you are in competition it follows that you will have a higher required rate of return.

Q. Okay. So you then say at paragraph 4.89 that:

"The CRA second report goes some way towards addressing this problem by focusing its analysis to a subset of Flynn's products that incur no promotion and amortisation costs."

So that is the charts that we have just looked at on pages 24, 25 and 26.

And then you --

A. But the second sentence is the important one.

Q. I am coming to the second sentence. I am trying to go through your report in a logical order.

You then say there are several further objections to that. The first is the point that you make in the second sentence?

A. Correct.

Q. And we have discussed that, I am not going to go over that again.

The second objection is the one in paragraph 90 which is that it is necessary to look at volumes.

A. Uh-huh. And in the last sentence of 4.89, capital intensity, so ...

Q. Can I start with a general question, and again it goes to the weight point or out of the basket point. Are you saying that if you look at the product contribution comparison without looking at volumes, for example, it is so uninformative that it should be chucked out of the basket? Or are you saying that it will affect the weight to be given to that comparison?

A. Based on the analysis that I do, I say that it would be completely misleading. When you look at it at this very static approach it gives the impression that Phenytoin has a return that is in the middle of the products. When you control for those items, you get a completely different view. You see that Phenytoin has obvious differences. So given that I know that it is biased I would place no weight on this analysis.

Q. Let us look at your outlier analysis then. We will start by looking at your graph at paragraph 4.95.

A. Yes.

Q. You plot volumes against absolute margins.

A. Correct.

Q. Back at paragraph 4.92, I think you are saying there that you need to look at absolute margins because direct margins measured as a percentage implies that a company should make the same margin regardless of the level of direct costs, and you challenge that assumption?

A. That is a -- what I am trying to do there is give an illustrative example of it. But the formula that I use earlier in the section shows mathematically why that is the case.

Q. Just to clarify, are you saying that if a company's direct costs go up, that should not necessarily imply that the product contribution should stay the same?
A. I am saying that in a competitive market, as volumes increase, I would not expect a company to retain its same margin for all volumes because that would be unconstrained by competition.
Q. We are talking about pharmaceutical markets here, it is a sector-specific analysis. Are you saying that in this sector, if a pharmaceutical company's direct costs go up, its product contribution should not necessarily stay the same but might even have to come down in order to have the same absolute margin?
A. I am saying that in a competitive market competition theory would tell us that as volumes go up, your return on sales goes down.
Q. So was that a yes to my question? (Pause)
A. I do not quite know.
Q. Let me put it again. Are you saying that if a company's direct costs go up?
A. Yes.
Q. One should not assume that the product contribution in percentage terms should stay the same?
A. Correct.
Q. So in fact you are saying it may be that the product

contribution should go down mathematically in percentage terms?
A. I mean, that is what I lay out. I say --
Q. Is that a yes?
A. Yes. As the company has high unit costs --
Q. Right, thank you.
A. -- it will require a lower return on sales.
Q. When you say direct costs, a definitional question again, do you mean COGS plus directly attributable costs?
A. I think all directly attributable costs.
Q. All?
A. Yes.
Q. So COGS and what I have called --
A. Correct.
Q. -- the directly attributable costs?
A. Correct. The big issue here is --
Q. Yes, I know what the big issue is.
MR HOSKINS: Can we please stop overspeaking the witness. It is becoming tiresome.
THE CHAIRMAN: Can I say, Mr Harman, we are aware of the overall position you are taking and you do not need to restate it in answer to every question. You can rely on us to join up the dots. But in the interests of a coherent cross-examination you must try and answer the

questions that are asked.
A. I will.
MS BACON: I am very grateful.
THE CHAIRMAN: And Ms Bacon, you must at least pick a moment when Mr Harman is not speaking to ask the next question.
MS BACON: So is your point that it is not meaningful to look just at product contributions because if you assumed that the product contribution level should stay constant in percentage terms, then an increase in one or other element of the direct costs would translate into a greater absolute increase of the sales price in pounds per pack?
A. Sorry, could you restate that?
Q. If you hold the product contribution constant then you say, looking at this paragraph, if there is then an increase in direct costs there will be a greater absolute increase in pounds per pack?
A. Yes.
Q. Right. And that is why, if you hold the absolute margin constant, then if direct costs go up then product contribution goes down?
A. I think in absolute terms it stays the same and in percentage terms it falls.
Q. So can we just look at what CRA has said about this. CRA 3, that is tab 3 in bundle D.

THE CHAIRMAN: Page 11?

MS BACON: Yes -- actually, page 10.

So at paragraph 34 they say:

"Requiring firms with high input costs to earn the same absolute margin as firms with low input costs would greatly increase the financing requirements of the high cost firm."

Then they refer back to CRA 2, that is their footnote 27, so let us look at what they said in CRA 2, that is the previous tab. So they have given that worked example in paragraph 57, I just wanted to show you that.

A. Shall I read it?

Q. Yes, if you can just read it to yourself. (Pause)

It is just to refresh your memory, I am not going to ask you questions about the worked example.

Then to refresh your memory can you go back to CRA 3, so they have referred to your worked example, and then they go on in CRA 3, paragraphs 36, 37 --

A. Yes.

Q. -- to refer to various sources in the economic literature.

A. Yes.

Q. Which refer to percentage profitability measures --

A. Yes.

Q. -- which of course do not take this point about absolute margins into account.

Can I go to your response now and look at what you said. That is in your second report, paragraph 4.55.

A. Yes.

Q. You say:

"First, I consider that even if certain papers do not address an issue, this does not mean that the issue does not exist."

You have referred in the previous paragraph to the papers that CRA have cited.

A. Yes.

Q. You have not referred to any economic literature supporting your approach. Does that mean you did not find any?

A. No, I do not think that is the correct position at all. These papers make absolutely clear that when you are doing an analysis of this sort you might have regard to percentages. They are very general documents, they are not going into any detail whatsoever. What is instructive is that Oxera says that you can only do that if they have the same cost structures and risk, which is exactly my point.

Now, just to say have I looked at any papers? I do not need to look at papers because I know what general finance theory tells me. It tells me that you cannot rely on percentages alone to evaluate things.

Let me just give a very simple example. Let us say that you had one product that has a selling price of 100 and it has costs of 80, you would get a £20 profit. 20 divided by 100 is a 20 per cent margin.

Let us compare another example. Let us say that the sales price is 125, the cost of goods sold is 100, they earn a profit of 25. They have the same margin, 20 per cent, but which one of those two would you choose? You would choose the second because absolute margins matter. And it is the same here, it is the same theory applied in a different context, and you will find that throughout the finance theory. It says do not just look at IRRs because that can tell you the wrong thing. You have to look at both.

Q. Can I ask the question again. Did you find any economic paper that supports your approach? Because you have not cited any here. Is there anything saying that methodologically one should not look at gross margins or percentage margins, one should look at absolute margins when you are comparing prices?

A. I am not aware of the literature. As we explained yesterday, this is a very new area in terms. I do not think it has been written about in detail.

Q. Right. Have you come across any literature suggesting that if the direct costs of a pharmaceutical product go up then the product contribution should come down?

A. I just alight there again on 4.54 where Oxera says if you are going to do this -- sorry, 4.56 -- you have to make sure they have the same cost structures. They say that because if you have a different cost structure you end up with different returns.

Q. Does Oxera say that if the costs of a product go up then the product contribution should come down?

A. Oxera is a smart company. This is the point they are making implicitly.

Q. Of course, the PPRS itself looks at percentage profitability rather than absolute cost, does not it?

A. It does.

Q. Does anything in the PPRS suggest that the right measure of profitability is the amount in pounds profit that the undertakings make on the product?

A. No, it does not.

Q. Just to cover off one other point as a conceptual matter, can you just keep that page open but then go back to 4.88 in your first report which we were just looking at.

A. 4.88, yes.

Q. Actually we can just go back to the first report.

Sorry, can you go to 4.82.

A. Yes.

Q. That is the paragraph we were looking at. I think you said when we were talking about that earlier that if there were higher directly attributable costs you thought the margin should be going up?

A. Yes.

Q. If you go then to 4.88, you make the point in relation to product contribution. You were saying when we looked at this that if there were higher directly attributable costs, sales force and amortisation costs, that would justify a higher return. And I said what did that mean? And you agreed that was product contribution.

So in that paragraph of your report, you are saying in principle if a product has higher directly attributable costs then it should recover a higher product contribution. And then four paragraphs later you seem to be saying, as we have just explored, that if it has a higher direct cost then the product contribution should come down. I just do not understand. The two seem to contradict each other.

A. No, I do not think they do contradict each other. When we are talking about unit costs, that has two components, it has a cost of goods sold and it has other costs. I am saying there are two effects that are happening. All else equal, the higher the unit costs that you have, the lower percentage margin that you require to recover your investment. But it might also be at the same time that certain of those costs in your cost stack imply higher risk and that pushes it in a different direction. It does not move away from the point that you have to first assess risk and then you also have to look at the level of unit cost.

MR LOMAS: The first point is essentially an arithmetical one, the second is what you deduce about the risk from the data you are looking at.

A. Correct.

MS BACON: Can we just stand back and think about the effect of looking at absolute rather than relative margins in this context which is the measurement of excessive pricing. If you are a pharmaceutical company and you have a bunch of different products with different direct costs, how do you know where to set your margin at a non-excessive level if what you need to look at is not percentages, like measures of gross profits or product contribution, but what you should be looking at is the absolute pounds per pack return?

A. I think you have to look at both of them, is what you have to do, simultaneously. The ordering here in my view is that Flynn is being used to say, look, this product is not particularly excessive when you compare margins, and I say that is not a complete picture. If we also look at it in absolute margin terms then you get a different picture. That tells us on that basis that Phenytoin is different; it does not tell you whether it is excessive but it does tell you that it is different, and you cannot use the other comparators to say that it is not excessive.

Q. Just unpicking that. You said you have to look at both of them, so are you now saying you would, as a regulator, include both measures in the basket?

A. No, I am saying you would want to look at percentage margins and you would also look at absolute margins but controlling for both the same. And if we go to my second report, to the last appendix, we will see that I do an analysis of the return on sales as a percentage as a function of revenues, and on that basis again it shows that Phenytoin is extremely different from all of its other products. That is a piece of analysis that is internally consistent and it says Phenytoin is a clear outlier.

