IN THE COMPETITION APPEAL TRIBUNAL

Case No: 1524-1525/1/12/22

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 6th November – Friday 1st December 2023

Before:

The Honourable Mr Justice Marcus Smith
Eamonn Doran
Professor Michael Waterson

(Sitting as a Tribunal in England and Wales)

BETWEEN:

Appellants

Pfizer Inc. and Pfizer Limited & Flynn Pharma Limited and Flynn Pharma (Holdings) Limited

V

Respondent

Competition & Markets Authority

A P P E A R AN C E S

Mark Brealey KC, Robert O'Donoghue KC & Tim Johnston (Instructed by Clifford Chance LLP) on behalf of Pfizer

Jemima Stratford KC, Tom Pascoe & Alastair Richardson (Instructed by Macfarlanes LLP) on behalf of Flynn

Josh Holmes KC, David Bailey, Jennifer MacLeod, Julianne Kerr Morrison & Conor McCarthy
On Behalf of the Competition & Markets Authority

Monday, 27 November 2023

(10.01 am)

MR GREG HARMAN (recalled)

THE PRESIDENT: Mr Harman, good morning, welcome back. You are still under oath, so we will not be swearing you again. Do you have water and everything you need?

THE WITNESS: I think so, yes, thank you.

THE PRESIDENT: It takes me by surprise, it will probably take you by surprise: you are not going to get your usual questions about your expert reports because that has already been done and I keep forgetting that and I am always surprised when the person calling the witness has no questions, but they will have no questions, it is straight into cross-examination, just so you are prepared, I am now.

THE WITNESS: Thank you.

Cross-examination by MS STRATFORD

MS STRATFORD: Good morning.

Good morning, Mr Harman.

A. Good morning.

Q. My understanding from your CV, and also from the evidence we have heard in the hot-tub and during your teach-in, is that you are an accountant and an economist rather than someone with practical experience of working in the pharmaceuticals industry. I think that is fair, is it not?

A. I think that is fair. I have worked on, obviously, a number of cases in the UK, and I am working on a number of cases in South Africa, but I would not say that I am an industry expert, correct.

Q. Thank you. You said in your teach-in you have around 31 years of experience, primarily in the areas of competition, regulation and, to quote, "importantly for some of my teach-in, around valuations", and if I may say that came across very clearly from your teach-in, and I just want to be clear -- and this is not a criticism -- but you do not have direct experience of setting a price for medicines?

A. I have not set retail or wholesale prices acting on behalf of a pharmaceutical company, correct.

Q. Thank you. So then I want to begin, if we may, by seeing if we can agree the architecture of the decision against Flynn as regards excessiveness.

If we could please get up the Decision, the Remittal Decision at {XA1/1/148}, and I want to look at paragraphs 5.2 to 5.3, please, where it says, I will just read it:

"... the first step in establishing Cost Plus is to determine the costs that each Party incurred in producing and supplying their products. This includes costs directly incurred in the supply of Capsules and an appropriate apportionment of indirect costs, such as corporate overheads."

Then carrying on:

"After establishing the costs actually incurred, a reasonable rate of return should be estimated and added to total costs, to determine Cost Plus."

So to state the obvious, cost plus means cost plus a reasonable rate of return, so the reasonable rate of return is the plus, and then -- I can see you are nodding. If you could say "yes" for the transcript that would be fantastic.

A. Of course.

Q. Thank you.

A. Yes, it includes a reasonable rate of return, and I think that the return that has been included provides a proxy for a return that we would expect in a normal and sufficiently effective competitive market.

Q. Thank you. I can assure you I am going to come to that. I am just laying the groundwork now.

If we could go on to {XA1/1/160}, this is paragraph 5.120. I am sorry, is that a wrong reference? I am sorry, it is page {XA1/1/175} of that same tab at 5.120, and the Decision there confirms, you can see, that the CMA has applied the ROCE methodology to establish a reasonable rate of return for Flynn's products.

A. I see that.

Q. Moving on, then, to -- I hope this is right -- page {XA1/1/208} -- I think that one is correct -- 5.277, there it is saying that the CMA's reasonable rate of return for Flynn is a 10% return on capital based on a 10% cost of capital.

Now, we are going to unpack that later. For now I am just -- what I am doing is just trying to agree the scheme of the Decision.

The next bit I want to go to -- and this is the last -- well, nearly the last bit of the Decision I think we should look at for this point -- page {XA1/1/236}, please, at paragraphs 5.395 to 5.396 and in particular, Table 5.17 that you will be very familiar with.

So what the CMA is doing is adding its reasonable rate of return to Flynn's costs in order to calculate the excess returns that it is said to have made over the relevant period, and we are familiar by now, we have the overall excess across all four strengths, 47%, the excess for the most popular 100mg strength is 37%, and -- just to check you are obviously aware that the CMA found four separate infringements in respect of four

separate strengths, so we do have to consider the figures individually, and it should not be controversial that these excess figures are based on the CMA's reasonable rate of return of 10% ROCE. Do you agree with that?
A. That is right, save to say that the CMA also does a number of sensitivities where it tests the base case that is set out in this table.
Q. Yes. Again, I am going to come back to that.
A. Okay.
Q. I also do not think it should be controversial that as a mathematical fact, if Flynn's reasonable rate of return were to increase, so if its plus went up, Flynn's alleged excess would decrease. Can we agree that, please? Just mathematically.
A. I mean, all else being equal, mathematically, yes, that is correct.
Q. Yes, thank you. The CMA has then performed a cross-check based on a 6% ROS, return on sales, and has produced alternative excess figures based on that reasonable rate of return, and this, if we could go to page {XA1/1/240} of the same tab, please, it is at Decision paragraph 5.414, and I can see you are nodding, so you agree that is what the CMA was doing here, I think?

A. Yes, that is what it is doing, correct.

Q. Thank you. Your evidence at a very high level -- and we are going to come to the detail later -- is that the CMA's findings on Flynn's plus were reasonable ones from an economic perspective; is that a fair summary?

A. I mean, that is a fair summary of my conclusion, but there are other factors that go into the overall finding. As you know, the CMA also considered a variety of measures such as absolute returns, and actually, in my second last slide of my teach-in, I showed that under a variety of different considerations, phenytoin capsules looked unusual in comparison to other benchmarks. So these findings are supported by other lines of enquiry.

THE PRESIDENT: What do you define as an absolute return?

A. So an absolute return, when I say "absolute returns", for example, what the CMA did was to consider, for example, other products within Flynn's portfolio. It calculated an absolute return such as a gross margin per packet or gross margins in total and observed that phenytoin capsules on those dimensions were significantly different from other comparators within the Flynn portfolio.

THE PRESIDENT: I see, so you left return out of account altogether and you just looked at relative margins of different products as sold by Flynn?

A. Correct. Importantly, controlling for volume and input costs, I am sure that we will come back to that, but some of the products, for example, within Flynn's portfolio selling very small volumes, so one of the drugs sells something like 167 units.

THE PRESIDENT: Yes, and I think it is accepted, but let us get it on the record so that it is clear, that the level of return that you should get is in some way volume-dependent in that if you are selling very few, you ought to get more than if you are selling squillions.

A. That is absolutely the case. So if you think about supermarkets, Sainsbury's, it has a very, very low margin, I worked on Interchange, I know that you have signalled a desire to question me at some point on the weighted average cost of capital. The margins in those businesses are very, very then, they are like 3%.

Go to the corner store, prices are higher, and the returns have to be higher because you have to recover, you know, your capital costs over a much smaller volume, and so that is one of the central points here is that phenytoin capsules sells in very high volumes relative to most of the products in its portfolio.

THE PRESIDENT: But is it just to do with the spreading of the common costs? I mean, I completely understand that if your common costs that are not variable costs are very high and you allocate them to a very small volume of sales, that allocation will have to be quite high because --

A. Correct.

THE PRESIDENT: -- you have only got a small volume of sales, so I understand that, but is that the only factor in play? I mean, is there a sense that if I am only going to be selling three widgets as opposed to very, very many widgets, then it is just not worth the candle selling three widgets even if I am getting a rate of return that would be perfectly acceptable if I am selling very many widgets?

A. Well, I mean, I guess if you were selling Chippendale widgets then maybe because of the brand differentiation you would be able to sell only three and extract the price that you need.

But I think the one part that is missing, it is just not common costs, but it is the return that you require. So in your example of widgets, if I was to buy a premises to do my woodwork, if I was only -- and, you know, one is producing three widgets but highly decorative ones, and the next door unit, same size, is making standard widgets and in much higher volumes, then the price is going to be lower, not just because of the common costs but because my overall profit that I require from investing in my plant is also allocated over more volumes.

So it is both fixed and common costs and the required return that I need.

THE PRESIDENT: Right, but those are the only parameters according to you? Volume does not otherwise play a role in the decision of an entrepreneur to produce or not reduce a particular good for a particular rate of return?

A. I think they are primarily the two that I can think of right now.

MS STRATFORD: Thank you.

Thank you, sir.

It may help the Tribunal and Mr Harman, possibly reassure you, to know I am going to come back to -- so a number of your answers have -- you have been understandably, perhaps, pushing back and saying, well, there are other factors. You are a very experienced expert, if I may say so, I am sure you have had this previously: I am going to break down into the components of your analysis and look at each in turn quite carefully, if I may, so I will come back also in particular to the question of absolute profits and volumes.

I want to ask some questions about how you decide what is and is not a reasonable conclusion on Flynn's rate of return, because you concluded that what the CMA had found on the plus was reasonable.

Could we go to the transcript, please, and this is {Day8LH1/117:2-14}, and this is, I suggest, quite an important passage where the President put to you that there is likely to be a range of answers to the question of whether a price is excessive and that those answers are likely to be sensitive to what was called subjectivities. Just remind yourself of that passage.

A. Yes, if I can just read this. (Pause)

Can we scroll up or should I just read down to line 25?

Q. Oh, I am sorry, I only wanted you to read to line 14, actually. I am not going to go into great detail on this.

A. Okay.

Q. It is just that you agree here that an authority should "put forward the most conservative case" against the undertaking so long, as you put it, as it is "bounded by reality".

By "conservative" I think you and the President meant generous to the undertaking under investigation?

A. Yes.
Q. Thank you. So I read that as meaning that where there are reasonable differences of opinion between the experts on how to calculate Flynn's costs and its plus, Flynn should get the benefit of the doubt?
A. That is not quite what I said.
There can be areas of disagreement, there can be different views, but that is why I said that it has to be bound in reality. I do not accept the premise, if that premise was being put to me, that just because another expert says they have a different view that one has to go with that other view. I think that other view has to be tested to see if it is a reasonable view.
Q. I certainly was not suggesting that crazy views are within reality.
A. That is helpful.
Q. Okay, thank you, that is fine.
I would like to look, then, if we may, at what the Tribunal made of your evidence last time around, and I have already put -- you may have heard or seen in the transcript, I have already put some of these passages to Ms Webster, but it is important that I give you a chance to comment on them since this is the Tribunal's view of your evidence.
So if we could please go to {XN1/2/105}, this is in

the Original Tribunal judgment, and it is paragraphs 318 to 323. If you have not recently read them, you may just want to refresh your memory on those.
A. It has been some time since I have read them, so if I can --
Q. That would be excellent. Professor Waterson obviously is going to be particularly familiar with the passages, but if we could all remind ourselves of them. (Pause)
If you would just let us know when you are ready to turn the page.
A. I will.
Q. Thank you. (Pause)
A. Yes. {XN1/2/106}. (Pause) Okay.
Q. Thank you. We will return to these passages later in a bit more detail, but since you have not dealt with them in your report, I am just going to ask some questions to understand your position on them.
A. Okay.
Q. So to begin with a basic point, I assume that you read those passages and took them into account when producing your report for these proceedings?
A. Yes, these passages, but also passages from the judgment on *Liothyronine* as well.
Q. I am grateful. I would like to see if we can agree on a summary of the tribunal's criticisms here, so just

tell me if you disagree with any of this and I am going to put four points, just as a precis of what the tribunal said, obviously not using precisely the same words, but I think it is fair.

First, the tribunal thought that you and the CMA had based your approach on finance theory at the expense of making real world comparisons with other products and companies. That is paragraphs 318 to 319.

Second, the tribunal found that your analysis was aimed at identifying the position that would obtain under -- and I quote -- "idealised or near perfect" rather than normal competition, and again, that is from paragraph 318.

A. Yes.

Q. Third, the tribunal found that your ROCE cross-check did not -- and again, I am quoting -- "add greatly to the overall picture" because it only identified the minimum return on capital that investors would require rather than the return that pharmaceutical companies earn under normal competition. That is 323.

A. Correct.

Q. Thank you, and fourth, the tribunal found that you had been somewhat constrained by your instructions from the CMA in the sense that you had only been asked to review their approach rather than starting from scratch, and

the tribunal made clear this was not a criticism against you, and that is paragraph 319.
A. Okay.
Q. So is that a fair summary of what the tribunal --
A. Would you like me to comment on them, or --
Q. I just want you to agree that that is what the --
THE PRESIDENT: Mr Harman, if you agree with the propositions, then just say yes.
A. Yes, I do.
THE PRESIDENT: But if you agree with qualifications then obviously we would want to hear the qualifications.
A. No, I agree that that seems like a fair summary. What I do not want to suggest is that I necessarily agree that those are issues.
MS STRATFORD: I am going to be coming --
THE PRESIDENT: If and to the extent you are saying that the work you have now down is entirely consistent with those points, then that will be put to you.
MS STRATFORD: It will.
THE PRESIDENT: So do not worry about that.
A. Okay, thank you.
MS STRATFORD: But I am going to put to you that ordinarily if an expert receives criticisms of this kind from a tribunal you would expect in later proceedings to see something like, "I understand the tribunal criticised me

for X, Y and Z, and this is what I have done to address its criticisms", and if I may say, it is quite striking that in your report for these proceedings you have not done that as far as we can tell. You have not responded directly to any of these criticisms, and that leads us to -- and this is very much the point that the President was just putting to you -- think logically you must be taking one of three positions.

So either you believe you have met the tribunal's criticisms by changing your approach since the first appeal, position one, or second, you disagree with the tribunal's criticisms and are seeking to advance similar, not the same, but similar analysis before this Tribunal, or, three, you think the tribunal's previous criticisms are now irrelevant because of developments that have happened in the case.

So I am asking which of those three is your position, and I am not -- I stress I am not wanting to get into the specifics of the tribunal's criticisms at this stage, I just want to understand whether you see yourself as having responded to those criticisms or, for whatever reason you thought they could be ignored.

A. So to correct that I did not address those explicitly, I was not instructed to. As I understood, there was an appeal, certain things were said on appeal, the Remittal

Decision allowed them to start from scratch.

I have obviously reflected on all of those points. I think that the work that the CMA then did actually addresses these points, and I think that the judgment on *Liothyronine* is supportive of the approach that has been taken, and I am happy to discuss any of these in detail as to why I think there is a difference.

Q. Thank you. Just finally before we move on, can we look at your previous evidence. So this is {XM/19/11}, so this is from the first hearing, Day 8 of the transcript. It is page 9. Page 11 on Opus, internal page 9, lines 3 to 8. I am sorry, so it is {XM/19/11}.

Thank you so much, and lines 3 to 8 on that page.

You were asked for the purposes of "this exercise", so that was your assessment of the CMA's rate of return, whether you did "any research into the generic pharmaceutical industry to see how companies measure profitability typically and what their normal rates of profitability are", and you confirm there you had not done any such research, so I just wanted you to confirm the position is the same for your report in these proceedings, ie that you have not done empirical research of your own into what normal rates of profitability are in the industry. So I am not asking about -- to be clear, I am not asking about cost of capital here, I am asking about rates of return in the pharmaceutical industry, empirical research into that.

A. Well, this was a question about the return on sales and whether I had performed an independent assessment of the return on sales that I observed in the marketplace. Obviously, given my instructions not to start again, that is not something that I did, but obviously I looked at Flynn's return on sales and I commented on Mr Williams, but it is not true to say in a wider context that no analysis has been done from an empirical perspective of rates of return in the pharmaceutical market because the cost of capital is an empirical measure that considers the required profits of companies investing in pharmaceutical companies.

So empirical analysis has been done, it is in each of my reports, it is true that I did not do it with respect to the return on sales, but I have done it with respect to capital employed and the weighted average cost of capital.

Q. Okay, so I appreciate that -- again, I am sorry I keep saying this, but we are going to come on to this -- I appreciate you say you have done some research on typical average costs of capital in the industry, that is not what I am asking about right now, just to be clear.

I also appreciate this was in a return on sales context, but let us not worry about that.

The point is that you had not, at the last appeal, done any empirical research into typical profitability rates in the pharmaceutical industry, and I am simply asking you whether that remains the case, typical profitability rates, no empirical research into that?

A. But I think this is where we are at cross-roads. I accepted that I did not do an analysis of return on sales, but the cost of capital is a required return. That is based on the profitability of pharmaceutical companies. So I know there is almost some confusion as to the return on sales is different from the cost of capital. They are calculated differently, but they are both trying to achieve the same thing by reference to what does the industry expect to be earned and the cost of capital is one of those mechanisms.

Q. Well, I will try one more time.

A. Okay.

Q. Have you done, separately from that analysis -- and I absolutely promise you we are going to come back to that -- have you done any additional empirical research into returns in the pharmaceutical industry, so returns on capital in the pharmaceutical industry, what companies actually earn?

A. I have not done anything in addition, but my position is that in the real world when investors, regulators, competition authorities perform analyses around issues of value, what they really use is the cost of capital. So my position is, yes, I have not done something on return on sales, but I think that the standard approach to thinking about returns is something that I have looked at in detail to produce a return that is reflective of expected returns in competitive markets.
Q. I understand what you are saying, thank you.
While we are on this document, could I just ask you and the Tribunal to read Opus page {XM/19/11} line 19 over to page {XM/19/12} line 8.
I am not asking you to comment on this now, but we are going to move on to this debate shortly, and I thought we would just pick this passage up while we are already here and try and save some time.
A. Can you remind me of the line number?
Q. Sorry, line 19 on this page, your answer there.
A. So let me just read the question.
Q. Sure. (Pause)
A. Okay, I have read that.
Q. And over the page up to line 8. (Pause)
A. Yes, I see that.
Q. Great. If we could just park that for now.

So I am going to move on now to reasonable rate of return, and we have already agreed this is the plus in the cost plus test; that is right, is it not?
A. Yes.
Q. Thank you. It is sometimes described as a benchmark, sometimes as the plus, and sometimes as the reasonable rate of return, but whatever you call it, do you agree it should be aimed at identifying the rate of return that obtains under workable rather than perfect conditions of competition?
A. Yes, I agree with that. I would use the term "normal and sufficiently effective competition". If that is the same definition as "workable" then I am happy to be using the word "workable".
Q. Thank you. So to state the obvious, it should not be aimed at abnormal competition and perfect competition is an abnormal form of competition, if you want to put it like that?
A. Yes, it does not really exist in the real world.
Q. Thank you. Do you agree as a general proposition that if one were to build a theory to identify what I will call a workably competitive rate of return, but we can use the longer "normal and sufficiently effective" competitive rate of return, if you build a theory, it would be good practice to test the outcome of that

theory against empirical evidence of actual rates of return achieved in the industry?

A. I mean, there has been thousands of tests on the weighted average cost of capital as to whether it mimics the real world. It does mimic the real world because it is based on real world data.

Q. It is not quite my question. This is back to the debate we were having a moment ago, so I am asking whether it is good practice to test the outcome against empirical evidence of actual rates of return achieved in the industry, what is actually going on, if you like, on the ground in the industry in terms of rates of return?

A. I think that it can be difficult -- those comparisons can be difficult because you need to be able to control for a number of factors such as the level of investment, the level of risk, the types of markets that they are working in, and so on and so forth, and it is difficult to determine the rates achieved in other businesses from their accounts because those costs need to be adjusted to reflect, amongst other things, replacement costs and the value of intangibles to the extent that they are not on the balance sheet.

So that type of analysis is difficult, but generally, as a valuation practitioner, you will have regard to market data on returns in the industry and the relative risk between those businesses.

Q. Are you really saying there is no point in doing an empirical analysis or it is always too difficult?

A. I am saying that in certain circumstances it is possible to do -- and when you say "empirical", are you referring to a return on sales analysis?

Q. Well, I am referring -- perhaps you can call it that. I am referring to an analysis that looks at actual rates of return in the industry. I am not sure I am terribly bothered whether it is return on sales, gross margin; we are going to come on to look at all these different indicators.

A. I think it matters that if you are going to do a margin-based approach, whether it is contribution margin, gross margin, and so on and so forth, with a comparator analysis you always have to ensure comparability. In this case, as I have explained in my teach-in, phenytoin capsules has a whole range of unusual factors in terms of high volume, high input costs, low risk, low capital employed.

If you do not control for those items, it is likely that you will get spurious results. So in my professional practice, have I seen rates of return based on measures as a function of revenue used? Often. I often find that there is limited comparability, and

I say this from the perspective that it is unusual on this case that I am working for the CMA, normally I am on the other side, but I have very rarely put forward return on sales data or margin data because it is very difficult to control for all of those factors, because that methodology opens up a can of worms that means you have to control for more and more things.

Q. Let me try this: do you agree that if one did test one's theory against real world data, so in one of those cases where you, despite all of the complexities that you are seeing, you think you can do it, if you do that test and there was a significant difference between what your theory says should be a normal rate of return and what empirical data says should be a normal rate of return, then that -- that actually is a normal rate of return, I should say, that that would be a reason to believe that something might be wrong with the model, if you get that mismatch?

A. I do not think there is something wrong with the model per se.

Q. To be clear, I am asking generally at the moment, I am not --

A. If you were to do an analysis that showed something complete, so hypothetically that you found the perfect set of comparators and you observed what they were earning in the real world and your analysis based on a different approach identified something different, would it be prudent to consider all of those results and try to work out what the differences between them were and what is the most sensible benchmark, then the answer clearly is yes, but in our analysis that is what we have sought to do, but in different ways, and I am sure that we will come on to that.

Q. Well, I showed you the previous tribunal's findings earlier including that the CMA's analysis should have been based on real world returns, so that is part of the reason I am putting this to you.

We can go back, if it would be helpful, to your evidence in the transcript of the first -- I think maybe it would be useful if the Tribunal would find that helpful at {XM/19/16}. This is Day 8 of the transcript of the previous appeal, and look there at lines 16 to 21.

So at that stage you were saying:

" ... as an economist, quite clearly you can either rely on theory or you can base yourself on empirical evidence. I think in reality those two should converge, it would be odd if the theory was telling you something completely different ..."

So that is really the point that I was putting to you.

