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IN THE COMPETITION
APPEAL
TRIBUNAL

Salisbury Square House 8 Salisbury Square London EC4Y 8AP

Monday 6<sup>th</sup> November – Wednesday 13<sup>th</sup> December 2023

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

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

 $\mathbf{V}$ 

Respondent

**Competition & Markets Authority** 

## <u>APPEARANCES</u>

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

1 Wednesday, 29 November 2023 (10.02 am)2 3 MR GREG HARMAN (continued) Cross-examination by MS STRATFORD (continued) 4 5 THE PRESIDENT: Mr Harman, good morning, welcome back. Ms Stratford, good morning also. 6 7 MS STRATFORD: Good morning. Good morning, Mr Harman. 8 Good morning. 9 Α. So just to orient ourselves, at the end of Monday we 10 Q. 11 were looking at Flynn's other products. 12 Α. Yes. 13 And the work that Dr De Coninck had done on them to Q. 14 compare them with phenytoin. 15 Α. Yes. And we finished looking at whether empirically there was 16 Q. 17 an inverse relationship between input cost and volumes in Flynn's portfolio -- I am sorry, input costs and 18 19 returns in Flynn's portfolio, and I put it to you that 20 there was not, and you fairly pointed out you have 21 looked at various features of phenytoin in combination. 22 Just to be clear, one reason I am putting these factors to you individually is because there may be a legal 23 debate about which ones do or do not need to be 24

controlled for, so I want to isolate the effect of each

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Another reason I am putting these points to you is that the President has asked on several occasions, as I am sure you recall, whether your theory is that there should be an inverse relationship between volume on the one hand and returns on the other and between input costs and returns.

So let me just remind you of that by showing an example of a question that the President put to you about volume, and this is in the transcript of this hearing at {Day10LH1/125:15-23}.

You can see there the President said:

"Just taking a step back and away from the specifics of this case, it was put to you that phenytoin is highly unusual in combining a high sales volume and a high gross margin.

"Now, moving away from, certainly capsules,
phenytoin sodium and perhaps even pharmaceuticals, is
there a trend that your margin falls as your volume
increases in terms of a general rule, or is that
something which is just random?"

- A. Okay.
- Q. The overall point I am going to put to you, so you know where I am going, is that your neat theory about the inverse relationship is not borne out in real life,

- 1 which is a bit more messy. We looked, as I said, at
- 2 this point in relation to input costs on Monday, and now
- 3 let us move to volumes.
- 4 Your proposition is that all else being equal,
- 5 percentage profit margins should be lower when volumes
- 6 are higher. Is that correct?
- 7 A. That is correct.
- 8 Q. Thank you. If we could please turn up {XE1/10/41}, this
- 9 is in CRA's fifth report, Dr De Coninck's fifth report.
- I want to look, just by way of example, please -- yes,
- 11 maybe we could zoom into table 7 because it is quite
- 12 small. Hopefully when it is blown up it will still be
- readable.
- So this is, as you saw when we could see the whole
- 15 table, this is -- sorry, the whole page, this is one of
- several tables, they are organised by year, they go over
- 17 the page as well. These tables set out the prices and
- volumes of the products in Flynn's portfolio over the
- 19 relevant period, and I am going to look at the one for
- 20 2013, but all the years paint a materially similar
- 21 picture.
- Volumes are set out on the bottom row of the table
- where it says "Number of packs sold (units)". Can you
- 24 see that?
- 25 A. I can.

- 1 Q. And phenytoin, if you can find phenytoin, that has
- 2 595,180 units sold?
- 3 A. Correct.
- Q. Can we agree that there are other products in a similar
- 5 ballpark, so, for example, Keflex has 737,605 units
- 6 sold?
- 7 A. Yes.
- Q. Circadin, 441,039 units sold. Vancocin with 659,175
- 9 units sold. Can you see those?
- 10 A. Yes.
- 11 Q. Yes. They are roughly in a similar ballpark, same
- 12 ballpark?
- 13 A. There are some products that have high volumes in the
- 14 portfolio, yes.
- Q. Well, whether they are high or -- but anyway, they are
- similar to phenytoin, it is all relative?
- 17 A. I am agreeing with you.
- 18 Q. Thank you.
- 19 So we should be able to agree, looking at volumes
- alone, isolating that, that phenytoin is not, to use
- 21 your phrase, a clear outlier?
- 22 A. That is true and I have never made that statement.
- I make the statement that it is unique, that it has
- 24 a combination of both high volumes and high input costs
- and low risk.

- 1 Q. So, as I explained --
- 2 A. Yes, I know but --
- 3 Q. -- I am isolating at the moment. The phrase "clear
- 4 outlier", I am using that because it is in your report,
- 5 for reassurance.
- 6 A. Could you take me to that in terms of where I say it is
- 7 a clear outlier in terms of volumes. I say it is
- 8 a clear outlier in terms of the combination of factors.
- 9 Q. I am not suggesting that you isolate in relation to
- 10 volumes, let me be clear.
- 11 A. Thank you.
- 12 Q. The particular phrase, in case you were troubled by
- that, is from your report.
- 14 A. Yes.
- 15 Q. It is at -- I do not think we need to turn it up unless
- 16 you want to. It is at paragraph 2.5.5 of your third
- report which is at {XE1/15/20}. I cannot remember all
- the words off the top of my head, but I am quite sure it
- is in a combination context there, because that is the
- point that you make, and I am going to deal with that.
- 21 A. Yes, I make the point that for phenytoin capsules it is
- 22 distorted because it has a unique combination of both
- 23 high input prices and high volumes, and that is the
- important point.
- 25 THE PRESIDENT: Mr Harman, let me be absolutely clear, we

- get that you are saying that you have to look at the
- 2 factors in the round.
- 3 A. Correct.
- 4 THE PRESIDENT: But in order to enable counsel to put her
- 5 case, she is going to have to go through each of the
- factors in turn and see what your position is in
- 7 relation to those.
- 8 A. Okay.
- 9 THE PRESIDENT: I have no doubt that she will at the end
- say: well, let us look at them in the round, but even if
- she does not, I have well on board your point that you
- have to look at these things in combination, and we will
- do so, but it would be very helpful to have on the
- record just where you agree or disagree with counsel in
- 15 relation to the individual strands like volumes, like
- margin.
- 17 A. I understand.
- 18 THE PRESIDENT: So do not worry, we have got where you are
- 19 coming from and I know where counsel is coming from,
- I just want the evidence on the points that Ms Stratford
- 21 wants to put.
- 22 MS STRATFORD: Thank you very much, sir.
- Could we go back, please, to {XE1/10/41} and zoom in
- on table 7 which is the one that we were looking at for
- 25 volumes, and could we also -- actually, we may not able

- 1 to zoom in, I do not know, I am not enough of an Opus
- 2 expert, but I want to put it up, please, against
- 3 {XE6/4/13} which is again Dr De Coninck's analysis
- 4 showing the differential between cost and price. I want
- 5 table 7, please, or just that whole page, if it is too
- 6 difficult to do that. Thank you.
- 7 Again, what we can see here is that your hypothesis
- 8 that high volumes should mean lower returns does not
- 9 hold true, does it? So if we look, for example, at
- 10 Distaclor, it has volumes of around 400,000 packs, but
- 11 a differential return in the same ballpark as phenytoin.
- 12 A. Can you remind me what is meant here by "differential"
- because you used the word "return", but as I understand
- it, this is not a --
- 15 Q. Well, it is differential between cost and prices. Do
- 16 you remember it is Dr De Coninck's, inspired by
- 17 Liothyronine, it is the additional measure that he
- develops in his position paper?
- 19 A. So this is price -- I am going to be need to be clear
- 20 what it actually is.
- Q. So it is cost including capital cost this time. It is
- 22 the measure that brings in an element of the CMA's
- approach this time round.
- 24 A. And what is the return? Is that based on a ROS or is
- 25 that based on a return on capital employed?

- 1 Q. Well, it is looking at cost including, as I say, capital
- 2 and comparing that with the price, and --
- 3 A. But I need to understand what that return is.
- 4 Q. -- calculating the difference.
- 5 MR HOLMES: It may assist, I think there is a note at the
- 6 bottom of the page which explains, if you go down.
- 7 A. Yes.
- 8 MS STRATFORD: Thank you. That is:
- 9 "Differential (%) is calculated as the ratio between
- 10 ASP [so average selling price] and total unit costs
- 11 minus one."
- 12 A. Yes.
- 13 Q. "The total unit cost takes account of the following ...
- 14 COGS ... Distribution ... Sales Force and Marketing, ...
- 15 Amortisation ... other common and indirect costs ... and
- 16 [then importantly] capital costs calculated using the
- 17 CMA's Cost Plus methodology..."
- 18 And you can see then it is assumed the CMA's
- 19 3.5 million level of capital. So that is what --
- A. For phenytoin.
- 21 Q. Yes.
- 22 A. But for the other products, it is considering the rate
- of return on their capital employed and the problem with
- 24 this analysis that I have set out in my reports is that
- 25 it is an incomplete analysis of the return that would be

- potentially required once all of the capital employed
  had been fully considered.
- 3 So this --

- Q. Sorry, Mr Harman, just to interrupt for a moment so we are not at cross-purposes, you cannot have considered this in your report because this is in Dr De Coninck's position paper.
  - A. No, I make the general point that any of the analysis that Dr De Coninck has done in terms of return on capital employed is distorted because he has not done a full analysis of the required level of capital required for each of those products. He has just taken the historical accounts and not reflected the replacement cost.

We went through this on Monday. So the problem with that is that when you combine that into this analysis, you are also getting that distortion. So I do not think anything meaningful can be said of it until you have gone through the return on capital employed approach in detail for each of those other products.

Q. Well, I hear what you are saying. If you are not prepared to proceed using this, which seems to us a helpful approach for the purpose of this part of my questioning, in particular given the President's interest in whether there can be a metric or an approach

- 1 which looks at both capital and costs and compares them
- 2 to price, I think we could do exactly the same exercise
- 3 looking at the ROS tables, if there is going to be less
- 4 pushback from you.
- 5 A. Okay.
- 6 THE PRESIDENT: Well, Ms Stratford, I do not know how
- 7 comfortable Mr Harman would be. We have on the record
- 8 his significant reservations about the way this is done.
- 9 If he is happy and you are happy we can proceed for you
- 10 to put your questions on the basis that that reservation
- is -- you say you do not accept it, he has maintained
- 12 it, you can ask questions about the material, and,
- Mr Harman, I have the fact that you do not like these
- 14 figures, you do not need to repeat it every time.
- 15 A. Okay.
- 16 THE PRESIDENT: But if you answer the questions having
- 17 banked, as it were, the reservation you have made,
- I will not be making a decision on the basis that
- 19 Mr Harman accepted these figures and was happy to be
- 20 cross-examined on them.
- 21 You are unhappy to be cross-examined on them, but
- 22 you are doing us all a favour by answering the questions
- that are being put on that basis.
- 24 A. Understood.
- THE PRESIDENT: I am grateful.

- 1 MS STRATFORD: Thank you, sir, that is very helpful.
- I think I just need to be clear that none of this line
- 3 hangs on the point that is being pushed back on.
- 4 THE PRESIDENT: That is a matter for submission later on.
- 5 MS STRATFORD: Thank you, yes.
- 6 THE PRESIDENT: I am not tying you down either,
- 7 Ms Stratford. We will decide who is right later on.
- 8 MS STRATFORD: Absolutely, thank you.
- 9 THE PRESIDENT: But I do not want to have to decide that now
- in order for you to ask the questions of Mr Harman.
- 11 MS STRATFORD: Thank you.
- So proceeding on that basis, Mr Harman, you can see
- that we were looking at Distaclor, around 400,000 packs,
- 14 but a differential return in the same ballpark as
- phenytoin.
- 16 Then you could look, please, at -- I have to get
- 17 this --
- 18 A. Distaclor? In which year, 2013, you said?
- 19 Q. We are looking at table 7, just by way of example,
- Distaclor is around 400,000.
- 21 A. Okay, yes. So it has --
- 22 Q. So quite a bit lower, quite a bit lower than phenytoin,
- is it not?
- 24 A. Yes, so half, so that would suggest they require
- a higher return, and then when I look at 2013 in

- figure 2, I see Distaclor has a differential of 34
- 2 compared to 50.
- 3 Q. Sorry, Mr Harman, Distaclor has a lower return -- sorry,
- 4 has a lower volume than phenytoin here.
- 5 A. Yes.
- Q. So according to your theory, it should need a higher
- 7 return?
- 8 A. Yes, and what I am saying is it may need a higher
- 9 return, and phenytoin should require a lower return, yet
- 10 we see phenytoin has a higher return on a drug that
- should be higher due to the fact that it has half the
- 12 level of volumes.
- So me that suggests there is a differential between
- 14 the two that needs to be understood.
- 15 THE PRESIDENT: Assuming that there is correlation between
- volume and margin as you are postulating?
- 17 A. Correct, yes.
- 18 MS STRATFORD: Let us just try one more.
- 19 A. Okay.
- Q. Then it may be easier if we move on to general
- 21 propositions, so if we could just look at cefuroxime,
- 22 please -- I hope I have pronounced that correctly --
- 23 A. Yes.
- 24 Q. -- so that has a similar volume to Distaclor?
- 25 A. Yes.

- 1 Q. But very low returns. Can you see that?
- 2 A. Yes, I can.

Yes. So the point I am putting is that your theory Ο. about the inverse relationship between volumes and returns does not seem to hold true in real life, and what we say is that each product has its own individual story, if you like, and that having a finance theory that products should earn just enough to cover their cost of capital once volumes and input costs are taken into account, does not hold true in real life.

In other words, to use the President's words -- he may not have intended this to be quoted back, but there is an element of randomness in the figures that your theory cannot capture?

A. I think that -- I do not think that I have ever said that every single product in the world is going to be priced at its cost plus, that is not my position. I say that the returns of a particular product are going to be a function of a number of factors, without having to repeat myself on what all of those factors are.

In the long term, under conditions of workable competition, I would expect a trending towards a cost plus measure, but it is absolutely possible that certain products will either earn a higher return or a lower return depending on their current position.

I mean, here we see in the diagram on the right that there are loss-making products, and that is obviously a function of the nature of the market price, their place. There may be, you know, extreme competition that is driving down prices, we do not know.

So, yes, there is going to be a distribution around the average, but I do not think that undermines the general theory, it is not my theory, it is finance theory, that when you consider the return on a product it is going to be a function of invested capital, it is going to be a function of the level of risk in the marketplace.

If you want to express that in terms of return on sales, you have to take into account some other factors, but there may be reasons, justifiable reasons, or reasons that can be identified why companies can earn returns above or why businesses actually earn below, and I think this is what this is demonstrating, is that there is some variation around the mean.

THE PRESIDENT: Just to pick up on the general proposition you just articulated. You said:

"In the long term, under conditions of workable competition, I would expect a trending towards a cost plus measure..."

Ought one to add in:

"... all other things remaining equal."

2.2

2 A. Yes. So, I mean, it depends what -- it depends what we think competition is.

I explained that there may be differences between products' prices because of differentiation, I think that has been discussed widely that that may be one reason why you are able to have a different set of prices in the marketplace. I explained -- or I started to explain and maybe did not finish it, but, you know, there are types of competition models, economic models, like monopolistic competition which fuses monopoly and perfect competition, the difference there being is instead of being a homogeneous product, there is actually product differentiation.

Now, the outcome of that model is that instead of pricing at your own marginal cost and everybody is equally efficient and all prices converge, in that marketplace, economics says is that each of the individual firms in theory would price where demand hits their average total cost curve, and so the cost plus in those worlds would all be different, everybody would have a different cost plus because, to a certain extent, it will reflect the costs of that differentiation.

There is then a secondary question above that in that competitive marketplace whether there are value

- demand side drivers that would also then justify a price
- 2 above their cost plus, but still, the economics is
- 3 rooted in an alignment between prices and costs.
- 4 THE PRESIDENT: Sure, but we have two ways of analysing any
- 5 given economic situation: you could take a sort of
- 6 static approach or you can take a dynamic approach, and
- 7 the static approach is problematic because it just does
- 8 not reflect the real world because things move on,
- 9 things change, things are always changing.
- 10 A. Yes.
- 11 THE PRESIDENT: The dynamic approach is because it is
- 12 difficult because you have all these rather difficult
- extraneous factors which you need to extract in order to
- say something meaningful.
- 15 A. Yes.
- 16 THE PRESIDENT: So you have an analytic tension which makes
- 17 this very difficult.
- 18 A. Of course.
- 19 THE PRESIDENT: So all I was trying to understand is that
- when you say "in the long term under conditions of
- 21 workable competition I would expect a trending towards
- a cost plus measure", you have inbuilt into that
- 23 statement the qualification "all other things remaining
- 24 equal", because you are postulating a dynamic state of
- 25 affairs, you are looking at the long term?

- 1 A. Yes.
- 2 THE PRESIDENT: But you are saying: I need to extract, in
- 3 order to make this statement, all of the myriad other
- 4 factors which are going to cause costs, prices and
- 5 everything else to change.
- 6 A. Yes, I think that is fair.
- 7 THE PRESIDENT: That is something which we have to bear in
- 8 mind as well, because all of this data is with all of
- 9 the noise from the rest of the world which we are
- somehow going to have to make sense of, and maybe that
- is an explanation of the randomness, but we do not even
- 12 know that. What we know is that there are these
- extraneous factors. What their effect is is actually
- 14 what we are talking about and we do not know the answer;
- if we did know the answer, then this would all be much
- 16 easier.
- 17 A. Understood.
- 18 THE PRESIDENT: Thank you.
- 19 MS STRATFORD: Thank you very much.
- Just before we move on -- and I fully take the
- 21 helpful point that was made about the differentials
- 22 chart and Mr Harman's position on it, but just so there
- is a no confusion, we would say the same picture is
- 24 painted if you look, for example, at the ROS chart
- 25 which -- and just for the note, I am not going to go to

- it, but that would be  $\{XE1/10/13\}$ .
- 2 Mr Harman, I put it to you that the best we can do
- 3 is look at the whole portfolio of Flynn and similar
- 4 companies and look for a ballpark range of normal
- 5 returns which incidentally is what the Commission did in
- 6 Aspen.
- 7 Moving on, another point that you make is it is
- 8 necessary to control for risks, the risks attached to
- 9 the product?
- 10 A. Yes.
- 11 Q. And you say that phenytoin faced less risk -- I am
- 12 quoting now from your report, from your third report --
- 13 A. Can you take me to the paragraph?
- Q. Of course. The Opus reference is {XE1/15/80}. It is
- paragraph 6.3.9 of your report. You say:
- "... Phenytoin ... faced less risk, and hence should
- have a low benchmark return, than some of Flynn's other
- 18 products."
- 19 A. This is 6.3.9?
- Q. Yes. Do you see that?
- 21 A. Oh yes, so where I say that:
- "... Phenytoin Capsules had a more stable demand and
- incurred little or even no marketing expenditure[s]. As
- 24 such, it is reasonable to assume Phenytoin Capsules
- 25 faced less risk..."