MR LOMAS: Sorry, is that appendix 2, "Profitability Analysis", on page 59?

A. Correct. So on the one axis you have net revenue, that includes obviously unit costs as a function of revenue and volumes, and profitability on the horizontal axis, and you can see that Phenytoin is completely different.

MS BACON: So going back to my question, are you saying that a pharmaceutical company -- say I am Mr Walters and I have got lots of different products with different supply prices. What I am supposed to do is, according to you, a percentage analysis and I am also supposed to do an absolute analysis on the product?

A. If I was going to assess the profitability of these companies I would look at both, yes.

Q. I am asking about price setting. How do I use that to tell me what price I should set the product at?

A. I think that what you would do is, if you had products that were in a competitive market, you would observe their volumes and their unit costs and you would try to infer something for the product at issue.

Q. So what do you say Mr Walters is supposed to do? I am using him as an example. What you do you say the proprietor of the pharmaceutical company is supposed to do in order to set the price of a product at a non-excessive level?

A. What I would do is I would look at the absolute margin, so if we look at my second -- I think it is probably easier in my first report.

Q. Are you looking at your graph under paragraph 4.95?

A. Yes, that is correct. So basically what I would do, if I had a product that I was observing was highly profitable, and just remember that -- I know these numbers are confidential. So the investment cost in Phenytoin was low and the profitability year-on-year is very high, I would sit back and think that is highly profitable.

I would then try to consider, based on my portfolio, whether that is reasonable. What is the dimension I would look at first? I would look at the number of packs sold. So I would then look at this and compare Phenytoin to the dots on the left and I would observe that that is significantly higher.

Q. So you can do that if you have a portfolio. What if you are a new company with only one product?

A. I think my second fallback position, based on that, is that I would look at -- I would do a range of analyses. This is the problem with this return on sales, this is why I think you also have to look at your return on capital employed type of approach. The return on capital employed says how much did I invest in this? Do I have a value for brand? Do I have a value for other fixed assets? I can calculate my cost of capital and I should compare that result to my return on sales and I should consider whether that is reasonable.

Q. So are you saying it comes back to the WACC?
A. Invariably I think these things do come back to the WACC as a matter of theory.
Q. So are you saying every time a company like Flynn has a product with a high supply price, what it has to do is a WACC using your 8 to 12 range and use that to set the price?
A. Only if it is a dominant -- only if it is a dominant product. If it is not a dominant product then there is no problem for it to price as it likes.
Q. And are you saying that despite the fact that the PPRS sets a WACC of three times your WACC?
A. Three times my WACC? My WACC range goes up to 12.
Q. Yes. And the PPRS, as we explored yesterday, sets a WACC of 21 times 1.5 which is 31.5.
A. So that is the margin of tolerance. So we are first of all talking about a reasonable WACC and then the deviation around that. That is what companies for an average are allowed within the context of the PPRS.
What I have established -- the WACC I have used is Pfizer's actual WACC. So I think what you would use in this assessment is your own WACC, you would not use the WACC of something in the PPRS for that. If I was thinking about a product-specific evaluation I would calculate the WACC of the company, I would apply that to

my capital employed, and I would see if the returns that I am earning from that are reasonable in comparison to what I am actually earning, and I think that is a sensible cross-check for a company to perform.

Q. So your proposition is that if you have a dominant product then the way you have to set the price is that you have to look at whether the ROCE equals the WACC?

A. Let us just be clear, I am talking -- I have been asked to look at the first step of United Brands so I am trying to determine what is a reasonable return. I have never said you have to stop at the reasonable return, you may earn a return that is above that. It is a legal question as to when that becomes excessive.

THE CHAIRMAN: And a company in the position of Flynn I suppose does not necessarily have access to Pfizer's weighted average cost of capital?

A. I think it could calculate it fairly easily because the beta factor for Pfizer as a listed company can be obtained through Bloomberg, it is just market data that is used. So you would be able to calculate it with a reasonable degree of accuracy.

THE CHAIRMAN: This is the Pfizer group as a whole?

A. The Pfizer group. And then you might make an assessment as to whether you believe your beta should be higher or lower.

THE CHAIRMAN: Not the UK subsidiary, the group as a whole?

A. I think you could do either, but I think you would be -- I said before that I think you can split hairs with beta, it is not a precise -- it is point 8. But I think if you were within point 2 or 3 or 4, I think that would be reasonable.

THE CHAIRMAN: We should maybe discuss that with Professor Alan Gregory, he has strong views on the matter.

MS BACON: Can I ask one more question and then we ought to break.

THE CHAIRMAN: I was wondering how you were getting on, which page you were on.

MS BACON: That is a good question. I am at the top of 75 and I have now 79 pages.

So one more question: do you have any evidence that any company sets a price for a generic product in that way?

A. On a cost plus basis?

Q. The basis you have just described.

A. No, I understand it does not use a cost plus basis, so no.

Q. Have you any evidence that any company sets its price for a generic product by looking at its WACC or Pfizer's WACC or the WACC of any other company and holding the

ROCE equal to the WACC?
A. No. No, I do not.
PROFESSOR WATERSON: Can I just raise a question before we finish. When you were talking just now, you said "if you were a dominant company".
A. Correct.
PROFESSOR WATERSON: So the company has to consider itself dominant in order to be careful in this way?
A. Absolutely. We are straying off what I have been asked to give evidence on.
THE CHAIRMAN: We are indeed.
PROFESSOR WATERSON: I just wanted to check.
A. But a dominant company at the end of the day has a responsibility to be able to look at these things.
THE CHAIRMAN: If it is dominant.
A. If it is dominant.
THE CHAIRMAN: We get into a circle.
MR LOMAS: Can I just clarify the terminology that is being used here. I think it was being put to you that above the threshold that you identified, whether it is an ROS-based or a WACC-based threshold, or rather at that threshold is where the price should be set. I was not clear that that was the proposition. I thought that was the point at which a company earned sufficient returns to repay its cost of capital. In other words, that was, if

you like, its break-even point on the product, which is a different question from where the price should appropriately be set because that depends on some other factors.

Are you saying that if you stray one iota above that level a price is wrong, or are you just saying that is a reference point because that is where you hit essentially break-even on your costs and costs of capital?

A. Yes, it is very good question. The cost of capital is not -- it is called the minimum cost of capital but in general terms it is not the minimum, it is the average. It is what firms that are listed in the UK earn on average. The theory tells us that in a long-term competitive norm on average companies will move towards their cost of capital based on that average, adjusted for risk.

I am not saying that as soon as you are above that you are excessive. I am not saying that at all. In the long-term it is assumed that a company will be at its average. It could in the short-term deviate from that, there may be cycles, it might be at the beginning of its life, it might be at the end of its life. All of those things are relevant. Or it may have special advantages, it may have lower costs than anybody else, and

I would accept that in a competitive market if you have lower costs you should be allowed to earn a higher return. I think that is a normal thing.

But what I am trying to say here is the first step, which is reasonable for the first step of United Brands. There is a second question as to how much should a firm be able to deviate from that?

THE CHAIRMAN: But you have not been instructed to opine on that.

Ms Bacon, have you just finished or just finished this subject?

MS BACON: I have finished that sub-subject.

THE CHAIRMAN: We will break for ten minutes.

(11.47 am)

(A short break)

(11.57 am)

MS BACON: We are on the home straight, Mr Harman, at least with me, and then you will have Mr Brealey.

Can I look at paragraph 4.94.

A. Of my first report?

Q. Of your first report, yes. So we were looking at the point about absolute versus relative margins and we are now turning to your point about volumes.

A. Yes.

Q. The reason I look at them in that order is those are the two variables on your x- and y-axis of your graph over the page.

So at 4.94 you say:

"The competitive margin level depends not only on the unit margin but the number of units sold."

A. Yes.

Q. Can you clarify what you mean by "the competitive margin level"?

A. I think I was just saying here that your margin will depend on those two factors. If your starting position is that you should be allowed a return of -- a return based on your invested capital, then -- and you have got a sensible benchmark for that, then for our purposes the competitive margin, ie a reasonable rate of return, would be relative to the number of units sold which is what I set out in my conceptual framework.

Q. You are saying that if you do the maths, then using your ROCE equals WACC analysis you have to take into account volumes?

A. Yes. Because if you divide WACC times investment and divide by volumes, that equals your profit per pack. So to keep everything consistent, if you want to look at things just based on volumes only, you have to compare to profit per pack because both sides of the equation are the same.

Q. So are you saying that for every product that a pharmaceutical company sells, if it thinks it might be in the dominance range, it has to look at its sales volumes to determine whether its profit margin might be excessive or not?

A. I think as a -- yes, I think as a general proposition your pricing is a function of volumes. As you change volumes you move along the average total cost curve, and it follows that different prices will have different margins depending on where you are on that cost curve.

Q. Does that mean that a profit margin that is not excessive when a company launches the product, because it does not sell much at that point, may become excessive or potentially excessive if the product is in fact quite successful?

A. No, not necessarily. I think that if you are going to do an analysis, you have to look at a time horizon. I think that if you, in your example there, had a product that incurred a loss in the first year and a profit in the second year, I think it would be reasonable to consider both of those at the same time.

Q. But what you are saying is that as one moves along time and as your volumes increase, your proximity to the danger zone increases?

A. I think you referred me earlier to Professor Gregory who was saying you would use an internal rate of return, and the internal rate of return does adjust for this time dimension. So the IRR methodology, if you were to use that, would exactly take into account that over time the dynamics may change and you may want to take that into account.

Q. Have you ever seen a regulatory document relating to this industry that suggests that the profitability of a product should be measured by taking into account the volumes sold?

A. No, I have not.

Q. Does the PPRS do that?

A. No, it does not.

Q. How could you run your business like that if you were a pharmaceutical company? Does it mean that once you become very, very successful with a product you have to put its price down in order to avoid it being excessive?

A. I am not an expert in those matters. If you have a dominant position I think you have to give some careful consideration to these things. That is not what I have given evidence on here.