A. I think that what I am saying is something consistent, and again, just to frame the wording in here, when we say "theory" what we were referring to is the weighted average cost of capital, which is mainstream in terms of what people use in the real world, so that is the first point.

The second point, when we were talking about empirical evidence, we are talking about the return on sales, so my contention is that the cost of capital is an empirical analysis, but in the way in which we were being -- I was being cross-examined at the time, that was the distinction that was being made.

What I have just said, I think it was the last thing that I said, was that if you can find a return on sales metric that you can control for differences, then you would be facing a question as to which of the two were correct, and you would have to do some analysis on that.

In this case, I do not think that we have that issue because of some of the cross-checks that we have done and when I am taken to that I will be able to explain more fully.

THE PRESIDENT: Just to work out what one does if there is a mismatch, let us suppose you see the published accounts of a sector or an industry, pharmaceuticals is obviously the one we are looking at here, which has a rate of return that is very, very high and that is out of line with the rate of return, the ROCE, that you derive from your WACC, so that one cannot sit easily with the other.

A. Correct.

THE PRESIDENT: Would you look to explanatory factors in the published accounts, because of course you do not get the full detail there, and try to work out why it is that those returns are out of line with what you would expect to see in accordance with your ROCE WACC?

A. Yes, I mean, unfortunately financial accounts, not as we would always like them to be, they are quite strict in the way in which they are formulated to ensure that people can interpret them on a consistent basis. There are a number of -- I mean, the point that I would make is that when we are doing this type of analysis we are always having regard to economic cost and not accounting costs and the two may diverge for whatever reason it is.

So one of the reasons that you might find a difference -- or a number of -- one, there may be different accounting policies, secondly, there may be differences between economic and accounting costs. So, for example, if you were looking at a mine and the mine opened 100 years ago and in the accounts the value of that mine, the investment in that mine and all of the tangible assets are 100 years old and they have just sat there for 100 years, that tells us very little about the value of that mine today because you have had 100 years of inflation.

So normally, when you are thinking about economic analysis, you would restate those values so that they were in money today, because your revenues are in money today, right, it reflects inflation and the costs base.

So that is one of the types of analysis that you would need to do to make sure things are similar.

I think that the return on sales figure is relatively easy, on the profit and loss account, I mean the revenue is likely to be properly recorded, and the margin, apart from some accounting adjustments, is likely to be, you know, properly recorded.

What the account is not going to give you is any segmentation of the underlying products, and that can matter. So in a very simple example, let us say there were two drugs, one that was branded, patented and was earning a 30% return, and another one which was a generic facing competition and it was at 10%, if you took the average, that average tells you nothing if you are comparing to a patented drug versus something else, and that is one of the problems with that analysis.

THE PRESIDENT: No, I quite understand. What you are saying, if I can reframe it, is that there are sufficient known unknowns in the published accounts or the published data to mean that you cannot actually test your ROCE WACC against those measures because you do not know enough about those measures viz the published accounts?

A. Yes.

THE PRESIDENT: That is what you are saying?

A. That is correct.

THE PRESIDENT: Right.

A. Just to put a point on it, when you look at the weighted average cost of capital it is not based on accounting, it is based on market returns.

THE PRESIDENT: No, no, I understand the difference, my point is simply this: you assume -- I would like your response on this -- you assume that the greater information you had in relation to published accounts would enable you to reconcile the higher figure in the published accounts to the proper figure in the WACC ROCE?

A. Correct.

THE PRESIDENT: Do you ever ask yourself whether the WACC ROCE approach might be wrong?

A. Well --

THE PRESIDENT: And that in fact the figures in the published accounts, even though you cannot deconstruct them, are in fact indicative that the rate in this hypothetical instance, the WACC ROCE gives you is too low?

A. There is a few things to unpack there --

THE PRESIDENT: I agree.

A. -- which I think are important.

Firstly, one difference -- and I think it is an important difference -- is what the cost of capital is doing is having a look at total market returns, average market returns, and there is a distribution around that.

THE PRESIDENT: So total market returns meaning those of the undertaking?

A. Of the undertaking, which gives you a distribution of potential returns, and so one of the central tenets of investment theory is that you should, on average, earn your expected return, adjusted for risk. It is possible that you could earn more than that return, and it is possible that you will earn less than that return.

To the extent that you earn more than that return, that may be for temporal reasons, or it may be because you have a product that is differentiated over time, allowing you to earn periods in a higher period, but on average, you earn that average return.

When you look at a return on sales figure from a particular business, one of the differences is that you are now no longer looking at what you expect on average, but you are observing potentially a business that is earning a return that is higher than the average because of justifiable reasons, that it has greater efficiency, that it is a differentiated product, allowing it to earn more than the average return over the short term.

So the problem is that I think the cost of capital is trying to tell you something about what you expect to happen in the long term over different forms of competition, not perfect competition, and if you look at a point estimate for a return on sales, you get these other factors that say: well, there may be legitimate reasons for that. In the way in which I understand these types of analysis is the first question for excess, which is what I am looking at, is that you have a return that is based on what you think is a normal outcome.

If I look at a different company and it has a higher than that, that gets us into an unfairness or fairness question and trying to understand whether that business legitimately is allowed a return, but I think that goes further than this analysis because we are trying to say what is a benchmark for normal returns and returns which I think reflect normal and sufficiently effective competition, not perfect competition. We acknowledge that you can earn a higher return as potentially evidenced empirically, but the question then becomes for the Tribunal as to whether they are justifiable factors that would support that higher return.

So I think that is the main big difference as to why the two may not reconcile, apart from accounting issues and everything else, but you might be comparing, you know, an orange and a lemon in compared to they are facing different competitive pressures and are in different markets that may justify those higher returns.

MS STRATFORD: Thank you. Could I just -- since the President has helpfully raised this, we have actually got -- you may remember -- in Mr Williams' evidence, we have some real world examples here of what ROCE -- if you look at the publicly available accounts of pharmaceutical companies, what results you get.

So this is at {XE2/7/12}. Looking there at paragraph 42, if we could just blow that up, I know you have seen this before, but we see there a very wide range, and I was going to come on to deal with this when we get into looking at ROCE in more detail, but as I understand, your evidence is that all of these companies would have to justify why there was some special reason why their ROCE rate came out higher than 10%. That is what I understood your answer to the President just now.

A. No, I think that is the second part of my response. The first is, and I have recreated these in my spare time from the accounts, it is evident that Mr Williams has not done any of the accounting to economic cost adjustments that I would say are required to come up with a meaningful return on capital employed assessment. He simply has not gone through that process.

So am I surprised that if you were looking at historical accounts which have not been adjusted for inflation and therefore are dividing a return which has inflation in it because it is in money of the day by a set of assets which are historic in nature, with no consideration as to whether a new entrant coming into the market would be paying for assets at a gross book value versus a net book value, so he has used a net book value, some of these assets are very highly depreciated, he has excluded cash in his analysis, and so, yes, they do give rise to high numbers. As an expert generally looking at returns on capital employed I would say the first two I would imagine quite easily you would get down to a low return on capital employed after adjustment. Morningside and Essential Pharma have very high returns, one would have to look exactly at that, but I also understand that potentially Morningside has been investigated for excessive pricing in products. That may well explain that number.

Q. Mr Harman, you are giving evidence now about all sorts of things that you are now saying you looked at. None of this is in your reports, is it? If you thought this was relevant, it would have been helpful to the Tribunal to put this analysis into your report.

A. Well, as I think, you know, this came up in Mr Williams' teach-in. I understand that other accounts --

Q. It is in his report, I have shown you his report.

A. Yes, and it is in his teach-in as well. You are asking me as to what I think of these numbers. They are accurately stated, but they make no adjustments.

Q. Okay, let us try this: would it have been useful for the CMA to ask one or more of these companies for product by product information of the sort that you have been suggesting needs to be looked at for each company in order to do what you say is a meaningful analysis?

A. I mean, it is difficult for me to determine what the CMA should have done. I was not asked to look at that.

If I think that their primary line of analysis based on return on capital employed based on phenytoin capsules' actual capital employed and actual required rate of return, with all of the cross-checks, my first point would be to say: I think there was sufficient evidence there to suggest that there is an excess.

Do I think that asking all of these companies for a significant amount of data bearing in mind you have seen the analysis that the CMA's done just for phenytoin capsules, it is quite extensive, that would need to be replicated for each of these firms across each of their product lines.

I think it would be very difficult to find a potential product with certainty that would allow an analysis to be done because, as I have said, phenytoin capsules has a set of highly unusual elements. Mr Williams has not put forward a product that would say it absolutely matches this product in the marketplace, so go and have a look at that product based on his industry analysis.

So if it could be done reasonably, I would say yes. Do I doubt that it could actually find a meaningful comparator that added more weight to the analysis that they have already done? I do not know, but I think maybe unlikely.

Q. You are saying it would have been very difficult even for the CMA with its powers, that is not in the same

position as a private company, to investigate this;
I think that speaks for itself, if I may say.

A. I think it would be easier for the CMA to do, but that is the problem with the return on sales approach, and that is why I think that the return on capital approach is more reasonable because you can identify Flynn phenytoin capsules with a degree of accuracy. I do not need to find somebody else's capital employed, I am looking at the target product.

Q. Okay, we are going to come back to that.

So as we know -- and we have already been discussing -- there are two main candidates, ROS and ROCE.

A. Yes.

Q. Again, as we have mentioned in passing already, there are also some other measures, gross margins, product contributions and differentials, and I will come back to those briefly, but can we agree at a high level that ROS measures a company's profits being revenues less direct and indirect costs against its revenues, whereas ROCE measures its revenues relative to the capital it has employed in supplying the product?

A. From a mechanical perspective, that is the nature of the calculation, but, as I set out in my reports, there is a link between the ROCE and the ROS calculations because what each pharma company needs from an investment perspective is a return on its investment. So I state in my report that the ROS formula can be reframed as the return on capital employed times the WACC divided by revenue. You cannot calculate the ROS without considering the level of invested capital and the risk that the business faces, but from a mechanical point of view, that is how the ROS is calculated.

Q. That is all I am trying to do at the moment. We are going to come back to some of your equations.

Before we get into this ROS versus ROCE debate, I want to just acknowledge an exchange between yourself and the President during the hot-tub where he suggested to you that there might be reasonably differing views about how to carry out the cost plus analysis and that, if that is the case, the whole range of views should be taken into account using, again, the most generous assumptions to a company in the position of Flynn within the bounds of reasonable disagreement, and that is your reasonableness caveat which I fully take on board.

So do you agree with that at the level of principle?

A. At the level of principle, if the return on sales can be found to be sufficiently comparable, then I think that that is an approach that can be used.

Q. Thank you. On this ROS versus ROCE debate, you told the

Tribunal that in your view using a ROS metric to assess Flynn's profits fell outside the bounds of reasonable disagreement between economists, in this case. I can show you where it is in the transcript if you want.
A. Sorry, I was just trying to understand the question again.
Q. So you said to the Tribunal that using a ROS metric to assess Flynn's profits fell outside the bounds of reasonable disagreement between economists.
A. Between the expert economists here?
Q. Yes, between -- in your view it is not something where reasonable economists can disagree.
A. Well, what I am saying is that the analysis on ROS that has been done does not control for many essential factors, such as high input costs, high volumes, the level of capital employed, the level of risk, whether those markets are differentiated, and so on.
Q. Let me try it in a different way. I am sorry to talk across you, but I think you are saying that Dr De Coninck's views are not ones that a reasonable economist could hold. Is that right?
A. Sorry, which views?
Q. The views about using ROS as a metric to assess Flynn's profits here.
A. What I have said is that if you can control for the

factors that influenced the ROS, then you could use it, but if you do not control for them, then I think that the analysis that is produced is highly questionable and --

THE PRESIDENT: Can you control for them?

A. I do not think that you can, I mean, that is the problem.

THE PRESIDENT: Right. So does that not make the answer -- and I do not want to put words in your mouth so please do spit them out if they are not right -- but if you cannot control for them and it is not a measure that absent control you should use, then surely it is a measure that is unreasonable to use?

A. Yes, I am sorry, I was wondering whether the question was more general rather than specific. In the specifics of this case, I agree with you that I do not think that it can be reliably deployed.

THE PRESIDENT: Well, it may not have been the question counsel was asking you, but it certainly was the one I was asking.

I apologise, Ms Stratford.

MS STRATFORD: Thank you.

Let us look at the relevant passage if we can. This is the transcript of this hearing, {Day8LH1/123:} to {Day8LH1/124:}, please.

Maybe you could refresh your memory by reading the President's question which is at {Day8LH1/123:7} and go up to the end of your answer on {Day8LH1/124:10}.

A. Okay. (Pause)

Okay.

Q. Thank you. The key words I want to focus on is that in response to the President putting to you that there might be multiple ways to calculate the reasonable rate of return you say:

"... the return on sales approach leads to something that is not reasonable..."

So we took that to mean it is not within the bounds of reasonable disagreement between two experts.

A. In this case, I think that the return on sales cannot be used, correct.

Q. You stand by that as your evidence as an independent expert?

A. Yes, because the cross-check that I have done is to say if I accepted that rate of return that has been put forward, the implication for the level of capital that Flynn would have to hold is something like £95 million in comparison to its actual capital employed of £3.5 million.

The difference between the levels of capital employed from the return on sales approach implies is factors outside of the real world. If somebody could actually earn that type of return on an investment of £3.5 million, you would get competition absent barriers to entry.

THE PRESIDENT: Just to be clear, your definition of "capital" in this context is to refer to capital as the equipment that facilitates the processes by which a product is produced?

A. Correct, it is the amount of -- putting it a different way, it is the amount of money that you would need to find upfront to commence your operation, and it is that sum of money that people want a return on.

THE PRESIDENT: That is not what I asked.

A. I think they are similar.

THE PRESIDENT: Well, we may be coming to that.

A. Okay.

THE PRESIDENT: But we have your answer on the record.

A. Okay.

MS STRATFORD: Thank you.

On the same theme, could we please go to Day 3 of the transcript of this hearing at {Day3LH1/110:18-23}. So this is from Mr Holmes' opening submissions, I do not know if you heard those, but it is just a very short passage I wanted to focus on. Mr Holmes said:

"... a simple return on sales measure is not in itself a good basis for understanding the economic profitability of any activity."

My simple question is whether that is also your view in this appeal.

A. Well, the theme is that any return on sales analysis should always be combined with absolute returns, that applies to both return on capital employed and to a ROS approach. The issue that we have in this case is that we have a very high input cost that increases the denominator and depresses the required return on sales.

So in the context of this case, if you cannot control for high input costs, then you should not use it; if you can control for it, you still need to consider absolute returns to ensure that you do not make the wrong decision.

Q. Thank you. Can we go, then, to the Original Decision, so this is {XA2/1/327}. I want to look there at paragraph 5.157, if we could zoom in on that, please. This is what the CMA previously found, and you can see it said:

"The CMA has concluded that ROCE would not be an appropriate measure of the reasonable rate of return to calculate Cost Plus for Flynn's Products due to the difficulties the CMA would face measuring the level of capital assets employed in the tasks that Flynn performs in relation to Flynn's Products. The CMA considers that ROS is the most appropriate measure of return for Flynn, as the calculation of ROS does not use any measure of assets employed."

So the CMA previously concluded that ROCE was not the appropriate metric for measuring Flynn's reasonable rate of return, and ROS was not only an appropriate metric but -- and I quote -- "the most appropriate" metric for doing so. Do you agree that that is what the CMA concluded at that time?

A. It is what it concluded at the time. I mean, what you can see from that passage is that it did not actually perform a return on capital employed approach. You can see that it understood that there may well be difficulties and then did not pursue that line of enquiry, as I understand it.

Q. We are going to come --

A. Without the return on capital employed approach then would you have to focus on the ROS, and they obviously had to think what return on sales figure was most comparable to phenytoin capsules.

Q. We are going to come to look at what the CMA did in full. Just pausing for a moment looking at this paragraph, you were then asked to give your independent opinion on the CMA's approach to cost plus, and that necessarily included an opinion on the appropriate metric, did it not?

A. It did.

Q. It may help you just to refresh your memory about what your instructions were if we look at {XE1/13/12} and paragraph 2.10 there:

"I have been instructed to assess whether it is appropriate to use the ROS measure to determine a reasonable rate of return ..."

To cut a very long story short, you concluded it was appropriate to use the ROS measure to determine a reasonable rate of return for Flynn, and that is why you found the CMA's conclusion to be reasonable, and in doing so, you agreed that its ROS-based benchmark was, as it said, the most appropriate measure for Flynn. So that was your view at the time as an independent expert.

A. That is not the full picture because I thought that it was important to do a return on capital employed approach to cross-check the ROS, so I did perform an initial return on capital approach that reflected its working capital because Flynn had said that it needed a higher price to fund its working capital, so I did a return on capital employed cross-check. The CMA did not perform that analysis, that was my analysis to act as an input in determining whether a 6% ROS was appropriate. The way in which the CMA determined the 6% ROS was by going through a process of understanding, irrespective of actually doing a return on capital employed approach, asking the questions: is there a high level of capital employed, is there a high level of risk and then contextualising the return on sales through that lens, saying that I think the return on sales -- that if you adjusted for those factors, if you had those factors -- took those factors into account, including the high input costs, then a 6% return was reasonable.

In fact, it thought that a 6% return was more than reasonable, and my analysis, based on return on capital employed, and other lines of enquiry such as absolute returns and looking at returns that Flynn's portfolio earned, that it seemed at the time that 6%, given that the CMA had not done a return on capital employed approach, was a reasonable outcome, but it identified at the same time looking at comparators in the wider market was difficult, and that element of the return on sales analysis that had been put forward I thought could not be relied upon.

Q. Mr Harman, I am actually asking a very simple question, if I may. So the CMA had said that its ROS-based benchmark was the most appropriate measure for Flynn, and you --

A. Having discounted the return on capital employed approach.
Q. I am sorry?
A. Having decided not to perform a return on capital employed approach.
Q. Yes, yes, absolutely, and I am going to look at the extent to which you referred to return on capital employed first time around.
A. Yes.
Q. But looking at ROS, the CMA said it was the most appropriate measure for Flynn. You marked the CMA's homework, if I can use that colloquialism.
A. Yes.
Q. You said the approach they have taken was reasonable. Are you now saying that you said somewhere in your report that you disagreed with the CMA on that proposition at that time?
A. No, I think, you know, based -- given that they did not do a return on capital employed approach, the only fallback really is a margin approach, so that can be the only approach, whether it is a gross margin or a contribution margin, they are all relatively the same. Based on the evidence the CMA looked at, 6%, I said, was reasonable, and of course in this hearing they have continued to use a 6% ROS as a cross-check for Flynn,

and I think that is a reasonable cross-check.

THE PRESIDENT: Mr Harman, is all that you are saying that because the outcome of the ROS exercise happily coincides with the outcome of the ROCE exercise, you are happy with the ROS exercise?

A. In the first Decision, I was asking -- I was using the return on capital employed as a cross-check and basically the cross-check said given -- and it was to make sure that the ROS had not been set too low.

THE PRESIDENT: Well, but Mr Harman, let us go back to the question that I asked you, I said do spit out the words that I am trying to put into your mouth if you do not like them. What I am saying is that if you cannot, on a ROS assessment, control for the adjustments you say need to be taking place, then absent such ability to adjust, it is a measure that is unreasonable to use, and you say, yes, I am sorry. I was wondering whether the question was more general rather than specific: in the specifics of this case, I agree with you that I do not think that it can reliably be deployed."

Now, if that is your evidence, then are you not saying that ROS is simply a measure that is intrinsically unreliable and that you cannot use other measures as cross-checks because you are cross-checking something that you regard as just an unreasonable approach to take?

A. I mean, yes, I agree that in general I think that the return on sales is contaminated for the reasons that we have looked at. The way in which the 6% ROS was calculated was by observing, amongst other things, the return that was allowed on average by the PPRS which accounts for 80% of all purchases from the Department of Health.

How I reached my reasonableness conclusion the first time round was by saying: these are branded and potentially patented goods, all else being equal I would expect the return for phenytoin to be lower because it is not branded, there is no innovation, there is no R&D.

So it was a -- there is a decision that has to be made that if you start from a sensible ROS you can ask the question: is it likely to be higher or is it likely to be lower, and my view at the time, especially given the high input cost, is that a 6% return, looking at absolute returns, was at the time the best measure to look at.

Do I believe that a return on capital employed approach should have been adopted, then I would say yes, you know, pretty much all the way through my reports, first, second and third, I say that in the real world, people need a return on capital employed. So you do need to do the analysis of what is the capital of the firm.

MS STRATFORD: Mr Harman, in your first and second reports, which were the reports for the first appeal, can you point us to where you said ROCE was the right measure, ROS was not the appropriate measure? I am going to come -- as I say, I will show you the passages I have in mind where you address ROCE --

A. Okay.

Q. -- but I am putting it to you that there is nowhere that you disagreed with the CMA that the ROS-based benchmark was the most appropriate measure for Flynn.

A. I did not in that report say return on capital employed is what you should be doing, again, my instructions were not to start again, so I did that as a cross-check, but what I was saying there is that throughout all of my analysis in report 1 and 2, I said that even when you look at the return on sales you have to look at it through a ROCE lens because in the real world, companies want a return on capital employed and risk.

Q. It is not quite what you said, but we will come and look at your words at the time. Just to remind you --

THE PRESIDENT: I am so sorry, just to pause there, in terms of what you are doing to assist the Tribunal in reaching the correct outcome in these appeals, would it be fair to say that you are not defending the CMA's decision, be it the first one or the second one; what you are doing is you are reviewing it as someone who has come on the scene after the event and you are asking yourself not is it right, but is it defensible?

A. Yes.

THE PRESIDENT: Thank you.

A. Yes.

MS STRATFORD: I am grateful, and that was part of why I took you back to your instructions for the first appeal a moment ago where you recorded that you had been instructed to assess whether it is appropriate to use the ROS measure to determine a reasonable rate of return. So I suggest it is completely fair that I have been putting to you this line of questions.

It may, again, assist if we go to {XE1/13/53}, again this is in your first report, at paragraph 4.37, and this is part of what you were just discussing with the President, so we can see after some analysis which we do not need to go into now, you conclude:

"... I consider a 6% ROS for Flynn is reasonable."

You agreed at that time that ROCE was not an appropriate measure, so maybe we can just look at that. That is {XE1/14/39} in your second report at paragraph 4.32.

This is you answering Flynn's evidence, and in fact the CRA's evidence and you said:

"I do not suggest in my First Report that a finding of a high ROCE for a particular Flynn product would be indicative of excessive pricing."