- 1 Q. I am focusing on risk now.
- 2 A. Yes, I was just reading the whole sentence.
- Q. Of course. I just want to start with a basic
- 4 proposition: can we agree that one is unlikely to find
- 5 a perfect match for any product in terms of risk
- 6 profile? So it will always be a question of
- 7 approximation to some degree?
- 8 A. I think that you have to -- you will never find two
- 9 apples, but you do have to ask, and maybe it is
- a subjective question, I do not know, as to whether they
- 11 are sufficiently comparable, and so why I read that out
- is that we are actually dealing with a product that has
- inelastic demand, and in that case I think that you
- 14 would want to try to look at products that did have
- 15 inelastic demand.
- Q. So you may or may not have been here when Dr Fakes gave
- 17 his factual evidence about the level of risk that Flynn
- 18 faces.
- 19 A. Yes.
- Q. I am not sure, and whether you have seen the transcript,
- 21 but just to be clear, the Tribunal's going to make up
- 22 its mind about that of course --
- 23 A. Of course.
- Q. -- and you are not here to give evidence about Flynn's
- 25 actual level of risk. I want to explore with you one

- comparison relating to risk that you have not touched on in your report.
- If we could bring up, please, {XO/13}. I think you

  have seen this before. This is the hand-up that we gave

  to the Tribunal last week, and it shows Flynn's

  reasonable return based on the CMA's own figure, that is

  the grey bar on this document.
- 8 A. Yes.
- 9 Q. And the resulting return for pharmacies and wholesalers
  10 based on the industry convention of giving wholesalers
  11 a 12.5% discount from the list price. So in Flynn's
  12 case that would be the drug tariff price for its
  13 product, and that is the yellow bar.
- 14 A. Okay.

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Q. So the simple point is that pharmacies and wholesalers are getting a much larger slice of the pie than Flynn.

Can we agree at a high level that if returns are supposed to be informed by risk, it is, let us say, counterintuitive that wholesalers whose job is to shift boxes of phenytoin or of any product from seller to pharmacist, are getting much more than Flynn who holds and operates the marketing authorisation for the drug?

A. Can I just ask a clarifying question on here? The return also includes a return for the pharmacy, is that correct?

- 1 Q. Yes.
- 2 A. Okay. Well, I think two major points. The first is you
- 3 have two additional levels of the entire supply chain,
- 4 so one could obviously break the orange box into one for
- 5 pharmacy and one for wholesalers. The level of return
- is not just a function of risk, it is also a function of
- 7 capital employed. You cannot just look at risk in
- 8 isolation because this box fundamentally has to capture
- 9 those two things.
- So not understanding or not knowing the level of
- 11 capital employed for pharmacies or wholesalers it is
- 12 difficult for me to answer that side of the question,
- but I think more importantly, what we have in this
- 14 situation, if there is a standard margin, is that it is
- impacted by Flynn's very high input cost, and because
- 16 you have the distortion of a very high input cost --
- 17 THE PRESIDENT: The price paid to Pfizer?
- 18 A. The price paid to Pfizer because that is most of the
- 19 blue stack, because of that very high input cost, if
- there is a standard discount of 12.5%, it is going to
- give a very high number, you know, by mathematics.
- 22 MS STRATFORD: Mr Harman, are you suggesting that the
- 23 wholesalers are risking excessive pricing --
- A. No, I am not.
- Q. -- and the pharmacies?

- 1 A. No, I am not suggesting that they are facing, because
- 2 they are in a different competitive market. I am not
- 3 saying that they are dominant in that market. I am just
- 4 saying that if it is true that there is a standard
- 5 mark-up, then that mark-up would be influenced if
- 6 Pfizer's price was excessive.
- 7 Put differently, if you redid this chart with
- 8 Pfizer's cost plus that the CMA has calculated, then you
- 9 would see a 12.5% mark-up on that costs stack very close
- to the grey bar.
- 11 So the comparison of --
- 12 Q. We have not done that exercise, so I do not know what it
- would look like, but I hear the point you are making.
- 14 A. Yes. My simple point is that I am not saying that the
- orange bar is abusive; they are in a different
- 16 competitive market. It is going to depend on their
- capital employed, but if you are going to just apply
- 18 a market rate of 12.5% which I understand from
- Mr Williams' evidence is actually often, in the
- 20 competitive market, falls below 12.5%, but if it was
- just at 12.5%, it would be influenced by a potential
- 22 excessive price from Pfizer.
- 23 THE PRESIDENT: Right. You used, in that regard, the word
- "distortion" a moment ago.
- 25 A. Yes.

- THE PRESIDENT: I just want to check whether you were using
  that in a loaded or an unloaded sense, and let me unpack
  what I mean by that.

  One can have distortions that are there just
- 5 because, in an ordinary competitive market there is a factor that needs to be taken into account because it 6 7 has a distorting effect, and that is a neutral sense, 8 but I think that you are saying that it makes a difference to your view that there is an excess being 9 10 charged by Pfizer to Flynn in which Flynn is to a degree 11 complicit. We have this as a kind of recurring subtheme 12 in the CMA's case, and this is something we will be 13 discussing, I suspect, in closing.
- Is that something which is feeding into your use of the word "distortion"? Not?
- A. No. I am using it more in a mathematical sense.
- 17 THE PRESIDENT: That is excellent.
- A. That if there are high input prices and if there was
  then a fixed margin, then the observed fixed margin will
  flow from that level: the lower it is, the lower it is.
- 21 So all I am saying is that -- and it is my theme -22 you cannot just look at percentages without looking at
  23 the other underlying factors.
- 24 THE PRESIDENT: That is very helpful. You are saying that 25 the use of the word "distortion" is in the mathematical,

1 neutral sense?

2	Α.	Yes.

2.2

THE PRESIDENT: And you would be using that word whether

Flynn and Pfizer were agreeing how to price the overall

chain or whether it was a completely independent price

which Flynn entirely voluntarily chose to pay because

they thought they could make money out of that deal?

A. Yes, I think what I am -- and just to explain that in a little bit more detail, I think if there was a higher input cost, the question becomes why would the wholesalers and the pharmacies need ever increasing returns just because the input cost is increasing?

I would suggest that if those firms have external capital or even if they have internal capital that ultimately they are going to compete on their invested capital, and so if somebody was getting a 12.5% return, competition should lower that 12.5% return.

I was trying to think yesterday as a way to try and, you know, kind of explain that. I mean, say I have a very simple business where I simply transport a product from A to B. Let us assume that this is my business, and I go out into the market and I try and work out what my market rate is, what would I be willing to work at if I -- and maybe my alternative is working in a coffee shop as a barista and I know if I did that

- job I could earn £10 an hour.
- 2 If my job was simply picking up product at A and
- delivering it to B, then I am going to still charge the
- 4 person at A £10 for my labour for an hour. It does not
- 5 matter if I am carrying a product that is worth £1 or
- 6 £2. I do not suddenly think: well, if I am carrying
- 7 a slightly more expensive item I need a slightly higher
- 8 rate of return; I do not, because I have already
- 9 reflected my value in the marketplace at -- I do not
- 10 know if that is helpful, but ...
- 11 THE PRESIDENT: No, I see what you are saying. I mean,
- 12 really, to go to the very fundamentals, your
- understanding of workable competition contains inbuilt
- 14 within it an assumption or a presumption that all forms
- of product differentiation can, over time, be competed
- 16 away?
- 17 A. I do not think in all cases it can be competed away if
- 18 there is differentiation. I think that there will be
- differentiation that is potentially not captured by
- 20 underlying costs, ie that in a competitive marketplace
- somebody may be willing to buy a product at a price that
- is higher than the underlying cost because there is
- something that they get out of it.
- 24 THE PRESIDENT: Well, indeed, but taking your words "in the
- long run" that difference, that excess, of revenue over

cost resulting in an abnormal return is going to attract

tother people into the market with the result that

competition will be furthered and price will therefore

trend to cost.

So the thing that drives your thesis is that workable competition only exists where product differentiation can be competed away over time.

A. I do not make the assumption that in the very long term that any product that had some differentiation could be replicated and therefore everybody gets competed down to cost. I do not think that my position is as extreme as that. I think what I am saying is that if there was workable competition -- maybe I will not use the "long term", but I will use the term "medium term" -- where there are a number of competitors that have differentiated products, then in that world I think there would be price differences, that it would be reasonable to observe differences.

I do not think it is reasonable for me to have a construct that says we have to look into the very long term where every single differentiated product is replicated.

THE PRESIDENT: Yes, but all you are saying is the flipside of what I have been putting to you, which is that where one has differentiation, there one can have an excess of

- 1 price over cost which is not tethering the price to
- 2 cost.
- 3 A. Correct.
- 4 THE PRESIDENT: The only way you get the tethering of price
- 5 to cost is if, over time, whatever that time period may
- 6 be, competition can come in so as to render that
- 7 differentiation non-existent.
- 8 A. Yes.
- 9 THE PRESIDENT: So where that differentiation cannot be
- 10 eroded, do you say that that is a state of workable
- 11 competition or not?
- 12 A. Where it cannot be?
- 13 THE PRESIDENT: Cannot be.
- 14 A. But there is still choice in the marketplace?
- 15 THE PRESIDENT: Well, there is choice subject to that
- differentiation, so there is obviously a tension there.
- 17 A. Yes. Well, I think that, you know, my position is --
- and I think, I hope, it is consistent with what I have
- 19 been saying -- that there can be situations where there
- are differentiated products, and it will be above cost,
- 21 and I think that that is reasonable so long as there are
- 22 reasonable alternatives and choices that consumers can
- 23 make in the marketplace. So under the coffee shop
- 24 example, I know that the underlying finding was one of
- dominance for Apple, but in that marketplace, absent

1	that, I would not see anything particularly concerning
2	as to whether there was an anti-competitive price,
3	because those differentiations can be justified by cost
4	factors and also demand side factors that, you know,
5	could be investigated and understood, maybe it is
6	because they were like Apple, maybe it is because of the
7	environment, and all those things.

I think that there is a differentiation that when there is not alternative choices and that is where, you know, my analysis, the first limb, can only take you so far. It can take you to a point that provides a benchmark for outcomes, but then there is a question as to whether it is reasonable for the dominant firm to exploit what it would say is its differentiation of being unique in the marketplace, and that falls, then, into more of a policy domain as to what is reasonable in those situations.

THE PRESIDENT: So let us take the archetypal luxury good where branding is central.

20 A. Yes.

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21 THE PRESIDENT: And over the years, you have burnished your 22 brand and you have made it intrinsically valuable in a manner that is entirely indefensible by reference to 23 the cost base. 24

25 A. Yes.

- THE PRESIDENT: You simply have people who because they like
  the brand are paying way above cost. You are not
- 3 troubled by that because I can get an alternative far
- 4 cheaper, not, of course, with that brand, but it will do
- 5 the job.
- 6 A. I mean, I think as -- I mean, I tell my wife very often
- 7 when she is buying handbags that there are cheaper
- 8 alternatives that do the job and she tells me that I am
- 9 not looking at the issue in the right way, but, I mean,
- 10 I think that -- I mean, what you have to consider,
- I think, in those market places is that there is high
- innovation in terms of the production of the bag, there
- is high branding, obviously, and everything that gets
- 14 associated with that, but there is choice in the
- marketplace, and it is a pretty rarefied world, I guess,
- 16 the luxury goods market, but if the price went too high,
- if they tried to exploit the market at the limit they
- 18 would face some constraints.
- 19 THE PRESIDENT: Oh yes, I mean, there will be a limit to how
- 20 much people will pay for their branded product --
- 21 A. Yes.
- 22 THE PRESIDENT: -- I understand that, but assuming no
- 23 innovation, just a careful over the decades marketing
- 24 strategy, you are happy provided that there is an
- 25 alternative which deletes the brand, that this is

- a state of workable competition, because you have got
- 2 choice?
- 3 A. Yes, I think choice is very important.
- 4 THE PRESIDENT: Yes.
- 5 A. I think it has to be reasonable choice. I mean, so, if
- 6 you say -- if the only two products in that market were
- 7 the Hermes Birkin bag on the one hand and a plastic
- 8 carrier bag on the other side, you might say that is
- 9 unreasonable, but if you are comparing, you know, the
- 10 Hermes bag to a Gucci bag, you may say that is
- 11 reasonable competition because they are both in the
- 12 luxury market.
- 13 THE PRESIDENT: But one could have -- and take fizzy drinks.
- 14 A. Yes.
- 15 THE PRESIDENT: One has two brands which over the decades
- 16 have been embedded in our thinking. So we have
- 17 Coca-Cola, we have Pepsi, and I have no idea what the
- differential between what is charged and what these
- 19 things cost, but let us assume for sake of argument that
- it is very high.
- 21 A. Yes.
- 22 THE PRESIDENT: Now you have, of course, your volume versus
- 23 price question, but there is an ability in these two
- 24 brands to maintain a profile in terms of market share
- and price which is informed by the branding that exists.

- 1 A. Yes.
- 2 THE PRESIDENT: So this is not a luxury product, this is
- 3 simply something which is embedded in our consciousness.
- 4 A. Yes.
- 5 THE PRESIDENT: Now, there is any number of fizzy drinks
- 6 which are there as alternatives --
- 7 A. Yes.
- 8 THE PRESIDENT: -- which sell in far lower volumes and
- 9 probably for a marginally lower price. I confess I have
- 10 not done the work on this, but let us assume this is the
- 11 case.
- This is not a case where you are particularly
- 13 concerned that Coca-Cola's or Pepsi's price are
- 14 untethered to their cost.
- 15 A. I am not because --
- 16 THE PRESIDENT: Because there is choice?
- 17 A. Because of the branding. Well, (a) because there is
- 18 branding and (b) because there is choice.
- 19 THE PRESIDENT: Right.
- 20 A. But I think branding is important at the end of the day
- 21 because historically a great load of costs have been
- 22 spent, and at the beginning of that process you do not
- 23 know how successful it is going to be, so you face an
- ex post risk.
- 25 THE PRESIDENT: Sure, but just to badge this, this is all

1	under yo	our l	badge	of	workabl	.e	competition,	you	are	happy
2	with it	as l	being	wor	kable c	om	petition?			

A. Yes, I am.

THE PRESIDENT: Right. What about the medically necessary patent, the patent that is very significant, that differentiates because it is buttressed by law, a product from everything else and here we have a real needs-based situation where there is only one way of getting the benefit that this particular drug provides, which is to buy the drug because you have the monopoly that is created by the patent bargain that exists in pretty much every country that has some form of intellectual property law and certainly here. Is that, in your book, workable competition or not? 

A. I think that when you are in the patented world, I think that is in a world, I would say, where -- I would almost say, you know, the notion of workable competition is slightly -- is it workable competition?

I mean, I would say you could classify it as workable competition. I would probably put it differently. I would say should a patented drug be able to earn a return that is above cost given the risks that it has undertaken, I would say yes. From an economic point of view, though, it only takes you so far because the pharmaceutical company may want to charge an

1	unlimited amount of money, but it then faces two
2	constraints.
3	The first constraint is what can people actually
4	pay, and different countries all have different
5	healthcare budgets. Secondly, I think that one gets
6	into policy, and that is where we see policy stepping

healthcare budgets. Secondly, I think that one gets into policy, and that is where we see policy stepping in and saying: well, we do accept that these are valuable products and we do accept that you should innovate and take risk, but we still want to have some control, and that is the mix there of economics and policy coming into play.

THE PRESIDENT: Okay, well, that is very helpful, but just to be clear -- and do tell me if I have characterised your answer wrongly -- neither of the constraints that you have just articulated emanate out of competition law?

17 A. No.

18 THE PRESIDENT: Okay, thank you.

19 MS STRATFORD: Thank you very much, sir.

Just before we move on -- and I am about to move on, but during your discussions with the President earlier on you talked about the idea that the pharmacy and wholesaler 12.5% return might reduce through competition, so if the evidence is that competition did not in fact lower the 12.5% return, would that suggest

- that your theory does not hold true in real life?
- 2 A. No, I am saying that -- and I do not know how the 12.5%
- 3 is charged. If that is not affected by workable
- 4 competition, my overall comment still remains that the
- 5 pharmaceutical company, the wholesaler and the pharmacy
- in this particular instance would end up earning a high
- 7 rate of return due to Pfizer's input costs, but I do not
- 8 think that that would be anti-competitive at their
- 9 level.
- 10 Q. If it is not workable competition, then they would be
- 11 dominant, and I put it to you earlier that that would
- 12 then -- they would be at least risking a finding of
- 13 excessiveness on your theory.
- 14 A. No, I do not think the pharmacies are dominant in --
- 15 Q. Okay, well let us move on. I want to come now to
- absolute profits, and your point is -- at a high level
- is that high volumes and high input costs can combine to
- 18 create a high level of profits in pound terms even if
- 19 the return in percentage terms looks modest. Is that
- a fair high level summary? We are coming now to the
- 21 combination.
- 22 A. Yes, I am saying --
- Q. I do not really need you to restate it, if you do not
- 24 mind. Was my summary fair?
- 25 A. I think it is fair enough.

- 1 Q. Well, I am trying to move us on. I am conscious we have
- got another block of evidence to come to. If you want
- 3 to, by all means, but shall I just say again what
- 4 I said?
- 5 A. Yes.
- 6 Q. So I am putting this at a high level that high volumes
- 7 and high input costs can combine to create a high level
- 8 of profits in pound terms even if the return in
- 9 percentage terms looks modest, and whether that is
- 10 a fair summary at a high level.
- 11 A. There are some other factors that go into it, but I am
- 12 reasonable -- it is a reasonable starting point.
- 13 Q. Thank you. That is really helpful.
- So just as an initial question, do you know how much
- absolute return Flynn made on each of its four strengths
- of phenytoin?
- 17 A. Not by memory.
- 18 Q. No.
- 19 A. In total?
- Q. Each of its four strengths in total.
- 21 A. I know what the answer is in total.
- Q. Let us get up, please, {XO/1} you may have seen this,
- 23 this is another hand-up that we produced during the
- 24 hearing.
- 25 A. Yes.