Q. If you then turn over the page to your graph. So CRA's other point about this graph, they say -- and Mr De Coninck said this -- you can see maybe visually that it is an outlier, but before you can conclude that

that actually does provide an indication of whether the price of Phenytoin is in some way unusual within Flynn's portfolio you have to test your proposition that there is or should be an inverse relationship between profitability and volumes. And that is basically saying you have to test the foundations of your WACC formula. I am just saying what they say. I am going to go to it in a minute.

So the basic proposition, and your formula is set out at 4.93:

"All else equal, the ROS is inversely proportional to volumes, so I would expect higher volume products to require lower ROS."

A. Yes.

Q. Then if you just look at Harman 2 where you explain it in a bit more detail at paragraphs 4.48 and 4.49.

A. Yes.

Q. I think you have explained this turns on your theoretical proposition regarding competitive equilibrium of the ROCE and the WACC, so the question is this: have you done any empirical observation of the relationship between profitability and volumes in this sector?

A. No.

Q. And you have not, I think, done any empirical investigation of whether generics pharmaceutical companies do set their ROCE equal to a WACC of 8 to 12 per cent, I think you have said that. Is that right?

A. No, I think there is evidence in one of the attachments to the back of Mr Davies that says they do in fact use a WACC of below 8 per cent.

Q. CRA give two reasons why one would not expect ROCE to be equal to WACC in this sector. Can you pick up CRA report number 4, that is tab 4 of bundle D.

A. Yes.

Q. And look at paragraph 14.

A. Yes.

Q. We disagree that the required ROCE should be set at the WACC. They make the point that I think Mr Lomas was putting just before the short adjournment that the WACC only gives an indication of the minimum and possibly not even sufficient return required by investors. I think we have a few too many words there. I think we can probably delete the words "would require", or we delete the first "required". Anyway, the minimum required by investors.

Then they go on to say the problem is here that this might be true in a perfectly competitive market but they say:

"We would not expect this in markets that are not characterised by perfect competition like most pharmaceutical product markets including the market for Phenytoin."

Do you agree that one would not expect the ROCE to be equal to the WACC if the market is not characterised by perfect competition?

A. No. I think as I explained before, what the WACC is calculating is first of all what is the average return on the market. It is an empirical question, it looks at returns based on dividends and share price movements of all listed companies. Within that mix you have a broad spectrum of companies operating in various competitive contexts. So actually the starting point is that this is an average market return adjusted for risk.

Q. Just go back to paragraph 4.29 of your second report.

A. 4 point ...

Q. 29. I thought you were saying there that the ROCE/WACC analysis was an indication of the minimum return, and that was Mr Lomas' point, and that was how I had understood your evidence to be from our discussion yesterday.

You say:

"... minimum (although possibly not sufficient) return investors would require on invested capital."

A. So what I am saying in this paragraph is that for asset-light companies the asset base may not be sufficient, there may be other things within the asset base that you expect to earn a return on. So there are missing assets in this business. Not missing return, missing assets.

Q. But these are asset-light businesses we are talking about?

A. Yes. That is when I do my WACC analysis, I do not say the reasonable rate of return should be based on that lower level based on the WACC analysis.

Q. But you seem to be saying here that the ROCE and WACC analysis indicates the minimum return, and you were saying a few minutes ago that the WACC is the average return. I just do not see anything in even your second report which says that you consider the WACC to be the average return and therefore providing an indication of a reasonable benchmark on that basis.

A. As I have said I think in my first report at the beginning of section 4 where the OFT basically sets out what it thinks a reasonable return is --

Q. But I am asking you what your evidence is --

A. I am coming to that. I am just saying that the OFT -- let me find the paragraph. It is section 4, at paragraph 4.5. So this is for the purpose of establishing the reasonable rate as step one. It says that in a competitive market it expects the rate of return that you should be able to earn is the cost of capital. So that is the approach that I have used, the cost of capital. That is the cost of capital that is used to set regulated prices, it is used to value businesses, it is the return that the finance community uses as their rate of return.

For investment appraisal purposes you may want to have a higher "hurdle rate" that screens out less profitable projects, but the output of the cost of capital tells you something about average market returns because it is based on the returns of the stock market.

So you only have to go to finance theory to know that the cost of capital is what firms earn on average. Some firms, as I say in my report, may earn higher, and obviously they earn lower, so it is not the minimum because obviously half the companies are earning less than the average. But it is a starting point to determine what your reasonable return is, which might not be right for asset-light companies because you may not have many assets which is what I say in 4.29 that you referred me to.

Q. Can I then put the question again. I am still trying to work out whether you are saying the presumption here should be that there is a perfectly competitive market.

CRA, who are Flynn's economists, say that this proposition, ROCE equals WACC or should equal WACC, applies in a market that is characterised by perfect competition, and you also somewhere, I have forgotten now where, refer to competitive equilibrium. Do you --

A. So what --

Q. Do you agree or disagree with their proposition that this would not necessarily be the case in a market where there wasn't perfect competition?

A. I have answered that question, but to summarise my answer: the cost of capital that has been used is not the cost of capital for a firm in perfect competition, it reflects the average.

Actually the point that is really being argued here is whether you think the weighted average cost of capital is variable by volume. That is what is being contested between Mr -- CRA and myself. And what I say is that in a competitive market returns are bounded by the weighted average cost of capital. The weighted average cost of capital is exogenous, it does not vary with volumes. And in fact the degree to which it does vary with volumes it is going in the other direction, because it is small companies that often request a small company premium to their weighted average cost of capital. So the degree to which it is variable is going in an opposite direction to what CRA is asserting.

Q. Mr Harman, I think we are at cross-purposes. I have asked whether the proposition that the ROCE should equal WACC applies in a market where there is not perfect competition. You have responded by saying the WACC is not limited to a market with perfect competition. I understand that point. But what you have not answered is the question about whether in a market that is not perfectly competitive the ROCE should be held to that WACC.

A. Yes, I think I am saying the weighted average cost of capital reflects a return that you would expect on a broad spectrum of companies, some of them -- there are very few companies which are perfectly competitive, there are lots of companies which are imperfectly competitive, and their return will show up in market data and that is what the cost of capital is based on.

Q. I will ask it once more and then I will move on. Are you saying that even if the market is not perfectly competitive, you would expect that the ROCE should be limited by or should equal the WACC?

A. I think -- yes, that is what I am saying.

MR LOMAS: Equal it or tends to it over time?

A. Tends to it over time, yes. Over the long-term that is the return we would expect in normally competitive markets.

MS BACON: Can I go back to CRA's other point. Paragraph 11.

A. Yes.

Q. Their other point is that this is a market for which there are low fixed costs, so asset-light.

A. Yes.

Q. And you agree with that as a matter of fact?

A. Yes.

Q. They then say:

"If the fixed component of capital employed is small, we would expect there to be only a weak inverse relationship between the required ROS and the volumes."

Do you agree with that?

A. Yes. But can I make a point on that because I think it is an important point. When I did my weighted average cost of capital analysis I said it is an asset-light business and there must be some notional -- there may be some notional capital upon which it should earn a return. Brand value, for example. So I said that the return on capital employed approach should be viewed with caution because there may be missing capital that is not on the balance sheet. So when I am talking about fixed capital, I am talking in this context that there is likely to be some brand value upon which we should be able to earn a return. If there was no capital, no other fixed capital, then actually you could rely on the ROCE analysis because you would say, well, it is asset-light, but there are no other assets that you require a return on.

So when I am talking in my analysis that I think there is an inverse relationship, it is because I am giving them credit for some branded value that needs a reward. If I did not then I would not need to look at Flynn's analysis, I could just rely on the return on capital employed analysis. But I am trying to be reasonable and I am assuming there is some capital upon which a return is required.

Q. If I can then bring you to your second report, paragraph 4.58.

A. Yes.

Q. You say that you think that Phenytoin still looks different on CRA's graph which plots volumes against percentage direct margins rather than absolute direct margins?

A. I do and --

Q. I am coming to the question. Were you in court for Mr De Coninck's cross-examination?

A. Yes.

Q. Can I just ask you to look at the transcript. It is

Day 7.

Is that the full transcript or is it redacted? Is it the unredacted or redacted version?

I have an unredacted version here to hand up in case you need it. That is the unredacted version so that is the correct version.

Just a note to the tribunal, just so you know this was in camera but I understand that the parts I want to take the witness to are not confidential. Does the tribunal have any objection to me going to those in open court?

THE CHAIRMAN: No. Which day are we talking about?

MS BACON: Day 7, page 35. It was the section of the cross-examination which dealt with this particular graph. If the tribunal is happy for me to proceed and put this bit of transcript to Mr Harman?

THE CHAIRMAN: Yes, but you must be careful.

MS BACON: Yes, I am going to.

So can you look at lines 11 to 17. I think we do not even have to read them out. That was the question that was put to Mr De Coninck, it was the top right-hand corner point.

A. Yes.

Q. You will have heard Mr De Coninck's reply starting at line 20 with:

"Okay, I do a lot of data analysis ..."

And there is a point on line 25 which is recorded as being inaudible. We have asked to listen to the transcript. I think that word was either "convergence" or "cloud". And just for the tribunal's notes there is a similar point over the page at line 23. I think that was "convergence" and Mr De Coninck is not sure. But I think both of them are either "cloud" or "convergence". So that was his answer.

PROFESSOR WATERSON: I would have thought line 25 here on page 35 would be "cloud".

MS BACON: That is what we think it probably is.

PROFESSOR WATERSON: Yes, I would think so, based on the sort of terminology that is used in these things.

MS BACON: Yes. So Mr De Coninck thinks 25 is "cloud" and we are not sure about 23 over the page. But anyway, we understand what he is saying.

So looking at that bit of his transcript and then going over to line 7 of page 36.

A. Yes.

Q. As an economist, do you agree that looking at a graph with a scattering of points, the fact that some points are in the top right-hand corner does not in itself tell you anything about whether those points are outliers?

A. From a statistical point of view that is correct.

Q. So that leads to my question: in order to test whether Phenytoin is an outlier in a meaningful statistical sense, you would need to do some kind of statistical test to identify whether there is a relationship between the x- and the y-axis?

A. You would, and I think that is a very good point that you raise. Because the point that I raise is if you are going to do a statistical analysis you have to make sure that your x and your y axes are the right axes. And what I have said in my report is that mathematically you cannot compare the number of packs sold to direct margin percentages because that misses part of the equation. Part of the equation is also unit costs.