Then, this is important:

"It is common ground that a ROCE analysis is not appropriate for establishing excessiveness in this case."

A. Yes, the position here is that the CMA did not perform a return on capital approach, and I was asked to consider whether the ROS was reasonable. They were my instructions.

So the CMA was not putting forward a return on capital employed approach to determine excessiveness. I was using a return on capital employed approach to assess whether the 6% return based on working capital and no consideration of intangibles would be sufficient, that would give them a minimum return which I could then compare to whether the 6% was higher.

So when I say that it is -- and I think maybe in the transcripts I refer to it as common cause, because I am not putting forward a return on capital employed approach to determine excessiveness, it is only as a cross-check to the return on sales at that time without fuller information.

Q. But you did, Mr Harman, actually conduct your own bottom-up ROCE calculation at that time, so you have said a number of times that the CMA had not done the work, and that was the reason why you felt, you are now saying, in some way constrained despite your instructions, but you did conduct this as a cross-check first time around.

A. That is not true. I did not do it in any detail. I asked the CMA to provide me with figures for working capital, it had not done any analysis on intangibles, I did not consider the value of intangibles and on the weighted average cost of capital I merely took a range from 8% to 12% without any analysis.

So I was not seeking to do a full return on capital employed analysis, I was simply trying to make sure that a ROS of 6% was not understated. If I had done that analysis and worked out really you needed a ROS of 10%, then I would have asked the question 6% cannot be right based on this analysis.

Q. Okay, well, we are going to come, if I may, we are going to come later to the detail of what you did first time around so let us just park that for now if we can.

Could we go back to the Decision, so this is {XA1/1/211}. I just want to look at paragraph 5.289 of the Decision -- we are back at this Decision now. We are jumping around, but I am afraid it is unavoidable.

We can see the CMA saying there that there are:

"... significant conceptual flaws in applying a ROS approach..."

If you look down to 5.289.1 they say there:

"A ... ROS analysis ... provides little insight into the underlying economic profitability of Capsules."

As I just mentioned in his opening submissions for this appeal, Mr Holmes said, just to remind you, a simple return on sales measure is not in itself a good basis for understanding the economic profitability of any activity.

So do you agree that this is the same metric that the CMA put forward as the most appropriate in its Original Decision and which you agreed with at the time?

A. Well, I think that -- it is difficult for me to second-guess what the CMA actually means here, but it is evident through the first trial that there were complications in terms of doing a return on sales approach. We saw that in the analysis that Mr Williams had done, we see it in Flynn's portfolio, though I think within Flynn's portfolio we are able to isolate input costs and costs to show that phenytoin capsules is different.

So I think that it is potentially a reasonable outcome that the CMA said: there are some difficulties with the ROS approach because of what we have learnt through the process. It then considers whether a return on capital employed approach can be undertaken, and it believes that it can identify the capital invested in phenytoin capsules.

Q. Yes, well, I put it to you that if you were concerned at the time that the CMA's chosen benchmark -- so the ROS-based benchmark -- had significant conceptual flaws as it is now saying, it was your duty as an independent expert to identify those flaws in your original report.

A. No, I think the flaw is, and it is the same opinion, is that the comparators where you are able to adjust for input costs and volumes and changes of risk are still flawed.

Q. But that is the very reason why you are saying now you cannot -- no reasonable economist could use ROS.

A. If you cannot control for those factors, then the outcomes are likely to be biased, yes.

Q. Well, we are going to come on to look at whether anything has really changed in terms of your knowledge, Mr Harman.

A. Well, in -- I reached the same conclusions with respect to Mr Williams' analysis and Dr De Coninck's analysis, that has not changed.

Q. Mr Harman, you told the Tribunal that in your expert opinion the CMA's ROS approach was reasonable, and in fact, the CMA of course -- it is easy perhaps to forget that the CMA are continuing to use a ROS metric to calculate Pfizer's reasonable rate of return, so I am putting to you it cannot be as useless as you and Mr Holmes are now saying it is.

A. But I do not think that is my evidence. I am saying return on sales can be used when you can control for factors that may distort the analysis. In terms of Pfizer, I believe that you can perform that analysis because it reflects the returns that they actually earn on their portfolio, that is a real life empirical observation.

I am saying that if you start to compare return on sales outside of the business, then you need to be careful to ensure comparability on a whole range of aspects.

Q. Could we just -- I am conscious of the time -- just before the break, could we please bring up -- this is the Remittal Decision {XA1/1/175} and could Opus split the screen and bring up the Original Decision at {XA2/1/327}.

So the Remittal Decision we can see the CMA saying:

"... the CMA considers it appropriate to apply the ROCE methodology to establish a reasonable rate of return for Flynn's Products."

A. Sorry, which line are we on?

Q. So that is at paragraph 5.120 of the current Decision, 5.120 in the middle of the page.

A. Yes, I see that.

Q. And, as you can see, I am contrasting that with what the CMA said in its Original Decision at paragraph 5.157 where the CMA said:

"... ROCE would not be an appropriate measure of the reasonable rate of return ..."

A. Yes, I see that.

Q. I do put it to you that that is a change of position that calls for an explanation, and perhaps that is something we can explore after the short adjournment, because I am conscious the transcriber has been working for an hour and a half.

THE PRESIDENT: Thank you very much, Ms Stratford.

Mr Harman, we are obviously coming back to this after the short break. Please do not talk to anyone about your evidence in the meantime, and we will rise for 10 minutes until 20-to. Thank you.

(11.30 am)

(A short break)

(11.45 am)

THE PRESIDENT: Ms Stratford.

MS STRATFORD: Thank you, sir.

So before the break we were looking at those two paragraphs, and I said the CMA's change of position calls for an explanation, and equally I would say if an independent expert gives his view that one measure is the most appropriate in one piece of litigation and says the other is inappropriate and then gives the opposite view in another piece of litigation, it is just natural to ask what has happened between the two proceedings to change the expert's mind, so I want to come now to look at what, if anything, has changed between the two appeals.

If we could start with the CMA's original statement of objections, and that is at {XA2/2/253}, and if we could look there at paragraph 5.92.

You can see the CMA said that:

"The CMA considers that ROCE is challenging to apply for Flynn and has limitations given that its activities in supplying phenytoin sodium capsules, namely ordering and managing customer relations, are [and I stress] people intensive, meaning that Flynn employs minimal capital assets. As a result [again, I stress], the CMA considered that ROCE was not appropriate for assessing what a reasonable rate of return would be for Flynn."

In your previous reports you did not disagree with the CMA's finding that Flynn's activities were people-intensive, did you?

A. I do not think that I commented on that, but the reality is that the level of employees in the costs stack for phenytoin sodium is something like 3%, so I would not describe this as a labour-intensive business given that only 3% of its costs relate to labour.

Q. Well, Mr Harman, if you had actually disagreed with that, maybe that is what you are now saying, it would have been your duty as an expert to raise that and you did not raise that in your first or second reports for the first appeal.

A. I did not comment on that because the CMA did not rely on a return on capital employed approach, and I was instructed to look at their return on sales methodology, so I do not think that I was -- it fell to me to consider that, I was using it simply as a cross-check at the time. I took no position as to whether the capital employed could actually be determined more fully at that time.

Q. Nor did you disagree with the relevance of that finding to the question of whether ROCE was a suitable measure for Flynn. You did not expressly say anything about that.

A. I was not instructed to consider whether the conclusion not to use the return on capital employed approach in the first decision was reasonable. I was asked, instructed, to consider whether the determination of the return on sales was appropriate.

Q. I am actually on the slightly narrower point at the moment as I think you may appreciate about the reasons that the CMA gave at the very beginning at the outset in its statement of objections where it said that it was because Flynn's activities were people-intensive and as a result -- so read as a whole what the CMA is saying is that Flynn's business is driven by people skills rather than large capital investment, and "as a result" -- those are the CMA's own words -- ROCE was not an appropriate measure. I think that is a fair summary, would you agree, of what the CMA was saying at that time?

A. That is what the CMA said at that time. I am not party to the analysis that they did to make that determination. What I have done in the third report is to consider whether what actually the CMA says in this paragraph is true.

Q. Right, and so do you now disagree with paragraph 5.92 of the CMA's statement of objections?

A. But I did not agree or disagree with that paragraph.
Q. I am asking you now: do you now disagree with it?
A. Yes, I disagree with it because I think that for Flynn its capital can actually be determined, and I have made clear in the first report, I think it was under -- either under cross-examination or it was a question from the Tribunal where I made clear that if the intangible assets can be determined or be shown to actually not exist, that they do not need to be included, I explain that the ROCE can be applied to asset-light businesses.
There is no -- the problem with an asset-light business is the fear there may be assets that are missing from the analysis, but if you conduct your analysis and find there is no evidence of those additional assets, plus other cross-checks, then the methodology is reasonable.
Q. I put it to you that the CMA must have had an intelligible reason for linking the people-intensive nature of Flynn's business to the fact that ROCE was an inappropriate metric. The reason was that the people-intensive side of the business cannot reliably be quantified, meaning that Flynn's returns might look very high based only on the minimal capital assets that it employs, and I put it to you that is the only sensible interpretation of this paragraph.

A. That is what they believed at the time without performing a full investigation on to the ROCE method, but I am not aware of what analysis they did, I was not instructed to look at it at the time, and, therefore, I cannot really add any more. All I can now do is that I understand they have applied the return on capital employed, I have gone through their assessment of tangible/intangible assets, I have gone through the analysis as to whether the customer relationships -- the labour part of the business is capital-intensive, and it is not. And when we come to the costs stack information that has been handed up as an exhibit, I can show the Tribunal that the labour is only 3% of total costs; that is not a labour-intensive business.
Q. Well, I hear what you say. I am putting it to you that there was no other reason that the CMA could have had for raising the fact that Flynn's business was people-intensive. At that time, that was what the CMA thought was important.
A. It is a factual matter. I cannot second-guess what was on the CMA's mind at the time.
Q. Thank you. Just to bring us back to this appeal, there is actually an analogy here with the President's Vanilla Coffee Shop, it seems to us.

If you recall the spreadsheet that the Tribunal was using does not attribute a capital value to the skills of the family owners of the coffee shop. So they pay their staff $100,000 per year in the example and they pay themselves, I think we are told, sporadically, but there is obviously some volume in the family's skills and expertise that have made their coffee shop the success that it is, and that does not get captured in the Tribunal's figures.

A. Well, if you were going to do a cost plus for a business that had labour that was not actually being rewarded, the standard way to adjust the cost plus would be to determine a market wage rate for those people and include it in the costs. That is the point that I made earlier, the need to move away from accounting costs to economic costs, and anyway in that business -- and I think during the hot-tub I think we had an exchange with respect to what happens if you have high labour intensity, and I said in those circumstances if you did have high labour intensity, then you would need to think carefully about how you develop a return on capital approach to make sure that there is not an intangible asset associated with that labour cost, a material one that you ought to take into account.

So, yes, you have to think about labour, you have to think about capital intensity, but you also have to

think about whether it is a day-to-day operation or whether there is something that makes you more profitable.
Q. Thank you. So you are referring -- your view is that usually at least in your view, that can be captured as part of the costs by way of staff salaries, but I do suggest that if that is the case, if that is a complete answer, that would have been a solution at the time of the CMA's Original Decision as well.
A. Again, I mean, it would have been, but I do not know the work that the CMA did in reaching its opinion. It may well be, and now I am just guessing, that they thought: this is an asset-light business, I think that it is more reasonable to do a return on sales, without evaluating whether they could actually perform the return on capital employed approach, but I do not know, I am only speculating.
Q. Well, let us go to your reports, then. We have already agreed that your instruction was to provide an independent assessment of the CMA's Original Decision --
A. Return on sales.
Q. Of the CMA's Original Decision which at that time was taking return on sales as their primary measure.
A. Correct.
Q. If we could turn, please, to {XE1/13/40}, so this is in

your first report, and if we could go to paragraph 4.11, please, where you said at that time:

"The ROS methodology is often advocated for companies that have low capital intensity."

The reason you were saying that at the time is, as we have just seen and you have been explaining, the CMA had found at that time that Flynn did have low capital intensity, so you were explaining why the CMA was right to find that militated in favour of a ROS rather than the ROCE approach, and what you say in your report here is that ROS is often advocated for companies that have low capital intensities.

So can I ask: who were you referring to as doing the advocating there? Did you mean academic papers or in some sort of regulatory setting or something else?

A. I think I also explained in my cross-examination at the time that the ROS methodology was, you know, generally under consideration for asset-light companies. The reason that that came about was during the CMA's review of energy markets, and there was a question there, because they are light businesses, where the return on capital approach could be used, or whether it was more reasonable to have regard to a return on sales, but there was very particular issues with respect to the energy market review on the return on capital employed, we were working for the energy industry. Because the one thing that it excluded was a very large contingent liability which is something also I mentioned during the teach-in or the hot-tub.

In effect, the energy companies have to take a bet as to which way energy prices are going when they capture new customers, and that bet can turn out to be wrong and it can lead to a very large liability; that liability could crystallise.

So we went through a process of determining the value of that contingent liability using the same type of tools that you would use in financial businesses using bar 1 and bar 2 to determine the value of contingent liabilities, and we advocated that if you were going to add -- if you were going to do a return on capital employed approach for these asset-light businesses, you had to take into account a very real risk that these businesses could go out of money if there was a difference in the level of energy prices.

My understanding is that the CMA ultimately adopted that approach.

Q. I see, so the "we" was you and your colleagues who were doing work at that time in the energy sector which was then adopted by the CMA?

A. I think that if you --

Q. This is just background. I do not want to give this undue importance, but --

A. If you read any article, it will always say: if it is an asset-light company, maybe the return on capital employed approach is not appropriate, maybe a ROS methodology is better if you can find sufficiently comparable, but there is two "mays" in that. The question is if you can determine any missing assets, if you can control for those missing assets using sensitivity analysis, then there is no reason that you cannot use a return on capital employed approach which is the approach that was used in both *Liothyronine* and *Hydro* which are also asset-light businesses.

Q. Mr Harman, let us see if this makes you happier. Let us look at {XE1/13/48}, paragraph 4.26 of your first report, and this is where you come to your back-up ROCE. You say you that the CMA's ROS benchmark "can be tested using the ROCE framework" because it "provides an indication of the minimum return investors would require on invested capital".

So you were not putting forward ROCE as an actual benchmark for a reasonable rate of return at this stage, but you were saying it can be used to test the reasonableness of the CMA's 6% ROS benchmark. That is correct, is it not?

A. Yes, because the CMA had not done a full assessment of both the tangible/intangible assets of the business, one could not use it for anything other than a cross-check at the time --
Q. Thank you.
A. -- and the reason that we say it is the minimum return there is because it was Flynn who said: we need to have high prices to cover our cost of working capital and to explore the potential for a new API.
So when I refer to minimum return here, it says, okay, these are the assets or capital that you are saying needs a return on, so that certainly is going to provide the minimum. There could be capital that has not been calculated which I refer to in this report as notional capital. That might be missing from the analysis that has not been performed by the CMA or by myself.
So for me this was just a cross-check saying: this is the capital that I observe, if I use this approach and it comes up with a return on sales that is above 6% that would be very problematic, but it did not come up with that, and that is the only way it was being used at the time because nobody had done a full assessment of any excluded assets.
Q. Okay. So still just sticking with your first report for

a moment, so this is relating to the Original Decision, if we can look at paragraphs 4.27 to 4.29, so this is still on page {XE1/13/48} and going over to page {XE1/13/49}, please.

This is your attempt at the time to calculate Flynn's capital base. At 4.27 you refer to Flynn's need to recover the cost of working capital.

A. Yes.

Q. Then I think we can take this quite quickly, then at 4.28 -- this is important, you say Flynn only paid £1 for the marketing authorisation, so in other words it did not make a big capital investment in the product, and that you are:

"... not aware of any investments in tangible assets that Flynn has undertaken to distribute phenytoin."

A. Correct.

Q. Then:

"Flynn's investments relate primarily to its investment in working capital, including stocks of the product, and the balance of debtors and creditors (ie this is the level of investment that Flynn requires a minimum return on)."

A. Yes.

Q. So what you were saying here in a nutshell was that Flynn's activities in relation to phenytoin did not

involve any major capital investment?
A. Yes.
Q. That Flynn's only relevant capital is stock and debtors, ie its working capital?
A. Yes.
Q. And that, therefore, it is asset-light. So you knew all of that at the time of your original report.
A. But I have not -- as I said, at this stage, I am able to observe what has been invested, so it is factual that Flynn paid an amount for the market authorisation, it is factual that it has a level of working capital. I asked the CMA to calculate the level of working capital, so it was not my calculation. What I have not done at this stage is have any regard to intangible assets, and that is why I refer to it as a minimum return.
Q. If we just for completeness look on page {XE1/13/38}, it is actually a footnote. I am sorry, I have a missing reference here. I am wrong. It is page {XE1/13/48}. It is on this same page just looking at footnote 132 here so this is the footnote on these points.
So you refer there to Flynn's financial statements for the relevant period?
A. Yes.
Q. We can just -- it is just a factual point: we can see from that that you had access to these when you were

calculating Flynn's capital base during the first appeal?

A. As I said, what I was relying on is information that was contained in the financial accounts without having a more deeper consideration of intangible assets which was not included in the financial accounts.

Q. Well, Flynn's financial statements do contain a statement of its tangible and intangible assets.

A. Those intangible assets relate to three licences that do not pertain to phenytoin capsules.

Q. Right, presumably you took all of the tangible and intangible assets into account when reaching the view that the CMA had been correct to use ROS rather than ROCE as a metric for Flynn. That is the point, relatively narrow point, I am putting to you at the moment?

A. I am saying that I had regard to the information that was in the statutory accounts. Not all of the working capital information was in the statutory accounts because that records actual values, but there was other evidence to say that they required higher buffer stocks, for example, in the factual record.

In any case, what I am saying here is that this was always a minimum calculation, it was always a floor; I was not trying to produce what I thought was a full

return on capital employed approach.
Q. Okay. If we can go on to {XE1/13/50} of this, your same first report, at paragraph 4.30, you apply a WACC figure of 8.2% to 12% to Flynn's capital employed.
A. Yes.
Q. Then over on the next page {XE1/13/51} at 4.32 you conclude that the cross-check supports the CMA's 6% ROS benchmark because that benchmark is almost three times higher than what Flynn would need to cover its cost of capital?
A. Yes, I say that it corroborates the CMA's conclusion.
Q. Yes, and all of this was subject to the caveat that, as the CMA had said in its statement of objections, and its Decision, it did not consider ROCE to be the appropriate metric for identifying Flynn's plus at that stage?
A. At the time, that was its conclusion. As I said, this provided a minimum cross-check to make sure that the ROS was sensible.
Q. What happened was that CRA and Dr De Coninck then criticised your ROCE cross-check in a way which is actually very familiar from this appeal, so I am afraid we are into groundhog territory here.
We will come back, if we may, to the substantive criticisms but for now I just want to look at how you responded in your second report, Harman 2, and that is

at {XE1/14/38}.

At paragraph 4.28 you say -- maybe go to 4.29. You say:

"I agree that there are some difficulties associated with a ROCE-based approach for asset light businesses."

Then in the footnote, footnote 122:

"For asset-light businesses, one concern is that total capital might be understated due to failure to take into account intangible assets, which are not capitalised within the financial accounts."

A. I think that is consistent with what I have just said.

Q. Yes. So the intangible assets that you were referring to here at this stage must be the people-intensive activities carried out by Flynn that the CMA had originally identified in its statement of objections.

A. This is a general comment saying that for asset-light businesses it may miss intangible assets. That is all that it is saying.

Q. Well, yes, I see that, but I have shown you that you had access to the financial statements, they gave you information about some intangible assets. I have shown what you the CMA said in its original statement of objections, and I am putting to you that the only sensible understanding of what at that time was being looked at by way of unknown intangible assets were the

people-intensive activities carried out by Flynn.
A. I think that there is a question as to whether there is an intangible with respect to labour. That was not addressed in my analysis. It is something that has been considered in the Remittal Decision.
Q. What I am putting to you -- this, as I said, is akin to the skill and effort in the mom-and-pop Vanilla Coffee Shop, it is what is driving the business, but it is an invisible -- it is, if you like, invisible on the balance sheet. That is what the CMA was concerned about at the time.
A. They would have been concerned about to the extent that the labour force allowed the business to earn higher returns that was not captured in wage costs, then that could be a potential missing intangible. That would have been their concern at the time without investigating that further.
Q. I am grateful. Just while we are here, can we pick up paragraphs -- I think it is over on the next page, page {XE1/14/39}, paragraphs 4.30 and 4.32 of your second report. You really go out of your way here to say that given the unreliability of ROCE for an asset-light business such as Flynn, the only purpose of your ROCE analysis was to ensure that the CMA's ROS benchmark was not set at a level that was obviously too low, and that

was the point that you were --
A. I do not accept your interpretation that the return on capital employed approach cannot be used. What I am saying here is that having only identified working capital, then it can only be used as a cross-check to make sure that it is not set, obviously set, too low. Again, I have not, at this stage, calculated or considered any missing intangible assets. So that is why it is a minimum.
Q. Then if you go on to paragraph 4.32, please.
A. Yes.
Q. The point is that you are not suggesting there that a high ROCE in itself indicated excessive profitability.
A. A high return on capital employed, when an asset base is low, has to be considered with other evidence.
Q. Thank you. So let us move on now, if we may, to what you say in these proceedings. If we could go to {XE1/15/34}, please, this is in your third report, at paragraph 4.2.3, and you acknowledge here that the CMA has switched horses from ROS to ROCE, and you say:
"The CMA changed its methodology following its review of the evidence provided by Flynn and its experts before the [Competition Appeal Tribunal] and the Court of Appeal as well as Flynn's representations on the CMA's statement of objections and the data provided

by Flynn as part of the CMA's Original Decision."

A. I see that.

Q. So you are saying that the CMA has changed its position as a result of new evidence that has come to light, meaning that -- and again, I am quoting here -- difficulties previously perceived in measuring Flynn's capital base are no longer well founded.

A. I am not sure that I say that it is new information. In that list there is obviously new information that has happened after the CAT's findings. So there is a degree of new information, and there is a degree of existing information.

Clearly what the CMA did was focus on that information, both new and old, and is as is sensible I suspect following the appeal court that it had to rethink things through, and it concluded based on that analysis that you could perform a ROCE approach, but, again, you would have to ask the CMA as to what the dividing line between the first Decision and the second Decision as to what it was unable to do the first time round and what it could do the second time around.

Q. Well, let us look at what the CMA -- they have identified the new evidence that they believe has come to light on this point. If we could go to {XA1/1/160}, please, this is paragraph 5.59 of the Decision.