- 1 Q. Because these figures do not appear in the Decision or
- 2 your report, and we can see here that Flynn made around
- 3 £1 million per year on the 25mg capsule, £1.6 million on
- 4 the 50mg, £3.5 million per year on the 100mg and
- 5 £2.6 million on the 300mg. You see that?
- 6 A. I see that, yes.
- 7 Q. It is not your position, as I understand it, that stated
- 8 in the abstract these levels of profit are evidence of
- 9 excessiveness, so you are not saying that any company
- that earns £1-3 million on any product in any market is
- 11 pricing excessively?
- 12 A. No, this evidence is -- has to be used in conjunction
- with the other primary lines of analysis that the CMA
- has performed as a cross-check to ensure there is not
- 15 a type 1 error.
- Q. So as we understand it, the basis on which you say these
- 17 levels of profits stated in pound terms are excessive is
- 18 because they are higher than the profits of Flynn's
- other products?
- 20 A. I think what it -- what the analysis shows is that the
- 21 level of profits that Flynn earns on capsules, either in
- 22 absolute terms or per pack terms or in terms of the
- 23 differential that arises is different from all of the
- 24 other products, and in fact different, significantly
- 25 different, even in aggregate if you were to compare the

- 1 outcomes of 13 to --
- 2 Q. That is what I just said much more shortly. So they are
- 3 excessive because they are higher than the profits of
- 4 Flynn's other products?
- 5 A. In conjunction with the other findings.
- 6 Q. So I think we can agree that Flynn is a small
- 7 pharmaceuticals company, so it is not a GSK or an
- 8 AstraZeneca, is it?
- 9 A. It is not as big as those companies.
- 10 Q. You told us on Monday that Flynn was loss-making before
- it acquired phenytoin?
- 12 A. Yes, that is my understanding.
- 13 Q. Over the relevant period it had a portfolio of twelve
- 14 other products, some of which, as you say, sold in very
- 15 low volumes?
- 16 A. Yes.
- 17 Q. So your sample for testing the absolute profits of
- 18 phenytoin -- so, remember, we have this about
- 19 £1-3 million per year on the four different strengths --
- is a small, loss-making company with, at most, twelve
- other products?
- 22 A. Well, it was not loss-making over the relevant period.
- 23 Q. It was loss-making before it acquired phenytoin, is the
- 24 point that I put.
- 25 So my question is, do you actually know what the

- 1 return is in pound terms on a generic medicine in this
- 2 company? Do you know the ballpark, pound term --
- 3 A. I know that the average gross margin of the 13
- 4 products --
- 5 Q. I am asking -- sorry, Mr Harman, we are on absolute
- 6 profits now because that is something that you and the
- 7 CMA focus on, so I am asking about actual prices in
- 8 pound terms.
- 9 A. I have the figures in my head at -- in absolute gross
- 10 margin per pack, which is an absolute figure, all other
- 11 phenytoin capsules have a gross margin per pack of about
- 12 £3 per pack, and phenytoin capsules of £13 per pack, and
- that can be seen in one of my graphs if you would like
- 14 to go there.
- 15 Q. What I was asking about, Mr Harman -- you may not have
- 16 understood -- was whether you know what the average
- 17 return is in pound terms across the generics industry,
- just in ballpark terms?
- 19 A. The average return on generics?
- 20 Q. Yes.
- 21 A. Is that niche generics or is it on --
- 22 Q. Either. I mean, I was asking it about the whole generic
- 23 market, but --
- 24 A. No, I do not.
- 25 Q. No. So my question is do you think it would have been

l	helpful if the CMA had done some empirical investigation
2	on the market more generally into what is a normal level
3	of absolute profits to make on a generic product?

- A. Not in the way in which the CMA was using the analysis.

  It did an analysis based on a return on capital

  employed, and it recognised that that could give rise to

  situations that the absolute level of profits was small

  even though the return on capital employed was high. So

  the analysis that it did was to look at the return on

  capital employed, then have a look at absolute profits

  and compare that across Flynn's portfolio and it

  discovered that it had the highest return on capital

  employed, phenytoin capsules, and the highest level of

  absolute returns, and those two things taken together

  means that the level of an error 1 risk is low.
  - Q. I know what the CMA did, and I know your theory; I am putting some points to you, and I would be really grateful if you could address those.

What I put to you is that the CMA could have approached one or more of Mr Williams' five comparator companies, or indeed another company of its choosing, and asked for the returns on its five most profitable products, let us say, in order to assess whether Flynn's absolute returns on phenytoin were unusual.

Do you just agree that that would have been a useful

1 thing to do?

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- A. I think that you are trying -- well, I cannot answer

  what the CMA did. I think -- and I have given this --
- Q. No, it is whether you think it would have been useful as an additional limb of their investigation?
- A. I fully support a preponderance of evidence approach,
  that is something that I have made clear within my
  report. In general, if it is possible to get additional
  information, that is -- you know, I am not going to say
  that that is unhelpful, of course.
  - Q. I am asking about a specific and fairly limited, in my submission, exercise that they could have done.
- 13 I think that the decision that is one has to make in Α. doing so is, and has to have the following factors in 14 15 mind: one, you have to have a thought as to whether it 16 is likely that you are going to find a comparator that 17 is as comparable to phenytoin capsules. You probably 18 cannot do that until you have done the analysis, but you 19 then also have to understand how big a task that would 20 be, and my assumption is that would have to be quite an extensive analysis. We have already seen the level of 21 22 analysis that has just gone into phenytoin capsules for Flynn, and analysing lots of different products from 23 24 multiple companies may be complex.

25 So there is a cost time element to that question,

1	and you would have to weigh up is it likely that that is
2	going to provide additional information, and it may and
3	it may not, versus do I think that we have done
4	a sufficient amount of analysis.

Now, if the question is it is unlimited, would you seek to do that, then, if the information was available, I would have a look at it.

THE PRESIDENT: Well, can I sharpen it slightly and put it this way: is what you are saying that this information that, all other things being equal, you would want to see because it could be useful, but you would want to weigh against that the costs of acquiring it, conscious that even if those costs are incurred, the information that you get at the end of the day actually may be unhelpful, not in the sense that it supports or does not support the case that is being run, but that it just does not tell you anything?

A. Yes, I think there is a cost benefit that needs to be done: do you believe that you have already done a sufficient amount of work, and so, you know, I suspect that would have crossed the CMA's mind.

If the cost consideration was not there and the time consideration was not there, then I think a reasonable person would seek to do additional analysis.

THE PRESIDENT: But you do not know what the cost

- consideration was?
- 2 A. No, I do not.
- 3 THE PRESIDENT: So you would, leaving on one side whatever
- 4 the CMA may or may not have done, you would want to look
- 5 at the feasibility of obtaining this empirical data and
- 6 you would not close off the enquiry at the stage of not
- 7 interested, you would close it off at the stage of it is
- 8 too difficult to obtain the material, too expensive, in
- 9 light of the benefits that I hope to obtain?
- 10 A. Yes, I mean, that is a reasonable thing to do, you know,
- 11 save to -- you know, I would think that the CMA --
- 12 THE PRESIDENT: Well, we will ask about you.
- 13 A. Yes.
- 14 THE PRESIDENT: You would want to look at this, but you
- would not do it at all cost?
- 16 A. Correct.
- 17 THE PRESIDENT: Okay.
- 18 MS STRATFORD: Thank you.
- Just to be clear, Mr Harman, what I put to you was
- that an example, it may be a good idea, would just be to
- 21 look at Mr Williams' five comparator companies or indeed
- 22 another company of the CMA's choosing and ask for the
- 23 returns of their five most profitable products. So we
- 24 are not talking about a vast exercise there.
- 25 A. But do not forget they have already looked at Flynn's

- other products, so they --
- 2 Q. Yes, I just want to come -- that is my other question
- 3 that I think arises out of this exchange. You said that
- 4 you would want to look at the preponderance of evidence.
- 5 Are you happy that a comparison only with Flynn's 12
- 6 other products is a preponderance of evidence?
- 7 A. Well, it has also had regard to other factors such as
- 8 Pfizer's returns.
- 9 Q. We are here focusing on absolute returns, are we not?
- 10 A. Absolute returns, yes, you can still look at Pfizer's
- absolute returns and the allowances that it has given.
- 12 We have looked at Flynn's. I mean, that is 13 products.
- 13 That provides a sample. If it was feasible, as I have
- 14 said, at a reasonable cost, maybe you would look at the
- other comparators.
- Q. Okay. Can we perhaps agree this: the question of
- 17 whether a particular level of returns in pound terms is
- 18 excessive cannot depend on whether you are a small
- 19 company like Flynn, a relatively small company, or
- 20 a large company. So it might be the case that if you
- 21 looked at the portfolios of bigger companies with more
- 22 products -- so, say, AstraZeneca or GSK, you would find
- 23 generic medicines with a return far higher
- than £1-3 million per year per strength?
- 25 A. Because they are selling in higher volumes?

- 1 Q. Yes, they are just bigger.
- 2 A. So you have to look at these absolute totals also with
- 3 per pack.
- Q. But you do not know, do you, because the CMA has not
- 5 looked, apart from you mentioned Pfizer, Flynn --
- 6 A. 13 products, yes.
- 7 Q. -- Pfizer single product, phenytoin. But the CMA has
- 8 not looked at any other products on the market as a part
- 9 of the Remittal Decision.
- 10 A. It has looked at Flynn.
- 11 Q. It has looked at Flynn and it has looked at Pfizer --
- 12 A. Yes.
- 13 Q. -- in that limited respect. I think you must agree that
- where a level of return in pound terms looks large for
- a small company but normal for a big company, that does
- not mean the small company is guilty of excessive
- 17 pricing, does it?
- 18 A. No, I have said that you have to look at both in total
- 19 and in per pack terms as a function. You have to
- 20 control for the volume.
- 21 Q. Thank you. So setting aside for the moment the
- 22 comparison with Flynn's other products, can you please
- 23 point us to where in your report you set out an economic
- 24 methodology for distinguishing between an excessive and
- a non-excessive amount of absolute profits? I am

- 1 putting to you that there is none.
- 2 A. Sorry, can you repeat the question?

amount of absolute profits?

- Q. So where in your report is there an economic methodology
  for distinguishing between excessive and non-excessive
  amounts of absolute profits? So put aside the possibly
  slightly merits-based points that you keep coming back
  to about Flynn's other products, where is there anything
  that sets out or explains an economic methodology for
  distinguishing between excessive and non-excessive
  - A. You have to remember the role of what is happening with absolute profits. The CMA uses a return on capital employed approach to determine whether there is an excess. It determines that there is an excess for capsules.

The second question it then asks is could there be a type 1 error, and the type 1 error there would be if you had very low absolute returns but a high return on capital employed.

So what this analysis is doing is checking to make sure that, in comparison to Flynn's other products, what it observes is lower levels of absolute profit together with the finding of an excess using its return on capital employed approach.

Q. Well, that is very helpful, Mr Harman. Are you

- 1 therefore saying that the only way in which you are
- 2 using absolute profits is to check if the CMA's
- 3 reasonable rate of return is too low, in other words, to
- 4 check for false positives, type 1 errors?
- 5 A. Well, I mean, in essence that is what they are seeking
- to do, to make sure that this is a business that has
- 7 both a high level of return on capital employed and
- 8 a high level of absolute profits over and above the
- 9 level of profits that they actually require, and it can
- do that by comparing itself to Flynn's other products to
- 11 say that it is unusual.
- 12 Q. Okay, well I am putting to you, just to be clear, there
- is no meaningful way to distinguish between excessive
- 14 and non-excessive levels of absolute profits, you have
- not identified any and it is really just a sniff test,
- 16 but coming on to whether you can use them to look at
- 17 whether the return was too low, are you aware that
- 18 Dr De Coninck has calculated that if the CMA is correct
- 19 about both Pfizer's and Flynn's reasonable rates of
- return, then Flynn's return would be £66,000 per annum?
- I can show you that. Perhaps if we could bring up
- 22 {XO/2} which is where we broke that figure down by
- 23 strength. Again, it is a hand-up that has been produced
- 24 during the course of the hearing.
- 25 A. Yes.

- 1 Q. Just a preliminary point: did you do this calculation
- 2 yourself when you were using absolute profits to check
- 3 for false positives?
- 4 A. Did I do ...?
- 5 Q. A strength by strength breakdown at all?
- 6 A. I did not.
- 7 Q. No.
- 8 A. I mean, I was instructed obviously to determine whether
- 9 the CMA's approach to calculating a reasonable rate of
- 10 return and that reasonable rate of return was
- 11 appropriate.
- 12 Q. We agreed -- it probably seems a very long time ago now,
- but we agreed I think fairly near the start of Monday
- 14 that this is a strength by strength -- there are four
- 15 separate infringement decisions.
- 16 A. That is true, I --
- Q. So I am putting to you that it is important to look at
- it on a strength by strength basis.
- 19 A. I think the strength by strength basis has to start with
- 20 what is a reasonable return for phenytoin capsules as
- 21 a total, and then that gets allocated. There would be
- 22 a question as to whether that allocation was then
- appropriate.
- Q. Do you think, looking at these figures, that
- £10,000-20,000 per year is enough for a marketing

- 1 authorisation holder to sell a medicine for a year?
- 2 A. Where are you looking at £10,000 to £20,000?
- 3 Q. I am just rounding the figures at the bottom.
- 4 A. £65 in total?
- 5 Q. They are roughly £10,000 to £20,000, four different strengths.
- 7 A. So firstly this is not a number that the CMA allows in
- 8 its cost plus. It allows Flynn to earn a full return on
- 9 Pfizer's input cost. This is a hypothetical that says
- 10 let us assume, as I understand it, that Pfizer in the
- 11 costs stack is just at the cost plus.
- 12 Q. What the CMA allowed. So --
- 13 A. But that is not what it allows for Flynn. For Flynn, it
- 14 allows the -- it does not say: for Flynn we are going to
- 15 start with the costs stack.
- Q. I appreciate that is what the CMA has done, and they
- 17 come out with their £350,000 figure.
- 18 A. Yes, so this is a low figure. If you ask me is this sum
- 19 reasonable, as I understand it, this level of return is
- 20 three times the level of the return it was earning prior
- 21 to the changes in the supply.
- 22 Q. Well, Mr Harman, I do not know where that comes from.
- 23 Maybe it is not very helpful to the Tribunal if we start
- giving evidence that neither of us can really pin down.
- 25 A. Well, no, I think the CMA in cross-examination of one of

- the experts, this is the -- if I understand it -- the 8p versus 41p type of analysis.
- 3 Q. 43p.

- 4 A. 43p, yes.
- Q. So I do put to you that at this stage of the analysis
  you should be asking whether in the real world the
  return will be sensible and adequate, and we are
  assuming that the CMA is correct about Pfizer and
  Flynn's reasonable rate of return is therefore an
  appropriate assumption, because I am looking at how the
  decision would play out in real life.
  - A. In real life the CMA did not allow £66,000, it allowed for Flynn under its base case £350,000, and then it did sensitivities that allowed an even higher level.
    - THE PRESIDENT: Okay, so we do not agree this figure, and
      I have that. So banking that disagreement, you are
      being asked is this figure, acknowledging that you do
      not accept it, a reasonable rate of return in all the
      circumstances.

Now, looking at your answer just now you went so far as to say, yes, it is a low figure, but you said: if you ask me is this sum reasonable, you were about,

I thought, to say, no, it is not, but then you said,

well, I am going to look at the rates of return earned

previously, and so my question to you there is why is

- 1 that relevant?
- 2 A. I guess -- this is a figure if it was an integrated
- 3 business, this is the level of capital invested, and
- 4 this is what it tells you the rate of return is going to
- 5 be.
- 6 So in general it gives you a rate of return that
- 7 looks low, but it is what investors in the business
- 8 would require for those investments.
- 9 The point that I was making only, if you say nobody
- 10 would ever earn rates this low in the marketplace, what
- 11 I am saying is that phenytoin capsules used to earn less
- 12 than these amounts, which is a relevant consideration as
- 13 to whether it is reasonable to observe low returns in
- 14 the marketplace, but that does look low, I mean, it does
- look low, but that is not what the CMA allowed.
- 16 THE PRESIDENT: I understand the latter point, but it sounds
- as if your answer as to what is or is not a reasonable
- rate of return depends on whether you have been
- 19 loss-making or gaining abnormal profits in earlier
- 20 periods. I mean, suppose the position was the rate of
- 21 return was in the earlier years £65 million, not
- £65,000.
- 23 A. Yes.
- 24 THE PRESIDENT: Would you then be saying: crikey, this is
- 25 great deal, it is fantastic, whereas what you are saying

is we ought to say this is in fact a reasonable rate of
return because what was being earned previously was

very, very low, and what I am suggesting to you is
actually neither is particularly helpful in working out
whether this particular figure is or is not reasonable.

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A. Well, I think that this -- this is the return that they would require on their invested capital. If the business was charging this amount, would it be excessive? No, it would not. I mean, the actual amount that they earned over the period is something like £26 million.

So, yes, I agree that under this set of assumptions that return is a low return, but still the outcome of the price rises led to, you know, extremely high returns.

16 MS STRATFORD: The point we are putting, Mr Harman, is that 17 there is no logical way of distinguishing between an 18 excessive and a non-excessive amount, is there? One way 19 of looking at this is that if the Decision is upheld in 20 its entirety, so both Pfizer and Flynn's costs, 21 therefore, we do have to assume that they are back down 22 at the CMA's cost plus level, do you accept in that scenario that to avoid pricing excessively, Pfizer would 23 charge its reasonable rate of return under the Decision 24 25 and Flynn would charge its reasonable rate of return,

and, therefore, these figures that I have been putting
to you are not just hypothetical, they are figures that
the Tribunal, with respect, does need to consider?

I think we can probably leave that there, but I wanted

to put that to you to be fair.

- I would also put to you that even if we look at the

  £350,000 which is the CMA's figure that they use in the

  Decision -- so that is assuming Pfizer's higher input

  cost but Flynn being kept only to its cost plus -- why

  do you say that that is sufficient? Why do you say that

  £350,000 in absolute terms is a sufficient return?
  - A. Well, because the CMA has assessed the level of capital employed and what an investor would require on that level of capital employed, and, therefore, that is what you would expect in a competitive market.
- 16 Q. It must be enough.

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- 17 A. I am saying for the excessive limb, that is what you would expect in normal market circumstances.
- Q. I need to pick up, if I may move on, a slightly different point with you now on absolute margins.
- If we could go to your third report, please, at {XE1/15/16}, and I want to look at paragraph 2.3.16, please, where you say -- it starts:
- 24 "I understand that Flynn considered absolute 25 returns ... when making business decisions."

- 1 You make this point, I think, to give weight to your
- 2 suggestion that one needs to look to absolute profits to
- 3 assess what is a normal rate of return, at least in this
- 4 case, and I just wanted to ask you one question about
- 5 this: is your evidence that it is or is not relevant to
- 6 consider how Flynn made pricing decisions in real life?
- 7 A. I understand that as an industry it does not set prices
- 8 on a cost plus basis.
- 9 Q. It is not really answering my question, but let us see
- if this helps.
- 11 Could we go to a point that the President put to you
- during your teach-in. This is {Day8LH1/5:7-16}, please,
- lines 7 to 16 I wanted to focus in on. It may be you
- 14 could just read those, if you do not mind.
- 15 A. Lines 7 to --
- 16 Q. 7 to 16.
- 17 A. Okay.
- 18 Q. It is a question from the President.
- 19 A. Yes, what is the context of -- I am not sure what has
- gone before to be able to orientate the question.
- Q. Well, we can look at the previous page if you want.
- 22 A. I mean, I am happy to take a summary of what the point
- 23 was.
- Q. We were in the coffee shop and there was discussion
- about the subjectivities.

1		The point I wanted to focus on is the President
2		saying that if ROCE is something which is not featuring
3		in the pricing decisions of the enterprise, the
4		President said:
5		" then I have some difficulty with the approach
6		you are taking."
7		He went on to say that valuing a business is
8		different from setting a price for a product.
9		So my question is whether you agree with the
10		President's supposition, in other words, do you think it
11		actually matters whether your ROCE theory bears any
12		resemblance to how prices are actually set in the
13		industry?
14	Α.	In how shall I phrase it? In many, many industries
L5		people do not price by reference to cost in the way in
L 6		which we are doing an ex post examination of prices to
L7		see if they are reasonable. Some people are just price
L8		takers, they are looking at other people's prices, and
L9		so on and so forth.
20		But if you were to say that we should just look at
21		the way in which a company prices and we will take that
22		as reasonable, then you would probably find yourself in
23		a position that you could never have a finding of an

excessive price because a company could say: I just want

100% margin. You still have to check that outcome by

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- reference to what you think a reasonable return would be in a marketplace.
- Q. Could you just -- I think it is important for us, at
  least, could you just answer the question whether it
  actually matters? In other words, is it relevant or
  irrelevant whether your theory, your ROCE theory, bears
  resemblance to how prices are actually set in the
  industry?
- 9 A. I do not think that it -- it is not -- how shall I put
  10 this? I think that companies are able to set prices by
  11 whatever methodology they choose.
  - Q. Sorry to interrupt, but is it relevant or irrelevant whether they set according to your theory?