Mathematically you can do two analyses. You can look at returns as a function of revenue and then you can use percentages. That is mathematically complete. You can look at it on a per pack basis, an absolute pounds per pack basis, and then you can use volumes. You cannot mix those two. So if you mix the two, you cannot do any statistical analysis that would be meaningful because the relationships are not the right relationships that you are looking at.

And this is what I say in 4.29. I say effectively that -- actually I think I start further up where I say this is an incomplete analysis because it is not looking at unit costs, and because we are not looking at it in unit costs you cannot be technical as to whether it is an outlier or not. All that you can do is say: given that it is incomplete analysis then I can only look at it visually. And my perspective is that as I look at it visually, even though this is an inconsistent analysis, CRA cannot make the conclusion that it seeks to make that Phenytoin has a set of returns which are comparable to everyone else. This still tells me there is something different about Phenytoin and I do not need to do a statistical analysis to be able to do that.

Q. Leaving aside your point that you are not looking at the right thing, and going back to what conclusions one could draw about this graph if it were using meaningful parameters on the x- and the y-axis, you agree that you cannot just draw a conclusion from looking at this scattering of points and say Phenytoin is on this place in the graph, what you have to do is to test the relationship. And you say you have not tested the relationship because you say it is not meaningful to look at those parameters on the x- and the y-axis?

A. Correct.

Q. So as an economist you cannot look at this graph. Leaving aside your other points about whether it is meaningful, you cannot look at this graph and say that

Phenytoin is an outlier?

A. You cannot say it is definitely an outlier, and I do not think I call it an outlier in my report. I say that it still looks different.

MS BACON: I have no further questions, sir.

THE CHAIRMAN: Thank you.

Questions from THE TRIBUNAL

PROFESSOR WATERSON: Just for completeness, did you do a statistical test on your graph in your approach to this?

A. I did not, but I think it is informative to look at the chart at the end of my second report which puts it on a consistent basis based on looking, on the one hand, ROS as a percentage, but to do that from a technical perspective you have to look at revenue, revenue versus return on sales as a percentage. When I look at this graph my belief empirically is that Phenytoin is a clear outlier.

MR LOMAS: Figure 4.4 or 4.2?

A. Appendix 2 in my second report, so right at the end of my second report. Appendix 2, profitability analysis, which is plotting net revenue.

THE CHAIRMAN: Bear in mind these --

A. I am not going to say any figures. You have net revenue on the y-axis which is controlling simultaneously for costs and volumes and you have percentage ROS on the horizontal axis. There is a first point, you probably do not have enough data points to test it statistically, not with any confidence that you would be able to rely on as a matter of statistics, but when I look at this chart it tells me that Phenytoin is a clear outlier. Even if it wasn't a clear outlier from a statistical sense I would still draw the conclusion that based on Flynn's data you could not make the conclusion that it is similar to its other products. It quite clearly looks different.

PROFESSOR WATERSON: Those are two different hypotheses.

A. They are. Correct. But that is the hypothesis that CRA puts forward. They are effectively saying Phenytoin does not look different to its other products.

PROFESSOR WATERSON: Yes, I understand.

THE CHAIRMAN: Can I just clear up one point that hasn't been raised. I am sure it may be raised in closing.

At various times -- and do not take this the wrong way, please -- at various times in your evidence you have said "as an economist", and sometimes "as an accountant", I take it you are both?

A. I am a chartered accountant and I have a masters in competition regulatory --

THE CHAIRMAN: You regard yourself as an expert economist and your evidence is put forward on that basis. Is there any other area on which you ask us to take you as an expert?

A. I think within those dimensions I have done a significant amount of work in cost allocation for regulators and in competition contexts.

THE CHAIRMAN: If I described you as a regulatory economist and a regulatory accountant would you be offended?

A. I started my career doing regulatory economics and regulatory finance, but for the last ten years I have been applying finance and economics on matters around basically financial economics, so issues of cost allocation, issues about cost stacks, issues around what is a reasonable rate of return.

THE CHAIRMAN: In a number of different contexts.

A. In different contexts.

THE CHAIRMAN: Thank you. I think that is all we have to ask. Mr Brealey, it is for you now.

Mr Hoskins, if you wish to re-examine ...

MR HOSKINS: I will, after Mr Brealey.

Cross-examination by MR BREALEY

MR BREALEY: Mr Harman, could we start by going to bundle F1, which is probably in front of you, your first report. Page 3. I know we have been through this a little bit before but I just want to go into a little bit more detail. That is the instructions.

A. Yes.

Q. So this is bundle F, tab 1, page 3, paragraphs 1.12 to 1.15.

A. Yes.

Q. You say there at 1.13 that you have been instructed by the CMA to consider the first limb of the United Brands test?

A. Yes.

Q. You have two considerations. And then we go over. At 1.15 you are not instructed to consider the second limb of the United Brands test?

A. Correct.

Q. With that in mind, could we just have a look at your instructions which are at bundle N, tab 7. I am just trying to pinpoint exactly what has gone on here.
I think it is bundle N, tab 7.

A. Yes.

Q. So we asked for the instructions. First of all, go to page 10.

A. Yes.

Q. So this is the matters for consideration. The CMA would be grateful for the expert opinion. Allocation of common costs. The reasonable rate of return. And then you are referred to the assessment in the decision at 5.12 to

239. And as I understand it, that excludes the second limb.

So you are in paragraph 2 there asked to address the first limb of United Brands test only.

A. Yes.

Q. That has been a common theme throughout your evidence-in-chief and also your cross-examination. I think you would be forgiven for wanting to know what the first limb is, because in answer to the question by the chairman you are not a lawyer, you are an economist and an accountant.

So if we go to page 5, I think this is where we get a sense of the United Brands test. Please correct me if I am wrong on this. This is paragraph 15. So we see there you are being told that the Court of Justice has held that the price is excessive if it has no reasonable relation to the economic value of the product supplied.

A. Yes.

Q. That is a two-stage test. Is that what you understand to be the two limbs?

A. Yes.

Q. Then they set out the two-stage test. Then at paragraph 16:

"Applying the United Brands test, CMA concluded ..."

And we see what is excessive having regard to the costs incurred and the reasonable rate of return.

So my question to you is: in the light of paragraph 15, are you adopting the CMA's interpretation of United Brands? In other words, you are being asked to look at the first limb only, and in the context of that, you are being asked to verify the CMA's calculation as to a reasonable rate of return.

A. For the purposes of step one, yes.

Q. For the purposes of step one.

A. That is my understanding.

Q. But the point is that for the purpose of step one you are being asked to verify "the reasonable rate of return" which has cropped up so much in the last two days?

A. Yes, and I define what I mean by "reasonable return" in my report.

Q. Yes, we will come on to that in a moment.

So if we then go to the decision, just again -- I am trying to put this in context. If we go to the decision at page 289, this is paragraph 5.18. This is essentially the CMA's interpretation as to step one as I understand it. So:

"In addition to establishing the costs actually incurred, it will normally be necessary to allocate a reasonable rate of return."

So that is essentially the task that is being undertaken, correct?
A. Yes.
Q. You just said, and I think it was in answer to a question by Professor Waterson as to what was meant by a reasonable rate of return, I think you referred the tribunal to paragraph 4.5.
A. Yes.
Q. So if we just go to that. This is your conceptual framework. In answer to the tribunal, this is how you are defining a reasonable rate of return?
A. Yes.
Q. The last bit of 4.5 is:
"In practical terms, this means firms will compare the return they earned on their activities to the next best alternative, and if their actual return is lower than what they would expect to earn in other activities they will redeploy their capital accordingly."
A. Correct.
Q. So they could put it in the Halifax or into some other business but they will essentially exit the market?
A. Yes, in ex post terms if they actually earn returns that are below their --
Q. Yes, if you are not earning a reasonable rate of return you will exit the market. That is what you said.

A. But let me just caveat. That is the technical theory. Obviously, as I was saying, that is based on the average market return. As a matter of actuality, half the firms are operating at a return that is below their average. So this is what theory tells us.

PROFESSOR WATERSON: Can I just clarify. You mean half are earning below the median?

A. Yes, exactly. And it depends on the skewness. The median is correct. But a very high percentage of companies are earning a return below that median figure, so in practical terms companies are not redeploying their capital. But that is what finance theory tells us firms should do, that they should do it, but obviously there is exit costs and they hope that the market is going to recover. So there are lots of practical decisions as to --

MR LOMAS: There is a debate between a static and a dynamic analysis, presumably.

A. Correct.

MR BREALEY: So just on this then, because there has been some confusion about the minimum and the average. I do not really mind what it is but let us just try and tease that out. You repeat this at paragraph 4.14 of your first report, so:

"A reasonable return will therefore reflect the level of an investment of risks in order to sufficiently incentivise a company to undertake the activity."

So again there we see the reasonable return being to incentivise.

A. Yes.

Q. In your footnote there at 5.166, if we go to the decision, that is at page 329 in my version.

A. Yes.

Q. "The underlying purpose of a rate of return ... a reasonable return will therefore reflect the level of investment and risks incurred in order to sufficiently ..."

So again, that is where you get the incentivising, correct?

A. Yes.

Q. Then if we move on to -- or if we go back, actually, to page 311, to paragraph 5.101, it's at the bottom, and it is the sentence beginning "Rather". So this is page 311, paragraph 5.101:

"Rather it represents the CMA's conclusion that in the particular circumstances of this case a 6 per cent return is a reasonable rate of return for Pfizer's products for the purposes of the first stage of United Brands."

So I think we all took from this, and tell us if you

agree, that there is the CMA saying that for the purposes of Phenytoin and this case, a 6 per cent ROS is a reasonable rate of return, below which one would not be incentivised to stay in the market. They are not talking about an average here, they are talking about a rate of return specific to this product.
A. I guess I am struggling to see the difference between what you are saying there. The economics --
Q. Forget the economics, I am just asking you -- you have been asked to defend the validity of the CMA's decision?
A. Yes.
Q. And I am asking you a simple question: whether the CMA is saying in that paragraph that it is 6 per cent specific for Pfizer and Phenytoin?
A. Yes, it has calculated a return that is specific for a product. That is how rates of return are established, they are product-specific.
Q. And adopting your definition and the CMA's definition of a reasonable rate of return, logically it follows on the CMA's case that if it is below 6 per cent the likelihood is that will not incentivise the company to stay in the market?
A. No, because the CMA selects a rate of return which not only does it think is reasonable but it also thinks is generous, and so one of the cross-checks that it looks

at is the rate at which Pfizer itself puts its drugs on under review, and that translates into a return on sales of [redacted percentage].