So this is the part of the Decision where the CMA is explaining the new evidence which it says justifies its change of position, and you can see first it refers at 5.59.1 to the fact that Flynn had not invested heavily in relation to phenytoin during the relevant period.

Now, just pausing there, that cannot come as a revelation to you since the first appeal, can it? I mean, if Flynn had invested heavily in relation to phenytoin, those investments would show up on its accounts which you relied on, as we saw, as part of your first original work.

A. I mean, that would be correct in terms of tangible assets, but --

Q. I am just talking about specifically this point, the investments.

A. -- but they could have invested in intangible assets, but they did not meet the rules of IAS38 which is the conditions on when you can capitalise intangibles, and if that was the case, then it would not be included in the statutory accounts.

Q. Are you really saying you did not know at the time of the first appeal that --

A. I cannot say what the CMA knew and what it did not know. As I said --

Q. What did you know? You were giving evidence as an independent expert, with respect.

A. I have said before that I was not instructed to determine whether the CMA was right to not use the return on capital employed. I have said that I have used it as a cross-check.

Q. I am not asking you about that, Mr Harman.

A. But I think that it is -- you know, I have been aware throughout the whole process that there is limited investment in phenytoin capsules. As to when the CMA recognised that, I cannot say.

Q. But you have been aware throughout that there was limited investment, I am grateful.

Then 5.59.2, the CMA says it has emerged that Flynn had not innovated in relation to the relevant products.

Now, if Flynn had spent money innovating in relation to phenytoin that would also be reflected in its accounts, would it not?

A. I mean, it would definitely either be included in costs in the P&L, if it met the right accounting requirements, potentially it could be capitalised.

Q. You did not say anywhere in your previous reports that you were concerned there had been some innovation by Flynn that was unaccounted for, so at the time of the original appeal, what innovation did you think might have taken place?

A. I mean, at the time of the first report my understanding -- and it is in my reports -- is that there was limited investment. There was no innovation. There was zero sales and promotion costs. So I think that is common cause. What I did not know with respect to other aspects of intangibles is to the extent there was a justification for including them.

All of these things I have said in all of my reports suggests that all else being equal, phenytoin capsules is a low risk business requiring low returns on its business.

These are the standard inputs into that consideration.

Q. Well, if we could just look briefly, please, at the Original Decision at {XA2/1/7}. This is the CMA's Original Decision at paragraph 1.16 -- this is part of 1.16 at the top of the page. You can look at the beginning of the paragraph if you need to, but I do not think we need it.

It is just the CMA's case against Flynn at the time of its Original Decision was that "the product has not been subject to any recent innovation". You see that?

A. Yes, I mean, that is consistent with what I have just said my understanding is.

Q. Yes, and if we could maybe split the screen at this point and put that up against {XA1/1/160} which is paragraph 5.59 of the Remittal Decision that we were just looking at, the CMA now says that new evidence has emerged to the effect that Flynn had not innovated in relation to the relevant products, and I put it to you that it is bordering on disingenuous to suggest that this is a revelation since the previous appeal.

A. At the first stage it was obviously something that they considered to be true. What this is saying is that the CMA adduced more evidence and confirmed that there was very little fixed capital employed.

I cannot say any more than that.

Q. Well, it is not what it says, but moving on to 5.59.3 of the Decision that we were just looking at, please, {XA1/1/160}, that refers to Flynn's confirmation that it had incurred "zero promotion costs during the Relevant Period". That is what you were just mentioning.

A. Yes.

Q. If we could turn up {XE1/7/12}, please, if we can just have that page, we do not need the others, thank you.

This is Dr De Coninck's second report, and if we look at paragraph 32, it was Dr De Coninck's report provided alongside Flynn's first appeal, so it pre-dated all of your own reports, and he refers there to Flynn's products which have:

"... zero sales & promotion and amortisation costs (similar to Phenytoin)..."

So you knew by the time of your first report that phenytoin had no sales and promotion costs. Again, this is not new.

A. No, I knew that to be the case.

Q. So can you say hand on heart as an expert that any of these three points that the CMA are now referring to, whether any of them came as a revelation to you between the first and second appeal?

A. It did not come as a revelation to me.

Q. I am grateful. What I am putting to you is that there has been no truly new evidence between the first and second appeal. Rather what has happened is that the CMA has cast around to try to justify its change of position and that you, as an independent expert, as you have candidly accepted, cannot really say that anything new has emerged?

A. Well, in relation to those first three points, I mean, I do not know why the CMA changed its mind. My review has to be, having changed its mind, has it come up with a reasonable conclusion but I agree that those three factors were known to me; I do not know to what extent the CMA based on new evidence placed more weight on them. I cannot answer that question.

Q. Thank you. Moving on, I want to come now to your attempt to capture the value of what you have called Flynn's human capital which you will recall was the CMA's previous reason for deprecating ROCE as a measure.

So you deal with this in your third report, if we could have {XE1/15/40}, please, and I want to look at paragraph 4.5.4 where you say:

"... the costs of Flynn's human capital were reflected in salaries and other employment costs, which the CMA included in its Cost Plus."

So we have already touched on this, but I am coming to it properly now: you are counting Flynn's people skills as a cost rather than an asset. That is correct, is it not?

A. Yes, I mean, you can do one of two things: you can either treat them -- well, I am not saying you can treat them as an asset. They are being treated in line with the accounting policies as costs reflecting their value in a competitive marketplace.

What you cannot say, observing a total amount of labour costs, is to suggest all of that is some intangible. Generally an intangible means I have done something, some part of my team has done something that is valuable that allows us to sell more into the future.

So if you were going to consider capitalising, you would need to think about the costs that have gone into that that generates future revenues. That could be some kind of training programmes, internal training, internal processes and activities of that ilk. If you found evidence of that nature, then it would be potentially possible to capitalise that as an asset. You would have to take that cost out of the profit and loss account because it has now been captured as an asset, and you would then amortise that value over the life of that intangible asset.

Q. Well, Mr Harman, sorry to interrupt, I am actually on a slightly different point at the moment. What I want to put to you and explore is that if that was a good solution, if treating all of this human capital as cost rather than asset was a good solution, it was available to you and the CMA during the first appeal, was it not? You already had Flynn's salary and employment costs. That is not new evidence.

A. We certainly had the employment costs. I cannot remember in the first Decision as to the level of evidence that a proportion of that expenditure related to the generation of an intangible asset. As the CMA says in its Remittal Decision, the costs that were put forward seem like day-to-day activities which would not normally be expressed as intangible assets.

Q. Well, I put it to you that Dr De Coninck is correct that the value of a people-intensive business such as Flynn's cannot be captured simply by looking at staff wages.

Just for the note -- I do not think we need to turn this up -- that is in Dr De Coninck's seventh report at paragraph 19 which is {XE1/12/9}.

So the cost of Flynn's workers is captured by salaries, etc, but not their value. That is the point.

A. I think -- I mean, two things. One, I disagree that you would categorise this as a labour-intensive business. Labour costs account for 3% of total costs. When phenytoin capsules came in, it already had a demand which was certain. They did not have to do any promotion, they did not have to do any marketing, and, therefore, the value associated with labour for the distribution of phenytoin capsules seems fairly low given that the market already existed.

So for me this is not a business with phenytoin capsules that seems to be requiring very high returns because it is labour-intensive when it is not.

THE PRESIDENT: Well, just pausing there, you were asked whether the value of a people-intensive business such as Flynn's cannot be captured simply by looking at staff wages, and what you are saying is actually looking simply at number of people, it is not people-intensive.

A. Correct.

THE PRESIDENT: Can you quantify, if it is a relevant measure, the qualitative value that a small number of people in the business might bring? In other words, to what extent is simply staff wages insufficient to capture what these people bring to the business, and is that something that you regard as within your qualifications as an expert economist, not as an expert in the pharmaceutical business?

A. I think that is fair in terms of I am not an industry expert and so I am not going to value what that is, if there is a value associated with that, but I think that it is important to understand that, you are right, there could be small numbers of people doing highly valuable things, and what would I say might that be? Well, if you were in the patenting sector, if you come up with a new drug, one person, you know, a person who is very intelligent comes up with something that is going to make the business a lot of money, then that is quite clearly the type of added value that would be important to the business, but if it is the supply of something that already has a demand, then it is not obvious to me that the value over and above wage costs and value over and above the cost of capital that you allowed them would be material from an economic perspective, and

I think the CMA was unable from its interactions with Flynn to put a material value to those activities.

THE PRESIDENT: Just to be clear, then, this is something where you are following the CMA's lead, you are not bringing your own independent judgment to bear, because it is outside your expertise?

A. Yes, I think that is fair. What I am relying on there is an accounting expertise that would say: if value was being generated by labour, then that would be something that could be capitalised on the balance sheet.

THE PRESIDENT: Yes, but the "if" is unanswered by you?

A. Correct.

THE PRESIDENT: I am grateful.

MS STRATFORD: I am very grateful.

I will just round this off by reminding you, and respectfully the Tribunal, that the CMA did find in its Original Decision -- and this is one of the reasons why I took you to it -- that ROCE should not be applied to Flynn because it was a people-intensive business. So that language that I use, "people-intensive" did come from the CMA.

Moving on, the long and short of your position is that Flynn's only capital assets are its stock and its net debtors; that is right, is it not?

A. That is the observable level, but then I do various sensitivities to capture the value -- potential value of missing intangibles, and at the most extreme I perform the excessive pricing calculations assuming capital that is three times the level of their actual capital employed.

I also do a calculation where I take all of Flynn's capital and allocate it all to phenytoin capsules to understand what impact that has. So even when I start to take more extreme values of capital employed, which could capture any missing intangibles, then one finds the result relatively insensitive to increases in capital employed.

Q. Well, Mr Harman, I was going to come to this at the end, but if it is not -- at the end of this topic, if I can call it that. Since you have jumped ahead, you say that you multiply -- you call it a cross-check and you multiply what you say is Flynn's only capital employed, ie its working capital, by 1.5, 2 and 3. That is, just for your note, that is at paragraph 4.5.14 of your third report.

But if we are right that ROCE is fundamentally the wrong approach because it misses out the key thing that is driving Flynn's business, if you just assume that for a moment, then it is no answer to arbitrarily double or triple or whatever you want to -- whatever metric you

want to apply, multiple you want to apply, the understated amount of working capital employed as a cross-check, is it? It is just putting a finger in the air.
A. No, I do not think so. I mean, what we are trying to do is assess whether the level of capital employed, if you multiplied it by three, for example, seems generous to the overall calculation, given the size of labour costs.
Now, there is another cross-check that one could do. If the value --
Q. Is this one you did, Mr Harman? Sorry to interrupt. Is this a cross-check you did do or it is one you could do?
A. Well, I mean, it is what -- I mean, I am trying to -- based on the financial accounts, what we can observe is that prior to phenytoin capsules coming, Flynn was loss-making, and it had all of its people in the business adding all this value, but it was loss-making. Phenytoin capsules comes along and then suddenly Flynn is highly profitable, but there has been no change in underlying costs.
My assumption is that if there were intangible assets associated with the other products, then we should be able to see high value for those other products, yet, despite that, across the whole of the relevant period, the profitability of other products on

average was low and the profitability of phenytoin capsules was high, and it was high because the price went up exceedingly high and demand did not change.

Q. We are going to come to look in detail at Flynn's other products so it may be frustrating for you, but you are jumping around quite a bit, and I think it is helpful to take these things logically, please.

A. But that is a cross-check that tells you something about the value, that change in profitability, about the value that this capital-intensive business was generating prior to phenytoin capsules and --

Q. I hear your case theory, if I can call it that, we will come back to that.

What I am on at the moment is that Flynn's only capital assets really, we have agreed, were its stock and net debtors, and I want to just look, if we may, please, in Mr Williams' fifth report, this is {XE2/5/5}. This is at paragraph 14 of his report, and you will be familiar with this table, and in fact, Mr Williams showed it to the Tribunal as part of his teach-in.

So Mr Williams is making the simple point here that where a company's only capital consists of working capital, its permitted return and therefore price varies wildly with how quickly it pays its creditors and how quickly its debtors pay their bills.

Now, the basic logic of this calculation I do not think you would disagree with as an exercise, as a theoretical exercise, and it chimes with a point that the President has been putting to the experts at various points which is that where you have an asset-light business, the permitted price based on a return on capital approach varies wildly with subjective and irrelevant factors such as, for example, the ones that are identified in this table.

A. No, I mean I disagree because what the CMA has actually looked at is actual working capital balances, so it is not devoid of the real world. It has taken an average over time to make sure there is no fluctuations. It has not looked at the actual level, it allowed a much higher allowance for capital employed.

Businesses tend to choose their working capital carefully, there is an efficient level. If it was a negative balance and there was no other assets, that would lead to questions of technical insolvency. So if you have working capital in your business and you allow for some notional capital, you are providing the company what it actually needs on its investments, I mean, so the example here is a hypothetical one, and of course, you can come up with any answer that is hypothetical, I could come up with hypothetical return on sales examples that do not make much sense, but we are actually dealing with Flynn's actual costs which is what I understand the first limb of *United Brands* to be considering, actual costs, not hypothetical working capital.

Q. Just in case I mis-spoke a moment ago, just for the Tribunal, I did not intend to suggest that the President had suggested the factors were irrelevant, and I am sorry if I said the wrong thing there, but certainly subjectivity is -- I think we would contend that some of them are irrelevant. I did not want to in any way be inaccurate.

Sorry, Mr Harman, coming back to you, your position, therefore, you are saying it is not hypothetical, we want to be in the real world, but I understand where this takes us is that a company must not only do a ROCE analysis but must adjust its actual capital costs to what it considers to be a competitive level of costs. Is that right?

A. I think that is generally the basis of a cost plus, that you are trying to look at a level of efficient costs that would take place under workable competition.

If you were inefficient you would want to take that into account and if you were very efficient then you may say: well, that is an additional return that you should be allowed to have, and you can modify the cost plus for that.

What I am saying here when you are working with capital employed, I think that you do have to give a margin, you know, for error, and, therefore, allowing increasing levels of capital employed over actual levels is being conservative and it is reasonable to be conservative, and I think that the various cross-checks that the CMA has done are reasonable in that regard.

Then the second thing that one has to take into account is obviously the absolute returns, so one does not just look at the return on capital employed results.

Q. Do not worry, we will spend plenty of time on that. But you are saying, therefore, that to calculate a fair price a company has to not only do a ROCE analysis, which Mr Williams has told the Tribunal most pharmaceutical executives, with respect, would not have a clue what you are talking about, but you do not only do a ROCE analysis, you also have to adjust your actual capital costs to reflect what is a hypothetical competitive level of costs?

A. I am saying that in a case where you are dominant and you want to consider your position, then one might have to have regard to these situations.

Q. Okay.

A. As I have said, it is completely consistent with the analysis that is done in *Lio* and *Hydro*.

Q. Let us go back if we may to the key passage at the original statement of objections. This is {XA2/2/253}, please, and paragraph 5.92.

The point I am putting to you now is really the point that the CMA started with that Flynn "employs minimal capital assets" meaning that ROCE was "not appropriate for assessing what a reasonable rate of return would be for Flynn", and I am putting to you that the CMA was right for the reasons that it gave at the outset of the investigation.

A. All I can say is that that is the CMA's thinking at the time. In the new analysis that it has done, it has assessed whether it accepts that customer relations and a people business is something it should give an allowance for and for the reasons set out in the Remittal Decision it decides not. So that is a change in the position.

Q. Thank you. I want to move on from the debate about whether ROCE is the correct metric and look now at the actual ROCE rate that you have attributed to Flynn, so I want to, if we may, discuss this using a simplified example, and I do appreciate that the real world may be more complicated, but bear with me and let us just take this hypothesis.

THE PRESIDENT: Just to interrupt, Ms Stratford, I wonder if we could go back to page 90 on the transcript.

MS STRATFORD: Sorry, I do apologise.

THE PRESIDENT: No, not at all. It is because you are moving on and I had a question which I have -- so if we could put on the -- yes, thank you.

So we can see that you are being asked about how your ROCE analysis is done by Ms Stratford just now, and the question being put is to what extent you do not do a ROCE analysis per se but you adjust it to reflect a hypothetical competitive level of costs. Is that what you see your role as doing, that you do not just assess ROCE as it is in the case before you but that you adjust it in order to reflect how things should be?

A. I think that is -- generally with these types of analyses you are trying to work out what costs may arise in a competitive marketplace, and it may be that as a firm you have a special advantage.

So, for example, in a case that I worked on in South Africa in the chemicals industry, Sasol -- and this is in the public domain so I can talk about it -- because of its fuel process which is a coal to fuel process, it is a bit unusual, it has byproducts that it is difficult for it to recycle back into the generation of fuel. So it then sells that product downstream to the chemical company at a very low price representing its fuel alternative value, ie what it could do with that asset alternatively, but that is something that is bespoke to Sasol and its downstream organisation.

If there was a competitor in the marketplace it would be a normal oil process, and the normal oil process would spit out a byproduct that was actually very valuable, so the transfer price under that situation would be much higher.

So in that case, there was a debate as to should you take into account the observed low transfer price because it was a special advantage of the company due to its fuel processes, or should you have regard to a higher price that would develop under conditions of normal and sufficiently effective competition, and if the answer to that question is "yes", then you would say we need to increase the costs stack to give rise to that efficiency, and I think that that is -- I am not going to interpret the *Hydro* judgment, but that seems like a case 1 type of issue that if you were efficient you should be allowed a higher return and one of the ways that you can reflect that higher efficiency, that special advantage in your costs stack is by adjusting your efficient cost upwards to what you would expect in a normal marketplace.

THE PRESIDENT: So the answer is, yes, you do adjust?

A. Yes, I think you should.

Now, there is a question that you do not see as often, but I think that is equally applicable: what happens if you are inefficient, you are a dominant undertaking.

THE PRESIDENT: Well, that is my next question. Assume a dominant undertaking and assume that its costs are, as you say, inefficient.

A. Yes.

THE PRESIDENT: And let us suppose that on that assumption the gap between costs and price would not be excessive. So what you do is you look away from the actual costs and you say: well, if this undertaking was properly efficient, the costs would be lower --

A. Yes.

THE PRESIDENT: -- and the gap between price and cost would be excessive?

A. Yes, so the economic literature would say that if you were very inefficient then that could mask excessiveness, and you should adjust. Now, the logic I think probably goes all the way back to monopoly theory: one of the problems with monopolies, because they do not have to try so hard because there are no competitive pressures, you can be inefficient --

THE PRESIDENT: I know that the theory -- I am sorry to interrupt, but I know that the theory is that one of the reasons one has competition is because monopolies trend to inefficiency because they can make their profits without having to worry about efficiency. We do not need to have that debate. I am just interested in your approach, and what I think you are saying -- but correct me if I am wrong -- is that your ROCE analysis is to that extent a counterfactual analysis and that you are looking at the actuality but you are then adjusting it both in regard to the undertaking under consideration and as regards any comparators to try to harmonise them.

A. Correct. You are trying to come up with a cost plus that you believe would reflect outcomes, or an outcome under conditions of workable competition. So, yes, I mean, I agree, I think that you should, but I have seen two different ways: one way is to include it, but the other way is to not include it, and then when interpreting the size of the excess, to have in the back of one's mind either you are efficient or you are inefficient, but there are techniques that allow you to quantify in cost terms the size of the inefficiency and if you can, I would say you should include it both for efficiency and inefficiency.

THE PRESIDENT: But you recall in the Vanilla Coffee Shop example, the mom-and-pop shop, in that example left out of account was the value of the premises.
A. Yes.
THE PRESIDENT: You said then -- and I infer you will be saying now -- that the costs stack of the Vanilla Coffee Shop should be adjusted to reflect a cost line representing the premises insofar as they can be allocated to the lines of coffee sold.
A. Yes, so, you know, you might have a situation in London that someone opened their mom-and-pop store 200 years ago, it is sitting on The Strand, it is an expensive piece of real estate and the question there is going to be, well, what price would emerge under competition if somebody came next door and would have to pay the price of real estate today. Through history, you have ended up with a special advantage that means that you are more competitive than others.
THE PRESIDENT: Well, that is assuming your price is lowered to reflect the fact that you consider your costs to be less.
A. But I think the general valuation -- not valuation, but --
THE PRESIDENT: I am not interested in valuation, I am interested in cost and price.

A. I think the competitive outcome in that situation, if there were other coffee shops in the vicinity acting under normal and sufficiently effective competition, they would observe the prices and they would increase their price to a level that allowed them a higher return. They are able to earn that return because they have a special advantage.

THE PRESIDENT: But what happens if in our coffee shop example the mom-and-pop shop is undercutting, in other words, they are taking the view that they are very lucky, they have inherited their premises, they are not regarding it as a cost because they have simply inherited it, and they are charging 50p less for their espresso compared to their rivals because they can.

What are we to make of that price? Do you adjust the price upwards when you are thinking about the business of the mom-and-pop shop? Do you convert them into a loss-making enterprise by saying: well, the costs stack is inaccurate because a cost line has been omitted? What do you do?

A. But in this situation they are not dominant so you would not be doing this calculation anyway. They would be free to charge what they like.

THE PRESIDENT: Mr Harman, that may very well be true, and we will come to that when we write our judgment.

A. Yes.

THE PRESIDENT: What I am interested in is the methodological underpinnings of your method. What you are saying is that you conduct an adjustment when you are doing a ROCE analysis?

A. Yes.

THE PRESIDENT: You are doing an adjustment to cost to shift it into line with what costs should be.

A. Yes.

THE PRESIDENT: Now, if you say that that is an exercise that only pertains when you are considering a dominant undertaking alleged to have abused its position then I think we need to know that because you are presenting your ROCE WACC as something which is a general thing that is market-wide understood and is, as it were, the gold standard for how one does it.

Now, if it is actually a gold standard that is being atypically used when one is considering a dominant undertaking said to be abusing its position then that is a significant qualification on your approach.

So I am not going to accept the answer that mom-and-pop shops are not dominant. What I want to know is the process by which you go about standardising -- and if you do not like that word do say so -- standardising cost base versus price.

A. So reflecting on that. So the example where somebody chooses not to be as profitable based on what they could charge is not generally consistent with economic theory and outcomes. People in general tend to profit-maximise. There may be rare instances where companies do not, but there would be an expectation that mom and pop would want to earn a return that reflects a competitive outcome.

So in the case of the mom and pop setting a price that was low, if they were found to be dominant and you observed their actual cost base you might go: you are dominant. Even though you have lowered your price, your costs are -- you know, you are not charging for your labour, you have no rental costs, you have no capital invested in the business.