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- A. No, so I am coming to that. I do not think that it is
  relevant that they do not use a return on capital
  employed approach, they can use whatever methodology
  they like, but it matters when you come in an ex post
  investigation to determine whether the returns that they
  have earned are excessive.
  - Q. Okay, well, I think we will leave that there.
- I can see the time. I am about -- I am very near
  the conclusion of a topic, if that is acceptable for the
  shorthand writer, just to try and wrap that up.
- THE PRESIDENT: Indeed, Ms Stratford. You are making
  excellent progress, and no complaints from us in terms

- of the tennis match that is going on between you and the
- 2 witness, you are both answering and asking quickly. We
- 3 will rise now if that is a good time for you.
- 4 MS STRATFORD: That is fine. I have just a very few
- 5 questions to conclude this topic and then -- but
- I think -- I am very conscious that the Tribunal has
- 7 questions that it wants to put to Mr Harman particularly
- 8 on the cases that you referred us to at the end of last
- 9 week.
- 10 THE PRESIDENT: Indeed. I am very grateful for that.
- 11 MS STRATFORD: I am very hopeful that I will leave plenty of
- 12 time for that.
- 13 THE PRESIDENT: Well, that is helpful.
- We will rise until 20-to. Thank you very much.
- 15 (11.29 am)
- 16 (A short break)
- 17 (11.46 am)
- 18 THE PRESIDENT: Ms Stratford.
- 19 MS STRATFORD: Thank you.
- So, Mr Harman, I would like to come full circle back
- 21 to volumes. I think we can agree that all else equal,
- 22 higher volumes will produce a higher level of returns in
- pound terms?
- 24 A. Yes.
- 25 Q. Can we please look at the market share figures? If we

- could get up  $\{XJ/46/4\}$ , and to explain, these figures
- 2 were reproduced in a letter from Flynn's team to the
- 3 Tribunal. The figures themselves, I should say, are
- 4 derived from the -- they were part of the evidence for
- 5 the previous appeal. I do not know if it is possible --
- 6 oh, yes, you have that, great.
- 7 So in Q1 2013, if you just look at that, Flynn's
- 8 share of the market, ie its volumes, was around 92%, so
- 9 quite high.
- 10 If you look then a year later in Q1 2014, its share
- by then has halved to around 52%.
- 12 A. Okay.
- 13 Q. Your evidence is not that Flynn's reasonable rate of
- 14 return increased as a result of its volumes nearly
- halving over this period, is it?
- 16 A. Well, the rate of return will change, because they are
- using a return on capital employed approach.
- 18 Q. I am just asking in principle whether what would be
- a reasonable rate of return for Flynn changed when its
- volume went from 92% of the market down to 52%.
- 21 A. Well, given the sum of the CMA's allowance for capital
- 22 employed is variable as volumes fall, a component of the
- 23 return will also fall, but it would not need less return
- on any fixed capital.
- 25 Q. Right. So we stick with your 10% reasonable rate of

- 1 return based on WACC?
- 2 A. The cost of capital is not -- it can be, but it is not
- 3 particularly sensitive to volumes, is the -- the return
- 4 on sales is, but the weighted average cost of capital is
- 5 not.
- Q. Just taking this, making it a little bit more extreme,
- 7 if I may, if, as occurred in the tablet market, two
- 8 further entrants had emerged and let us imagine that
- 9 that reduced Flynn's volumes down further to, say, 10%
- 10 of the market, is it your evidence that the reasonable
- 11 rate of return, the 10%, would have stayed the same or
- 12 would have increased as volumes decreased?
- 13 A. The reasonable rate of return? In absolute terms?
- Q. Yes, in percentage terms --
- 15 A. As a percentage of what?
- 16 Q. -- in percentage terms. The ROCE.
- 17 A. Oh, the ROCE. So in this case, if the volumes fell, it
- 18 would require a higher return on its fixed capital and
- 19 no change in the required return on variable capital.
- 20 So all else being equal, if volumes fall, you will
- 21 require a -- you still require a 10% return, but what is
- 22 changing is the absolute return that flows from that, so
- 23 your absolute return with lower volumes would have to
- increase.
- 25 Q. Well, we are going to be submitting as a matter of law

- 1 that the purpose of excessive pricing is not to punish
- 2 a company for earning -- for, I am sorry, selling higher
- 3 volumes. Now, that is not a question for you,
- 4 obviously, but I want to just explore the consequences
- from an economic perspective.
- 6 A. Okay.
- 7 Q. If you can just assume for now that I am right that
- 8 volumes are not a relevant factor in deciding whether
- 9 a price is excessive, the upshot would be that one looks
- 10 at returns per unit, would it not? That would be the
- 11 way to take volumes out of the equation.
- 12 A. That does take it out of the equation, but I am not
- quite sure, you know, where you are taking me to, but
- I will agree with that premise.
- 15 Q. That is the purpose of the question.
- 16 A. Yes.
- 17 Q. That is the exercise. If we could look, please, at
- 18  $\{XE1/7/24\}$ , this is in CRA's second report, and if we
- 19 could look at figure 5, maybe zoom in on that, please.
- 20 A. Yes.
- 21 Q. So this is showing absolute margins per pack in
- 22 pounds --
- 23 A. Yes.
- 24 Q. -- from 2013 to 2015.
- 25 Now, I think -- well, you certainly have not in your

- 1 reports expressed any disagreement with the calculations
- behind this chart, have you --
- 3 A. No.
- Q. -- the maths? Thank you. The point I am putting to you
- 5 is that it shows that absolute returns on phenytoin per
- 6 unit were in the middle of the pack, does it not?
- 7 A. Well, the problem with this analysis is that if you took
- 8 an average of all of the other returns per pack,
- 9 phenytoin would be in excess, so you are looking at
- 10 a set of figures that have different volumes attached to
- 11 it and, therefore, have different weightings in the
- 12 analysis. I think that it is important to have regard
- to, in this type of analysis, what is happening with
- 14 volumes and what impact they have on the overall
- assessment.
- Q. The premise of my question, if you remember, was that
- 17 volumes are irrelevant, so we are looking at this on
- a per unit basis.
- 19 A. Well, if the assumption is that volumes are not
- 20 important input, then you can view this analysis in two
- 21 ways: you can look at it as the distribution and you
- could observe that phenytoin is in the middle of the
- 23 pack, but if you were to consider the average of the
- 24 other drugs and compare it to phenytoin, then phenytoin
- 25 would be a clear outlier.

- 1 THE PRESIDENT: What, even on these figures ignoring volume?
- 2 A. Ah, on a straight average --
- 3 THE PRESIDENT: Yes, on a straight average of these figures,
- I suspect you are wrong?
- 5 A. Because it is impacted by barbiturates, which is an
- 6 extreme outlier.
- 7 THE PRESIDENT: Well, all I am saying is that if you take an
- 8 average of the figures as they are stated here --
- 9 A. Yes.
- 10 THE PRESIDENT: -- the figures for phenytoin are likely to
- 11 be not at the extreme end. We can obviously do the
- maths.
- 13 A. No, we can do the maths, and you are right, but that is
- 14 on the premise that there are no volumes, which is what
- I disagree with.
- 16 THE PRESIDENT: Of course, which we understand.
- 17 A. Yes.
- 18 MS STRATFORD: Thank you.
- 19 I would like to move on now to the other category of
- 20 Flynn's margin comparators which is the returns earned
- 21 by other companies, and they are summarised in
- 22 Mr Williams' position paper. This is {XE6/5/19} which
- is annex 1 to Mr Williams' position paper. There is
- quite a lot of information on this page.
- 25 So just to orient ourselves, the first column sets

- 1 out in chronological order each of Mr Williams' reports.
- 2 Do you see that, Williams 1, 2, 3, 5, 6, 7?
- 3 A. Yes.
- 4 Q. The third column identifies his cohort of comparator
- 5 companies from each report.
- 6 A. Yes.
- 7 Q. The column in the middle explains how the cohort has
- 8 been refined since the previous report.
- 9 A. Yes.
- 10 Q. It is fair to say, is it not, that Mr Williams has
- 11 tailored his comparators in response to various
- 12 criticisms made by you and the CMA over the course of
- the proceedings?
- 14 A. It is fair to say that he has tailored it in response to
- some of the concerns, but not the ones which I think are
- 16 primarily of most importance.
- 17 Q. His final cohort of comparators are those set out next
- 18 to Williams 6 towards the bottom of the page.
- 19 A. Yes.
- Q. We can see Morningside, Aspire -- Aspire Pharma,
- 21 Essential Pharma, Chemidex and Alliance, and the cohort
- does not change between Williams 6 and 7.
- 23 Then he has given median and weighted average gross
- 24 margin and ROS figures for his cohort.
- 25 So if we use the average figure it is a 52% gross

- 1 margin and a 34% ROS; is that agreed?
- 2 A. Yes.
- 3 Q. Thank you. If we scan over the previous cohorts, can we
- 4 agree also that there is some variation but at a high
- 5 level they speak with one voice. So the ROS figures
- 6 come out in the low 20s to mid 30s, and the gross
- 7 margins come out in the 30% to 50%?
- 8 A. I think that it shows the averages are -- let me just --
- 9 Q. I was suggesting ROS, low 20s to mid-30s, gross margins
  10 30s to 50s.
- 11 A. Yes, taking averages of averages, yes, that is right,
- but you can also see that for the ROS of each company in
- comparison to each other can vary quite significantly
- from 20% all the way up to almost 60%, or actually past
- 15 60%. So there is a lot of variation suggesting that
- 16 there is something dissimilar between the comparators.
- 17 Q. I know that is a point you make. The point I want to
- put is that none of these figures support the 2% ROS
- 19 rate identified by the CMA as Flynn's reasonable rate of
- 20 return on sales, do they? There is nothing approaching
- 21 2%.
- 22 A. I mean, that is true on looking at it, but, as I say,
- the calculation of the 2% is fundamentally impacted by
- 24 the very high input cost. So I would expect there to be
- a difference between these numbers.

- 1 Q. So your position, as I understand it, is not that these
- 2 calculations are wrong per se. Your objection, as
- I understand it, is that you do not know enough about
- 4 these companies to accept or dismiss them as meaningful
- 5 comparators; is that fair?
- A. What I think I would say is, yes, I think that based on
- 7 the analysis of Flynn we see that within a portfolio
- 8 there is a significant distribution around the mean.
- 9 I think it is reasonable to assume that for these
- 10 portfolios there would be a distribution around the
- 11 mean, and given phenytoin's unusual characteristics
- 12 across many dimensions I would say that looking at
- somewhere at the lower end of the distribution is going
- 14 to be more reasonable than looking at the median.
- Q. Well, let us go to your report, Mr Harman: {XE1/15/83}.
- 16 If we could look at paragraph 6.4.6 to 6.4.7.
- 17 A. Yes.
- 18 Q. This is where you set out the factors that you say
- Mr Williams has been unable to control for, and unless
- you want to read through all of that, if we go over the
- 21 page at table 6.1 {XE1/15/84} you set that out in
- 22 tabular form.
- 23 A. Yes.
- Q. What we are most interested in here is the bottom five
- 25 factors in your table because you accept the remaining

- 1 factors have been controlled for by Mr Williams in his
- 2 sixth report.
- 3 A. I think there is some question on a few of those which,
- 4 if you look on the next chart on the next page, I know
- 5 that he has sought to control for these, but there are
- 6 some questions as to whether that has been done across
- 7 all five, which is in the next table.
- 8 Q. Yes, I am just going to focus on those five factors, if
- 9 we can. You are making these points about a comparison
- 10 with phenytoin.
- 11 A. Correct.
- 12 Q. But I assume you would want this same information for
- 13 the purpose of any ROS comparison in any excessive
- 14 pricing case?
- 15 A. I think that it -- in the comparators?
- 16 Q. Yes.
- 17 A. Yes, if you were going to do a ROS analysis, which we
- 18 know to be difficult to use because of these different
- 19 factors, if you were going to do an analysis, you would
- 20 need detailed information on this, but you would also
- 21 need to understand the nature of the market and the
- degree to which they were operating under workable
- competition, and the degree to which products were
- 24 differentiated.
- 25 Q. So is it your evidence that a comparator that cannot be

- 1 controlled for in each of the respects in your table 6.1
  2 must be dismissed on a binary basis?
- 3 No, I think that if there was a broad mixture in your Α. 4 factors, so let us assume that phenytoin capsules was 5 not unique in all of those dimensions, so let us say that it had low volumes here, maybe it had a higher 6 7 capital employed, if there was a general mixture of factors, maybe you could use an average, averages on 8 averages. What I am saying here for phenytoin is that 9 10 it has a particular uniqueness to it in that all of the dimensions of returns are low, and, therefore, what you 11 12 would need to do is look at the lower ends of 13 distributions rather than the middle or the high.
- Q. Well, I am talking about Mr Williams' comparators of other companies --
- 16 A. Yes.
- Q. -- and on any view, you have dismissed those on a binary
  basis, have you not? You have not said: well, they are
  not perfect, but we can take something?
- A. Well, I think if you look at some of the companies,
  there are already difficulties. So when you look at
  Chemidex and Essential Pharma, we see that they have
  much lower volumes and much lower sales associated with
  them, so they would already fail on the sales volume
  question. We know that Alliance Pharma has a very high

- level of capital employed because it has a huge
- 2 intangible on its asset.
- 3 Q. That is why it gets the 10% ROCE, as I explored with you
- 4 on Monday.
- 5 A. Yes, so that seems like a good comparator for a ROCE in
- 6 that --
- 7 Q. It fits your theory. It is good in that way.
- 8 A. The theory. So I would say that that is also something
- 9 that should be excluded because it has a fundamental
- 10 difference to it.
- 11 Then the third one, Morningside, as I have indicated
- before, as I understand it, that is also being looked at
- in terms of excessiveness, so that leaves one, Aspire --
- 14 Q. I am sorry, you have said it about three times now.
- There was an investigation by the CMA that was closed,
- into a single product. I have been resisting answering
- 17 you on that, but --
- A. So it leaves one final one, which is Aspire, which again
- 19 had half the sales volumes, so actually across these
- 20 five, they have -- I mean, they do not fit into the
- 21 profile of phenytoin capsules.
- 22 Q. Okay, I would like, if we may, please, to look at how
- 23 this issue about the missing information has evolved
- 24 since the previous appeal where you took the same
- position.

- 1 If we could go to the original transcript, please,
- 2 at  $\{XM/19/100\}$ . So this is the original transcript,
- 3 Day 8, and could I just perhaps ask you and the Tribunal
- 4 kindly to read from line 9 on that page to the top of
- 5 the -- well, actually maybe the top of internal
- 6 page 100. This is internal page 98. I think it would
- 7 be worthwhile. It is a fairly long extract, but if that
- 8 is okay.
- 9 THE PRESIDENT: Just say when you need to move on to the
- next page.
- 11 A. Yes, move on, sorry. (Pause)  $\{XM/19/101\}$ .
- I am at the bottom of that page.
- MS STRATFORD: And over the top -- do you want to just
- 14 finish the --
- 15 A. Yes.
- Q. Over to the top of page 100  $\{XM/19/102\}$ . Then we are
- 17 back to South Africa.
- 18 A. Yes.
- 19 Q. I think we can probably stop there.
- The Chairman put it to you that if you were
- 21 concerned about missing information in relation to
- 22 Mr Williams' comparators, his instinctive reaction was
- 23 that the CMA should go out and get it, and your response
- 24 we saw -- this was on internal page 99  $\{XM/19/101\}$  -- is
- 25 that you had been instructed to review the CMA's

- 1 position ex post facto, you could only work with the
- 2 material you had. Is that a fair summary?
- 3 A. Yes.
- Q. You went on to say you find comparator analyses very
- 5 difficult?
- 6 A. Yes.
- 7 Q. Just while we are on the transcript, could we please
- 8 look back at -- no, I am sorry, forward at tab {XM/20},
- 9 this is from Day 9 at page {XM/20/29}. This is internal
- 10 page 27. Could you, just because it is going to save
- 11 time later, look from line 9 on page 27 down to line 12
- on page 28, please, and again if you could just say when
- you are ready to have the page turned, thank you.
- 14 (Pause)
- 15 A. Okay.  $\{XM/20/30\}$ .
- Q. Just down to line 12 on this page is probably enough.
- 17 A. Yes.
- 18 Q. Thank you.
- So Professor Waterson put it to you that if you
- 20 needed comparisons between individual product lines,
- 21 that is not something that a company accused of
- 22 excessive pricing could get, but it might be something
- the CMA could get using its statutory powers.
- 24 A. Yes.
- 25 Q. I do not know whether you recall these exchanges from

- 1 the first appeal?
- 2 A. Yes.
- 3 Q. Thank you. So as we have seen, the Tribunal then found
- 4 against the CMA and criticised your evidence on the
- 5 basis that it was overly theoretical and should have
- focused more closely on comparators, and we have already
- 7 covered that ground, I am not going back to it, but do
- 8 you agree that the CMA did not in fact gather any
- 9 further information about Flynn's comparator companies?
- 10 A. I think that it is correct that the CMA did not look at
- 11 return on sales of comparator companies. It did more
- 12 work on the tablets comparator.
- 13 Q. Thank you.
- 14 Let us consider what the CMA might have been able to
- do to assist you, the other experts, the Tribunal if we
- had got to that stage. As we know, one of your
- 17 recurring comments about phenytoin is that it is an
- outlier because of high input costs and high volumes,
- 19 and that, you say, is the key to drawing any
- 20 comparisons. So would you have found it useful for the
- 21 CMA to ask Mr Williams' five comparator companies
- 22 whether they had any products with input costs or
- volumes similar to those of phenytoin?
- 24 A. I think that if the CMA -- I mean, as I have already
- 25 said, there is -- first of all, there is a question as

to whether the CMA thought that it had done sufficient analysis. There is a question as to the cost and the likely output of that analysis. In a world where the CMA was not confident of its results, then I would say doing an analysis would be potentially useful, bearing in mind that me personally, I have very rarely seen a return on sales analysis that produces conclusive results, but could it have been reasonable for the CMA to have done the analysis? I would have to say yes because under a preponderance of evidence approach that would be a sensible thing to do.

- Q. Let me ask you this: would you have found it useful for the CMA to ask Mr Williams' five comparator companies -- I am only looking at five companies now -- whether they had any products with absolute profits similar to those of phenytoin?
- A. I think that if you were going to ask them the question, you would have to ask them the question across all dimensions. I do not think that just picking at one of the dimensions when I am saying that all of the factors go in the same direction, so I do not think that it is a simple task, I think that it would be a costly task.

If I had that information, would I find it helpful?

Probably, either to rule them out or to identify

products that were similar.