THE CHAIRMAN: Which is confidential, I think.

A. Of lower than 6 per cent.

MR BREALEY: So 6 per cent is the benchmark to stop you exiting the market, and you think that is generous because also there is a lower percentage to put a product under review. So loss-making that you are going to bin it. Do you think that is a reasonable cross-check?

A. Sorry, no. If there is a review percentage, a hurdle rate, if you like, that is below 6 per cent, that does not mean that it is loss-making, it is earning a return. It is positive. The point is that the way in which we -- I have looked at this and the way in which the CMA looked at it is that it first of all looks at a rate of return that is the average of what is expected in the marketplace. I have explained that actually companies below the median actually are earning returns that are lower than that.

Finance theory says that we adopt a cost of capital based on that to evaluate the projects, and the OFT confirms that in the long-term that is what it expects companies to earn. Over the long-term in competitive markets, not perfectly competitive markets, in just competitive markets the reasonable rate of return will converge on the cost of capital.

THE CHAIRMAN: Sorry, when you talk about the OFT, which no longer exists, do you mean OFT guidelines which have been adopted by the CMA?

A. Yes.

THE CHAIRMAN: Just so that is clear.

A. Correct. And I would say this is very standard in all of the cases that I have done on excessive pricing that the first step is by reference to the cost of capital. Once you have set the cost of capital and saying that is a reasonable rate of return, you have to take into account that it may be legitimate for companies to earn higher or lower than that, but that is a second limb.

MR BREALEY: Let us move on to that then. Can you go to bundle M, tab 2.

A. Tab 2?

Q. Yes. I think before we look at this, under limb one the costs are calculated, a reasonable return is allocated. This reasonable return is a reward to incentivise a company to enter the market or not to exit it. Your four fundamental principles is the level of return reflects the level of investment and risk, is that a fair summary?

A. Yes, I think so.
Q. So if we then go to -- this is the expert report of Professor Walker.
A. Yes.
Q. At paragraphs 2.3 and 2.4 he is referring to a study and he says:
"This study clearly indicates that Phenytoin is not only an efficacious drug but more efficacious drug than several newer drugs such as Topiramate ..."
Which is this one here I have in my hand:
"... Lamotrigine and Gabapentin. As mentioned in my first report, approximately 40 per cent of patients will not respond to or will only achieve partial seizure control on monotherapy. For these patients an adjunctive treatment is introduced, and the results of the meta-analysis show that Phenytoin is likely to perform better than several first line treatments in terms of seizure control."
I do appreciate that you were not even given for your first report any reports by Professor Walker. But on the assumption that Phenytoin has a value, where does that fit into your conceptual analysis?
A. To the extent that it does have a value, it is a second limb analysis. You have worked out what your cost plus is, which is a supply side calculation, and the demand

side normally comes into the second step because you cannot isolate the degree of demand side from looking at average market returns.

That is not quite true because obviously you are looking at a set of market data and some of those returns will be higher than average because of demand side factors in general, but they are not the same demand side factors that are looking in the specific case. So they have to be addressed separately from the first step, and to the extent that there are valid demand side factors then that would be or may be relevant to take into account in step two but I have not been asked to look at that.

Q. But when you are in your accountancy office you do it all in one go, do you? You do not say, when you sit down in your accountancy office asking what a reasonable rate of return is, you do not say "I am going to do step one and step two", you do it as a composite analysis, do you not? So you would look at supply side and demand side in order to determine what a reasonable rate of return is?

A. If you were looking at a cost based analysis, no, you would not look at the demand side factors, you would work out what your cost stack is first and then you would go through a process to understand whether you think you can price above the supply side cost of that.

In a normally competitive market, if it was sufficiently competitive, without barriers to entry, then I expect that some of those demand side factors would be eradicated. It is only in the case where there are barriers that you are able to exploit those demand side factors.

MR LOMAS: Sorry, in words I understand, in a competitive market those additional profits -- let me not use the word "excess" -- would be competed away to other competitors to the point where you reach the WACC-related return at which point it becomes unprofitable to continue in that market, and people either exit or not and it will stabilise there, in a theoretical world?

A. Yes. Let me give you a practical example of that. Water is obviously something that we all need. If companies could actually price whatever they liked for a bottle of water then the demand side factors for that would be very high. But actually we observe that the price of water in bottles is relatively low, and it is relatively low because there is competition in the supply of water.

PROFESSOR WATERSON: So the demand side comes through the market price in a competitive market.

A. It does.
MR BREALEY: If you put bundle M away and pick up bundle D. I think I know the answer to this but we need it for the record. If you pick up bundle D. This is the first report of Professor Walker. This is tab 9, page 4.
A. Page 4?
Q. Page 4.
A. I have that.
Q. If you look at page 4, at paragraphs 3.5 to 3.9 he is making two points. If you read 3.5, 3.6 and 3.7, just to yourself. (Pause).
A. I have that.
Q. You see there he is referring to the seriousness of the condition epilepsy?
A. Yes.
Q. Yes, and 3.8 to 3.9 we see there the comment:

"Epilepsy has also significant social implications and these have social costs."

A. I see that.
Q. And you see there that the cost of AEDs was 400 million euros:

"... less than 3 per cent of the total cost of epilepsy."

Assuming that again Phenytoin has a value, is this in your second limb and you give no consideration to this?

A. Correct.

Q. But are you suggesting -- because you seem to stray into limb two, are you suggesting that the seriousness of the condition, the treatment of the condition, the alleviation of the social costs can simply be competed down in a competitive market? "Eradicated", I think you said; eradicated as if this was a competitive market?

A. I have not strayed into limb two, only because you have asked me a question on it. I do not go anywhere to it in my report. I think that is a legal consideration, but you are now effectively looking at a market that is not competitive and I think there is a legal question as to whether you are able to exploit that advantage. But that is not for me to be able to say as a matter of law.

THE CHAIRMAN: Definitely not, Mr Harman.

MR BREALEY: But when you are looking at limb one, I believe you are looking at the characteristics of Phenytoin.

A. From a risk perspective.

Q. From a risk and investment perspective?

A. From a risk perspective.

Q. So you would also look at the characteristics of Phenytoin when looking at a reasonable return for limb two?

A. Say that again.

Q. Does it feed into limb two, the characteristics of Phenytoin?
A. No, I have only considered the risks at stage one. If you are saying this is a product that has a certain set of characteristics that, for example, makes it more difficult for competition to emerge because of these particular things, all else equal, that makes it a lower risk drug and, on that element alone, it requires a lower return as a part of step one. Step two has to ask the question: is it permissible for the company to earn a return that is above that risk-adjusted return? That is a second question. That is a second question that I have not answered.
Q. No. Put that bundle away then and I am just going to take you to bundle B1, tab 2.
A. B1, tab 2?
Q. I am not going to go into the law, but I would like to put some propositions to you.
A. Sorry, we are just having a bit of confusion. B or G?
Q. Authorities bundle B1 at tab 2. You have the judgment of Mr Justice Laddie. This is in the Victor Chandler case. If we go to paragraphs 47 to 49 --
A. Yes.
Q. And just read the first two and a half lines of 47:
"Mr Turner argues there is a per se rule as he puts

it where a dominant undertaking charges prices greatly in excess of the cost of production. This is in principle an abuse of its dominant position."

Then Mr Justice Laddie at paragraph 48. It is important as a proposition for limb one and limb two:

"Even before one considers the case law, it appears that this approach is based on a number of doubtful propositions. It assumes that in a competitive market prices end up covering only the cost of production plus the cost of capital. I am not convinced that is so. Sometimes the price may be pushed much lower than this so that all traders are making a very small, if any, margin. Sometimes the desire of the customer for the product or service is so pressing that all suppliers, even if competing with one another, can charge prices which give them a much more handsome margin. In other words, even where there is competition, some markets are buyers markets, some are sellers. I do not see there is any necessary correlation between the cost of production and the cost of capital and the price which can be achieved in the marketplace."

So two propositions I would like to see if you agree with me. If you again read the paragraph:

"It assumes that in a competitive market ..."

Down to:

"Some are sellers ..."

So it assumes in a competitive market, market prices end up covering only the cost of production, and go down to:

"In other words, even where there is competition, some markets are buyers markets, some are sellers."

Do you agree with that proposition?

A. I think it is obviously true that, when you are looking at a broad market index of returns, there are different competitive dimensions in there. Some of them will be earning below their cost of production, some of them will be earning a return that is equivalent or based on their costs and their risks, and there will be some businesses which are earning returns above that average because they are able to exploit some demand side factors. Some of them are able to do that because they are not dominant and that is fine, and there may be some companies within that who are dominant and are exploiting them and have not yet been found. I do not think that detracts from the point that you can use the broad average as your starting point and then ask the question: should you allow demand side factors in this case?

Q. Is that a proposition which you have agreed? Is that a limb one or a limb two or both, or what is it?

A. I think it is a proposition that says that there are companies that are based on supply side and there are some that are based on demand side. I agree with that proposition. That is obviously true. What do I think as an economist? I think that there is a two-step process. I think as the first you have to identify what is reasonable and the second you have to decide if you should make an allowance for demand side factors.

Q. So on what you just said, and let us go to the sentence:

"I do not see that there is any necessary correlation between the cost of production and the cost of capital and the price which can be achieved in the marketplace."

Again:

"I do not see that there is any necessary correlation between the cost of production and the cost of capital and the price which can be achieved in the marketplace."

Do you agree with that proposition? I take it you do not, do you?

A. No. As an economist, I believe that obviously firms are required to earn a return on their invested capital. Why do I believe that? Because that is how investment markets work. If you pick up any broker report into the performance of a company, it will state its cost of capital and it will value its cashflows on that basis. So in the real world that is exactly how people are evaluating projects, based on the cost of capital. So they do see a correlation between costs that flow through into cashflows discounted by discount rates.