Then you would get the wrong answer because in reality the cost that they actually face -- and it is an opportunity cost in part, because they are sitting on a piece of real estate that somebody would pay more for than what they are using it for. So this is where the opportunity cost: what could I do in the alternative with this asset? I could sell it to a competitor. How much is the competitor willing to pay me? That gives you a benchmark for what type of return they would expect to earn.

So I think in the real world people will observe what other companies prices are, they will make pricing decisions based on their own circumstances, but if you then want to test whether any one of those prices is excessive, you would need to adjust their cost, otherwise you would end up with the wrong result.

So I think efficiency does matter.

THE PRESIDENT: If I may, I will press you on that.

The thing is let us take it that mom and pop do want to earn as much as they can out of their business, they are not in it for altruistic purposes, but they have subjectively decided they do not want to sell their business, they quite like being in the business of selling coffee, it is the only thing they are good at, and they want to carry on in business.

So they decide that they are not going to sell their, let us say, theoretically very valuable premises, but they are going to provide the best value, that is to say good quality but cheaper than their rivals, coffee that they can, and so they say: well, we are not selling up, we know that our premises are worth a great deal of money but we have inherited it from our parents and our grandparents and it is just not a cost line, it is like your coal mine, that has a value if you were to sell of a large amount of money but is not valued in that way by the business because they are not paying any rent and they are not including it in their calculations of cost versus price.

So they are banking that cost saving, and they are pricing accordingly, and they are therefore selling, let us say, because the demand for coffee is elastic, they are therefore selling more coffee, and those happy members of the public who get into the coffee shop get a good deal because their espresso is 50p less.

So why is this not the way to view the economic world? Why are you saying that there is something wrong with their understanding of cost and their pricing approach as a result of cost, accepting as I do that if they were to sell it, you would obviously say there was an asset worth a great deal of money, but they are not selling, they are staying in business?

A. Yes. Well, I think you may find a small number of exceptions in the world where people are altruistic and do not set out to profit-maximise. I would say that earning a return in this world is fairly difficult. You know, everybody has a pension adviser that says they are going to beat the market and invariably the returns are equal to the marketplace, so deriving value is difficult and people will look to the market to understand what return they are earning, in the real world, there may be exceptions to that.

If a business decides not to profit-maximise, which is obviously not the case that we are looking at here in terms of excessive pricing, they are free to lower their price, they are free to earn a lower return, but I do not think that is helpful, necessarily, in understanding something around excessive pricing.

I have done lots of work where companies are very interested in the value of their underlying assets and seek to earn returns that are commensurate with that underlying value, and I am finding it difficult to think in terms of big corporate, which are owned by shareholders, who are profit-maximising by nature, wanting to maximise returns.

So there may be a distinction between a mom-and-pop that does not have external financing, but I would expect there is a lot of mom-and-pops that do not have external financing that would seek to profit-maximise.

THE PRESIDENT: So your only answer to treating mom-and-pop differently is that they are altruistic?

A. Well, I do not understand what the -- I mean, either they are altruistic or they are profit-maximising.

THE PRESIDENT: Well, let us assume they are profit-maximising.

A. Okay.

THE PRESIDENT: They are just lucky because they have parents who have willed them their property.

A. Then the question is, and it is a normal economic outcome, they can price at a discount to the prices they observe in the marketplace, and they can profit-maximise subject to constraints. So obviously if you price too low and there is too much demand you are going to have a queue down the road in this example.

THE PRESIDENT: Yes, I mean our mom and pop are not altruistic, they are, let us hypothetically say, grasping, they want to get as much as they can out of their business, and let us say that their price at 50p lower than the price of others in the market is a profit-maximising price. In other words, if they increase their price, then demand is sufficiently elastic that it would move away because the quality of the coffee ain't that good.

So they are pricing sensibly given that the market is, in this hypothesis, price-sensitive.

A. Yes.

THE PRESIDENT: What they are doing is they are riding their luck, their good fortune that they have inherited the premises, and therefore do not have to pay anything to do exactly that.

Now, why is that altruistic and why is it an exceptional case to the general rule which is that you have to, according to you, look at the manner in which you, looking at the assets, would price those assets in order to maximise your profit which includes the selling of them, which people may not want to do?

A. So the answer is this: they can determine where the profit-maximising price is based on their own cost structure, they can do that, they are welcome to do that. The point coming back -- there are many different ways to think about pricing, you can choose to do that, but when it then comes to determining whether that was an excessive price, it is reasonable to understand the true underlying cost of that business, otherwise you would get examples of companies that have enjoyed low costs from many years ago from the investments they made then that are not reflective of conditions of normal and sufficiently effective competition today.

So there is a difference, I think, between how you choose to price and how you should choose to think about excessive pricing, recognising that including those cost efficiencies from before is beneficial to the company under investigation.

THE PRESIDENT: Thank you very much.

I am very sorry, Ms Stratford. I have taken up too much of your time.

MS STRATFORD: Thank you, sir. I can see the time.

THE PRESIDENT: Do you want to finish your line or are you moving on to a new topic?

MS STRATFORD: I think it is probably not fair on everyone, including the shorthand writer. Maybe I just should explain, I was about to come to this mysterious large document, and so maybe just in case you were puzzled, I am about to come to this, so I had hoped to cover it before lunch, but I will explain that now.

It is just a version, a revised version of the document that Mr Bailey took Dr De Coninck to, so I will come to that immediately after the short adjournment if I may.

THE PRESIDENT: No, that would be very helpful, Ms Stratford.

No pressure at all because you are proceeding with Mr Harman at a nicely brisk rate of knots, but how are you doing on time?

MS STRATFORD: I would say I am doing decently, not brilliantly, but decently, and I am mindful we have a bit of leeway into Wednesday morning if we need it. I stress I hope we will not, but --

THE PRESIDENT: That is absolutely fine. I suspect we will need Wednesday given the Tribunal's likelihood of having questions.

Mr Bailey, you are taking a sweeper role in this case, is that right?

MR BREALEY: Yes, I am a sweeper, yes. At the moment on the bench.

THE PRESIDENT: I meant in the footballing sense, not in any other sense.

MS STRATFORD: I am sorry, I should have said, Mr Brealey and I have discussed that, and of course he will indicate if he has some questions, but we are not envisaging that will take -- he said he is not envisaging that would take much time.

THE PRESIDENT: That is no surprise given the cases you are each having to deal with. Well, thank you very much. We will resume at 2.00.

(1.08 pm)

(The short adjournment)

(2.00 pm)

(Proceedings delayed)

(2.05 pm)

THE PRESIDENT: Good afternoon, Mr Harman.

Ms Stratford.

MS STRATFORD: Before lunch I was just moving on from the debate about whether ROCE is the right metric. I am coming now to look at the ROCE rate that you have attributed to Flynn. If you recall, I was saying I was going to use this simplified example.

Let us imagine a company such as Flynn gets all of its capital from bank loans rather than through equity, and the bank charges a simple interest rate of 10% per annum. It is going to be really a very simple example, I promise, so I doubt you need to make notes, but in this very simple example, the company's weighted average cost of capital, ie its WACC, is 10%; correct?

A. Yes.

Q. Your theory in a nutshell is that the company's reasonable rate of return is the return which it needs to service that capital, ie 10%?

A. It is not my theory, it is mainstream corporate finance theory.

Q. Okay, including your theory for this case, the theory you have advanced in this case. So if we imagine that a company needs capital of £1 million per year to supply a product and borrows that amount from the bank, it would need to earn a return of £100,000 in order to service that capital, and that is your reasonable rate of return for the company, ie that is the plus in its cost plus.

A. Yes.

Q. Thank you. So this is where we come to the spreadsheet that I have been trailing.

THE PRESIDENT: Ms Stratford, just so that I understand your example, capital of £1 million per year is defined how? What is your meaning or understanding of capital? It excludes labour costs, does it?

MS STRATFORD: I am not sure it matters for purposes of this example.

THE PRESIDENT: Okay, right.

MS STRATFORD: All I was envisaging, well, subject to what Mr Pascoe is about to tell me, I was envisaging all of it is capital needs.

THE PRESIDENT: Well, do not answer on the hoof, I think it may matter for me, so it would be useful to know what in this example you are defining capital as.

MS STRATFORD: And specifically your question is about labour costs and the value --

THE PRESIDENT: I mean, start with the definition and then we can work out from there what is included and what is excluded.

MS STRATFORD: As usual, Mr Pascoe has made a very good point. The reason I am looking at this at the moment -- and this is what we are about to come to in the spreadsheet -- obviously these are the CMA's -- this is on the CMA's assumed version of the world. So the capital we are looking at here on this spreadsheet is working capital. I do not know if that is a sufficient answer for present purposes.

THE PRESIDENT: Well, working capital is the money required to enable an established business to carry on trading.

MS STRATFORD: Yes.

THE PRESIDENT: Would that be a definition that you are happy with?

MS STRATFORD: Yes, I think so, yes.

I am coming to this spreadsheet and we can see there at, for example, line 60, capital costs.

So all we have done, just to be clear, this is the same spreadsheet as I mentioned that the CMA submitted to the Tribunal originally before the trial and then Mr Bailey took Dr De Coninck through it to some extent, and the only additional information that we have now inserted into this is what is highlighted in yellow, and essentially what we have done is to add in the CMA's calculation of Flynn's capital costs and its reasonable rate of return and in practice for Flynn, as I was exploring before the short adjournment, working capital or the capital that the CMA has been prepared to take into account is its stock and net debtors. That is what it is comprised of here.

So for example in line 60, 59, 60, where it says capital costs:

"CMA's calculation of Flynn's capital costs."

Then there are two little stars and that refers you down to the source, various working spreadsheets and certainly if necessary we can delve into those, but I think the answer I have just given may be sufficient for present purposes.

So, Mr Harman, I do not think you will dispute any of these figures since they are taken from the CMA's own spreadsheet. Can we at least just agree to work with them for now?

A. Yes.

Q. Thank you. Again, I do not think this will be controversial, but you can see that the CMA's cost plus figure -- so that is around row 75 -- do you see that?

A. Yes.

Q. The lowest of the yellow highlighted rows, that is identical to its total cost figure at row 66.

A. Yes.

Q. So this is pretty basic, you might well say to me. All this is showing in spreadsheet form is the point you make in your report that your method is designed to ensure that Flynn's cost plus is adequate to cover what you sometimes refer to as its economic costs?

A. It is sufficient to reward them for their invested capital at a market rate of return adjusted for risk.

Q. Let us come back to that.

The fundamentals of this analysis, that a company's return on capital should equal its cost of capital, are basically the same as the ROCE analysis that you applied as a cross-check in the last appeal.

That is right, is it not? So in the first appeal you were using it as a cross-check. As we discussed this morning on the basis of the information you had then, it has become now the primary benchmark.

A. I used it in the first report as a cross-check. At the time it was unclear whether there was additional assets over and above working capital. So initially it was a cross-check absent doing further analysis on the level of capital employed. In this case, the CMA has investigated the likely value of intangibles and other notional capital and believes that for phenytoin capsules, that value is likely to be immaterial.

So on that basis, it is a return based on their working capital, save to say that there were a number of cross-checks that are then done, one of them being to triple the implied level of capital. The outcome of that is that the results are not sensitive such that you could increase the capital employed even further without leading to a different answer.

Q. Yes, well we dealt with that already this morning, but maybe let us look at what you said in your second report, if we can, {XE1/14/42}.

This was in your second report for the first appeal at paragraph 4.38, and you said there in the middle of that paragraph:

"Put simply, a firm should only invest if an opportunity receives a return above its minimum cost of capital. Finance theory [and I stress] normally sets [the] minimum at the weighted average cost of capital ..."

So in short, your previous ROCE analysis was based on finance theory which you say dictates that a company's return on capital should over time converge with its cost of capital, over time.

A. Well, I would say that it is premised on finance theory, it is mainstream economic theory. It is used by competition analysts, regulators, valuation experts. It is what the return is required on the marketplace. That is why it was used in *Lio*, *Hydro*: *Aspen* also says this is the return that companies expect over time, it is the same thing that is said by the UFT, the OECD.

The term "minimum" here reflects that if I have an investment decision I am not going to accept something that is lower than the average return adjusted for risk, that is where minimum comes in, but the reality is, having made the investment across all forms of competition in the marketplace, the average is still the weighted average cost of capital. That is the outcome.

It is then possible for companies to earn more or less than that in ex post terms, that could be for temporal reasons, it could be for greater efficiency, it could be for differentiation, for example, but over the long term, the majority of economic models, be it perfect competition, monopolistic competition which is a fusion between monopoly and perfect competition, many buyers, but there is differentiation, Bertand competition which is duopoly. The theory says that over the long term, in all of those models, one would expect a company to earn a reasonable rate of return that is given by the outcome of mainstream corporate finance theory, which is based on real market returns.

Q. Let us look at what the Tribunal made of your ROCE analysis last time. So if we could go -- this is in the original judgment, and we have already looked at this, but just to go back to it at {XN1/2/105}.

We looked this morning at these paragraphs, but I just want to remind you of the key passages. Some of them relate to the CMA's ROS benchmark as we saw, but as we will see, they are relevant because the same criticisms are repeated in relation to your ROCE analysis.

So starting at 318, the Tribunal says it found the CMA's approach to the reasonable rate of return unconvincing because it -- I am quoting:

"... it is clear that the CMA's approach owes more to a theoretical concept of idealised or near perfect competition, than to the real world (where normal, effective competition is the most that should be expected). It has on the whole avoided making comparisons with other products or companies ..."

So the Tribunal's first criticism is that your and the CMA's analysis was theoretical rather than empirical. Is that a fair reading of this paragraph?

A. It is a fair reading of the paragraph, but, as I have just explained, the outcome of the ROCE model is not one of perfect competition, it spans many forms of competition, and, as I said, this was a concept that was accepted in *Lio* and in *Hydro*.

So at the time it was clearly the Tribunal's view, but I --

Q. Are you saying it is wrong in paragraph 318?

A. I am saying that the outcome of a weighted average cost of capital is not to model perfect competition, and that is something that I said during cross-examination during the first Decision.

THE PRESIDENT: Well, Mr Harman, I think the criticism is a little broader in 318. What it is saying is that your analysis is just too theoretical.

Now, it may be that it is too theoretical because they have wrongly said it is based on idealised or near perfect competition, you would not accept that.

A. Correct.

THE PRESIDENT: But would you say that the Tribunal has it wrong in a more fundamental way in that it is not a theoretical concept at all?

A. Well, I mean, pretty much everything in economics has some theory behind it, as does accounting. I mean, things have theory behind it. The thing that I am drawing the distinction between, is it theorised ie in the sense it has no application and nobody believes it, because there are lots of theories out there that, you know, people do not use, or is it something that is the mainstream and is actually reflecting what is happening in the real world and hence what market actors are doing in the real world, and I think that the weighted average cost of capital, whilst it has a theory that sits behind it, it is based on empirical analysis and it is used extremely widely in the marketplace.

THE PRESIDENT: Fair enough. I think then you are disagreeing, but let me explain why I say that. It is clear that the CMA's approach owes more to a theoretical concept and that it is in contradistinction to the real world, so they are saying theoretical on one side, real world on the other, this is theoretical, and we do not like it.

Do you agree or do you disagree?

A. I do not want to read into actually what they meant, but I will take your word that that is a possibility.

THE PRESIDENT: Well, let us say that that is what I think they meant.

A. Yes, okay, then that is perhaps what they thought. All I am saying is that when you get to *Lio* and to *Hydro*, they recognise that the concept is meaningful, and it is certainly meaningful in *Lio*, it says, in the context of thinking about pricing in generics.

So I fully accept that that was what the tribunal said at an earlier date. The tribunal has clearly said something that is different at a later date, and that is also echoed in the *Aspen* judgment as well.

MS STRATFORD: Thank you.

If we could move on to paragraph 320, again, we looked at this earlier, but the tribunal says:

"Mr Harman accepted in cross-examination that this exercise went no further than identifying the theoretical, from a finance theory perspective, economic profit, namely the return above which a company would enter [the] market and below which it would consider exit, without recognising any gap between the two."

That needs to be read with paragraph 322 for present purposes, which specifically addresses your ROCE analysis, and the tribunal explains there that you viewed this as an informative cross-check giving an indication of the minimum return investors would require on invested capital, and then again moving on to 323 the tribunal explains what your ROCE analysis involved.

THE PRESIDENT: Are we able to move the page, sorry?

MS STRATFORD: Sorry. Can you go over the page, please {XN1/2/106}. Thank you.

323, that is where the tribunal -- again, you read this this morning, I am happy to give you more time if you want it.

A. No, no, that is fine.

Q. The tribunal says:

"We do not think this additional work carried out by Mr Harman added greatly to the overall picture. Finding a minimum return on capital for investors was merely another manifestation of using a Cost Plus approach to calculate the excess, and was subject to the same basic error as with finding a reasonable return on sales (of not focusing, as a start point, on the prices that would have pertained in circumstances of normal and sufficiently effective competition)."

So the tribunal made the same criticism of you, of your -- sorry, not of you, but of your ROCE analysis, as it did of your ROS analysis, that it was based on theory rather than actual data from the market, and that it focused on idealised rather than normal competition.

Now, as I understand it, you have not sought to change your approach in response to these criticisms, and we touched on that a little bit this morning, so your approach is still based at its origin on finance theory?

A. Yes, I mean, to give some context to this, we must recall at the time when I was writing this in terms of the return on capital employed, it was a cross-check because we did not know if there was sufficient allowance for intangibles, so that is why I was referring to it as minimum.

I do understand that the appeal court suggested that cost plus was an informative benchmark. This was, as I understand it -- and again, I am not a legal expert so I do not want to trespass into the legal interpretation -- that this was a finding that one should not use cost plus as a benchmark but one should look at prices, which is what I have said, when I have used the return on capital employed approach, again, it is an instruction to review the CMA's analysis which is consistent with the outcomes in *Liothyronine* and *Hydrocortisone*.

Q. Well, I do not think it is going to be fruitful if we start debating the law, and I do not want to do that. At 323, the tribunal was saying:

"Finding a minimum return on capital for investors was merely another manifestation of using a Cost Plus approach to calculate the excess, and was subject to the same basic error ..."

Now, as I say, I do not think it is useful if we start debating the law. There was a question about the hypothetical benchmark price that went to the Court of Appeal, but what the Tribunal was addressing here was your evidence on a hypothetical benchmark margin, not price, and I think we all agree that a benchmark margin is needed because it is the plus in the cost plus analysis?

A. Correct.

Q. I think we also just agreed that the benchmark margin should be aimed at normal rather than perfect competition?

A. But I have just said that the outcome of the capital asset pricing model is not perfect competition; it is all forms of competition in the marketplace.

Q. Thank you. So as you say in your third report, actually, I can show you the passage if you want, you say the calculation of the reasonable return is based on economic finance and valuation theory.

Do you want to look at it?

A. It comes from corporate finance and that corporate finance theory is pervasive across so many things that we do in business, in economics, in regulatory affairs, in the setting of transfer prices, thinking about patent prices and so on.

It started with a theory to say -- started by Miller and Modigliani, amongst others, to say: how do we think about returns in the real world? Obviously there was some highly theoretical models at the beginning. They have been refined over time. Extensions to those models have been formulated, they have been disproved, and the one enduring corporate finance theory that is applied in practice is the weighted average cost of capital.

Q. I am just putting the point that at its root -- I think we are agreeing on this -- your approach is still based on finance theory. So you have not said in your report: I have seen the tribunal's criticism that my previous benchmark was based on theory rather than real world evidence, I and the CMA have gone away, obtained new real world evidence about actual returns earned on the market and here is my new approach.

So there is no new -- again, it is a point that we were discussing earlier, but there is no new evidence on what returns pharmaceutical companies actually make in the real world.

A. Well, that is not strictly true. I mean, firstly --

Q. Can you show us in your report?

A. Yes, well, firstly to address the first point, I clearly state in -- clearly address in my third report that cost plus does not equate to outcomes under perfect competition, so that point has been addressed.

Q. That was not what I was putting to you, with respect, but, yes, fine. Carry on.

A. The second point is additional analysis has been done because I have done a bottom-up calculation of the weighted average cost of capital, cross-checked that with other costs of capital that are used in the real world as calculated by KPMG, as used by Jefferies who was performing an analysis of Flynn and they are, they claim, the world leading investment bank in pharmaceuticals.

So a lot of work has been done on the cost of capital and sensitivities around it, and the CMA did a significant amount of work considering whether there were intangible values that should be included, and then thinking through a number of cross-checks to ensure that the answers were correct. So additional analysis has been done.

Q. I did not say no additional analysis had been done. I am coming on, right now, to all of that, because you say at various points in your report that your analysis is intended to reflect actual returns earned in the industry.

A. That is true.

Q. So I want to deal with that and look at what you are actually referring to. So could we start by looking at the parts of your report that make this point and start at {XE1/15/13} at paragraph 2.2.14.

You are responding here to the criticism that your ROCE theory is based on perfect competition --

A. Correct.

Q. -- as you just said, and you deny that, and you say:

"Rather, as implemented by the CMA, the cost of capital reflects average total market returns [I stress that word] (adjusted for risk)..."

A. Adjusted for the risk of pharmaceutical companies.

Q. So on one reading you are saying that average market returns are actually equal to companies' costs of capital. That would be an empirical statement, would it not?

A. That is an empirical statement.
Q. Thank you. Then if we can look at page {XE1/15/30} of this same tab, 3.4.17, halfway down here, halfway through that, you say:

" ... as implemented by the CMA, the cost of capital reflects average total returns earned across markets ..."

Again, that is presented as an empirical statement, is it not?
A. Correct.
Q. Thank you. Now, I just want to be very clear what has and has not been the subject of empirical investigation by you and by the CMA.
A. Okay.
Q. You and the CMA have done some empirical investigation into the cost of capital in the industry, have you not?
A. Yes.
Q. So if we can look at that, it is in your third report again at page {XE1/15/69} of the same tab, paragraph 5.5.2, and I put down a marker, I am not accepting that this is good empirical investigation, just that these do at least purport to be figures drawn from the real world.
THE PRESIDENT: Ms Stratford, just to be clear, we have heard a number of times that Mr Harman is saying that in

some cases he is taking the work that has been done by the CMA and is adopting it but not necessarily doing his own work either to validate it or to redo it.

I wonder whether we ought to be clear whether you are in fact saying that this is empirical investigation by the CMA and by Mr Harman or whether it is work done by the CMA which Mr Harman is, as it were, looking at and applying his own judgment as a reviewing expert to these matters?

MS STRATFORD: We are in a slightly unusual situation here because obviously Mr Harman has been retained from the outset of the first appeal, so it is a relatively unusual situation. He was already on board.