- 1 Q. I put it to you that one way of doing this exercise, if 2 there were any such products -- so I have just put to 3 you absolute profits similar to those of phenytoin 4 because that is a factor you have highlighted -- the CMA 5 could, if appropriate, have then asked further questions about those products such as, for example, whether they 6 7 were characterised by a significant investment, could 8 they not?
- A. My response is that if you were going to do the

  comparator analysis, it would be a substantial

  investigation because you would have to control for

  differences in R&D, licences, capital employed, risk

  profiles, cost structures, demand, whether it was

  a differentiated product, whether there was competition

  in the market.

It would be a significant exercise to find a product that was similar. I do not think that you could do it at a high level, I do not think it would be any more explanative than Mr Williams' own analysis. It could be done, but it would be a big exercise.

- Q. Well, we do not accept that.
- 22 A. Okay.

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Q. Because of the way that I have been suggesting it could
be done in a staged way. None of it would have required
the CMA to do a full analysis of every single product

line. I am suggesting there could be targeted questions
that the CMA but not Flynn could have asked, and even if
the CMA could not have obtained all of the information
for all of the products, if it had obtained even some of
it, that would have been valuable to your assessment of
these products as comparators.

What I am really putting to you is you could have adopted a weighted approach rather than dismissing them on a binary basis which, as we have seen, is what the Tribunal invited you to do in their original judgment.

A. Well, as I said, it has not been my instruction to perform that analysis, so I disagree with that.

My position is, as you have phrased it, a full analysis would certainly be helpful. If I had all of the analysis of all of the companies that Mr Williams looked at across all product lines controlling for the things that would be, I think, very helpful. If you took an intermediate approach it is unclear whether it would be helpful.

- Q. But the position is you do not have any of this information, so all we are left with is it is your evidence that you have insufficient information to accept these companies as comparators.
- A. Well, I have just gone through a process where I have said that most of them are significantly smaller. Some

- of their accounts suggest that they are doing
- 2 manufacturing activities. Some of them have very large
- 3 intangible assets. I can go to the accounts if you
- 4 would like me to show you where that is.
- 5 Q. Actually I do not think I need to put this to you and
- I do not think I need to debate it with you because
- 7 there is detailed evidence on this.
- 8 A. Well, I can show you in table 6.2 where I say that for
- 9 Chemidex it was a subcontract manufacturer to third
- 10 parties and Alliance had a manufactured outsource but
- 11 was controlled by Alliance. So it seems that they are
- more heavily invested in the manufacturing side of the
- business.
- 14 I have just said at a very high level earlier in the
- 15 transcript that if you look at these accounts there are
- 16 notable differences between them in terms of the size of
- their businesses, and --
- 18 Q. Sorry, between different companies, you are saying?
- 19 A. -- and Flynn, yes.
- Q. I think we are just going to get into -- subject to the
- 21 Tribunal, I think we are going to get into something
- 22 more akin to debate which may not be very useful.
- I think the points can be made.
- 24 THE PRESIDENT: Ms Stratford, I think we know from the
- 25 reports that have been submitted why it is that

1	Mr Harman does not regard the market data as helpful,
2	and you are quite rightly putting to him that your
3	clients' position is different, but unless there is
4	something that is going to go beyond articulating
5	Mr Harman's stated objections to the exercise, I do not
6	think I am going to be assisted by those differences
7	being re-traversed orally when they are already there in
8	writing.
9	So unless there is some way in which you can elicit
10	a confession from Mr Harman that he is mischaracterising
11	the data, I think you have gone far enough to put your
12	case.
13	MS STRATFORD: Thank you. There are points that we will put
14	obviously in closing, but I think those can all be
15	fairly put.
16	THE PRESIDENT: Mr Holmes will draw on what Mr Harman has
17	said in his reports to rebut those, and for my part I am
18	happy and if there is anything that needs to be elicited
19	by way of re-examination, then of course it will be.
20	MS STRATFORD: I am grateful.
21	I do just, I think, in conclusion on this section
22	I will come back to one of the points you have made
23	about Mr Williams' companies, I think you made orally,
24	that some of them have products which were subject to

investigation by the CMA, and I just want you to take it

1	from me that at most and at a stretch, two products
2	which are relevant to Mr Williams' comparator cohort
3	fall within that category and we will explain why in our
4	closing submissions, but the point I am putting to you
5	is that the CMA obviously knows what those products are,
6	and if the CMA was concerned that a lone product was
7	distorting the comparison then the CMA could have

9 revenue was accounted for by that product, could it not?

10 A. I think it would ask a bit more information, but it

could investigate further.

written to the seller and asked what proportion of its

12 Q. Thank you.

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I would like to move on then, please, to the Aspen

decision, and I can be fairly short on this. That is

the Aspen Commission decision, and just to introduce

this. The reasonable rate of return in that decision

was found, as I think you will recall, to be an EBITDA

of 30% to 36%. We will look at it if you do not have

the details firmly in mind.

- A. I have 23% in mind.
- Q. Well, it was based on a median EBITDA, you are right, of the Commission's comparator cohort of 23% but plus, then, a margin of tolerance which took it up to 30% to 36%, I can show you where that is.
- 25 The calculations are set out in Dr De Coninck's

- report. I did not think -- I was hoping we did not need to go there.
- 3 A. I just did not know where the margin came from.
- I looked at the decision and I may have missed it, but
- 5 I --

- Q. It is in there. I do not know if we get that from Dr De
  Coninck's report --
- 8 A. No, there was no -- I do not think there was any
  9 reference --
- 10 Q. -- I think we do and if so, whether you will take it
  11 from that. But let us just try going there because

I think it summarises, at {XE1/11/28}.

- This is in CRA's sixth report, paragraphs 80 to 83.
- 14 It explains median gross margin, then we get:
- "... the EBITDA margin of the comparator companiesconsidered by the Commission is 23%."
- 17 That was the figure you remembered.
- 18 Then dropping down, in 82:
- "... assessing Aspen's commitments ... the
- 20 Commission accepted prices ..."
- 21 Then we have, do you see, towards the end of 22 paragraph 82:
- "In fact, the Commission recognises that the price can be higher than Cost Plus and suggests that a range of 10-20% above Cost Plus will not be excessive ...

- 1 "Therefore, the level of gross margin ... that is in
- 2 effect considered acceptable by the Commission is not
- 3 54% (... 23%), but 54% ... plus a margin of tolerance of
- 4 at least [10-20]%."
- 5 Do you see at the very end of 83 we get the 30% to
- 6 36% for EBITDA margins?
- 7 A. Yes, I see the calculations.
- 8 Q. Yes, thank you. Now, let us go to what the Commission
- 9 said and how the Commission chose its comparators in
- 10 Aspen. This is at  $\{XN6/7\}$ , and if we could start at
- page  $\{XN6/7/25\}$ , please. This is recital 129 to the
- 12 Aspen decision.
- 13 If you could maybe just read that paragraph, 129 and
- 14 let us know --
- 15 A. I am familiar with that paragraph.
- Q. You are familiar with it. Do you want to go over the
- page? No?
- 18 A. I do not need to.
- 19 Q. Maybe the Tribunal would like to remind itself.
- THE PRESIDENT: Could we quickly go over the page?
- 21 MS STRATFORD: If we could go to the next page, please.
- $22 \quad \{XN6/7/26\}.$
- THE PRESIDENT: Yes, I see.
- 24 MS STRATFORD: Thank you.
- 25 So the approach is summarised, it says the

1	Commission ensured that the profitability comparators
2	sell mainly generic or off-patent branded medicines with
3	at least a material maybe, sorry, could we go back to
4	the oh no, sorry, that is if we keep that page up,
5	it is just at the end of that paragraph:

"... the Commission ensured that the Profitability
Comparators sell mainly generic or off-patent branded
medicines with at least a material part of their
revenues stemming from medicines that are similar to ...
[Aspen's] Products ..."

So the Commission did not look at individual product lines, did it? It looked at other companies portfolios as a whole.

- A. It did in this case, but it did not identify any unique factors with respect to Aspen's products. What the decision makes very clear is the price rise of Aspen's drugs were not linked to any cost increases, so if --
- Q. I am going to come on to that, Mr Harman. It did not look at individual product lines, did it?
- A. And I have said in my evidence that if there was
  a mixture of aspects of a particular drug that you
  thought could be broadly comparable, then you could do
  an average approach, but if you have a set of factors
  that makes it look very unusual, then an average
  approach would not be reasonable.

- Q. It did not look at volumes for individual product lines either, did it, the Commission?
- A. No, it did not. Again, you know, it was not identified
  as a factor that was of significant difference, as is in
  this case.
- Q. But you have said you need to control for the factors in all ROS comparisons, so I am putting to you that is not what the Commission has done here.
- 9 A. I said that if you have a set of factors that makes it
  10 unusual and skews it to one side, then you would need to
  11 do that. If you had a mix of factors, then a broad
  12 average may be appropriate.
- Q. Right. Let us go, if we could please, back to your table at {XE1/15/84}.
- 15 A. Yes.
- 16 Q. This is table 6.1 in your third report.
- These are all of the factors you say you want to

  know about before accepting another product or company

  as a comparator. That is right, is it not?
- 20 A. I am saying that these factors have a significant impact
  21 on the returns that phenytoin capsules would require.
- Q. I am putting to you that the Commission adopted a much more relaxed approach, did it not? It did not attempt to control for all of these factors.
- 25 A. It took a high level approach, yes.

- 1 Q. Yes, thank you. So the Commission used a return on
- 2 sales-based measure, EBITDA, which is pretty similar to
- 3 ROS which is --
- 4 A. Slightly higher.
- 5 Q. -- EBIT, yes, ROS is EBIT, and the EBITDA takes account
- of depreciation and amortisation as well, thank you.
- 7 I previously took you to Mr Holmes' submission in
- 8 opening where he said of these types of measures that
- 9 a simple return on sales measure is not in itself a good
- 10 basis for understanding the economic profitability of
- 11 any activity.
- 12 A. Yes, and I agree with that.
- 13 Q. So if you agree with that, you do not think the
- 14 Commission's analysis in Aspen was very good, do you?
- 15 A. I do not know the detail, but in this case there is
- evidence that there can be a significant difference
- between return on sales and underlying profitability.
- I am not into the detail of this to say any more.
- 19 Again, because of the unique factors of phenytoin, you
- do have to take these into account.
- 21 Q. Let us put it this way, see if you can answer the
- 22 question: if you had been the Commission in Aspen, would
- 23 you have identified the reasonable rate of return in the
- same way that the Commission did?
- 25 A. I think all I can say is that if I was advising the

- 1 Commission on Aspen, I would say that you would probably
- 2 need to take the factors that I have identified in this
- 3 report into account.
- Q. We have already heard this, I think, your main point on
- 5 the Aspen decision is that you infer -- and I suggest it
- is an inference -- that Aspen did not face a high input
- 7 price, whereas Flynn did.
- 8 A. Yes.
- 9 Q. But the Commission did not even try to control for input
- 10 prices, did it?
- 11 A. It did an analysis which I set out in table 6.4 of my
- 12 third report that looks at changes in unit prices and
- unit costs, and what that shows is that there was
- 14 a significant change in prices but not a change in unit
- 15 costs.
- 16 If there had been a significant change in unit costs
- 17 I think that it would have been reasonable and
- appropriate for the Tribunal to consider what impact
- that would have on its ROS analysis.
- Q. I am putting to you that in that case the Commission did
- 21 not try to control for input prices. It also did not
- 22 try to control for volume or risk, did it?
- 23 A. Again, because -- I do not know why it did not, it might
- 24 be because --
- Q. You do not know?

- 1 A. I do not know.
- 2 Q. It did not do any product-specific analysis at all, it
- just took a basket of other companies' portfolios. So
- 4 on the logic of your argument, it should have examined
- 5 each product line of the comparator companies to check
- if they had either lower or higher input prices because
- 7 either way the comparison would be distorted?
- 8 A. I am saying -- I am not going to say what the Commission
- 9 should have done. As an economist, if a product had
- 10 a certain set of factors associated with it, then
- I think it would have been reasonable for them to take
- 12 that into account in the nature of the analysis that
- they performed.
- 14 Q. So is your evidence that the Commission took the wrong
- 15 approach?
- 16 A. I am saying that as an economist that would have been my
- 17 advice to them at the time. I do not know enough about
- 18 the case to declare whether actually in the
- 19 circumstances of that case it was right or it was wrong.
- 20 What I do know in that case is obviously the excess
- 21 was very, very high, the percentage of Aspen drugs
- 22 return on sales was high and it may have thought that
- 23 that was sufficient to prove that it was high. I do not
- 24 think that is the case -- reflects the facts of this
- case.

- 1 Q. Thank you.
- 2 So I am going to move on, then, if I may, from
- 3 comparators to my final topic which is the CMA's
- 4 cross-check based on the PPRS.
- 5 A. Okay.
- Q. This was previously the CMA's primary benchmark for
- 7 a reasonable rate of return, was it not?
- 8 A. It was used as a cross-check. Well, I mean, it is not
- 9 only the PPRS, they took into a number of things -- they
- 10 use it as a starting point.
- 11 Q. I was going to come to that. So I presume you recall
- 12 that you and Mr Williams were asked questions about the
- 13 PPRS over a number of days at the last trial.
- 14 A. I recall.
- Q. Could we please go to  $\{XN1/2/109\}$ . This is the original
- 16 CAT judgment, and could I ask you to read
- 17 paragraphs 333 -- maybe starting at 332 might be
- 18 convenient just to get the context. That shows that
- 19 PPRS was being relied on as a point of comparison.
- 20 Sorry, could you go back to the previous page
- $\{XN1/2/108\}$ . I am so sorry, I am in a privileged
- 22 position that I have Mr Pascoe putting documents up for
- 23 me and occasionally I forget that everyone does not have
- 24 this great service.
- 25 So 332 we can see there -- well, I will let you read

- it, starting -- I think it is better to start at 332 to
- get the full flavour. If we could read up to 335 on the
- 3 next page, please.
- 4 A. Yes, I am happy to go to the next page  $\{XN1/2/109\}$ .
- 5 (Pause)
- 6 To?
- 7 Q. To 335, please.
- 8 A. Yes, I have done that.
- 9 Q. Thank you. So the Tribunal found that the CMA had been
- 10 wrong to place the reliance it did -- the Tribunal found
- 11 the CMA had been wrong to place the reliance it did on
- 12 the PPRS because, amongst other things, it appears to
- have decreasing relevance to the UK pharmaceuticals
- 14 industry. Do you see that at paragraph 334?
- 15 A. Yes.
- Q. And the Department of Health itself had expressed doubts
- about its utility as a benchmark and pointed out that it
- operates at a portfolio level, that is 335.
- 19 A. Yes.
- Q. Then if we could look on please, to page  $\{XN1/2/110\}$  and
- 21 paragraph 339, so just further down, you can see there
- the Tribunal says:
- 23 "... we do not think the CMA was right to place such
- 24 reliance on the PPRS 6% rate of return, whether or not
- 25 adjusted for the MOT or the Transfer Price Profit

- 1 Allowance, as in itself confirming, far less
- determining, what was a reasonable rate of return for
- 3 Flynn and Pfizer in this case."
- 4 Do you see that?
- 5 A. Yes.
- Q. Thank you. Despite this, you and the CMA are again
- 7  $\,$  relying on the 6% benchmark from the PPRS as now
- 8 confirming what was a reasonable rate of return, and my
- 9 question is have you uncovered any new information about
- 10 the PPRS since the last appeal which you think would
- 11 cause the Tribunal, including Professor Waterson, to
- 12 change their view from last time?
- 13 A. I do not think that the CMA actually places weight on
- 14 the PPRS. It may well be a starting point, but in --
- 15 Q. I am sorry, Mr Harman, are you talking now about this
- 16 time or last time?
- 17 A. This time.
- Q. This time?
- 19 A. Yes.
- Q. So we have got the 6% cross-check.
- 21 A. There is a 6% cross-check, and it is a cross-check as
- 22 opposed to this time being their primary benchmark, but
- 23 the CMA has also had regard to the rate of return that
- 24 Pfizer is allowed to earn, 10%. It has also had a look
- at the rates of return that Pfizer was earning on its

- 1 portfolio of products in the division that phenytoin was
- 2 produced, and, given that it thought a 6% return was
- 3 reasonable by reference to the rate of return that
- 4 Pfizer was earning, given -- and this is the important
- 5 point -- that the input price to Flynn was very high.
- 6 So the absolute level of return that Pfizer and
- 7 Flynn were provided in the base case, one of 10% and for
- 8 Flynn, 2%, give rise to equivalent absolute returns. So
- 9 in the 6% case, you end up with three times the amount
- of allowance than you do for Pfizer.
- 11 Q. Well, if we could come back to my question please,
- 12 Mr Harman, and again, I will try a different version.
- 13 Have you or the CMA done any empirical research since
- 14 the last appeal into the rates of return actually
- 15 achieved under the PPRS?
- 16 A. I am not aware of the CMA doing that. I have not done
- 17 it because I do not rely on the PPRS in my analysis,
- I only respond to Mr Williams' evidence on that.
- 19 O. But there is a 6% ROS cross-check?
- 20 A. Based on a number of factors.
- Q. So I am putting to you the flaws with the PPRS as
- 22 a benchmark are precisely the same as those which were
- 23 recognised by the Tribunal in the original judgment, are
- they not?
- 25 A. If the CMA was relying on a 6% for its cross-check and

- the only source of that was from the PPRS, then that
  would be a concern that the CMA should have addressed.
- Q. Well, this is one of the reasons I thought it was
  helpful to start looking at the original tribunal's
  judgment at paragraph 332, so I do not know if you want
  to go back to that again.
- A. But, I mean, in the first decision, the PPRS was

  obviously an input into their overall decision. It was

  the starting point for it.
- 10 Q. Well, the Tribunal said that:
- "... we see no [other obvious] source for the specific figure of 6% ROS apart from the PPRS..."
- And I am putting that to you again, you referred to

  10% coming from Pfizer -- oh, I am sorry, we have not

  got the screen. Could we go back to the previous page,

  I am so sorry -- two pages back {XN1/2/108}.
- Do you see then in the middle of 332:
- "However, we see no obvious other source for the specific figure of 6% ROS apart from the PPRS ..."
- 20 A. Are you asking me about the CMA in the first decision or in the Remittal Decision?
- 22 Q. Obviously what we are really concerned with is now.
- A. Yes. Well, as I have said, I do not think that the CMA today in its Remittal Decision is relying on the PPRS for its 6% cross-check.