Q. So you do not agree with what Mr Justice Laddie is saying there?

A. If there is a legal context to the point that he is making, then I have no basis on which to agree or disagree. If you are asking me as an economist whether I think that these economic principles make sense, I do. I think they make sense.

Q. Keep your finger in that, because we are going to come back to tab 2. If you go to tab 4. This is the Attheraces case?

A. Yes.

Q. Paragraph 195.

A. Yes.

Q. This is the Court of Appeal in Attheraces. So this is Lord Justice Mummery, Lord Justice Sedley and Lord Justice Lloyd; some pretty punchy Chancery judges. 195, I will skip the first sentence:

"For the reasons given by Laddie J in BHB Enterprises v Victor Chandler, it is wrong to assume that the competitive price is cost plus. The cost plus test has the attraction of being simple. But the reality ..."

The reality, in the real world:

"... is that it is not easy to establish what the price for a product would have been under different and competitive conditions. As Laddie J observed:

"'Even in competitive markets there is no necessary correlation between the cost of production and the cost of capital and the price that can be achieved in the open market. There are buyers markets and there are sellers markets.'"

A. Yes.

Q. So you have disagreed with Mr Justice Laddie. Do you disagree with what the Court of Appeal said what happens in reality in the real world?

A. It may be I am disagreeing with a slightly different point. If this is the point that you are putting to me, I already agreed that there are buyers markets and there are sellers markets. What I am saying is that what I disagree with is whether actually looking at the cost of capital as the starting point of this test, do I think that is meaningless? I do not think it is meaningless because it sets what you think a reasonable return is and then it is necessary, consistent with this, to look at the demand side factors and ask the question in this case: is it permissible that those demand side factors should be taken into account. And in some instances like Attheraces it was concluded that they should, but I do not think it necessarily follows that in all cases they should.

MR HOSKINS: Can I just point out that is a paragraph which is summarising the arguments of Peter Roth. The actual conclusions and reasoning of the Court of Appeal begin at paragraph 203. So that is just Mr Roth repeating what was said in Victor Chandler.

MR BREALEY: If you go to paragraph 208, this is where the Court of Appeal deals with it. If you read 208.

A. Yes.

Q. "This seems to us to be at best a rule of thumb. Competition may drive price below cost for a time or in a part of the market. Where profit is obtainable, the margin of profit will be as great as the market will yield, reflecting such factors as elasticity of demand. Thus, even a hypothetically competitive market may yield a rate of profit above, as well as below, the reasonable margin represented by cost plus. Those and related issues were usefully discussed by Laddie J in Victor Chandler."

I have taken you to the submissions and I have taken you to what the Court of Appeal said at paragraph 208.

It is in the real world.
A. So I have said in the real world there are companies that earn above the average and below the average. Some are based on supply side considerations, some are based on demand side considerations. I am in complete agreement with what that is saying. What I am challenging or disagreeing with is whether it is meaningless to start with the average cost of capital as a reasonable starting point and then to consider the demand side factors as a part of limb two.
Q. What I am asking you, Mr Harman, is whether it is meaningless for you to come here and give evidence for basically two days and only give evidence on limb one when quite clearly limb two is as important, if not more important, than limb one.
A. But I cannot answer that question because I have only been asked to look at limb one. If I had been asked to look at limb two, I might have had those considerations in more detail.
Q. As an independent expert, do you accept that it is a pretty meaningless task when dealing with the economic value of a product only to deal with limb one?
A. No, I do not think it is meaningless. Why do I think it is not meaningless? What happens if you would have done step one and you found out that your cost plus was above

price? If you had found that in the first step, you would not even have to come on to step two because you would have answered your question. You would have answered the question from a supply side perspective. We have looked at step one and I agree with you that there is something still to be debated in the second limb. I do not see any problem with that.

THE CHAIRMAN: I think maybe we will debate it after lunch. I assume that clock is right?

MR BREALEY: I think it is.

THE CHAIRMAN: That is reassuring. 2 o'clock. Thank you very much.

(1.03 pm)

(The short adjournment)

(2.00 pm)

MR BREALEY: Sir.

Mr Harman, you probably have not still got your finger in tab 2, so could you ...

A. Tab 2 of which bundle?

Q. If we go to bundle B1.

A. Yes.

Q. Tab 2. We were at paragraphs 47, 48 and 49.

A. Yes.

Q. We looked at paragraph 48 and we had been to the Attheraces Court of Appeal judgment, in tab 4.

I would like you just to have a look at paragraph 49, please, because this is where again Mr Justice Laddie is putting forward -- essentially it is a matter for us to determine whether it is legal or not, but he is setting certain propositions down which I think are relevant to your evidence:

"In addition, this rule breaks down as soon as one applies it in the real world."

So what the rule breaks down as one applies it in the real world is essentially the cost plus proposition. If you just read that paragraph, I just want to ask you a question. (Pause)

A. Yes.

Q. The thing I would like to ask you is when you see:

"Does it also mean that the price must go down once all the research and development costs have been recovered?"

He is putting it forward rhetorically, but I think for anybody who knew Mr Justice Laddie it was clear that the answer to his rhetorical question is no.

Assuming that he is saying there the price must not necessarily go down once all the research and development costs have been recovered, would you agree with that proposition?

A. It is very difficult for me because I am being led to parts of a paragraph that I have not had a chance to study --

Q. No, it is just a simple proposition.

A. I only say that because I am being asked to say a reactive question -- an answer to a question that I have not studied. But I think the proposition is: should the price go down once you have recovered your research and development? I have not looked at the facts of this case, and obviously there are going to be differing cases, but I would lead as a starting premise just to say competition does not have a memory. So if competition was to emerge once a product comes off patent, and the company that is off patent wants to still recover more research and development, the competitor does not have to recover that research and development so it can price down.

Now, the originator in that context has a choice of either following the price down or keeping the price up. If it keeps the price up and there are equivalent products then obviously he would lose high volumes, it probably would lose its dominant position, and therefore any margin that it earned in that context would not be relevant to us per se.

So my reaction to it is that it is case specific, but if it is a competitive market and you are no longer on patent then it may be genuinely difficult for companies to recover research and development because competitors do not have to do that.

Q. So I think the answer is it is case specific, but it does not necessarily follow that once all the research and development costs have been recovered the price must go down?

A. No. And just to --

Q. You agree with that?

A. I agree with that. But to put it into the context of the evidence that I have given, does the recovery of research and development necessarily impact the reasonable return in the cost stack? I do not think it affects the reasonable return per se. It is a question as to what should be an allowable cost in the cost stack should research and development be included, which would obviously increase the cost stack, but that is not a question that I have been asked to look at.

Q. Would this go into your limb one or limb two? So I have a product, it is a commercially successful product, I have recouped all my research and development costs. In the market I can see that I can still charge above the ROS or the WACC, I can still do that. It is commercially successful, I have recouped all my R&D. In answer to the question by Ms Bacon this morning you said

you were not an expert to opine on that.
A. But you are asking me a theoretical question.
Q. Yes, and the theoretical answer is?
A. The theoretical question is that if this is a debate about research and development, where should it sit in the cost stack and/or in limb one or limb two, then it is a question as to what allowance for research and development should be allowed in the cost stack. I do not think you should conflate research and development with profits.
It comes back to an earlier question that was asked, a bit similar: do you adjust the discount rate or do you flow things through the cashflows? If you have a specific cost of R&D, you might as well just keep the cost of R&D and put it in the cost stack, not fiddle around with return.
Q. But in principle you can just keep it as profit. The price does not have to go down, you can keep the price at a higher level and you can take it as profit?
A. The assumption is that if you lose volumes, there is no effect on cost. But if there is any economies of scale, if you lose volumes your average costs will go up as you lose scale. So it does not necessarily follow that if you were to keep your prices high then you would earn high profits, because actually as you lose volume your

profits may decline.
Q. But you can keep it higher than a return on sales plus 6 per cent?
A. You can ... if you were not dominant and you lost market share then it might be -- might be -- that you were earning a return above 6 per cent but that would be an empirical question as to whether that was in fact the case. Because you have to understand the price elasticity of demand, you would have to understand how much demand you lost and what impact that had on average costs. I cannot say whether that would be profit neutral, profit enhancing or profit destructive. Again that is not something that I have been asked to look at.
Q. No, precisely. And that is because those considerations are in limb two?
A. I think the question on R&D is something that could come into limb one, but the second part of your question is a limb two question, yes.
Q. Could we go to your second report which is at bundle F, tab 3.
A. Can I put B away.
THE CHAIRMAN: Have you finished with Attheraces?
MR BREALEY: I have finished with the Attheraces, yes. Bundle B1 can go.
We are going to obviously go to your second report,

and also if you want to get out H2. In your second report, what I would like to go to is paragraph 4.7 on page 26.

A. Yes.

Q. What I would like to ask you here is a question about your instructions.

A. Yes.

Q. Because you say at 4.7, towards the bottom:

"I am not an expert on the PPRS."

That is fair enough.

And you say:

"I have taken instructions from the CMA on certain points raised by Flynn. In summary, I note the following ..."

A. Yes.

Q. Then you have a series of four propositions. Ms Bacon has been through these, I am not going to do it again. But you see in subparagraph 1, four lines down:

"I am instructed that these allowances ..."

This whole section is based on the instructions that you have been given by the CMA, is that correct?

A. Correct.

Q. And as an expert it is not an unimportant point. We did ask the CMA for a copy of the instructions, we got a copy of the instructions for the first report. We thought it was slightly strange so we asked again and then we got the instructions for your second report. But reading the instructions, and they are in bundle N, we do not have to go to it, but there is no reference to instructions on the PPRS. So if one reads the instructions for the second report, we do not see anything relating to this.

So my question is: how did you get instructions on the PPRS? They are not formally recorded in the documents that we have been given.

A. No, that is true. I do not see an issue with that. The instructions in my section one are instructions as to the scope of the work that I am doing and that is normally what I would see covered by those instructions, scope questions. There may be instances where I rely on facts and normally those facts are footnoted to show where I have relied on the facts.