THE PRESIDENT: I accept that remission makes this a more difficult thing, but looking simply at 5.5.2 -- this is your third report on screen now -- you are saying the CMA had regard to the following benchmarks, and then they are there set out.

I mean, are you standing, as it were, four square with the CMA on this, or are you saying: well, I see what the CMA have had regard to, and I will look at that and I will use those findings or those assessments as part of my work in order to say that the workings of the CMA in the second Decision meet with my agreement in terms of a defensible outcome?

A. So obviously I have had regard in 5.5.2 to the work that the CMA has done, and I have obviously gone back to the sources, I have familiarised myself with that, seen the context in which they are being applied, and then over and above that I have done two forms of analysis, or at least two forms of analysis. One is that I have calculated the bottom-up weighted average cost of capital, I also did that in *Liothyronine*. Then secondly, as another indicator of how pharmaceutical companies think about their rates of return, is that in their financial accounts they have to think on an annual basis whether they need to impair the value of their investments, ie the value of those investments has fallen, so I have actually had a look at what accountants use as the rate of return for performing that analysis.

So I have done two additional pieces, and then I have compared that analysis to the CMA's in concluding whether I think that the weighted average cost of capital is a reasonable basis.

THE PRESIDENT: Looking at (III) where it says:

"The CMA reviewed the WACC of various pharmaceutical companies, which according to publicly available data sits within a range of 8% to 12%..."

With an average of 10.

Now, did you redo the exercise so that you could see what publicly available data there was and whether it did indeed sit within a range of 8% to 12%, or did you actually do the work for the CMA at the time --

A. No.

THE PRESIDENT: -- or have you simply looked at what they have done and said: well, this seems reasonable to me?

A. So I did not redo each of these pieces of analyses, so I did not go back and say had KPMG done the analysis right, but I take some comfort that if KPMG had done the analysis and then there is other sources and they are all in the same ballpark, then I take some comfort from that, and then I do my own analysis to confirm the CMA's conclusions.

THE PRESIDENT: You see, Mr Harman, the reason why I am pressing you on this is because at some point we are going to have to work out exactly what you are and what you are not saying, and I do not want to be -- when that time comes -- reading into these things more than you are in fact saying.

A. Yes.

THE PRESIDENT: That is why I am picking up Ms Stratford on her tying you and the CMA into these things.

A. Yes.

THE PRESIDENT: I am very happy to proceed on whichever basis you prefer, namely that you are hand in glove with the CMA on this, that you absolutely will go to the wall on these points because they are your opinion as well as the CMA's findings, or that you are taking the CMA's findings and looking at them and seeing whether they do not disclose, you know, a point that you disagree with?

A. Yes, I think that it is mostly the latter, apart from where I have done an independent piece of analysis to cross-check the CMA's overall contentions.

THE PRESIDENT: Well, thank you. That is very helpful, Mr Harman. I am very grateful.

MS STRATFORD: Thank you.

What I was particularly focusing on here and wanting to show is the extent of the empirical investigation into the cost of capital in the industry that the CMA -- let us for the moment, with respect, leave you out of it, but let us just say that the CMA has done, and to be complete on that could we just look at {XA1/1/186} in the Remittal Decision. This is something Mr Holmes referred to in his opening submissions. It is footnote 839 on that page which refers to publicly available cost of capital rates for a range of large firms like AstraZeneca and GSK.

So these are all WACC rates, are they not?

A. Yes.

Q. Thank you. They relate to the seller's cost of capital?
A. They relate to the weighted average cost of capital on a pre-tax basis.
Q. Yes. So going back to my simplified example, these rates are the equivalent to the 10% interest rate that the bank charges to the company?
A. Yes, but the difference being that the majority of these are more equity invested than debt invested, so these results are showing you more towards the cost of equity, external investors' investments into the company.
Q. You are focusing particularly on the footnote because that is what I have just showed you.
A. Yes.
Q. But we are also looking at what the CMA actually said in the other passage of its -- sorry, what you said in your report, referring to what the CMA had said in its Decision.
A. I think (inaudible).
Q. Yes. The point I want to put to you is that none of these figures represent the actual returns earned on capital by a company selling medicines. It is the price of capital charged, not the return on capital.
A. This is the long-term expected return required by these companies. It is true that they could earn less, they could earn more, but on average, this is their expected

rate of return.
Q. So it is what is required by either the bank or, in your equity example, by the investors of the company?
A. Effectively by the owners of the business, yes. Return that owners require from providing capital for a business to run.
Q. My point is that you have not identified any empirical evidence that any pharmaceutical companies' returns actually or normally are equal to their cost of capital to these returns?
A. I think that the --
Q. You have a theory it should be so, and it should over time be so, but that is not with respect the same as saying that it is so.
A. In the world in which I operate, it is generally assumed that that is the average return that companies will earn. Companies may wish to earn more, but on average they do not.
Q. That is you as a valuation expert, that is your experience?
A. Be it valuation expert, economist.
Q. Okay, let us move on to the other criticism levelled against you by the Tribunal which is that your analysis is aimed at identifying the minimum return for a company and, therefore, is based on what it called idealised

competition.

Maybe just before I ask my questions on this point, do you actually dispute that your analysis is aimed at identifying the minimum possible return for a company?

A. No, I think that it is identifying an average that you would expect under conditions of normal and sufficiently effective competition because the cost of capital looks at all returns in the marketplace. Now, there is no perfect competition in the marketplace, so it is not going to actually measure the return under perfect competition, and if you actually look at the theory behind perfect competition, it does not explain what the return is there.

So what I am positing is that the return that we observe from the capital asset pricing model reflects outcomes on average in competitive markets.

Q. Okay, can we look, then, please, at again your third report {XE1/15/22} and I want to look at paragraphs 3.2.1 and 3.2.2, please.

You say there that:

"To meet profit expectations, a firm must generate sufficient income to cover economic costs."

A. Sorry, my page has not moved on.

Q. Oh, I am sorry. {XE1/15/22}. Do you see there 3.2.1?

"To meet profit expectations, a firm must generate sufficient income to cover economic costs."

You go on to say that includes a return of the capital invested in the business and a return on the capital invested, and then if I am not going too fast at 3.2.2 you say:

"The CMA's Cost Plus is consistent with the definition of economic cost above."

So again, returning to my simple example, you are saying that in order to meet its economic costs, a business not only needs to be earning enough to repay the principal loan, the loan that in this example we imagine is borrowed from the bank, but also to pay the 10% interest rate charged by the bank?

A. Yes.

Q. A company could not be expected to sell a product at a price that was lower than that needed to cover its economic costs?

A. Would you say that again?

Q. Sorry, a company cannot be expected to sell a product at a price that is lower than its economic costs, otherwise that would involve operating at a loss.

A. Well, that is what firms hope to earn. As the distribution of returns in the market is going to have some returns that are lower than the average and some that are higher than the average then it follows that some firms, many firms, will earn returns below their expected cost of capital.

Now, over time, if they have a shareholder, they may choose not to pay them dividends, and that may give them some time to recover their economic profitability, but in the long term if they are unable to meet shareholder demands, then that will lead to financial difficulties for the company.

Q. So I think this is right, that the implication of what you are saying is that the CMA's plus is intended to calculate the return rate at which a company breaks even?

A. I think break even is the wrong term. I think that the cost of capital gives them their expected return, and it is a return that they would, in real markets, be happy to earn because on average that is what they earn. Of course -- and that is for the purpose of the excess limb. Under the second limb you can ask the question is it reasonable for the firm to earn more? So we are not saying that the excess limb is --

Q. I am focusing on the excess limb at the moment.

A. At the excess limb we are saying that provides a reasonable -- a potential reasonable benchmark for competition because it is across all forms of competition, so it is a good starting point to understanding the returns because that is what on average firms actually earn adjusted for risk.

Q. Could we go on, please, to -- still in this tab in your third report, page {XE1/15/24}, please. I want to look at 3.2.11, and you say here that in your view:

"The Excessive Limb considers the difference between a firm's revenues and economic cost."

Read the rest of the paragraph if you want, but you then express your theory as a formula: revenues less economic cost is greater than zero. You say in the next paragraph that:

"This analysis allows the authority to calculate the level of pure excess profits ..."

So the plus in the CMA's cost plus is not a plus at all, is it? It is a device for measuring the firm's costs, what you refer to as economic costs. So in my simple example the company is paying its 10% interest rate to the bank but keeping nothing for itself, and indeed, that is exactly what we saw on the spreadsheet that we looked at just after lunch, that those two figures are identical, there is nothing else.

A. No, the economic cost is giving you a benchmark for the prices that you have to charge to be able to earn a sufficient profit to be able to repay the capital that has been provided by lenders to the business. The business itself can retain money, but ultimately has to pay that back to the shareholder at some point in time. The business itself is not earning a profit that it ultimately gets to keep for itself, it has to pay that money back to the owners of the business.

So I explain in my third report, and it is a point that the tribunal considered on *Liothyronine*, that the plus is properly provided by the cost of capital because it provides a benchmark for the profits that you would expect under normal and sufficiently effective competition on average. You may be able to earn more, but then you would have to think about the reasons why you were earning more than that in the context of a competitive market.

Q. That is why, if we could go back to page {XE1/15/11} of this tab at paragraph 2.2.4 of your report you refer to cost plus as a filtering mechanism that might provide an early indication that prices are "unlikely to be abusive", or "might [quote] indicate the prices are excessive."

The reason I suggest you are expressing yourself in qualified terms is because the fact that a company is earning more than its costs does not in itself suggest that it is guilty of abusive conduct?

A. Well, I mean, I am quite clear in the reports that in competitive markets, firms may be able to earn returns above the benchmark if there is objective justifications for that, which is considered at the second limb.

Q. But the benchmark is a cost benchmark, it is economic costs.

A. Economic cost, I mean, because it has the word "cost" in it does not mean that it is a cost in the way in which you are putting forward. It is a cost to the business in the sense that it has to be paid to owners, but it is also -- it tells you something about the profits you have to earn to be able to pay that return to the owners of the business.

Q. Or to the bank as interest?

A. To the owners of the business.

Q. Well, can we go now, please, back to the transcript, Day 8 of the transcript starting at page 20, line 24 {Day8LH1/20:24}. You seem to be saying there that if a company's average prices are above cost, then "it would say there is an excess". So it seems that your evidence really is that an excess arises, and this is different from what you have been saying today, but it is probably important to be clear about this. There you seem to be saying an excess is proven as soon as a company prices above costs, and it is then for the undertaking to justify charging higher prices, and that

is the important point.
A. No, I guess it depends on -- it is -- it can be confusing, I think, to regard the difference between cost plus and price as the excess when you are thinking about setting -- determining excessive prices. It is quite clear what I am saying is that if there is a gap then that becomes a point when you would then think about whether prices have an objective justification. I am not saying that £1 above the cost plus is abusive. All I am merely saying is that there is an excess that needs to be accounted for, and there may be justifiable reasons for that or there may not.
THE PRESIDENT: So are you saying that an excess does not equate to excessive in the *United Brands* sense?
A. It does not equate to being an abuse of dominance and unfair.
THE PRESIDENT: Right, so it is excessive?
A. It turns out to be an excessive price, but I guess we are quibbling on the terminology of what the excess is. I am not saying that as soon as you are above cost plus that it is an abuse.
THE PRESIDENT: Right, look, there is going to be a problem here about what the law actually is, and you must not get into that, but let us, given Ms Stratford is happy with this, part it in the way in the following way.

We have a two-stage test under *United Brands*, and I am sure we will be arguing about exactly what that means in due course. Stage one is: is the price above cost excessive.

A. Yes.

THE PRESIDENT: The second stage is assuming, or given that it is excessive, is it unfair.

A. Yes.

THE PRESIDENT: And if those two criteria are met, then, bingo, we have an infringement of competition law.

A. Correct.

THE PRESIDENT: Right.

A. I think yes, I am on the same --

THE PRESIDENT: We are on the same page?

A. We are, sir.

THE PRESIDENT: Excellent.

Now, as I understand it, you are speaking less to unfair and more to excessive.

A. I am not talking about unfair at all.

THE PRESIDENT: Excellent, so we can --

A. Only when we were traversing in the hot-tub I may have provided my views on it.

THE PRESIDENT: You certainly helped there, but for purposes of today, if Ms Stratford asks you about unfair you are not really very interested in responding --

A. That is correct.
THE PRESIDENT: -- and we will see where we go.
So are you defining excessive as something that is simply above your cost plus, in other words, where the gap between cost and price is greater than cost plus that you have a big tick in the excessive box, or is it more nuanced than that?
A. I think that it could be more nuanced.
THE PRESIDENT: Right.
A. I mean, if you were 1% over, you might say no.
THE PRESIDENT: So materially in excess?
A. I think materially is an important point, save here that because of the very high input price it makes the excess look less, and I think one has to have that in mind when determining the level of excess.
THE PRESIDENT: Well, materially covers, as we all know, a number of evils, but for purposes of Ms Stratford's cross-examination, are you happy to say that anything materially above cost plus is excessive?
A. Yes.
THE PRESIDENT: Thank you.
MS STRATFORD: Thank you.
Once you are in that territory, that danger zone -- I probably should not use that language, it is a bit loaded, but the point is that the burden, in your view,

the burden shifts to the company to provide a justification for its prices, and that is when we get into the territory that you have not considered in detail and is not your area of expertise for the purpose of this appeal?

A. I do not know whose burden it is, but it is not mine.

Q. Okay. But I do put it to you that it is a rather sweeping statement, not just for the pharmaceutical industry but for all industries, that the moment you are materially above your economic costs then excessive -- an abuse may be found depending on the unfairness analysis?

A. I think at the end of the day that is a legal test.

Q. Okay. I am going to come now to *Liothyronine*. I think you will probably be very happy about that, you have mentioned it a few times. If we could go to {XN2/28/52}, paragraph 144. As you have explained you were the economic expert for the CMA in that case, were you not?

A. Yes. Sorry, what is this? The judgment?

Q. This is the judgment in *Liothyronine*.

A. Okay.

Q. Again, as I think you have mentioned in passing already, the CMA applied the same cost plus benchmark, ie a WACC of 10% there, did it not?

A. As their base case, yes.
Q. Yes. At paragraph 144, we can see it recorded that you agreed that "the economic logic underlying cost plus is that the benchmark represents the prices at which potential entrants would be indifferent between entering the Liothyronine market or not doing so. [And then this]. The benchmark calculates the point at which entry would break even."
So you must agree that your ROCE benchmark, which is the same analysis you put forward in Liothyronine, is aimed at identifying the minimum return, in other words, the return that a company must make to break even?
A. Well, to break even in --
Q. That is just the word it uses there.
A. Yes, but sufficient so that it earns a profit to the providers of capital.
Q. Well, it pays back its interest in the simple bank example or it provides --
A. It pays the owners their expected return. If they did not earn -- if they did not expect to earn the return, they would not make the investment, and on average that is the return that they actually earn.
Q. Thank you. What I want to put to you is that is what you were criticised for in the original CAT judgment, and you have not done anything to rectify it. You can

now point to *Liothyronine*, perhaps --
A. Yes.
Q. -- and the debate you had there and I understand you to be saying that matters have moved on, but you were criticised, and part of what we have been exploring is how you have responded to those criticisms or not responded.
A. The cost plus approach, for which I was criticised, was used in both Liothyronine and in Hydrocortisone and referenced in Aspen as being a sensible approach for determining a benchmark that would reflect conditions under normal and sufficiently effective competition. So my approach is mirroring the latest thinking on cost plus.
Q. I think we will just agree to disagree on that. Just a final question, if I may, on this. The tribunal also criticised you, as you have seen, for basing your analysis on idealised rather than normal competition. The CMA's benchmark at that point, in the first Decision, was a 6% ROS rate which you said in fact was generous to Flynn. Your new benchmark of 10% ROCE can be expressed mathematically as a ROS of just under 2%. That is right, is it not?
A. Yes.
Q. Do you find it in any way counterintuitive that having

been criticised for basing your previous benchmark on idealised competition, your revised rate of return has decreased rather than increased?

A. No, I think idealised competition reflects -- again, my interpretation of what idealised means is some theoretical representation of a marketplace that it is perfect competition, and I have explained that the returns that have been determined by the CMA reflect benchmarks in the real world and not idealised perfect competition.

Q. Well, let us move on, then, to talk about the real world. I am going to try one more time. Can you point me to anywhere in your report where you or the CMA have gone into the world and obtained empirical evidence about the ROCE rate of return of a pharmaceutical company?

A. Well, the WACC gives a --

Q. Not the WACC. Sorry, Mr Harman.

A. But the weighted average cost of capital is -- return on capital employed is simply required return divided by the asset base, therefore the WACC and the ROCE are measuring the same things.

THE PRESIDENT: They are joined at the hip?

A. They are joined at the hip, and the way in which it is estimated in the real world is by reference to market

returns.
MS STRATFORD: They should be joined at the hip in your view?
A. They should be joined at the hip if the assets that are contained in historical accounts are adjusted to reflect assets in current value terms.
Without doing that analysis, you would find differences because you are comparing revenues today or profits today which are in nominal terms with asset values in historical terms, and you will get high rates of return that are reflecting changes in inflation over time.
Q. As we saw when we looked at the relatively limited amount of evidence and figures that were actually in the Decision, including in that footnote, do you remember, those are generalised figures for the most part, are they not, looking across the industry?
A. Well, not all of them. The rate of return that is expressed in the Jefferies report is the investment bank's determination of a weighted average cost of capital for Flynn.
Q. Let us look at that in a moment.
So let us just look at what happens if you do an empirical investigation and go and look at what the ROCE rates of pharmaceutical companies actually were, and

again, we looked at this very briefly this morning, you may recall, in Mr Williams -- this is Williams 7 at {XE2/7/12}, paragraph 42.

A. Yes.

Q. I can probably take this quite quickly because we discussed it this morning, but I think it is probably helpful to come to it again at this point in the analysis.

These, as we see, are the ROCE rates for four out of the five of Mr Williams' comparator companies, and just taking these figures at face value for the moment, do you agree that they suggest that your theory that pharmaceutical companies should tend towards a 10% ROCE might not reflect reality?

A. I am sorry, that is a -- you can ask me to assume something, but it is not a sensible assumption, because --

Q. Okay, you can say "no", that is fine.

A. -- because the accounts are reflecting the asset values at the historical costs, and you have to think about them in terms of replacement costs or their current costs including inflation. If you do not adjust it for inflation, all other things being equal, you will get a high return on capital employed.

Q. Are you suggesting, for example, that Morningside pays interest of 229% on its bank loans?

A. Well, no, because Mr --

Q. The obvious inference -- sorry to talk across you, but the inference is that it is earning far in excess of its cost of capital.

A. Well, firstly, it may be earning more than its cost of capital because we have already said that firms can earn more than their cost of capital if there are justifications, putting to one side that I understand that Morningside has been investigated for excessive pricing.

The second point, and more important point, is that if you do not adjust the asset values, the denominator to their current cost, you will over-inflate the return on capital employed. So you have to think about the asset base to see whether they are properly constituted.

Q. These are the figures based on publicly available accounts of the companies, and, as we discussed this morning, you or the CMA could have done this exercise for practically any pharmaceuticals company, could you not?

A. No, it would be very difficult because you would have to determine the value of the intangibles for each of these companies, you would have to express that in current cost terms, and you would have to unpick the assets,

inflate them to current cost terms, and I do not think that it provides you anything above modern finance theory that tells you the weighted average cost of capital based on market returns.
Q. I take from that you do not think it would have been useful to do that kind of check in order just to sense-check whether your 10% ROCE debate rate was in the right ballpark?
A. Well, I think if you had very detailed information you could perform that type of analysis. What we know, because we can look at Flynn's return on capital employed in a little bit more detail, what we know there is that Flynn -- Pfizer capsules had a return on capital employed, actual return on capital employed of 278%, and the average across all other products had a return on capital employed of 22%.
Now, that is without considering the replacement costs, assuming that replacement costs are higher, that 22% would be lower. But the cross-check that we can do is by comparing phenytoin, 278% return on capital employed to 22% for the other 13, that shows that phenytoin capsules is an extreme outlier, and I think I showed that in --
Q. So -- sorry, Mr Harman. I was going to say -- sorry, I do not want to stop you, but I was going to say just

for the Tribunal those figures, certainly the 22%, are not accepted, but I do not think it is going to be productive, I do not think we need to debate that between us now.

The point I am really putting to you is that even if you did not think or do not think that the comparisons or the ROCE calculations were perfect, some empirical analysis is better than none. Do you accept that?

A. I agree that some empirical analysis, if you had the information and you had it in -- and you understood exactly what the data was, that would be helpful. I am saying that Mr Williams' return on capital employed fall short of providing a decent benchmark, a reasonable benchmark, and, as I have just said, when you look at Flynn's return on capital employed where the CMA had more information, you can see the CMA -- the phenytoin is an extreme outlier.

Now, you may say you disagree with some of the formulations of the calculations, but the CMA put forward what it was most reasonable and conservative in allowing an asset base based on gross book values.

If we quibble as to the calculations, all of the calculations in the return on capital employed change. So the return on capital employed for phenytoin would increase from 278, and, yes, the other products would increase from 22%, but the relative difference between the two would still be extremely different.

Q. I hear what you say. Let us not -- it is possibly not very helpful for anyone including the Tribunal if we jump around and we are going to come back to some extent, time permitting, to questions of gross book value and so on, but I wanted for fairness to acknowledge -- this is Williams 7 at paragraph 44 -- that one of Mr Williams' five companies does have a ROCE rate of 10%.

A. Yes.

Q. Mr Williams explains that that is a capital heavy company because it had or has £279 million of intangible assets on its balance sheet resulting from acquisitions. It is also a publicly listed company. Do you agree that those are relevant factors to take into account when thinking about whether that is a useful comparator for Flynn's ROCE rate?

A. I think that it actually supports my position because -- and that is -- what is the company?

Q. Alliance.

A. Is it Alliance? Effectively Alliance has gone out and purchased products, and in the purchasing of those products, it is able to compare what it paid for those assets compared to its underlying asset base, and that provides a market determination of the value of goodwill.

Now, that goes on to Alliance's balance sheet, it is something like £250 million.

Q. £279 million.

A. £279 million. That reflects to a certain degree the value of goodwill. It could also suggest that they overpaid for the assets, but that is the exact point that, when you look at these other companies, because it has not purchased other products, you do not have this kind of external valuation of intangible assets, and so you would have to go through a process of trying to value those internal assets, if you wanted to do a sensible return on capital employed calculation.