- 1 Q. So it is coincidence that we get 6%?
- 2 A. I mean, we can go to the Remittal Decision, we can look
- 3 through the factors that --
- Q. Well, we can make submissions on that.
- 5 A. Okay. But I think there are areas.
- 6 Q. I think I have probably explored this sufficiently with
- 7 you.
- 8 So just to wrap up, your evidence is that Flynn's
- 9 reasonable rate of return is 10% ROCE, cross-checked by
- 10 a 6% ROS; that is right, is it not?
- 11 A. Yes.
- 12 Q. Your previous evidence was that Flynn's reasonable rate
- of return was a 6% ROS cross-checked by an 8-12% ROCE?
- 14 A. Yes.
- 15 Q. That was rejected by the Tribunal, was it not, and the
- appeal was allowed, there was a remittal?
- 17 A. Well, we have explored this. The cross-check at the
- time did not fully examine phenytoin capsules total
- 19 capital employed, so therefore it was only a minimum, so
- in that respect, it was not a complete analysis.
- In this case, a lot more work has been done on
- 22 identifying the level of capital employed and
- 23 cross-checking it appropriately using different
- 24 sensitivities.
- 25 Q. What I want to put to you is that you have done nothing

- 1 to address the Tribunal's criticisms. What you have
- 2 done is to repackage what is fundamentally the same
- 3 analysis by reversing the main benchmark and the
- 4 cross-check, but otherwise your evidence is the same as
- 5 that which was rejected by the Tribunal last time
- 6 around?
- 7 A. Well, firstly, I was not instructed to respond to the
- 8 Tribunal's questions, I have been instructed to examine
- 9 whether I believe that the CMA's approach to calculating
- 10 a reasonable return is appropriate from an economic
- 11 perspective, and that is the nature of my analysis.
- 12 MS STRATFORD: Thank you. I have no further questions for
- Mr Harman.
- 14 THE PRESIDENT: Thank you.
- 15 Mr Brealey?
- MR BREALEY: I am obliged. No, I do not, thank you.
- 17 THE PRESIDENT: I am very grateful.
- 18 Questions by THE TRIBUNAL
- 19 THE PRESIDENT: Mr Harman, as I have signalled, you have
- 20 a few questions from us. They are going to centre on
- 21 cost plus, ROCE and WACC.
- 22 A. Yes.
- 23 THE PRESIDENT: I am going to take it quite slowly and at
- 24 a level of theory rather than specificity because what
- 25 I would like to ensure that we have a clear

1	understanding of is how ROCE and WACC as concepts fit
2	into the questions that we have to answer in the course
3	of these proceedings.

So we are rather less interested in WACC as a general financial instrument for assessing returns; we are much more interested in how WACC can be used in order to understand excess and, if it is relevant at all, unfairness. So that is just to locate where those questions are coming from.

We are, as I flagged, not particularly interested in what you say the Tribunal has done in other cases. We will, of course, come to *Liothyronine* as a decision of this Tribunal, and we will take it fully into account in our judgment.

A. I am sorry if I implied that you were bound by it or anything. I was just saying what my approach is.

THE PRESIDENT: Not at all. What I am saying is we are interested in your expert evidence unmediated by what the Tribunal may or may not have said on other matters, and that goes exactly for the *Hydrocortisone* decision which we have also seen mention, we will look at it, we will hear submissions, we will deal with it appropriately, but your take on those decisions is not really going to assist us. What we really want is your direct evidence on these matters.

- 1 Α. Yes. 2 THE PRESIDENT: I do not want to let that close you down, if you want to refer to those things, that is fine, but 4 I am really articulating what will assist us. 5 So I want to start with factors of production, and I think all economists would agree that there are four, 6 7 and I will briefly list them so that you can agree: land, labour, capital and entrepreneurship? 8 Yes. 9 Α. THE PRESIDENT: I am not, for present purposes, particularly 10 interested in (a) land, which I include with natural 11 12 resources, nor (d), though we may come back to (d). 13 I am interested for the moment in (b), labour, and (c), 14 capital.
- 15 A. Yes.
- THE PRESIDENT: Now, would you agree that labour, (a), is
  the workforce that is used by an undertaking to produce
  product P?
- 19 A. Yes.
- 20 THE PRESIDENT: In continued tribute to our coffee shop
  21 example, and we will be coming back to the coffee shop,
  22 I am afraid, we will speak of cups of espresso which, as
  23 you will recall, is a product that was produced by both
  24 the Vanilla Coffee Shop and the Robo-Coffee Shop?
- 25 A. Yes.

1	THE	PRESIDENT: S	So we	will	be	talking	about	labour	in	that
2		context just	to gi	round	us	in some	nicely	y hypoth	neti	.cal
3		facts.								

We might well have definitional questions about what workforce actually comprises. I mean, presumably, there are difficult questions about whether an independent contractor constitutes labour or whether it is confined to just employees, but can I suggest to you that those penumbral questions do not really matter for present purposes. You are happy with that?

So broadly speaking, we know what labour is, and I will leave that for the moment. I want to come on to the more difficult question of what capital means, and perhaps I can ask you an open question: how would you define "capital"?

A. There are obviously different definitions, but I would say that capital is equivalent to funds provided by the owners of the business to ensure that a business can act as a going concern from which they seek to earn a return on that investment to compensate them for the investment that they have made.

THE PRESIDENT: That is very helpful, thank you.

We will be revisiting this, but if I was to press you and say was that your definition of "capital" as a factor of production, would you want to change your

- answer, or have you been defining "capital" as you just
- 2 have by reference to what it means for WACC purposes, or
- 3 is there no difference?
- 4 A. No, I think that that -- my -- it is hard to cast my
- 5 mind back to economics 101 at A level to remember
- a precise definition for a factor of production, but
- 7 most production requires an investment into the assets,
- 8 be they tangible or intangible, to allow that business
- 9 to operate, from which the owners of the business expect
- to earn a return.
- 11 So I think, yes, that is my definition. I think
- they are consistent with each other.
- 13 THE PRESIDENT: Right. Can I put to you a different
- 14 definition? I am not for a moment attacking your
- 15 definition, but what I am seeking to unpack is what may
- be an ambiguity in the term which it may be necessary to
- 17 nail. We will see at the end of this line of questions
- 18 whether it does need to be nailed, but looking purely at
- 19 capital as a factor of production, is capital not the
- 20 equipment that facilitates the processes by which
- 21 product P is produced?
- 22 So, to take our coffee shop example, capital is the
- equipment that is used to make the espresso.
- 24 A. Yes.
- 25 THE PRESIDENT: So -- and it may be now is a good time to

- hand round a set of tables which I think are very simple

  and I just have them for you so that we can address the
- So this is a variant or an extract from the stylised coffee shop example which we discussed a few days ago, and there we postulated two elements out of several others in the coffee shop costs stack.
- 8 A. Yes.

specifics.

- 9 THE PRESIDENT: What we hypothesised was that the costs in 10 that stack were the same in the sense that the total 11 costs were exactly the same at £110,000.
- 12 A. Yes.
- 13 THE PRESIDENT: But that the way in which those costs were
  14 spent was remarkably different in the Vanilla Coffee
  15 Shop and the Robo-Coffee Shop.
- 16 A. Yes.
- THE PRESIDENT: Just to ensure that we have the difference
  on the record, we can see that the Vanilla Coffee Shop
  is spending far more on labour, on the baristas who are
  doing the work --
- 21 A. Yes.
- THE PRESIDENT: -- and rather little on capital as I have
  defined it being the equipment that facilitates the
  processes, whereas the Robo-Coffee Shop, because they
  have not used baristas, they have used robots, is

- spending far less on labour, the poor old baristas all
- get their P45s and are off, and much more on capital.
- 3 A. Yes.
- 4 THE PRESIDENT: So I am putting this to you so that you can
- 5 understand where I am coming from in terms of my
- 6 definition of capital as a factor of production.
- 7 A. Yes.
- 8 THE PRESIDENT: Going back to the A level that we have all
- 9 done too long ago, would you accept that that is how,
- 10 for purposes of an A level examination question, one
- 11 would answer the question what is a factor of
- 12 production?
- 13 A. Sorry, is your question there that the capital equates
- 14 to the equipment as a factor of --
- 15 THE PRESIDENT: That is my question.
- 16 A. Yes. Yes, I would agree. So when I was talking about
- 17 the level of investment upon which you earn a return, it
- 18 would have included that equipment, but everything else
- 19 that is also required: the shop, the counter, the seats,
- and so on and so forth.
- 21 THE PRESIDENT: Well, Mr Harman, do not get me wrong, I am
- 22 seeking to isolate so that I can understand --
- 23 A. Yes, of course.
- 24 THE PRESIDENT: -- your approach to capital as something
- which needs to generate a return.

- 1 A. Yes.
- 2 THE PRESIDENT: What this example does not deal with quite
- 3 explicitly is how these costs are funded.
- 4 A. Yes.
- 5 THE PRESIDENT: We will be coming to that.
- 6 A. Yes.
- 7 THE PRESIDENT: But what at the moment I am trying to do is
- 8 to get, leaving on one side the approach to funding of
- 9 a business, the starting definition of a factor of
- 10 production which is this distinction between labour and
- 11 capital. We can leave return to one side, we will
- 12 certainly be coming to that.
- 13 A. Yes.
- 14 THE PRESIDENT: But just to flag where I am going on this,
- I am going to be putting to you that there is
- 16 a difference between capital as we are defining it at
- 17 the moment, which is the factor of production that
- 18 economists talk about, and capital as you define it for
- 19 purposes of your WACC, which is the capital which is
- 20 used to calculate an appropriate return. I do not want
- 21 you to answer that question, I am putting it out there
- 22 so that you know where I am heading, because I think we
- 23 have two different terms, "capital", which are defining
- 24 or describing different things at different points in
- 25 time and that is one of the things that I am keen to

- 1 untangle. So I have set out my stall, you know where
- 2 I am going from.
- 3 But I think for purposes of the coffee shop example
- 4 you are happy with my definition of "capital"; you may
- 5 become unhappy with it later on, but for the moment, we
- 6 are ad idem.
- 7 A. Okay, yes.
- 8 THE PRESIDENT: I am grateful.
- 9 What we have as a situation, then, is two coffee
- 10 shops making the same product, the espresso. One
- 11 happens to be labour-intensive, and one happens to be
- capital-intensive. We can see that in table 1.
- 13 A. Yes.
- 14 THE PRESIDENT: These factors of production might be said to
- 15 be in competition with one another within the same firm.
- Do you understand what I mean by that?
- 17 A. Say it again, sorry?
- THE PRESIDENT: Well, when one is structuring an efficient
- 19 configuration of factors of production in order to
- 20 minimise cost and so maximise profit, you may very well
- 21 be considering what the appropriate configuration might
- 22 be as between labour and capital as I have defined it.
- A. Correct, yes.
- 24 THE PRESIDENT: As it happens in this case, both the Vanilla
- 25 Coffee Shop and the Robo-Coffee Shop are, on these very

- 1 limited figures, equally efficient.
- 2 A. Can I challenge that?
- 3 THE PRESIDENT: Please do.
- 4 A. That would definitely be the case if you were looking at
- 5 a static one-year model. Assuming that the equipment
- lasts for more than one year, costs in future years are
- 7 going to be very different between the two. So the
- 8 Vanilla Coffee Shop is going to have labour at £100,000
- 9 in each year, but, having spent the capital upfront of
- 10 £100,000, that capital does not need to be re-spent
- 11 every other year, so I would say here the Robo-Coffee
- 12 Shop is extremely more efficient than the labour.
- 13 THE PRESIDENT: Well, that is assuming -- and you are
- 14 absolutely right to pick me up on this -- that is
- 15 assuming that the capital has a useful life of more than
- 16 a year?
- 17 A. And? I am not an expert in espresso machines to --
- 18 THE PRESIDENT: Not at all. You have --
- 19 A. -- but that is a difference, I think it is important.
- 20 THE PRESIDENT: It is a difference, but if one were to say
- 21 that the capital actually needs to be replaced annually
- 22 and these are annual figures, then we reach a position
- of equal efficiency.
- 24 A. That would be the case.
- 25 THE PRESIDENT: And if one were to assume that the robots

- 1 need replacing every two months, then you are of course
- 2 right in the other direction that actually the
- 3 Robo-Coffee Shop is less efficient than the Vanilla
- 4 Coffee Shop?
- 5 A. Correct.
- 6 THE PRESIDENT: But you have quite properly said it is
- 7 likely that capital lasts for longer than a year.
- 8 A. Yes.
- 9 THE PRESIDENT: So that is a very valuable implied
- 10 assumption in this table, and I am very grateful to you
- 11 for nailing it, but let us assume that we are looking --
- 12 because there are no dates on this table -- we are
- looking at annual figures and let us also assume that
- 14 the robots need replacing on an annual basis.
- 15 A. Okay.
- 16 THE PRESIDENT: On that set of assumptions, they are equally
- 17 efficient.
- 18 A. Not necessarily.
- 19 THE PRESIDENT: Do go on.
- 20 A. Because in the Robo-Coffee Shop you would have to reward
- 21 the capital provider with a return, and it would have
- 22 a higher return compared to the Vanilla Coffee Shop.
- 23 THE PRESIDENT: Right.
- 24 A. So factoring in finance costs, you would then say the
- Vanilla Coffee Shop is more efficient.

- 1 THE PRESIDENT: Okay. We will come to finance costs, but is
- 2 that the only qualification you want to enter at this
- 3 stage?
- 4 A. For now.
- 5 THE PRESIDENT: For now. Do not worry, if you want to
- 6 revisit that, we will certainly be doing that.
- 7 I will be coming to financing costs, but leaving on
- 8 one side how these costs are funded, just looking at the
- 9 fact that these monies have got to be spent, and
- 10 assuming a one-year window where the robots break down
- 11 after a year and need to be replaced, we have
- 12 a situation of equal efficiency?
- 13 A. Yes.
- 14 THE PRESIDENT: But if only changing the figures and to say
- that Robo-Coffee Shop's capital cost were £90,000, not
- 16 £100,000, but that the coffee was of the same quality as
- 17 the Vanilla Coffee Shop then on that basis Robo-Coffee
- 18 Shop's solution would be more efficient?
- 19 A. Yes, under the constraints that we have --
- 20 THE PRESIDENT: Under all those constraints?
- 21 A. Yes.
- 22 THE PRESIDENT: And vice versa, if labour was cheaper than
- capital as I have defined it?
- 24 A. Correct.
- 25 THE PRESIDENT: So you would agree, at least in this case,

- 1 that labour and capital, again, as I am defining it as
- 2 a factor of production, are actually substitutes for one
- 3 another?
- A. They are substitutes for each other, bearing in mind the
- 5 two constraints that we have considered. I think that
- is where the assumption of return and period become
- 7 important, but in the hypothetical at the moment they
- 8 would be substitutes, but I do not think they would be
- 9 substitutes in the real world in the same way because --
- 10 THE PRESIDENT: Well, I will be coming to the financing
- 11 question in due course. What I want to do is I want to
- 12 start simple and I want to build in the complexities so
- that I can understand where you are coming from.
- 14 A. Yes.
- 15 THE PRESIDENT: But on these assumptions, they would be
- substitutes?
- 17 A. They would be substitutes.
- 18 THE PRESIDENT: We see this in the real world, do we not?
- 19 A. Yes.
- THE PRESIDENT: I mean, we see enterprises deciding that
- 21 they are going to spend more on capital and less on
- labour in all kinds of situations?
- 23 A. I would say they do to the extent there are
- 24 differentiated products. But if it was the same
- 25 product, you would have to work out what the most

I am doing the assumptions again, but I am just saying

if you were looking at the real world then there is

efficient mix of labour and capital would be. Again,

4 probably an optimal mix of the two, and moving away from

5 the optimal may mean that one is more efficient than the

6 other.

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7 THE PRESIDENT: Well, I was thinking about this -- and we will finish on this point -- I was thinking about this 8 when I was last at an airport and I was trying to check 9 10 in my bag, and I was finding, as I am sure we mostly do, it was rather difficult to talk to the computer to 11 12 persuade it to accept my bag because the configuration 13 that had been adopted by the particular airline or airport -- I do not know who was responsible for this --14 15 was to shift away from human beings and towards the 16 machine that prints out your receipt for the luggage and 17 the label that goes on the bag, and I anticipate, these 18 players being rational profit maximisers, let us assume, 19 that this was a cheaper and more efficient way of doing 20 the job of checking in bags than employing a row of 21 people to do the same thing.

A. Yes, I think you have differentiated products and what you are observing there is low-cost carriers who are trying to reduce costs at all -- you know, at all costs, and therefore you are going to have different price

- 1 points that are associated with those products, but it
- 2 goes back to my point in saying in that real world
- 3 example you are not going to have a situation where you
- 4 have the same level of total capital between the two of
- 5 them. Otherwise their prices would be the same.
- 6 THE PRESIDENT: Well, let us leave prices to one side, we
- 7 are just talking about substitutability between factors
- 8 of production. What I think you are saying is that in
- 9 the real world, you will look to what product it is you
- 10 are providing --
- 11 A. Yes.
- 12 THE PRESIDENT: -- in this case, a check-in service, and you
- will endeavour to configure what it is you do to satisfy
- 14 that need by reference to how you articulate the demand.
- 15 A. Yes.
- 16 THE PRESIDENT: It is absolutely right, this was a low cost
- trip, and if I was flying in a different way, then no
- doubt the personal touch would be seen as essential to
- 19 provide so that I get a better service that I am paying
- 20 for.
- 21 A. Yes.
- 22 THE PRESIDENT: But that does not undermine the basic point
- 23 that I am putting to you which is that labour and
- 24 capital as factors of production are, to an extent,
- 25 substitutes one for the other and that as a rational

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1
             provider of a service, you will look to balance them so
 2
             that you minimise your costs and you maximise your
             profit by providing a service that is wanted at as low
 4
             a cost as is possible?
 5
         Α.
             Yes.
         THE PRESIDENT: That is a decision that you will make
 6
 7
             independent of questions of how these costs are
             financed; what you are trying to do is you are simply
 8
 9
             trying to provide the most efficient service?
10
         Α.
             I think that is where we diverge.
         THE PRESIDENT: That is where we diverge.
11
12
             I think that the question of finance becomes vitally
13
             important.
14
         THE PRESIDENT: I see, well, thank you, that is a good point
15
             to stop, and we will resume at 2.00.
16
                 Mr Harman, thank you very much.
17
         (1.06 pm)
18
                            (The short adjournment)
19
         (2.00 pm)
20
                             (Proceedings delayed)
21
         (2.05 pm)
         THE PRESIDENT: Mr Harman, good afternoon.
22
                  So we were at the stage of capital and labour
23
             operating as substitutes, and I think we had unpacked
24
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a number of qualifying assumptions that we are going to

25

- 1 be coming back to, which is that we are assuming that
- 2 capital has, as it were, the same lifespan as labour in
- 3 that if it is longer or shorter then the equivalence
- 4 does not work, and we have, as another qualification,
- 5 disregarded financing costs which we are going to be
- 6 coming to.
- 7 A. Yes.
- 8 THE PRESIDENT: But subject to those two qualifying
- 9 assumptions, these are both costs to the two coffee shop
- 10 undertakings that we are talking about and they are, to
- 11 that extent, substitutes in that each coffee shop has
- 12 chosen a different way of producing the same product,
- and they are doing, on these assumptions, the same thing
- 14 with equal efficiency.
- 15 A. Under the assumptions you have --
- 16 THE PRESIDENT: Under the assumptions that we have
- 17 articulated.
- 18 A. Yes.
- 19 THE PRESIDENT: There are not any other assumptions that
- I need to unpack?
- 21 A. Not at the moment.
- 22 THE PRESIDENT: Absolutely fine. There may be others, and
- 23 I cannot think of any, but if I did I would be putting
- them to you, but we can always come back.
- 25 So on that basis, we have two sets of costs -- and

- 2 A. Yes.
- 3 THE PRESIDENT: -- two sets of costs which are being devoted
- 4 to producing the same product?
- 5 A. Yes.
- 6 THE PRESIDENT: Let us assume -- may be this is our third
- 7 assumption -- the product is of exactly the same
- 8 quality, the espresso tastes as good whichever coffee
- 9 shop it is --
- 10 A. Yes.
- 11 THE PRESIDENT: -- where the costs are £110,000 in each
- 12 case, but their composition is different, but they are
- substitutable in the sense that it is a matter of
- 14 entrepreneurial choice how they choose to deliver the
- same product.
- 16 A. Can I ask one further clarification?
- 17 THE PRESIDENT: Of course.
- 18 A. Which you may say makes them different or not. What is
- 19 the timing of the payments? So ordinarily for the
- 20 equipment I will pay in full upfront. Am I to assume
- 21 that labour for the period is also paid in full upfront,
- or is that cost incurred over time?
- 23 THE PRESIDENT: Well, I can see what you are doing is you
- are throwing in a, if I may say so, complicating
- assumption.