I am not an expert in the PPRS and so obviously I had to discuss the meaning of the PPRS. I could pick some of that up in the CMA's document as a factual record of what the CMA said but I thought that it was important to me to understand a wider context of the PPRS as not an expert.

So my understanding, my initial understanding of the PPRS is from the CMA and discussions. It is in their report. Obviously I have read the scheme and I have also heard the witness evidence of Mr Williams. I am not available to discuss how it works in practice. I was not at the Department of Health's meetings so to I cannot comment on what went on there and what the tone was and what was said and not said.

Q. Sorry, just to press you on this. At paragraph 4.7 you say:

"I have taken instructions from the CMA on certain points."

A. Yes.

Q. In subparagraph (1):

"I am instructed that these allowances apply ..."

A. Yes.

Q. Subparagraph (4):

"I am instructed that the allowance in question permits companies to incur R&D expenditure."

The simple question is how were these instructions communicated to you? Were they communicated to you in writing? Orally? At meetings?

A. In meetings.

Q. In meetings?

A. Yes.

Q. So the instructions as far as you are aware, then, on the PPRS were never recorded in writing?

A. I recorded them in writing, and obviously the CMA were able to review my report prior to its filing, as is the normal course, and they confirmed in the process of reviewing my report that they were an accurate assessment of what they said. And actually if you go to the CMA's document it says exactly the same in the CMA document.
Q. What CMA document?
A. In the decision document.
Q. The decision?
A. The decision document talks about the transfer prices and they do an analysis at some point on --
Q. Mr Harman, come on. Paragraph 4.7, this is in your second report --
A. Yes.
Q. The issue of transfer pricing, R&D allowances have all cropped up, and then you say:
"I am not an expert ... I have taken instructions ..."
That is not coming from the CMA's decision, that is coming from subsequent communications from the CMA on PPRS. All I was doing was asking you where you got them from, and it appears from your evidence that you got them in meetings?
A. Well, I have agreed. I said that I have had discussions

with the CMA and that is what has gone into my report.
Q. But they were not recorded so that we could actually see the instructions that you were given on the PPRS?
A. If that is the case, it is -- I have written my report. It is not for me to say as to how that is recorded.
Q. But as an expert you do know that parties are entitled to see the instructions upon which the experts rely?
A. That is fine. But I have undertaken my report as I would normally write a report. I do not see what the issue is. If there is something to be contested then I am happy to discuss that.
Q. Let us go to the PPRS. Can we go to bundle H2, tab 33. I do appreciate you are not an expert on the PPRS and I do appreciate that a lot of what you have gleaned as regards the PPRS has come from instructions in these meetings. But you do refer to the PPRS and therefore I am entitled to ask a few questions about it.
A. Of course.
Q. So at tab 33 you have the PPRS.
A. Yes.
Q. Just a few paragraphs because it sets the flavour of what I want to ask you about. If we go to page 9.
A. Yes.
Q. Obviously we have to take this as a whole. Paragraph 1.4, so this is under section 1, "Purpose,

Principles and Objectives":
"A number of important principles and objectives underpin this scheme. It is important to strike a balance to promote the common interests of patients, the NHS, the industry and the taxpayer. The overarching principles and objectives of the scheme are to provide stability and predictability to the government and the industry. The scheme is a single holistic UK pricing agreement covering all the relevant key issues that underpin the pricing of NHS branded medicines. Importantly it is intended to provide stability and predictability to both the government and the industry to enable certainty of planning and to help NHS and the industry develop sustainable financial and investment strategies."
The last paragraph, because it is a common theme, but if you look at section 2, "Introduction", on page 11.
A. Yes.
Q. Paragraph 2.1:
"The government recognises the industry's contribution to the economy of the UK ..."
So the government recognises the industry's contribution to the economy of the UK:
" ... and wishes to continue to encourage its

competitive efficiency both at home and abroad. The Health Departments of England, Wales, Scotland and Northern Ireland recognise that continuous innovation is the key to competitive success in research-based industry and wish to encourage the research, development and supply of innovative treatments for the benefit of NHS patients."

A. Yes.

Q. So again I appreciate you are not an expert but I think it is important because you do refer to this scheme. If we go back to page 9 and you see the scheme is "a single holistic UK pricing agreement".

A. Yes.

Q. What would you understand by the word "holistic"?

A. As in a definition of holistic?

Q. As in the context of scheme. Why is the scheme being described as "holistic"?

A. It covers all products within your portfolio.

Q. All products within the portfolio. Any other idea why it would be "holistic"?

A. I do not know.

Q. I suggest to you that it is essentially a complex agreement which links many factors, would you accept that?

A. I agree. But under the assumption that overall across that portfolio you are allowed a return that encourages investment, which is what we see at the bottom of the two paragraphs that you referred me to:

"... a return to develop the industry ..."

In 1.4.1. And in 2.1:

"... to encourage research, development and supply of innovative treatments ..."

Q. In that holistic pricing agreement you would accept that the company's profits are essentially capped?

A. I do.

Q. Companies in the scheme cannot unilaterally raise their price?

A. I understand that to be the case.

Q. Yes. That means the prices will generally go downwards?

A. Yes. But still allowing a return that allows you to be sustainably financeable and to encourage investment. If you were below a return you would not make the investment, the finance markets would not do it. So I assume from that, within the context of what you are saying to me, there is a sufficient return for you to do R&D and to be innovative.

Q. In the ROS 6 per cent for Phenytoin, where is the allowance for R&D?

A. It would be an allowable cost.

Q. But it is not there. There is no allowable cost. In the separate calculation for Phenytoin there is no R&D allowance.

A. I have not been asked to look at that. But it would not impact the return. It does not impact your assessment of the allowable return. The allowance for the R&D is an allowable cost, that is a different issue that I have not addressed.

Q. It may impact on price, though?

A. It may, but I have not been asked to look at prices. I have been looking at returns.

Q. Precisely.

Given this holistic approach, and you see there it refers to stability to the NHS, it refers to the common interest of the taxpayer, you would accept that the PPRS raises political as well as commercial considerations?

A. I can see that.

Q. You referred yesterday to the fact that the 6 per cent cap was, and I quote, "a regulated benchmark"?

A. It is a regulated benchmark that is set at a level to encourage innovation, R&D. So I know that there is this point as to whether regulatory return is the same as a competitive return and I would say that regulated markets try to come up with the return that they would expect in a normally competitive market, so I do not see any friction between those two per se.

Q. What do you actually mean by "a regulated benchmark"?
A. You just said that this is a regulated benchmark.
Q. No, I said that you said it was a regulated benchmark. I can show you on the transcript, if you want?
A. No, that is fine. You were just saying that this is a negotiated scheme, it has got a return. To me that sounds like it is a regulated return. Though probably negotiated return is a better word for it.
Q. Can you be taken to bundle N, tab 17, please.
A. I have that.
Q. N/17. This is a document that Mr Ridyard referred to in his first report.
A. Yes.
Q. So you have seen this, have you?
A. A long time ago. Not recently.
Q. So when you read his report you did not go to this?
A. When I read his report the first time round I read all the appendices, but in my recent reviews I have not gone back through all of the attachments.
Q. If you go to internal page 15, so that is paragraph 219/220. This is a 2007 OFT market study called the "Pharmaceutical Price Regulation Scheme", so it is essentially a document prepared by your client.
A. Sorry, I have not got the paragraph reference.
Q. The paragraph reference is 219 to 220. This supports at

least the notion that the 6 per cent cap is a regulated benchmark.

At 219:

"The PPRS is a means by which one component of demand, the payer, seeks to constrain the prices of branded prescription medicines. As discussed elsewhere in this report, the constraints include a series of price controls and a cap on profits that companies can earn on the sale of branded drugs to the NHS. Therefore, despite its name, the PPRS is not truly a regulatory mechanism, that is one that constrains commercial relations between two third parties, rather it represents an attempt to exercise buyer power in the purchase of prescription medicines across the UK. In this regard, it operates alongside numerous other demand side controls and incentives at national and local levels of the NHS."

But I would refer you to:

"... it represents an attempt to exercise buyer power in the purchase of prescription medicines across the UK."

Do you think that is a reasonable view for your client to have taken in 2007?

A. I was not there. I do not know.

Q. Do you think it is a reasonable view, that the scheme is a scheme that regulates profits and is the exercise, an attempted exercise by the government of its buyer power?

A. You are putting something to me -- it is the first time that I have considered this question.

Q. That is what happens in cross-examination.

A. If I go back to the scheme, the scheme says that it sets a price to encourage investment. And if I read those two side by side the question in my mind is: is the 6 per cent something that would put you below a return that would actually stop you making investments?

If you are still encouraged to make an investment, it is above your cost of capital, and that is a reasonable return for the first part of United Brands, irrespective of whether you are trying to control the demand side. As I have always said, the demand side is a step two element, not a step one. To the extent this demand side issue is relevant in this case then it has to be considered in step two.

And actually I think this supports my case. It is basically saying in step one you should not think about the demand side if you are using the PPRS because it is not including the demand side, so it is actually right in my perspective. Step one, think about a 6 per cent return. Step two, think about the demand side.

Q. So step one, you keep on saying it is there at such a level that will incentivise you to stay in the market to stop you exiting.

Putting your conceptual economist cap on, would you consider that the 6 per cent would be higher absent regulation and buyer power? You have referred to, a moment ago, negotiation. Well, whether it is negotiation with a regulator who is also your dominant purchaser, in the absence of such regulation and buyer power would you expect the 6 per cent to be higher?

A. Are you asking if there was no regulation and no competition?

Q. No regulation, no buyer power. Would it be higher than 6 per cent? A simple proposition.

A. And you are dominant?

Q. I am not talking about that. This is all these pharmaceutical companies.

A. No, but it matters whether you are dominant or not. If you have a product that has a small market share then there is no reason that you should not be allowed to exploit buyer power and we will see what the competitive response is. If you have a dominant position then I think it matters. It is a different question.

Q. You are trying to get an industry agreement, an industry agreement, in the absence of buyer power and the threat of regulation, would you expect the 6 per cent to be higher?

A. I do not know. The reason why I say I do not know is because the PPRS also says that 6 per cent is sufficient to encourage you to make investments. That is not the minimum return, that is actively encouraging you to make those investments. It is not the point at which you exit the market, it is saying we are giving you 6 per cent and we are encouraging you to develop drugs within it. So that seems to be more than the minimum.