Q. Flynn does not have anything equivalent in terms of a large amount of --

A. It has intangibles on the balance sheet which do not pertain to phenytoin capsules. When you allocate those to the other products, it gives rise to a return on capital employed of about 22%, but some of that asset value has been depreciated, some of it is old and needs to be re-expressed into current cost terms.

Q. As you know, Dr De Coninck has calculated the ROCE rates for Flynn's other products, and he finds that the vast majority of them are flagged as excessive using your 10%

benchmark, and this is now coming on to some of the territory you were just traversing.

Now, there is a lot of accounting detail in the debate between you and Dr De Coninck, but what I am going to try and do is cut through that by looking at Dr De Coninck's chart. So this is {XE1/12/16}. It is figure 1 of Dr De Coninck's seventh report, and in this graph, Dr De Coninck plots the ROCE rates of Flynn's other products on both accounting bases which have been one of the subjects of your discussion. So he has included both net book value and gross book value, and taking this graph at face value, it shows a very wide range of ROCE rates across different products, does it not?

Just to orient ourselves, anything above the dotted line at the top showing a ROCE of 200%, anything above that line is higher than 200% but may be far above it, it has just been done to make the graph more readable.

What I am really putting is if we applied your one size fits all theory, that a pharmaceutical company's return should, absent special justifications, equal an industry-wide 10% cost of capital, most of Flynn's prices are excessive, and it then bears the burden of justifying why that is.

A. No, I mean, I disagree. I have explained in my third

report, and maybe it would be helpful if I can bring up a different analysis of this just to make my point.
Q. I was going to come to that. Do you mind just -- well, we can come to it immediately if you want. I think you may find some of what you want at 4.8.14 at page 55.
A. If we go to page 55 first, yes.
Q. It is {XE1/15/55}. I am sorry, let me just see if this helps, if I may. What I was going to say is that I do not understand you to disagree with the calculations behind Dr De Coninck's graph per se. You do not say he has the maths wrong, but you say it fails to control for the fact that different products have different volumes and different absolute returns.
A. In part. I cannot remember if that diagram also includes all of the licences. I think they might be excluded.
Q. Yes, I think it does, I think this one does, because the crosses on -- we are looking --
A. But this table here that we have is including the licences, and it includes the value of assets at gross book value. So what you can see is that whilst some products have high returns, they are nothing in comparison to phenytoin capsules.
The other problem that you have is that some products have more licensing -- sorry, licensing,

promotion and marketing, so you might expect them to have higher returns for that additional effort. You can see here Circadin is a patented drug and so you would expect it to have high returns, but you also have a whole number of products which are extremely low volumes. Given that they are extremely low volumes you would expect them, all else being equal, to have high returns on capital employed.

Now, the CMA does not say anywhere that having a high return on capital employed by itself is indicative of being excessive, and if we could turn one page {XE1/15/56}, we can demonstrate this, to page 56, and this chart shows the absolute returns earned by phenytoin versus all other products.

The only other product that has relatively high returns is, again, Circadin, the patented drug. So when you do an ROCE analysis you must link it with an understanding of: is a high return also leading to high absolute profits, and here what we see is that both phenytoin has the highest return on capital employed and it also has the highest absolute profit.

Q. Mr Harman, thank you. I hope the Tribunal found that useful. You have had an unusual amount of time in this case to present your views, so if I could now ask my questions.

A. Of course.
Q. Thank you. If we could go back, please, to Dr De Coninck's figure 1 at {XE1/12/16}, the point I wanted to put to you is that no one looking at this graph would conclude that it provides empirical support for your theory that ROCE rates in the pharmaceuticals industry are 10%. So the 10% you can see is the red line down at the bottom, and we can also see the level of support for an industry-wide 10% ROCE rate is not affected by whether you use net book value or gross book value, is it, which is one of the variables that you mentioned. Either way, there is a big -- all I am saying is there is a big range of return rates for individual products?
A. I think two things. One of the things that Dr De Coninck has not done here is to re-express the asset base in current cost terms. You have to be able to match the return, which is in nominal terms, in money of today, with the assets in their value today, otherwise you will get high returns, especially when you are dealing with products where there is very few products, and so this analysis does not tell you what rate of return you want because it is incomplete. What this analysis seeks to do is show that you phenytoin is different from all of the other businesses -- products.

THE PRESIDENT: To just ask about the adjustment, the date range here is 2013 to 2017. Are you saying that all prices should be expressed on the basis of 2017 prices or 2013 prices or one year in between?

A. What I am saying is that the asset values, which is the denominator, may have been purchased ten years ago.

THE PRESIDENT: I see.

A. Therefore they will not be indicative of values today, because values go up over time.

THE PRESIDENT: So in order to determine whether a price is or may be excessive, you have to assess the present value of the assets of the entire undertaking, or just the asset base of the --

A. The product.

THE PRESIDENT: Of the product, okay.

A. Yes, and we can do that with phenytoin capsules because it is just working capital. That is the only invested capital they have, and so that is in current value terms.

MS STRATFORD: Thank you.

I had understood, but maybe my comprehension is incomplete -- in fact that is no doubt very true -- that the gross book value/net book value debate between yourself and Dr De Coninck was at least part of the answer to the point you have just been making about the age of an asset. Is that not correct? The point about this chart is it shows you both gross book value and net book value figures.

A. The gross book value assumes that there has been no depreciation, but it does not restate the gross book value into current cost terms, so it does not adjust for inflation. That is not included in the calculation.

Q. I see, so it is just inflation that would additionally need to be --

A. It formed part of the assets, but the other thing the analysis does not look at is what the current value of intangibles are, what is the replacement cost of those intangible assets. It has just taken the assets off the balance sheet without expressing them into a replacement cost format.

THE PRESIDENT: Just -- I should know this, but the marketing authorisation for phenytoin was acquired by Flynn for a nominal consideration of £1.

A. Correct.

THE PRESIDENT: Have you increased that value to reflect its true value, whatever that might be, or have you taken £1 as being appropriate?

A. The CMA considered Flynn's actual investment in that because, as I understand it, the value of any marketing authorisation is captured to a degree in the price that

Pfizer charges Flynn, but it is a good question. If you were to consider the -- for example, in Liothyronine what the -- and this was regarded as a hard to manufacture drug, there were two benchmarks, and the value of those benchmarks that the CMA relied on was between £450,000 and £1 million as being the replacement cost for those products.

If you were to include that value for Flynn, it would fall way below the sensitivity analysis that the CMA did which increased the value of capital up to £11 million compared to its working capital of 3.5. So even if you were to increase the capital for that value, stripping out any value that was in the input price, it would not have an impact on the assessment.

THE PRESIDENT: Well, that is a helpful conclusory statement. I am a little bit more interested in the process by which one gets to it. We will obviously be looking at Liothyronine with some care, but again, I would rather stick to the facts of this case and your view of those.

If we are to say that we need to look at the value, for purposes of our WACC calculation, of the marketing authorisation, we can of course just accept it as a £1 payment, and that is the asset value, but I think what you are saying is that because Flynn was agreeing to pay the sums that it was agreeing to pay for phenytoin capsules to Pfizer, which was let us say high, put it that way, no more, that payment in some way needs to be reflected into the marketing authorisation value that Pfizer was giving to Flynn, or is the --

A. Yes.

THE PRESIDENT: Is there an equation in terms of what is being bought and sold the marketing authorisation for £1 and the payment to Pfizer of the considerable sums of money that were paid in order to obtain the capsules of sodium phenytoin?

A. Yes, I mean, I am sure there is a factual question as to where it is in the matrix. What I would say is, based on this diagram, this cost diagram, what we know is the variable costs of Pfizer, which is about row 12, was almost £5 million, that is its variable costs, but it sold that volume to Flynn, in line maybe 15, for £70 million per annum. So there is a mark-up between Pfizer's costs of £5 million to £70 million on an annual basis.

If the value of the marketing authorisation was £1 million based on *Liothyronine* it could be higher --

THE PRESIDENT: How do we know?

A. So I understand --

THE PRESIDENT: I am not very interested in *Liothyronine*, because those are decisions based upon facts which are simply not before us now, and whilst we will read it with great care, at the end of the day, the evidence before the tribunal in that case was the evidence before the tribunal in that case, and we are hearing evidence in this case. So how does one get -- I mean, you plucked a million out of the air for the marketing authorisation. Why do you say a million in this case?

A. Well, because obviously we saw -- well, I think there is one other fact that I am aware of, is that NRIM's entry into the marketplace, I think that there was a level of investment associated with getting the marketing authorisation which I think was around a million, but somebody can correct me.

THE PRESIDENT: Right.

A. But what I am saying is that given the difference between £70 million and £5 million, the value of the marketing authorisation would have to be hundreds of millions to be able to justify that difference, because the value of the marketing authorisation, right, is a level of investment upfront, and what is included in the costs stack for *Liothyronine* is the weighted average cost of capital's value on that £1 million. So it is £100,000 is what was included in Liothyronine's costs stack, but the difference here is something like

£65 million. So the marketing authorisation could never sensibly account for that difference.

MS STRATFORD: Just to be clear, Mr Harman, for the record, perhaps you mis-spoke, but these figures are for the total of the relevant period. You said it was per year, but this is for the whole period.

A. So then I would be comparing at a million, £400,000 to £70 million.

THE PRESIDENT: You see, Mr Harman, it may very well be that you are right that the mismatch between what is paid and what was cost is so vast that any adjustment to a component in the costs stack will make no difference, and it may be that the answer is as simple as that, but suppose we actually want to stress test the costs stack of the CMA that we have here, and we want to insert our own values to see what outcome there is. It may be there is a hiding to nothing and it is absolutely clear that there is an excess, but we want to do the job ourselves.

A. Yes.

THE PRESIDENT: How do we go about ascertaining whether the £1 that was paid for the marketing authorisation is right or wrong, and, if it is wrong, how do we go about, as a non-expert tribunal in this area, how do we go about attributing a proper value to this asset? It seems that there is a miscorrelation at the moment between £1 paid and the value that Flynn derive from the marketing authorisation that enabled it to sell sodium phenytoin into the market ending in pharmacies' shelves. So a certain margin was made which makes £1 for the marketing authorisation jolly good value, and one infers from the money that was paid by Flynn to Pfizer that actually £1 is not the whole story, there is more to it, but help us on how we adjust, if we need to at all, the £1, save by saying it does not matter what adjusting you make, it is still excessive. It may well be the answer, but I would like to see the process of reasoning between £1 and whatever it is.

A. Yes. So how can you do that? There are a number of potential ways.

I think in *Liothyronine* there was a number of more general estimates for valuing -- for the value of marketing authorisations, so it is not just bespoke to that particular molecule, but I will stand corrected, but I seem to recall there was a lot of evidence and that may give you an indication of the likely value as a possible starting value. As I said, I think there is some evidence on the costs that NRIM incurred in entering the marketplace that can also give a starting point if one wanted to include the value of marketing rights in it, in the calculation.

I think that you can stress test the calculations by asking the question: how much capital would you need to add before you would change your consideration of whether there was an excess, and you would have to bring those two pieces of evidence together to be able to -- you know, to make a calculation, but, as I said, as I understand the value of that market authorisation is in the supply price between Pfizer and Flynn, so to the extent that you were going to adjust Flynn you would also have to adjust the Pfizer price to strip it out, which would have the consequence of lowering the input cost which would then seem to flow through to make Flynn look like it is a higher return because the denominator has fallen.

So there would be those two adjustments that would need to be done.

THE PRESIDENT: You are assuming -- and it may be right -- a pound for pound correlation between the value to be attributed to the marketing authorisation and the price paid by Flynn to Pfizer. So add a pound on to the marketing authorisation, take a pound away from that which is paid by Pfizer, by Flynn to Pfizer.

A. I think that that could be a reasonable assumption to make, because either you would sell the marketing authorisation and choose not to charge for it.

I guess you could come up -- I do not quite know, you know, kind of the technicality of is it held by one or could it be held jointly half and half in some way in which you could share the price of the marketing authorisation, but if you were to think about it on a stand-alone basis, the company, then --

THE PRESIDENT: What about, for instance, the use of the marketing authorisation to sell sodium phenytoin capsules outside the period here under consideration? I mean, if one assumes that the marketing authorisation is one that continues beyond the period that we are here saying is under investigation, beyond the relevant period, then is there not a value which would make us move away from the pound for pound assessment because you would have to look at revenues that might be derivable by reference to the sale of sodium phenytoin by Pfizer, and of course, the payment by Flynn to Pfizer which are not reflected in these figures here?

A. I think the recovery of any market authorisation is likely to incur over the period under which you expect the sale of those drugs to last. So if you thought that phenytoin had another 20 years, then you would amortise the level of the market authorisation on some basis to each period, is the standard way.

In *Liothyronine*, if I recall what the CMA did, it assumed no amortisation, it assumed that the market authorisation would last for a long period of time, so there was no amortisation expense in the year, but the return that you got on the marketing authorisation in each year was higher because it is not depreciating, but you would have to consider what the length of the period is.

THE PRESIDENT: But, to be clear, you and the CMA have been happy to take the £1 for the marketing authorisation because you considered that the input price paid by Flynn to Pfizer is enough to, as it were, compensate for any undervalue in the marketing authorisation price?

A. Yes, and it was not something that was brought up by the experts on the other side as something that was not included in the analysis.

PROFESSOR WATERSON: It would also be the case, would it not, that if the company was vertically integrated then that would be a reasonable reason for making the £1 to £1 or £1 million to £1 million or whatever?

A. Yes, I was going there and I could not quite think through the conclusion, but, yes, I agree.

PROFESSOR WATERSON: Thank you.

MS STRATFORD: Sir, I can see the time. It has been a long session already for the shorthand writer, so although

I have just got a few more questions under this topic, but I think it might be appropriate to break now.
THE PRESIDENT: We will rise. How are you doing, Mr Harman?
A. Yes, I am good, thank you.
THE PRESIDENT: Good, excellent. Let me know if that changes. We will rise, then, for ten minutes until 10-to.
(3.39 pm)
(A short break)
(3.53 pm)
THE PRESIDENT: Ms Stratford, before we continue, I do apologise, but I wondered if we could revisit this question of the -- I am not sure whether we are talking about value cost or price of the marketing authorisation.
MS STRATFORD: Of course.
THE PRESIDENT: Let us suppose we have a situation as it was with Flynn having purchased a marketing authorisation from Pfizer for £1, but there is obviously a correlation between paying the capsule price to Pfizer but also receiving money from the pharmacies or the wholesalers as Flynn onsells, and would you accept that all three of these sets of figures, the £1 for marketing authorisation, the -- let us say, £10 million that is paid to Pfizer, I know it is wrong, but let us say

£10 million -- and the £10 million that Flynn received
from the pharmacies, that these are all in some way
linked.
A. Yes.
THE PRESIDENT: So if one is to work out how one assesses
the value of the marketing authorisation in Flynn's
books, one needs to have a coherent view of these three
values.
A. I think potentially the Pfizer and Flynn aspects are
more important.
THE PRESIDENT: Right. So you are looking -- so let us each
have a -- let us imagine a chain: Pfizer, Flynn,
pharmacies, and let us have different values in the
chain otherwise we will get confused. So let us say
Flynn are paying Pfizer £20 million for the capsules,
and they are receiving from the pharmacies £30 million
which is a net benefit of 10.
A. Yes.
THE PRESIDENT: Okay. Now, we have the pound floating
there, but let us not worry about the pound, it is
neither here nor there. Were Flynn to say: I want to
put on my books a line as to what the value of the
marketing authorisation is, say they want to sell their
entire business and there is an argument about what it
is worth, how does one go about assessing that? Surely

one needs to take into account all elements of the cost chain. I mean, let me put it to you and you can then disagree. If I were saying what is the value of the marketing authorisation to Flynn and what should be paid for it, I would say: well, I am having to pay Pfizer £20 million, but I am receiving £30 million, it is worth around £10 million to me because I have not only got the sales that I am likely to receive in the period under consideration, but if the marketing authorisation has an unlimited duration I can keep on making this margin as time goes on, and you, the purchaser of my business, needs to have regard to that when you are valuing the marketing authorisation, the one thing you can say is it is not worth a pound; it is worth, I am suggesting, far more than that.

A. Well, I think in this situation we have to go back to the concept of what we would expect to happen under normal and sufficiently effective competition, so I see it through how the CMA approached it on *Liothyronine*. It basically said the value would be the cost to replace the asset because if a competitor was to come into the market it would face that cost.

THE PRESIDENT: What are you talking about as the asset here? The marketing authorisation?

A. The authorisation.

THE PRESIDENT: Right.
A. The value of the authorisation, how much would it have cost you to obtain a market authorisation, how much would it have cost you to develop the product rights. So what we saw in *Liothyronine* is that there were two entrants who managed to obtain the authorisation for between half a million and £1 million.
THE PRESIDENT: Right, I see. So you are saying that whatever the income stream into Flynn, whatever they have to pay to Pfizer is entirely by the by, it does not matter at all. What you ask yourself is what would it cost Flynn to obtain a marketing authorisation for this product?
A. For this product. That is how it was done in --
THE PRESIDENT: We have been down this road before. Maybe it was, maybe it was not. We will look at it later.
A. Yes.
THE PRESIDENT: That is not what you said in relation to my mom-and-pop case. What you said there was: no, we will just work out what happens if they can sell the product for more.
A. Well, that is the --
THE PRESIDENT: Now, is what you are assuming -- and if so let us get it out into the open -- that I can obtain a marketing authorisation for any drug for £1 million.

Is that the assumption that you are making?

A. Well, you know, factually there will be a cost for obtaining a market authorisation for this particular drug, but --

THE PRESIDENT: Yes, but, I mean, forgive me, but there is a whole raft of other things that you need to do before you even come close to getting a marketing authorisation. You need to actually have an assured source of supply so you need to set that up. Presumably you cannot do that with Pfizer. These will all have costs.

What I am trying to grapple with is why, when you are saying: let us hypothesise Flynn is trying to sell their business, they are saying we have this valuable marketing authorisation, in negotiations saying it is not worth a pound, it is worth far more than that because look at the money we are making, and it would seem to me rather odd for the value to be divorced or the price that the third party payer is paying to be divorced from the income stream that is being earned by Flynn out of this ability to sell sodium phenytoin capsules into the market.

A. The framework that I would consider is that -- and this goes to the replacement cost theory basically -- that you would not overpay for obtaining an authorisation if it cost you less to develop that yourself.

Now, when you talked about being inconsistent with the mom-and-pop, it is not because, in effect, what you could sell your business for as a mom-and-pop is what it would cost somebody to replace your offering.

THE PRESIDENT: Okay, so what would it cost Flynn to replace the marketing authorisation? Do we have that figure?

A. All that I know is that NRIM put forward that in developing its market authorisation it had cost around £1 million. So there are some facts on what it cost, but that is not in my evidence. But that is the framework that you would think about outcomes in normal and sufficiently economic -- efficient competition. It is based on absent barriers to entry what would it cost others to get into business for.

THE PRESIDENT: You will have to remind me -- and it may be that others will rather than you because it is a question of fact: NRIM are a precise equivalent of Flynn, is that right, or are they manufacturing as well?

MS STRATFORD: They outsource the manufacture to --

THE PRESIDENT: Well --

MS STRATFORD: In that respect, they were in the same position as Flynn.

THE PRESIDENT: Right. Because that matters to the answer to this.

A. Well, I have just remembered one other salient thought which may or may not help. Of course, the way in which the CMA developed the return for Pfizer was not through the primary use of return on capital employed, it actually adopted a 10% return on sales figure by comparison to other businesses. So my understanding is to the extent that that return reflects returns from businesses that had marketing authorisations, it is included in the CMA's costs stack.

Now, if we had been doing the primary method looking at Pfizer having the MA, then you would have probably had to think about what the value is, but I think the CMA did not do that because for Pfizer it used the return on sales figure which bypasses you having to think about what an asset value is for the market authorisation, and I think Mr Williams' evidence was that often that is a negotiation between the two parties as to who is going to bear the cost. He said it is often the case that the manufacturer will include within their returns a return for having the market authorisation.

I am sorry, I had forgotten that point.

THE PRESIDENT: Yes, you see, I fear I am at an anterior stage where I am just trying to get a feel for how one is attributing value to these items, and I must say what

I expected you to say in response to my example was: ah, the prices charged by Flynn to the pharmacies, and indeed the prices charged by Pfizer to Flynn, cannot be relied upon because of the dominance and the allegation established in the Decision of excessive and abusive pricing. That is where I --

A. I would take it as a given any way in my response, but --

THE PRESIDENT: Yes, but we cannot take it as a given because it has been challenged, that is the point of the appeal.

A. Yes, but --

THE PRESIDENT: How do we get a sense of value? What should be included in the value that Flynn is if it tries to sell itself to someone else of what is clearly a very valuable item of property?

A. As I said, the standard theory is that you would do it at its replacement cost, and I would say that that replacement cost has been built in at the moment into Pfizer's prices to Flynn because the benchmark return on sales used was a 10% return on sales for Pfizer and not a cost --

THE PRESIDENT: Yes, but when one is talking value to Flynn, what it will sell to a third party, it is not going to say: gee, I made a fantastic deal here, I bought this marketing authorisation and I am not going to make any money out of it whatsoever, it is therefore valueless. They are not going to say that. What they are going to be saying is: we are getting a £10 million margin on this example, it is an extremely valuable marketing authorisation. The idea that it was worth a pound is, frankly, nonsense. It is worth an income stream of £10 million, and my question to you is why is that not the starting point for the analysis of what Flynn is worth?

Now, I quite understand if you say the CMA have found that the pricing at both levels is abusive and, therefore, you need to tread with extraordinary caution when you are using this, but leaving that on one side why is not the starting point what the facts of the case show the property is worth, because we know that these monies are coming in and they are going out.

A. So the first thing that -- so two points, and I fear I may be going -- the first point is I am going round in circles. The value at the Flynn stage is what it would cost to replace the market authorisation, but the second point that I would make is that if Flynn -- and I do not know this, and I guess this is a factual legal question, but it is actually Pfizer who manufactures the drug. So if Flynn was to sell, I am not sure what market authorisation it is actually selling because it is Pfizer that has the know-how and the ability to manufacture the drug.

So one would have to look at the contract between Pfizer and Flynn.

THE PRESIDENT: Entirely agreed, and that is vanishing down a rabbit hole that I do not want to vanish down. I am assuming that this is an assignable contract by Flynn to a third party such that the whole thing translates into a third party's hands and they simply step in right of Flynn in order to make the same sort of money. So we can assume that, it may be right, it may be wrong, I do not know.

A. I do not know, it is a factual point, and maybe it is assignable, but where does the value lie? Is it with Pfizer or is it with Flynn? It may be with Pfizer, its ability, so who gets to keep the profit?