- 1 A. An important one.
- 2 THE PRESIDENT: No, an important one, I appreciate that the
- 3 time value of money, which is really what you are
- 4 talking about, is something which goes into the mix.
- 5 A. Yes.
- 6 THE PRESIDENT: But you can postulate all kinds of
- 7 differences. I mean, I might, for instance, have
- 8 a situation where the robot that is doing the serving
- 9 dies after every month and I need to have twelve which
- 10 is entirely corresponding to the payment of the baristas
- 11 which occurs a month in arrears as well.
- 12 A. But they survive.
- 13 THE PRESIDENT: I am so sorry.
- 14 A. But they survive.
- 15 THE PRESIDENT: But they survive, they just got --
- 16 PROFESSOR WATERSON: We could consider the robot is rented.
- 17 THE PRESIDENT: We could consider the robot is rented, but
- that brings us into finance costs which I am anxious to
- 19 avoid at the moment.
- So I accept that, but I do not think it is necessary
- 21 to explore it, because, as I say, it is just
- 22 complicating the simple scenario that I am trying to put
- 23 to you before we start layering the complexities on to
- that.
- 25 A. That is fine.

- 1 THE PRESIDENT: So with those assumptions, which we have now
- got on the record, it would be irrational to treat the
- 3 costs of the two undertakings that we are exploring
- 4 differently. Would you agree with that?
- 5 A. Under the current considerations, yes.
- 6 THE PRESIDENT: Under the current assumptions?
- 7 A. Yes, 100%.
- 8 THE PRESIDENT: Thank you. Let us move on to why capital is
- 9 problematic. We have defined capital at the moment as
- 10 the equipment that facilitates the processes by which
- 11 the espresso is produced.
- 12 A. Yes.
- 13 THE PRESIDENT: I think you see capital rather differently.
- 14 So you would, for instance, regard debt as capital?
- 15 A. Yes.
- 16 THE PRESIDENT: And you would regard money as capital?
- 17 A. Yes, because retained cash in the business that has not
- been paid out -- so, for example, if you are a listed
- 19 company and you had shareholders, you can choose to pay
- 20 that money back to shareholders through dividend, but if
- 21 you retain that amount, shareholder assumes that that
- 22 money is re-invested in the business in some way upon
- 23 which the shareholders will earn a return.
- So from a value perspective, you could assume that
- 25 cash is a part of capital investment.

- 1 THE PRESIDENT: So --
- 2 A. Unless it was for working capital purposes. Sorry, that
- is a slight deviation. You will probably need to hold
- 4 some cash just for meeting, you know, day-to-day cash
- flows, the petty cash tin.
- 6 THE PRESIDENT: So if I am sitting on my excess cash which
- 7 I do not need for working capital purposes and I am just
- 8 sitting on it, let us say the Vanilla Coffee Shop has
- 9 10 million quid in the bank.
- 10 A. Yes.
- 11 THE PRESIDENT: That is its capital, on your definition?
- 12 A. That would be capital because if I was a shareholder or
- a bank and you are sitting on my money, then I am going
- 14 to want a return on that money, so exactly.
- 15 THE PRESIDENT: No, I understand, but it is moving our
- 16 definition of capital away from that which facilitates
- the processes by which the product is produced to
- something which is an asset within the business which
- 19 may or may not be used to produce the assets, and of
- 20 course you were saying the efficient firm will only have
- 21 that which it needs to produce that which it produces,
- and so there ought to be a correlation between the two,
- but to be clear we are moving well away -- it is not
- 24 a criticism -- we are moving well away from my
- 25 definition of capital as a factor of production into

- 1 meaning of capital which is a little bit wider.
- 2 A. I can see the differentiation. What I would say to that
- 3 is that there are two forms of capital that can be
- 4 invested, right. There is the initial investment that,
- 5 if you like, gets the business moving. If the company
- 6 decides to retain capital, you can think about that as
- 7 almost internal capital, and the general assumption with
- 8 that internal capital is at some point in time that will
- 9 be used internally to either grow the business in terms
- of scale or introduce new product lines.
- So it is an internal investment that, if it was
- going to be remained in the business, you would expect
- it to be invested in something that would then allow
- 14 further revenue streams.
- 15 THE PRESIDENT: Well, Mr Harman, I am sure that is right
- 16 because most firms are keen to become and to produce as
- 17 efficiently as possible and they do not want to be
- 18 sitting on money that is just not being used.
- 19 A. Correct.
- THE PRESIDENT: So I am quite sure you are right, but
- 21 would you accept that we are moving away from the
- 22 starting point of a definition into something which is
- 23 rather different in terms of how we are defining
- 24 capital, because I think this is a source of my, at
- 25 least, confusion --

- 1 A. Yes.
- 2 THE PRESIDENT: -- and I am anxious to understand it.
- 3 So let us suppose we have a firm that is sitting
- 4 on -- well, let us suppose the Vanilla Coffee Shop is
- 5 sitting on £500,000 worth of money --
- 6 A. Yes.
- 7 THE PRESIDENT: -- which it does not need --
- 8 A. Yes.
- 9 THE PRESIDENT: -- and Robo-Coffee Shop is not. Now, using
- my definition of capital, we do not need to change any
- 11 of the lines in table 1, because I am looking at those
- things, those factors of production, that are needed to
- produce the espresso, and I am asking you to assume that
- 14 the Vanilla Coffee Shop has £500,000 in addition to its
- 15 labour and the capital as I have defined it, the
- 16 equipment, which is just sitting there. So on my
- 17 definition it is not capital, but I think on your
- 18 definition it is.
- 19 A. Yes, I mean, I think that it is because it has an
- 20 opportunity cost associated with it.
- 21 THE PRESIDENT: Of course. This is a somewhat bonkers
- 22 example, I accept that, because it is very irrational to
- 23 sit on money.
- 24 A. Businesses frequently do it, but I agree with you.
- THE PRESIDENT: You agree?

- 1 A. Yes.
- 2 THE PRESIDENT: In terms of economic theory, it is not
- 3 a sensible thing to do?
- 4 A. It would be irrational, yes.
- 5 THE PRESIDENT: But leaving that on one side, we are
- 6 beginning to identify a little bit of clear blue water
- 7 between our starting point -- my definition of
- 8 capital -- and your definition.
- 9 A. Yes, I agree with you that the costs are the same, but
- I am not seeing labour as a capital cost. I am sure we
- 11 are --
- 12 THE PRESIDENT: I am not asking you about that yet.
- 13 A. Okay, thank you.
- 14 THE PRESIDENT: All I am asking you to agree -- and I think
- 15 you are -- is that if we were to articulate what capital
- 16 the Vanilla Coffee Shop was holding in table 1 --
- 17 A. Yes.
- 18 THE PRESIDENT: -- and there was a £500,000 of un-utilised
- 19 money sitting in the Vanilla Coffee Shop tills, then you
- 20 would want an extra line saying "capital unused
- £500,000"?
- 22 A. Yes.
- 23 THE PRESIDENT: Because that is how you are defining capital
- and if we were including this table "capital", then you
- 25 would want that in there?

- 1 A. Yes.
- 2 THE PRESIDENT: Whereas I am saying that that is not, for
- 3 the purposes of this table, capital as I am defining
- 4 it --
- 5 A. Yes.
- 6 THE PRESIDENT: -- and that is all I am trying to establish
- 7 at the moment, okay.
- 8 Is the firm itself capital?
- 9 A. Yes.
- 10 THE PRESIDENT: I mean, let us assume that both the Vanilla
- 11 Coffee Shop and the Robo-Coffee Shop are natural
- 12 persons. Let us define that a little bit more. Let us
- suppose that they are persons with separate legal
- 14 personality whose acts are capable of acting as
- 15 a corporate shield to shareholder exposure, so limiting
- shareholder liability, and whose primary function in the
- economic world is to bring together factors of
- 18 production as efficiently as possible. So defined,
- 19 would you say a firm is capital? I appreciate it is
- 20 a person, but it is not a human being.
- 21 A. It is not a human being, but we are saying that there is
- 22 an external owner? Because I think that becomes
- 23 important as to who ultimately is the owner of these
- businesses.
- 25 THE PRESIDENT: Right. So we are now getting to where the

- difference may make a difference.
- On my definition of capital, I am suggesting to you
- 3 that the firm is a factor of production that falls
- 4 within my definition of capital because what it is, is
- 5 it is something that facilitates the processes by which
- 6 product P is produced. The firm, for instance, buys in
- 7 the raw materials, it buys in the capital, it buys in
- 8 the entrepreneur who is controlling how these things are
- 9 all mixed up together and who is planning the strategy.
- 10 So what it is doing is it is facilitating the production
- of our espresso cups.
- 12 A. Both capital --
- 13 THE PRESIDENT: So let us start with my definition: do you
- 14 agree that a firm on that definition is capital?
- 15 A. And by "capital" here we are meaning the second line in
- the first table?
- 17 THE PRESIDENT: We are meaning -- exactly so, we are meaning
- 18 the economist's factors of production definition.
- 19 A. Yes, I think that I can agree with that.
- THE PRESIDENT: Right. But, moving to your question, you
- 21 are absolutely right, the legal person that we are
- 22 hypothesising has to be owned by somebody --
- 23 A. Yes.
- 24 THE PRESIDENT: -- they are not autonomous things, at least
- not yet, so there will be some form of, let us say,

- financing of the entity --
- 2 A. Yes.
- 3 THE PRESIDENT: -- which will, let us broadly agree, be
- 4 either equity or debt?
- 5 A. Correct.
- 6 THE PRESIDENT: So we suddenly have an extra element which
- 7 is the injection of something?
- 8 A. Yes.
- 9 THE PRESIDENT: Either by way of shareholder investment or
- 10 by way of bank creditor investment?
- 11 A. Yes.
- 12 THE PRESIDENT: Which enables the company to do its
- 13 business?
- 14 A. Yes, to fund the capital in the business, to allow it do
- 15 its --
- 16 THE PRESIDENT: Well, to fund the business. Now, if we are
- just talking about what is being funded, I do not think
- it is right inevitably to say that something particular
- 19 in the shape of a particular factor of production is
- 20 being funded. I think at the moment all we are saying
- 21 is that the firm, the legal person, needs to have an
- 22 inflow of money in order to do its business, and that
- 23 that inflow is either, in very broadbrush terms -- let
- 24 us keep our financing simple -- is either debt or
- equity.

- 1 A. Yes.
- 2 THE PRESIDENT: Now, you would define -- but I do not think
- 4 would that be fair?
- 5 A. Sorry, you are asking me if you would disagree that debt
- 6 and equity --
- 7 THE PRESIDENT: So, what I am asking you to agree or
- 8 disagree with is how are you characterising the money
- 9 that is pushed into a firm, whether it is by a loan or
- 10 whether it is by an injection of shareholder funds?
- 11 A. Yes, well, from a strict accounting point of view, debt
- 12 and equity coming on to the balance sheet would be
- regarded as capital on one side, and on the other side,
- 14 because the two sides balance, would be a summary -- the
- sum of the investments that that capital has been used
- 16 for, and that could break down into a number of
- 17 different categories such as tangible fixed assets,
- 18 current assets, current liabilities, and the two sides
- 19 of the equation hopefully balance, if the auditors are
- doing a good job.
- 21 THE PRESIDENT: Well, we may inevitably be drawn into the
- 22 accounting balance sheet areas, but I am quite keen to
- avoid that if we can.
- 24 A. Yes.
- 25 THE PRESIDENT: So I think taking it in stages, what you are

- 1 agreeing is that the insertion of capital, whether it is
- 2 by way of debt or whether it is by way of shares or
- 3 equity, constitutes capital because it represents an
- 4 insertion of money which is reflected as an obligation
- 5 owing back by the firm to whether it is the lender of
- 6 the money or the provider of share capital?
- 7 A. Yes, we are in agreement.
- 8 THE PRESIDENT: And you would regard both of those as
- 9 capital?
- 10 A. Yes, they both equal each other, and, therefore --
- 11 THE PRESIDENT: They do the same thing?
- 12 A. -- by the same logic they are the same thing.
- 13 THE PRESIDENT: They do the same thing. They do it
- 14 differently because the equity stake sits at the bottom
- of the pile --
- 16 A. Yes.
- 17 THE PRESIDENT: -- but it recovers a surplus which may be
- disproportionate to the amount put in, whereas the bank
- 19 lending money will get a fixed rate of return but will
- 20 take it in priority to the shareholders?
- 21 A. Yes.
- 22 THE PRESIDENT: But all we are talking about is different in
- 23 terms of in relation to the provision of what we are
- labelling as capital?
- 25 A. Correct.

- 1 THE PRESIDENT: But we are now moving well away from the
- 2 capital as I defined it right at the beginning.
- 3 A. Why do you think that?
- 4 THE PRESIDENT: Well, why do you not agree with that?
- 5 A. Well, I mean -- well, so let us put some figures on this
- 6 example.
- 7 THE PRESIDENT: Okay.
- 8 A. Let us say that we are the Vanilla Coffee Shop and
- 9 I have arranged my labour to start working, and I need
- 10 a piece of equipment, and so I say: well, I am £10,000
- short, I had not started my operations, I have to get
- 12 that money from somewhere. So I am going to go out to
- equity and debt finance providers and I am going to say,
- can I please have £10,000? That comes into the balance
- sheet, I get £10,000 worth of cash, I take my £10,000 of
- 16 cash and I buy a piece of equipment, and then we have
- a balance sheet that has £10,000 in equipment on one
- side and £10,000 in capital on the other side.
- 19 THE PRESIDENT: Okay, well let us try and remove a few of
- the details there and let us make it a little bit
- 21 easier. Let us go back to table 1 and let us take the
- 22 costs that we have identified there, the £110,000, I do
- 23 not think it matters which coffee shop we look at.
- 24 A. Yes.
- 25 THE PRESIDENT: But let us say that they are both firms that

- 1 are legal persons?
- 2 A. Yes.
- 3 THE PRESIDENT: And that they are both capitalised and let
- 4 us not worry about shares or debt?
- 5 A. Yes.
- 6 THE PRESIDENT: That they have a loan of £500,000. Now,
- 7 that is more than they need.
- 8 A. Yes.
- 9 THE PRESIDENT: So what is going to be happening is that the
- 10 coffee shop is going to be sitting on money which is not
- 11 needed --
- 12 A. Yes.
- 13 THE PRESIDENT: -- to the tune of £390,000, if I have that
- 14 right.
- 15 A. Yes.
- 16 THE PRESIDENT: Okay. So that is where the mismatch in
- 17 definition comes --
- 18 A. I see.
- 19 THE PRESIDENT: -- because I think you would accept that
- there is capital of £500,000 being injected into the
- 21 firm; you agree with that?
- 22 A. Yes.
- 23 THE PRESIDENT: But that on the other side in terms of what
- 24 is capital, on my definition and looking at the Vanilla
- 25 Coffee Shop as the example, the capital is only £10,000?

- 1 A. Yes.
- 2 THE PRESIDENT: On your definition of capital, it is £10,000
- 3 plus, what, £390,000?
- 4 A. Yes.
- 5 THE PRESIDENT: Or what? Is it the money --
- 6 A. That will only be the case, obviously, if you are paying
- 7 for labour upfront on day one before doing anything, but
- 8 that is a complication that we probably do not need to
- 9 get --
- 10 THE PRESIDENT: No, I think that is actually central to the
- 11 question.
- 12 A. Yes.
- 13 THE PRESIDENT: Because what you are asking, quite rightly,
- is how is the labour cost --
- 15 A. Paid for?
- 16 THE PRESIDENT: -- being paid for.
- 17 A. Correct.
- 18 THE PRESIDENT: So what I think you are saying is that if
- 19 the Vanilla Coffee Shop is using the capital that it has
- 20 received from the bank to pay its baristas, then those
- 21 baristas are to be deemed as capital --
- 22 A. Yes.
- 23 THE PRESIDENT: -- rather than labour?
- 24 A. Correct, you would capitalise them.
- 25 THE PRESIDENT: Right, so that has very neatly encapsulated

- 1 the difference in meaning that we are talking about, and
- let me be clear: I do not really care who is right and
- 3 who is wrong, I think we have two different
- 4 definitions --
- 5 A. Yes.
- 6 THE PRESIDENT: -- but it does, it seems to me, matter that
- 7 we are deploying those definitions in different ways.
- 8 A. Yes, I mean, the way in which you have termed something,
- 9 I think that is important, which may lead me back
- 10 slightly towards your position is it is an extreme
- position when you say there is £500,000 but you only
- need £10,000 of it, just putting the labour to one side,
- if we were just focusing on capital.
- 14 So if a business only needed £10,000 and it asked
- for 500,000, only needed 10, then if the question is for
- 16 a particular set of products that are being sold what is
- 17 the relevant capital measure that should be included,
- I would say it is the value of the machine, not the
- 19 amount that is sitting inefficiently in the balance
- sheet.
- 21 THE PRESIDENT: Indeed, but what you are also saying,
- 22 I think, is that if the Vanilla Coffee Shop is
- 23 saying: I need capital of £110,000 in order to pay my
- 24 baristas and buy the equipment, then you would regard
- 25 the capital of the Vanilla Coffee Shop as £110,000, and

- 1 you would disregard the distinction that is drawn in 2 table 1 between labour and capital?
- 3 A. Yes, because in that world what you are saying is -- and 4 I think that it comes back to -- I do not know, I seem 5 at least to be able to reconcile this with my own view of the world -- is that if I need to borrow a certain 6 7 amount of money to fund the business irrespective of the balance sheet items then, because of the time value of 8 money and the money being at risk, if I have to get 9 10 money today before I earn revenues and cash flows, to me 11 that is capital invested, which is similar to working 12 capital, right, at the end of the day, working capital 13 needs to be funded upfront and within creditors there is all sorts of different payments and everything else. 14

So you can -- and I think this is the important part -- on occasion step away from items that you think are equipment, land and something else and working capital, which is what I would say is labour in this context, the need to fund capital so that your business can work, right.

So if on day one you had to spend £100,000, I would need upfront to fund that £100,000 over the course of the year.

24 THE PRESIDENT: Indeed.

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25 A. Conversely, if I paid them all on the last day of the

year -- well, actually, my cost goes in the other direction, you know, I pocket the money throughout the year and I would earn a profit on it. But if I funded that labour in arrears, like we often do in businesses, and that money was paid by cash flows coming in from revenues, then there would not be a need for a capital investment.