Q. Are you aware that the OFT in 2007 also made some comments on the price controls and the fact that it did not reflect the value of drugs?

A. I do not know. Value from what perspective?

Q. It was referred to in Mr Ridyard's first report so I will take you to it, but first of all I will take you to various passages. If one goes to internal page 3, it says:

"Profit and price controls do not reflect the value of drugs."

So this is your client saying this:

"However, we have an overriding concern with the scheme. As it is currently designed, neither the profit cap nor the price cut help secure prices that reflect the therapeutic value of the drugs companies are supplying to the NHS."

So keeping that point that the OFT/CMA make. And if you go to Mr Ridyard's first report where he refers to this. It is bundle D -- you can put the other one away. Bundle D, tab 7.

A. Sorry tab?

Q. Tab 7.

THE CHAIRMAN: Before we leave that, this is an OFT report.

MR BREALEY: OFT.

THE CHAIRMAN: It is a little bit harsh to call it "your client". The CMA has succeeded to the functions of the OFT but it has "OFT" on the cover. The other thing is it is a market study which ended up recommending a move to a value based pricing system, so it recommended scrapping the current PPRS.

MR BREALEY: And part of it was implemented, the most part of it was not implemented. The price controls and the price caps still do not -- well, in our submission anyway -- do not reflect the value of a pharmaceutical product.

THE CHAIRMAN: Okay. But market studies under that old regime had no force other than as a recommendation, and the recommendations do not find favour with the Department of Health is the conclusion we draw. I am not sure what conclusion you want to draw from that but that is the conclusion.

MR BREALEY: That is the conclusion, okay. Then can we

actually look at the evidence before -- so bundle D, tab 7, where Mr Ridyard refers to this, but this is his evidence, paragraph 133, tab 7.
A. Yes.
Q. "I further note the observation that 'prices under the PPRS do not necessarily reflect the economic value of products' is one that has been made by the CMA itself ..."
    And we could put "the OFT" rather than "the CMA itself":
    "For example, in a 2007 study ..."
    And he refers to ... But he is taking what the OFT said in 2007 and he is essentially agreeing with it, which is that:
    "The PPRS does not necessarily reflect the economic value of the products."
    To be fair, Mr Hoskins did not challenge Mr Ridyard on that, but I am giving you an opportunity to say whether you agree with Mr Ridyard and the OFT in 2007 or disagree, or you just do not have a view?
A. I think it is an unfair proposition to put to me because it is not something I have been asked to look at. This is the first time that I am considering these things. And I have said before if there are demand side factors that need to be taken into account, they need to be

taken into account in the second step, and that is a question for the tribunal, not for me.

THE CHAIRMAN: I do agree, Mr Brealey, actually. Mr Harman is not an expert on the PPRS. Anything he can tell you is presumably derived from his instructions and you are going to object to those anyway, so I am not sure you are going to get very far with this.

MR BREALEY: I understand. I will go to something then I think Mr Harman can just assist on.

We can put that away and just go back to the decision. If I can take you to two sections in the decision, one we have already seen. If we go first to page 311 to paragraph 5.101.

A. Yes.

Q. We saw this earlier on. So this is the 6 per cent. It represents the CMA's conclusion that, in the particular circumstances of this case, a 6 per cent ROS is a reasonable rate of return for Pfizer's products. So that is the minimum that is necessary before Pfizer would exit the market --

A. No, I do not think that is right. I do not think it is the minimum at which it would exit the market. We know that the minimum it would exit the market is [redacted percentage]. That is its own internal threshold for putting products under review.

THE CHAIRMAN: I thought that was a confidential figure.
A. I am tired. I'm sorry.
THE CHAIRMAN: We have to say it twice.
MR BREALEY: Let us take the average then. Let us take your average. I do not agree with you but let us take the average.
So let us assume that in the particular circumstances of this case an average of 6 per cent ROS is a reasonable rate of return?
A. Yes.
Q. So it is the average rate of return. And then if one goes to page 462.
A. Yes.
Q. You see there in footnote -- I do not know whether you have it hidden but it is footnote 1412.
A. Yes.
Q. "As set out in the section above, the CMA considers that a 6 per cent ROS is the maximum reasonable rate of return that should be considered to be reasonable for Phenytoin sodium capsules."
A. Yes.
Q. So it logically follows that the average 6 per cent is the maximum that Pfizer can charge?
A. I have not had regard to this footnote before. I do not know where the term "maximum" comes from.

Q. Above which would be an exploitative abuse?
A. No, I do not think -- that is what it says in this footnote, it says "maximum" in this footnote, but elsewhere in section 5 it makes clear that the CMA is not saying above 6 per cent is excessive, it says that it notes companies can earn above 6 per cent.
Q. This is for Phenytoin.
A. Yes.
Q. Phenytoin. All I can do -- this is a decision which is supposed to be clear because it imposes an £84 million fine on Pfizer. The CMA is saying that:

"... a 6 per cent ROS is the maximum reasonable rate of return that should be considered to be reasonable for Phenytoin sodium capsules."

Logically that maximum is the average, on your view, the average minimum necessary to prevent exit from a market. Is that correct?
A. I am not sure that is the CMA's position. I seem to recall in the main section of section 5 it says explicitly that it is not saying that a point above 6 per cent is the point at which it becomes excessive because it also talks about that in terms of the margin of tolerance. It says that when setting the return it is not saying 6 per cent is the maximum, it is not saying that we will take 9 per cent as an indication of

the maximum, we realise that there may be some deviation around 6 per cent, and they then consider that in the overall context of limb two and the level of excessiveness overall. I do not think the CMA is saying the second you are above 6 per cent, that is it.

MR LOMAS: It might help to look at the sentence in 7.109 to which footnote 1412 is the footnote which I think sets out the position. The first sentence of 7.109.

A. Yes.

MR BREALEY: The question still arises whether the average 6 per cent minimum is the maximum that Pfizer can charge, putting these two together.

A. I think that is a question for the CMA. I have asked is a 6 per cent return a reasonable return? If you are asking me as an economist whether there should be some deviation around 6 per cent, I think there should be some deviation around it. The question is how much deviation, at what point does that become excessive? And that is my understanding of what the CMA has done.

Q. Lastly, if you could just go then to page 449, paragraph 7.70. If it is indeed the case that a 6 per cent minimum is the maximum that Pfizer can charge, if you look at paragraph 7.70(a)(i), this is the CMA's description of the importance of Phenytoin:

"Phenytoin sodium capsules are an essential AED medication required by around 10 per cent of epilepsy patients in the UK."

This is page 449:

"Phenytoin sodium capsules are an essential AED medication required by around 10 per cent of epilepsy patients in the UK."

That would suggest a value to Phenytoin capsules, would you agree with that? It says "essential medication for 10 per cent of epilepsy patients in the UK", would you not --

A. I am not disagreeing that there is potential value. The question as a matter of competition law is whether that is something that should be taken into account if the market was competitive. That is a different question.

Q. But that is something you have not been asked to address?

A. I have not been asked to address that.

MR BREALEY: Sir, I have no further questions.

Thank you, Mr Harman.

THE CHAIRMAN: Mr Hoskins?

MR HOSKINS: I have nothing.

THE CHAIRMAN: Does that conclude the witness examination?

MR BREALEY: It does indeed.

Housekeeping

THE CHAIRMAN: So we now move on to the next stage which is written followed by oral closing submissions. We have agreed a timetable for this?

MR BREALEY: I think we have.

THE CHAIRMAN: Just remind me, when the written submissions are due to be filed.

MR BREALEY: 4 o'clock on Friday.

THE CHAIRMAN: I thought it was 3 o'clock.

MR BREALEY: If, sir, you want 3 you can have 3.

THE CHAIRMAN: Shall we aim for 3.30 pm? It seems to be the spirits of the age.

MS BACON: Is it an absolute cut off or is there a margin of tolerance?

THE CHAIRMAN: A couple of minutes of deviation is allowed. It would just help the referendaires here to process your admirable presentations for our use.

MR HOSKINS: The only issue I wanted to raise is that there are going to be confidentiality markings. Obviously we will try and do it by 3.30, I guess you would rather have them --

THE CHAIRMAN: We would rather have a version we can read.

MR HOSKINS: I am just saying if we hit the deadline we will give you a complete version, but it may well if we have not been able to do the confidentiality we may have to do that after. We will obviously try to give you everything at the same time.

THE CHAIRMAN: As always my request is could these be of manageable length both from your point of view and our point of view, if you bear in mind that we are going to read them, and it is in your interests to convince us, and on the whole I do not get convinced by very long documents. Everyone knows that. I know the pressures. But I am not sure I was encouraged by the skeletons, put it that way. I know there is a lot to cover.

Also we have something to help you I think. We have a document which contains some matters which we would be grateful if you would cover one way or the other, either by expressly referring to them or by cross-referring back to what you have already said. It is on the law, just so that we have in our minds what each party thinks about a series of issues which I think, by a common consent, are relevant.

So Madam Referendaire, could you hand those down.

MS BACON: Do you want a response to those set out in a separate section?

THE CHAIRMAN: No.

MS BACON: It is just that the closing should cover those.

THE CHAIRMAN: We just want to make sure you have covered them. I am not trying to hardwire your responses, merely to make sure you have covered the content. And this is not rocket science, it is just so that we do not end up with some point not covered.

MR BREALEY: Just as a matter of style and on the length of the document, sometimes it depends on whether the tribunal wants sections of the evidence actually in the document or it is just referred to.

THE CHAIRMAN: I would stick to your submissions. We will find the evidence. And ordinary spacing and one side of a sheet of paper.

MR BREALEY: One side?

THE CHAIRMAN: I will leave that to you. But no single spacing, please, and certainly no half spacing.

Is there anything else on logistics?

MR HOSKINS: I think Mr Harman has to be formally released.

THE CHAIRMAN: Mr Harman, you have become part of the family. You are formally discharged and you may stand down.

(The witness withdrew)

THE CHAIRMAN: We will start at the normal time on Tuesday at 10.30 am.

Anything else? In which case, thank you very much.

(2.45 pm)

(The hearing adjourned until 10.30 am on Tuesday, 21 November 2017)

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