THE PRESIDENT: There is clearly some value because Flynn are paying large amounts of money, in this example £20 million, to Pfizer.

A. Yes.

THE PRESIDENT: But Flynn are receiving from the pharmacies £10 million which they are not accounting for to Pfizer, and if one assumes a chain of entitlement whereby Flynn, or its assignee, have the right to demand delivery of product by Pfizer and the ability by virtue of the MA also obtained from Pfizer to sell into the market at this sort of margin, why is that not the starting point for valuing what there is rather than going into the uncertainties of whether one can obtain an alternative source of supply from someone other than Pfizer with a different marketing authorisation which that person may or may not transfer to?

A. Because, as I said, from a profit-maximising perspective of the business, it would not overpay for something that it can generate cheaper itself.

THE PRESIDENT: So does it amount to this: you are -- and I quite understand why you are -- you are presuming that there is an overpayment at both levels of the chain, understandably because that is what the CMA has found?

A. Yes.

THE PRESIDENT: So that is a necessary part of your reasoning?

A. Well, that is a part of my reasoning, but I would also say absent that reasoning, the value of the authorisation to any one of those parties is the value that it would cost to replicate it.

THE PRESIDENT: So if one removes the assumption and says: let us wield a magic wand and both decisions of the CMA are as nothing, we have not heard of it, we are just looking at this chain, this hypothetical chain, and one is endeavouring to work out what it is worth, would a fair assumption be that the operators in the chain are operating in a workably competitive market and that these prices are a useful extrapolation for what the marketing authorisation and the other intangible rights in the contract between Flynn and Pfizer are worth?

A. So if they are not acting abusively?

THE PRESIDENT: I am assuming that we do not know and that there is no finding by the CMA that we are simply talking about a presumptively commercial transaction.

A. Yes. So if we do not know if they are abusive and you want to determine what the value is at a point in time when there is no competition, that may, from a temporal perspective, allow you to earn a higher return, and that may say something about the value of the rights that you hold. But to the extent that competitors can enter the market at the replacement cost, prices will soon fall soon after down to that competitive level because they will be able to make a margin based on the higher price that is being charged.

THE PRESIDENT: Does your answer differ if, again, hypothetically speaking, it takes three years to get a marketing authorisation out of the Department of Health?

A. So this now -- I think that if there were no barriers to entry --

THE PRESIDENT: Well, I already presumed one.

A. If there are surmountable barriers to entry --

THE PRESIDENT: Okay.

A. -- if there are surmountable barriers to entry, so competition can emerge.

THE PRESIDENT: Right.

A. If you have that market authorisation at the beginning, there is a temporal advantage that you may be able to price higher.

THE PRESIDENT: Right.

A. So I think that is similar to case 2 or elements of case 2 in *Hydro*. I think it is a different situation if there is insurmountable barriers because there it is just the market power that allows you to charge at that level because under hypothetical workable competition you would not be able to price at that level.

THE PRESIDENT: Okay, so assume this: assume that you can obtain alternative sodium phenytoin capsules but it will take 18 months for the alternative supplier to gear up to produce them. That is no barriers, that is just how long it takes devoting all appropriate resource to it.

Filling in all the forms and getting a marketing authorisation from the Department of Health takes you a further 18 months. So you are on a three-year basis -- you are three years away from an ability to enter the market.

A. Yes.

THE PRESIDENT: To what extent does that make a difference in terms of valuing the marketing authorisation that Flynn has in its possession here and now?

A. I think there is different ways of attracting this -- answering this question. The first is that if there is a -- it takes time to develop the licence, it would be reasonable to include the return of that capital that is not yet earning a return. So if you have invested £1 million in the first year and your cost of funding that is 10%, you would increase that into the valuation of the product rights, that was something that was accepted in *Liothyronine*, and so -- and what we actually saw in *Liothyronine* was there was a number of companies who were willing to go through the process of obtaining rights that took a period of time, so it seems to me reasonable to assume that companies, if they thought they could enter the market, to take the time, incur the cost of not operating, almost like a lost return on your investment from not having obtained the authorisation, and then obviously once your authorisation is granted, you would then obviously seek to recover not only the costs but the time value of money of that loss over time, and the incumbent in the marketplace for that duration would be able to enjoy its special advantage of having its market rights first.

THE PRESIDENT: So in this case, if Flynn was selling its business, the marketing authorisation, or rather the three years' ability to trade with the profits it is making, would be valued at something like -- well, if it is, say, a £10 million margin per year, of the order of £30 million, something like that, on my assumed facts?

A. So assuming here that no abuse, the price is not abusive --

THE PRESIDENT: I am assuming no abuse and a three-year run to getting the marketing authorisation with a reasonably contestable, certainly not an anti-competitive market. So I am Flynn, I am making £10 million a year.

A. Yes.

THE PRESIDENT: I am paying £20 million a year to Pfizer. I have no reason to believe that that is going to change.

A. Yes.

THE PRESIDENT: But I want out, I want to sell my business, including this, and I am trying to get the best price.

A. Well --

THE PRESIDENT: So I can say to my purchaser you have got

a clear run for three years, I am getting £30 million.
A. Then you may, in that situation, be able to extract value if the market was -- had surmountable barriers to entry and I would say that effectively what you are crystallising over that period of time is some special advantage that you have, that you have obtained the rights for £1.
THE PRESIDENT: Therefore for the purposes of assessing the capital of our hypothetical Flynn -- I stress this is all hypothetical -- the line you would enter for WACC purposes would be a capital of around £30 million. Would that be right?
A. Would you tell me how you got there?
THE PRESIDENT: Well, all I am saying is there is a three-year clear run because it takes three years to get a marketing authorisation. We are assuming a competitive market with no dominance. I am trying to work out what my marketing authorisation that enables me as of now to sell into the market. I am making a gross revenue of £30 million a year, but £20 million of that goes to our hypothetical Pfizer, so I am making 10 a year. So over those three years, £30 million. If I am trying to value my marketing authorisation as of day one, is not the value something around £30 million? You might have to discount commercial --

A. As a commercial transaction, that is probably what you would be able to achieve.

THE PRESIDENT: Right, and as an element in assessing what your capital is, what Flynn's capital is, does the same answer pertain?

A. In Flynn's actual situation?

THE PRESIDENT: Well, no, in this hypothetical situation.

I am not talking the actual, I am talking hypothetical. Why is not the capital figure to be attributed to the marketing authorisation the same as what you would sell it for as part of a sale of the entire business?

A. In a competitive marketplace, that would be the value of --

THE PRESIDENT: That would be the value?

A. That would be the value. The question in this case is whether the £30 million reflects what would actually occur in a competitive marketplace, right, because you would get entry, there would be competition, and everything else, but I agree with your premise.

THE PRESIDENT: Well, look, let us suppose, just to ensure we have the other side of the case put, let us suppose that in fact one can get a marketing authorisation instantly, and one can obtain a source of supply to feed that marketing authorisation instantly.

A. Yes.
THE PRESIDENT: And through nefarious purposes, our hypothetical Flynn manages to add an unjustifiable three-year delay: they bribe someone or they have some way of stopping the marketing authorisation taking effect such that they get through these nefarious means the three-year window. Your value there would be adjusted because of the anti-competitive conduct that is taking place.
A. Yes.
THE PRESIDENT: So it does -- I do not want to say all turn, but in large part turn on what assumptions you make about what is going on in terms of anti-competitive behaviour in the market?
A. Yes, but I also think that, you know, in the real world there is, you know, lots of factors that are happening. First of all, you do not have complete information, so you do not know where your competitors are in the development of their market authorisations, you do not know how many will actually enter into the marketplace and the timing of that entry, so the issue that you would have when valuing Flynn in your hypothetical at 30 is that you do not know whether you are going to be able to capture that 30 over a period of time.
THE PRESIDENT: Of course, there would be a negotiation or

an accountant would have to value the certainty of the three-year window that I have been putting to you as a certainty.

A. Correct.

THE PRESIDENT: I quite accept that if you think that it might be done in two or it might be done in ten, would you have to factor that in.

A. Correct.

THE PRESIDENT: Okay, thank you very much, Mr Harman. I am sorry to have taken so much time.

Ms Stratford.

MS STRATFORD: Thank you, sir.

I think in light of those exchanges, contrary to what I said just before the break, I can move on now.

Mr Harman, we have so far been discussing your ROCE analysis which is based on finance theory, and I want to move on to Flynn's empirical analysis.

As you know, there are two groups of comparators that we rely on to inform the reasonable rate of return. So first Flynn's other products --

A. Yes.

Q. -- and second other companies, and what I am going to do is ask some overarching questions about comparators and then deal with these two groups in turn, and we will see how far in that we get this afternoon.

On comparators, can I just put some propositions to you about comparators and see whether you agree with them from an economic perspective.

The first, if we could get up {XN2/28/49}, this is our old friend Liothyronine, and just to show you paragraph 135, of course you were involved in this as we have heard, and the Tribunal cited the Court of Appeal in this case for the proposition that:

"... the counterfactuals of greatest practical value are often those drawn from real life, as opposed to some hypothetical model."

So my question is whether as an economist, in general terms, you agree with that?

A. Are you referring to -- is this referring to prices or margins, this paragraph?

Q. I think it is probably both, Lord Justice Green.

A. I mean, I certainly think that evidence of prices is important, if they are sufficiently comparable and they are at a stage of normal and sufficiently efficient competition. I would agree that you would want to, when looking at margins, look at the real world. As you know my position is the cost of capital is in the real world.

If there was sufficient comparability you might have regard or you could have regard to return on sales, but only to the extent that they are sufficiently comparable.

Q. Then moving on {XN2/29/164}, this is Hydrocortisone, a similar point at paragraph 331(1) the Tribunal said:

"Comparators are of particular importance even where they may not be clear or compelling ..."

Oh, has it not come up? I am sorry. Did I not give the reference? I apologise. Tab 29, page 164, still in XN2.

A. And which paragraph?

Q. Paragraph 331(1). So you can see there the Tribunal said:

"Comparators are of particular importance, even where they may not be clear or compelling. Comparators can include: (i) comparators on different markets; (ii) comparators on the same market at the same time; and (iii) comparators separated by time. In all cases, the critical question for the court is whether anything probative can be derived from the comparator in question."

Again, as an economist, do you agree?

A. Again, I would agree that, when thinking about prices, the degree to which there are comparables in different markets, etc, it would be a reasonable thing to do as long as it is under conditions of workable competition when it comes to margins. I would also agree, save for the fact that they have to be sufficiently comparable.

A good example of that, if you were looking at comparables in different markets, if they were in geographically different market places, you would have to take into account differences in underlying costs and regulations and those types of things. So, yes, they can be informative, but you have to consider whether they are sufficiently comparable.

Q. What the Tribunal was saying in Hydrocortisone was the question is whether anything probative can be derived from the comparator in question. So it is not a binary question, is it? You look to see what you can gain from the comparators.

A. I mean, that is for the court to determine from a legal perspective. From an economic perspective it has to be sufficiently comparable or at least that you know what those differences are and you can account for them for that information to be of probative value.

THE PRESIDENT: But it is unlikely to be that comparable in any case where dominance is in play because, by definition, given the legal definition of how one gets to the market, one does not have a substitute in the market because, if one did, one would not be dominant.

So is it not the case that when one is looking at an abuse of dominance case, the comparables are always

going to be further afield than one would like?
A. And I think the question is how far are they away? So in this case, as I have explained before, there is a unique unusual set of factors that all point in one direction in terms of low investment, low risk, high input costs, high volumes, etc, that would suggest all other things being equal you would expect the return to be low, and it is the fact that there is that combination of unusual factors that complicates, in this case, in particular the use of a return on sales benchmark.
THE PRESIDENT: Thank you.
MS STRATFORD: So just completing my trilogy of cases, if I may, we have already addressed -- we have already looked at the Original Tribunal judgment on this point where your analysis was criticised for being based on theory rather than comparators, and I think earlier you agreed with me that was a fair reading of the judgment. I do not think we need to turn that up again.
A. I mean, that is what the judgment said. I do not agree that the methodology is as described as has become evident through *Lio* and *Hydro*.
Q. Let us move on, then, to Flynn's other products, and you are familiar, I think, with our basic point that Flynn's returns on phenytoin are in the same ballpark as its

returns on other products. So what I am going to do is take the figures quickly and then move on to your responses, if I may.

So we use different measures of profitability. I think, therefore, it is just helpful to start with those. If we could please have {XE1/10/20}, this is in CRA's fifth report, Dr De Coninck's fifth report, at paragraph 61, and three measures of profitability are mentioned: gross margin, product contributions and return on sales, ROS.

The difference between them is the type of costs which are taken into account. So ROS takes account of all of the costs involved in supplying the product, including common costs.

Turning to gross margins, they include only cost of goods sold or COGS, and therefore no common costs. That is right, is it not?

A. It is.

Q. And product contribution sits, as I understand it, somewhere in the middle of those two?

A. Yes.

Q. That is fair, thank you. So you agree with Dr De Coninck's basic descriptions here?

A. I agree with the descriptions.

Q. Thank you.

Let us look at what the different measures show, then, if we could go, please, to page {XE1/10/13}, so we are still in the fifth report at page 13 and figure 1.

Just to stress, I am not asking you to comment on the utility of the comparison at this stage. I just want to check you do not take issue with the calculations behind the graph, and the calculation has been done, to be clear, on the CMA's preferred common cost allocation methodology, ie by volume, has it not?

A. It has.

Q. Thank you. We see that from note 2 below the graph. I think we can agree, I hope, that just taking these calculations at face value -- and I stress that -- they show phenytoin to be in the middle of the pack.

A. That is what this analysis shows. As you know, I think that that is a misleading comparison.

Q. Absolutely, we are going to come on to all of your concerns, I promise.

So if we could go, then, to the next page, figure 2, this is page {XE1/10/14}, this is still return on sales but low investment products, but what -- Dr De Coninck replicated his analysis for products with no promotion amortisation costs, ie no substantial investment behind them, and the comparison shows more or less the same thing. Agreed?

A. Yes.

Q. Then over to page {XE1/10/22}, please, this is figure 3 which looks at gross margin, and same question. At face value, this shows phenytoin in the middle, indeed, near the bottom of the pack, does it not?

A. Yes, on the gross margin analysis it looks like phenytoin is towards the bottom.

Q. Thank you. Now, there is another measure, just for completeness, which you will recall Dr De Coninck used in his position paper inspired by the *Liothyronine* judgment which is what he refers to as product differentials. I do not know if you recollect that?

A. Yes.

Q. For the Tribunal, it may just be worth pointing out that this is the analysis that Dr De Coninck was referring to in his exchange with you, sir, when he asked whether it was possible -- whether it was possible to do a straight comparison between cost and price. In case it is helpful, we have dug up the transcript reference, which is {Day10LH1/152:17} and over to page {Day10LH1/153:}.

If we could just look at Dr De Coninck's chart it is at {XE6/4/13}, so this is his product differentials chart, and the note on this chart explains that it includes all of the costs that would be included in a ROS analysis, ie including common costs, plus the

CMA's reasonable rate of return, so in other words, the 10% ROCE.

So it adds together both Flynn's operating costs and its capital costs for each product based on a 10% WACC and then conducts a straight comparison between those costs and the price, and again, just taking this chart at face value, phenytoin is in the middle of the pack.

A. On a percentage basis, yes.

Q. Thank you. One of your big picture objections to these comparisons is that they fail to take into account, first, the volumes in which phenytoin was sold and, second, the input price paid to Pfizer. That is correct, is it not?

A. Well, I think those are two elements. The third is also the absolute profits that are being made for each of these products.

Q. Yes, I am going to come to absolute profit, I know I keep saying that, it may now be tomorrow morning -- sorry, Wednesday morning, but just for the note, for example, in your third report at paragraph 6.3.4 {XE1/15/77} is one of the places, or perhaps a main place where you said that the margin was biased by high input prices and high volumes?

A. Yes.

Q. We --

A. And just to, I mean, I guess crystallise that, what you are actually seeing is a number of products that had high margins but have very low volumes, so if you were to take a weighted average of all of the other products together and display it as an average as opposed to the distribution, then you would find that the margin on a return on sales basis for all other products is 12%, but for phenytoin capsules it is 36%.

So whilst the distribution is what it is, when you actually adjust for differences in volumes and costs, then you see a very different picture.

Q. Okay, well, can we just take it in stages and start with the input costs, please.

Could we please go to {XE1/7/18}? This is back to Dr De Coninck's second report at paragraph 55.

What we are seeing here is that Dr De Coninck has obtained the unit costs of all of Flynn's products excepting one, I should say, Viperatab, which has a unit cost of more than £900, so very high unit cost, that was left out, and it is fair to say that phenytoin is at the upper end of the range, but if we just look at unit costs alone, it is not a clear outlier, is it?

A. It is a clear outlier when you do not control for volumes. The other two products sell in significantly lower volumes, so I think one of the two -- I cannot remember which -- sells 167, and the other one is in the very low thousands, versus phenytoin that is 700 and something thousand. So you have to adjust for both volume and for input cost.

Q. I understand that is your position, but, Mr Harman, if you just will bear with me, I want to -- as I said, I want to take it in stages and look, for the sake of a clear analysis, first at the input costs.

So just looking alone at unit costs, my point is that phenytoin is not a clear outlier, even when the very extremely competitive Viperatab is not even shown on this chart.

A. Again, when you address information like this, you have to have more than one dimension in your head at the same time.

Q. Okay.

A. If the question is if I only looked at this, is phenytoin the highest, no, but do I think that that is a reasonable assumption to make, and the answer would be no.

Q. Okay, could we put this document up next to {XE6/4/13}, which is Dr De Coninck's differentials analysis that we were just looking at, so in other words his straight comparison between cost and price.

I think your hypothesis is that a higher unit cost will generally require a lower level of percentage return because it will produce a higher level of absolute return?

A. Say that again.

Q. So higher unit cost generally will require a lower level of percentage return because it will produce a higher level of absolute return.

A. Sorry, I may well be flagging, so apologies for asking the question a third time.

THE PRESIDENT: Not at all, Mr Harman, and if you feel you would like us to draw stumps early then it would only be fair to do so.

A. It is fine to go the course. It is just it is my focus on the question slipped.

THE PRESIDENT: I quite understand that, Mr Harman.

MS STRATFORD: I actually --

MR HOLMES: Sorry, I do not mean to intervene. Of course Mr Harman must say if he is ready, but I do apprehend that we are now definitely going to go into Wednesday, and it has been an extremely long day for this witness, who I know is an experienced expert, but I would just ask the Tribunal to consider that.

THE PRESIDENT: I have that well in mind, Mr Holmes, thank you.

Do you want to reach a convenient moment, Ms Stratford? We will try and finish materially before 5.00.

MS STRATFORD: Yes. Try and finish, I am sorry, sir?

THE PRESIDENT: Materially before 5.00.

MS STRATFORD: Of course, if I can maybe just finish this point?

THE PRESIDENT: Yes, finish this point and we will draw stumps.

MS STRATFORD: I actually do not think, Mr Harman, that this is going to be difficult for you. I may be wrong, but all I am putting is a very no doubt lay person's summary of your hypothesis which I understand to be that higher unit cost will generally require a lower level of percentage return because it will produce a higher level of absolute return.

A. No, not quite. My position is that, if you think about your formula for return on sales, it is the level of profit divided by revenues, and revenues is a function of costs and volumes. So all other things being equal, the higher the level of costs, the higher the level of volumes, the lower the return on sales that you are required on a fixed level of capital.

Q. I think that is actually what I was saying, no doubt, in my lawyer's language. The point I want to put to you is that, if we look at these figures here in

Dr De Coninck's differential analysis, it just does not hold true empirically. I can see that you are trying to go to a different document.

A. No, I am just trying to reconcile the calculations that Dr De Coninck has done versus the calculations that I present in my teach-in, because in the teach-in it is very clear that the absolute returns of phenytoin are significantly higher than all other products, and my analysis also shows that the gross margin is also much higher for products that both have high costs and high volumes.

Q. At the moment I am just isolating -- I have been looking at unit costs, and then I am looking at the product differential analysis which is Dr De Coninck's comparison between cost and price. So I appreciate it is not the way you looked at it.

A. But you would have to compare the products that have the same attributes in terms of volumes and costs. If you are going to compare this to -- it would be like my Sainsbury's versus the corner shop. Yes, Sainsbury's will have a lower differential on the sale of milk compared to the corner store because it has higher volumes and is able to recover its fixed costs on a more efficient basis.

So if you are low/low cost, my assumption is that you can have a high differential. It is just a matter of mathematics.

Q. Let me just put the point which I need to do at this point. I appreciate you do not accept the basis of either of these charts, but the point we are putting -- and I am sure you have this already -- is that the figures just do not bear out your theory empirically, so if we look, for example, at Thiopenthal, just to take an example, it has a higher unit cost than phenytoin but also a higher differential between cost and price.

A. But much lower volumes.

Q. If we look at Collaguard, it has a very high unit cost but is loss-making.

A. Yes.

Q. Okay, let us look then at volumes now. I am happy to leave that until Wednesday morning if you and the President would like to do that, but I am immediately coming on to volumes.

A. I am happy to do that. My analysis in my report controls for volumes and costs at the same time, and it makes clear that phenytoin --

THE PRESIDENT: We will come to that. I think it is appropriate, Ms Stratford, if it is all right with you, that we rise now, and, Mr Harman, you can emerge rested on Wednesday morning. We are not sitting tomorrow. You will bear in mind what I said about not speaking to anyone about your evidence, thank you.

Do we need to sit at 10.00 rather than 10.30, Ms Stratford?

MS STRATFORD: Yes, I think certainly 10.00, please.

THE PRESIDENT: I think earlier than that causes difficulties.

MS STRATFORD: Of course if it does not cause others difficulties. I am sorry, I had not remembered that in the timetable we were 10.30.

THE PRESIDENT: It reverted, I think, to 10.30 because we lost a day because of last Thursday and could not make it up on the Friday, so we carved out an extra hour each day by sitting 10.00 to 5.00.

That regime has now come to an end, but I think we were going to keep it under review, and that review is now, and it seems to us, if everyone else can bear it, we will start at 10.00 and see how we go for the rest of the week.

MS STRATFORD: I think that would be prudent. I am very mindful, sir, that you and the Tribunal will want plenty of time for questions at the end.

THE PRESIDENT: Well, indeed, I am very grateful for that, but we do not want the important QALY evidence to be itself squeezed, so we will do that and we will see how we go on Wednesday.

Well, thank you all very much. We will resume on Wednesday morning.

(4.49 pm)

(The hearing adjourned until 10.00 am on Wednesday, 29 November 2023)