THE PRESIDENT: I am hypothesising the need, because what

I am trying to explore with you -- I think we are nearly
there -- what I am trying to explore with you is that
there is a quite fundamental disconnect between the
labels that we attach to factors of production and the
label that is attached to the manner in which a business
is funded, because taking the need for money being lent
and injected into the Vanilla Coffee Shop upfront,
because they do not have any other source, if they take
£110,000 on day one because they need it, because they
have grasping people who want quite unreasonably to be
paid upfront before they turn up and make the coffee,
they need the money.

Now, we can debate until the cows come home when they need it and how it is structured, but that is detail. What we are saying is that if they seek £110,000 to fund their business, then that is the capital of the business in the sense that you are using

- 1 it.
- 2 A. Yes, it is, and I think that is consistent with the
- 3 analysis that has been done, because the distinction
- 4 that you are making --
- 5 THE PRESIDENT: Mr Harman, I am not attacking you at all.
- A. No, no, but I am trying to put accounting labels on it
- 7 so that we can understand --
- 8 THE PRESIDENT: We will be coming to that. Let us do it in
- 9 stages. I will let you push back but I do not want you
- 10 to run ahead of where I am going.
- 11 A. That is fine.
- 12 THE PRESIDENT: What we have established, I think, is that
- 13 the factor of production labels are something of a red
- 14 herring.
- 15 A. Yes.
- 16 THE PRESIDENT: What actually matters is why it is that the
- money is being deployed into the business.
- 18 A. Yes.
- 19 THE PRESIDENT: I think we have also agreed that if money is
- 20 being deployed into the business in a manner that is
- 21 inefficient, so if, for example, the Vanilla Coffee
- Shop, needing only £110,000, borrows £500,000, then that
- 23 is capital as well. It may be inefficiently used
- 24 capital --
- 25 A. Yes.

- 1 THE PRESIDENT: -- it may be efficiently used. It may be
- 2 that the Vanilla Coffee Shop is planning an expansion,
- 3 who knows, but in terms of the label we are attaching,
- 4 it would be £500,000 even though the costs stack of the
- 5 Vanilla Coffee Shop in table 1 is a mere £110,000 of
- 6 which capital in the factor of production sense is
- 7 a mere £10,000.
- 8 A. Yes.
- 9 THE PRESIDENT: Great.
- 10 So let us then move on to an area where you will be
- 11 much more comfortable than I: WACCs and ROCEs. What
- 12 I want to do is I want to understand their broad
- operation and what they are doing for us in this type of
- 14 case, which is an abusive pricing case.
- 15 A. Yes.
- 16 THE PRESIDENT: So that is where I am going next. So we
- have two parameters which go to our assessment of excess
- and unfairness, and you are primarily talking about
- 19 excess.
- 20 A. Correct.
- 21 THE PRESIDENT: We have got cost and we have got price.
- 22 A. Yes.
- 23 THE PRESIDENT: And they sound beguilingly simple, but the
- 24 more I hear about this case the more I think they are
- 25 extremely complicated, but we have those two parameters,

- and in this case we have an agreed costs stack for the
- 2 capsules. What we have is the table that was put to
- 3 Dr De Coninck and was put to you.
- 4 A. We have moved away from the WACC in this example for
- 5 now?
- 6 THE PRESIDENT: Well, what we are looking at, at the
- 7 moment -- we are coming on to the WACC, we are just
- 8 talking about the costs stack.
- 9 A. Yes.
- 10 THE PRESIDENT: So what we have done is we have
- 11 identified -- and it is all agreed, so it should be
- 12 easy --
- 13 A. Yes.
- 14 THE PRESIDENT: -- we have an articulated cost for the
- 15 capsules in question.
- 16 A. Yes.
- 17 THE PRESIDENT: As we can see, we have got the four
- different dosages across the top, and we have broken it
- 19 all down --
- 20 A. Yes.
- 21 THE PRESIDENT: -- and it is wonderful.
- 22 A. It is.
- 23 THE PRESIDENT: Because it is agreed, which judges always
- 24 like. We have dealt with the question of allocation of
- common costs.

- 1 A. Yes.
- 2 THE PRESIDENT: We may have a dispute about how one
- 3 allocates those, and we have heard arguments about is it
- 4 revenue-based, is it units-based, there are all sorts of
- 5 different bases, and I know that is a problem and
- 6 a difficulty on which the experts do diverge, but that
- 7 is not something I am particularly interested in dealing
- 8 with with you today. I understand the difficulties, and
- 9 I think we can resolve those on the basis of the
- 10 evidence that we have heard, so you can treat it as an
- 11 area of disagreement that really does not matter. So if
- 12 I talk about allocation of common costs by reference to
- 13 revenue, then I know you will push back on that --
- 14 A. Yes.
- 15 THE PRESIDENT: -- but please do not bother because I know
- 16 you will.
- 17 A. Right.
- THE PRESIDENT: So we have worked out cost, because we have
- 19 an agreed costs stack, and what we are doing in this
- 20 table is we are isolating from the overall costs of the
- 21 undertaking the specific costs of the product that is
- said to be infringing competition law.
- 23 A. Yes.
- 24 THE PRESIDENT: So what we have done is we have now got four
- 25 infringements, if one is looking at Pfizer or Flynn, and

- four infringements looking at the other entity, be that
- 2 Flynn or Pfizer?
- 3 A. Yes.
- 4 THE PRESIDENT: So eight in total but per undertaking, four.
- 5 We are not interested, do you agree, in a firm generally
- 6 overpricing?
- 7 A. I have raised before you before in that the one aspect
- 8 that a potential overall firm analysis gives potentially
- 9 some insight to is if the input price to Flynn was
- 10 inefficient, that could mask -- it could mask
- 11 excessiveness. So I am not saying that one has to look
- 12 at it, I am just saying that it is important in this
- context to understand that the high input costs has
- 14 implications for observed outcomes in terms of level of
- 15 excess, and you could view those from an economic
- perspective as an inefficiency that one might be minded
- 17 to take into account.
- 18 THE PRESIDENT: Well, I am quite prepared to accept that
- 19 qualification, I think it is fairly made. What you are
- saying, if I can rephrase it and you can tell me whether
- I have rephrased it rightly or wrongly, is this: that we
- are interested in the overpricing of a specific
- 23 product --
- 24 A. Yes.
- 25 THE PRESIDENT: -- and we are asking ourselves is that price

- 1 over cost excessive and then unfair.
- 2 A. Yes.
- 3 THE PRESIDENT: And those questions have to be asked in
- 4 relation to the specific product, but one might find
- 5 that the parameters -- the differences between cost and
- 6 price -- and we will be coming on to cost plus in
- 7 a moment -- those parameters may be disguised or
- 8 distorted by the general way in which the firm prices or
- 9 costs itself, and so one needs to look at the firm
- 10 generally in order to reach an answer for the specific
- 11 product in question?
- 12 A. Yes, that is a fair summary.
- 13 THE PRESIDENT: But it does not alter the fundamental
- 14 question, which is that we are interested in the cost
- 15 and the price and the difference between the two of the
- 16 specific product, here the four different doses of
- 17 capsule?
- 18 A. Correct.
- 19 THE PRESIDENT: I am grateful. So, I think you have already
- answered this but we will get it on the record clearly:
- 21 price generally sits above cost. It does not always,
- but that is generally the case.
- 23 A. Price -- are you including capital costs in there?
- 24 THE PRESIDENT: Well, are you including capital costs in
- 25 there? They are not in this table.

- 1 A. Are they not? Are not capital costs in yellow?
- THE PRESIDENT: Well, I beg your pardon, this is a late
- 3 insertion in terms of what was put to you on Day 12 and
- 4 they are in yellow because they are insertions into the
- 5 spreadsheet that was agreed, so I think when I was
- 6 saying rather blasély this is all agreed, I think
- 7 everything is agreed apart from the bits in yellow.
- 8 A. Yes.
- 9 THE PRESIDENT: I think if you go to the spreadsheet, and
- 10 maybe we can get it up, so the spreadsheet is, I think,
- 11  $\{XJ/35.1\}$ , and now we will need to go to the actual
- 12 Excel software, and I hope, but more hope than
- expectation, that we will actually get the spreadsheet
- that was put by Mr Bailey to Dr De Coninck which is
- 15 a variant on this particular theme.
- 16 A. Yes, I am familiar with this, and if the question is
- 17 would I expect the price to be above the costs that are
- exhibited in this Excel spreadsheet, yes, I would expect
- 19 prices to be above cost.
- THE PRESIDENT: And I think it is also the case that this
- 21 spreadsheet, which is, I think, the agreed spreadsheet
- 22 because it derives from the data that the CMA sent to us
- and which was agreed by the other parties, that is what
- I am intending to refer to anyway, did not include costs
- of capital?

- 1 A. Correct.
- 2 THE PRESIDENT: It included all the other costs?
- 3 A. The other costs.
- 4 THE PRESIDENT: Right. So what we have is an agreed costs
- 5 stack for everything that goes into the making of or the
- sale of these four different types of capsule excluding
- 7 the costs of capital?
- 8 A. Correct.
- 9 THE PRESIDENT: So let us now go on to your area of strength
- 10 and my area of weakness: the WACC. It stands for
- 11 weighted average cost of capital.
- 12 A. Correct.
- 13 THE PRESIDENT: What does it represent? Let me give you my
- 14 understanding and then you can tell me just how far
- I have it wrong.
- 16 It represents a firm's cost of capital from all
- sources including, in particular, equity and debt?
- 18 A. Yes.
- 19 THE PRESIDENT: It is the average rate that a company
- 20 expects to pay to finance its business.
- 21 A. I mean, normally I would have it switched round where
- 22 I would say the owners of the capital, that is their
- 23 expectations of what they will earn. Whether that also
- 24 means that it is the company's expectation of what they
- 25 will pay, I think that is probably fair. Sorry, I am

- just debating that in my head, but, yes, I think that
- 2 is --
- 3 THE PRESIDENT: Does that not have to follow, because --
- A. It has to follow, certainly in the long term --
- 5 THE PRESIDENT: Okay.
- 6 A. -- or medium term. I mean, obviously debt has to be
- 7 paid when it is due. Equity, there is a bit more
- 8 variability as to whether you have to pay something in
- 9 a particular period, but over time, you would be
- 10 expected to earn a return that meets the owner of equity
- 11 capital's expectations.
- 12 THE PRESIDENT: Sure, but the reason I am putting it that
- way as a cost is because we are interested in completing
- 14 this table that we have in front of us of the costs
- 15 stack for the four capsule types or the espresso that we
- are talking about. In other words, what we are trying
- 17 to work out is the cost of producing the specific
- 18 product under investigation is and we are trying to get
- 19 a complete list of those things.
- 20 A. Yes.
- 21 THE PRESIDENT: What we are agreed is that this table, the
- one on the screen -- not the one with the yellow in it,
- 23 but the one on the screen -- contains all of the costs
- 24 except for the firm's cost of capital --
- 25 A. Yes.

- 1 THE PRESIDENT: -- which needs to be inserted.
- 2 A. Yes, correct.
- 3 THE PRESIDENT: Now, when one is talking about the WACC as
- 4 we are, that is a cost which is a cost that is
- 5 attributable to the capital needs of the firm as
- 6 a whole?
- 7 A. The capital needs of the firm as a whole which match the
- 8 returns required by the providers of the --
- 9 THE PRESIDENT: We will come to returns in a bit, I am just
- interested in the costs point at the moment, because of
- 11 course if one is talking about a WACC being a firm's
- 12 cost of capital, that will be a cost that will need to
- be localised in the specific product under consideration
- just as any other common cost will need to be.
- 15 A. Yes, I should note that actually when you think about
- 16 the cost of capital, you can think of it at a firm
- 17 level, and you can think of it at the product level. So
- if you are valuing an individual product you should be
- 19 having regard to that product's weighted average cost of
- 20 capital.
- 21 The cost of capital does not tend to move much
- 22 between different categories within a firm. You will
- have seen from the evidence, you know, WACC ranges
- 24 between 8 and 12, and so when you actually do this type
- of analysis what you are trying to identify really is

- 1 the weighted average cost of capital for a particular
- 2 product, and in this case with phenytoin capsules,
- 3 because the demand is inelastic, it would, all else
- 4 being equal, lead to a lower beta than the firm's beta,
- 5 but we have adopted the firm's cost of capital as a
- 6 proxy for the actual products.
- 7 THE PRESIDENT: Mr Harman, you are running way ahead of me.
- 8 A. Sorry.
- 9 THE PRESIDENT: That is all right. Let us just work out how
- 10 WACCs are generally used.
- 11 A. Yes.
- 12 THE PRESIDENT: Would you accept that it is atypical to try
- to localise a WACC in a particular product? I accept we
- 14 have to do that here, but generally speaking, given that
- one is defining a WACC as a firm's cost of capital, we
- are really looking at the firm level in general terms.
- 17 A. I think that you are looking -- I mean, in this instance
- 18 we are looking. Is it atypical that businesses try to
- isolate costs of capital for different production lines?
- It is not atypical. So, for example, if you were an oil
- 21 company and you were drilling on land, you would tend to
- think about weighted average cost of capitals of 10% on
- 23 your investment, and if you were doing it offshore you
- 24 would tend to think about weighted average cost of
- capitals of 15%.

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1 So businesses do make the distinction, but they will
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- 2 also have regard to the overall firm's weighted average
- 3 cost of capital.
- 4 THE PRESIDENT: I am sure you are right, Mr Harman, but if
- I were to say what is a firm's WACC, you would be
- 6 answering that at the firm level --
- 7 A. Yes.
- 8 THE PRESIDENT: -- rather than at anything more specific?
- 9 A. Well, unless you were asking me specifically.
- 10 THE PRESIDENT: Well, if I was asking you specifically
- I would ask you specifically. If I am saying what is
- 12 a firm's WACC --
- 13 A. Yes.
- 14 THE PRESIDENT: -- then --
- 15 A. It is the portfolio effect across.
- 16 THE PRESIDENT: Exactly so.
- We are agreed that the capital may come from
- 18 a variety of sources, we discussed that.
- 19 A. Correct.
- THE PRESIDENT: Just help me on this, before we descend from
- 21 the firm-wide WACC to something more specific: to what
- 22 extent do you consider that a WACC needs to be adjusted
- in order to take account of, let us say, implied costs?
- Let me unpack what I mean by that. You will
- 25 remember that in the old Vanilla Coffee Shop example

- that example excluded the cost of premises --
- 2 A. Yes.
- 3 THE PRESIDENT: -- because mom and pop did not factor it in,
- 4 and I think when we discussed this in the hot-tub you
- 5 wanted to include it back in in order for it to be
- 6 accounted for?
- 7 A. Yes.
- 8 THE PRESIDENT: So if I were to say -- and let us take
  9 a hypothetical firm -- what is that firm's WACC, what
- 10 will you be doing in answering that question? Will you
- 11 be looking at the actual costs of capital of the firm or
- 12 will you be adjusting it in order to take account of
- 13 efficiencies or inefficiencies, exclusions or
- inclusions, or will you actually give two answers to
- say: well, one is the WACC as it is, but if you really
- want a true and fair view of what this firm's capital
- 17 costs are, you need to make the following adjustments?
- 18 A. I think in the example there where what you are saying
- 19 is missing is capital, and the adjustment that you are
- 20 making is to the value of capital but not to the
- 21 weighted average cost of capital, so if the premises
- is -- you know, if somebody owns a premises but it is
- fully depreciated so there does not appear to be any
- 24 capital associated with that, then the return that they
- 25 would require is their weighted average cost of capital

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             multiplied by today's value of that asset, because that
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             is the opportunity cost to you. I could sell that to
             another business. So a rational owner would want to
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             bear that in mind when setting his capital requirement.
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             He could deviate from that of course if there was
             a pricing war because he does not actually have to fund
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 7
             that, but assuming that he is competing with businesses
             that do have to face that cost, then that would be
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             a reasonable thing to include in cost plus, because you
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             are adjusting for his special advantage.
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         THE PRESIDENT: We are not even close to cost plus yet,
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             Mr Harman, we are still at cost, are we not? What I am
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             trying to understand is not ROCE, we will come to ROCE.
             What I am trying to understand is how the cost to the
14
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             firm of the capital that it has taken is to be computed,
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             and if I can give you another hypothetical example, let
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             us go back to the coffee shop, the Vanilla Coffee Shop,
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             that borrows more than it needs.
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             Yes.
         Α.
         THE PRESIDENT: So it has a need, let us assume, of
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             £110,000 --
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22 Α. Yes.

THE PRESIDENT: -- but it has borrowed, for no good reason, 23

£500,000. 24

25 Α. Yes. THE PRESIDENT: Now, those are real costs because the bank
is not particularly interested in why the borrowing has
taken place, it is interested in being repaid, but that
is all it is interested in. It is going to charge
interest on the full £500,000 whether you need it or

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So if I am asking what is the WACC of the coffee shop in those circumstances, do you look to the £500,000 or do you look to the £110,000 which is actually needed, or do you do both?

Well, I think -- I can see you have drawn a distinction Α. there between costs that you have to pay versus costs that you do not have to pay. I think that is one of my understandings of the question, but if I was a lender -if I was an equity lender to this mom-and-pop store and I lent them, 50 years ago, £10 to build their store, now, through time the value has, in the books of the business, has depreciated but the share owner still has -- the equity owner still has his stake in the company, then from his perspective or their perspective, they will be saying: I am sitting on something here that is worth more money than is recorded in the books, and me as the owner of this asset that is under-recorded, my opportunity cost counts, and, therefore, the return that I want from the business is not the original investment,

it is what it is worth to me today.

So in that respect, the cost over time may well change to reflect the underlying value of the asset, and that becomes a real cost to the business even if it, on the accounts, does not appear to be a real cost.

THE PRESIDENT: Okay, well, it may be completely my fault, but I need to localise you in the costs side, the side of the firm whose product is under investigation, because we are interested in the costs stack, not in the return to the provider of the capital. The provider of the capital is not -- I think I am right in saying -relevant to our line of enquiry. What we are here interested in is computing the proper cost of the four dosages or the hypothetical espresso that we are talking about, and so I am using an easy example, I am using the espresso in the Vanilla Coffee Shop, and what I am trying to work out with your help is what we include in the costs stack so that we have something to compare against price. So what I am asking you is this: going back to table 1, we have an upfront day 1 need of £110,000.

22 A. Yes.

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THE PRESIDENT: Now, if that is all that is borrowed from the bank, then I think the answer as to what is the capital is clear.

- 1 A. Is clear.
- THE PRESIDENT: It is £110,000.
- 3 A. Yes.
- 4 THE PRESIDENT: And let us assume that the rate of interest
- 5 is over the year -- let us ignore all the frills that
- 6 might exist in terms of how it is paid -- let us say it
- 7 is a cost of 10% and so it is £11,000.
- 8 A. Yes.
- 9 THE PRESIDENT: That will be your cost of capital.
- 10 A. That would be -- just to be clear -- the cost of capital
- 11 but also the firm's required return.
- 12 THE PRESIDENT: Well, let us come to the return in a moment
- 13 because I would like to unpack that further. I am at
- 14 the moment only interested in what goes into the costs
- 15 stack as a cost. I am not interested in the return at
- this moment. We will, I promise, come to that.
- 17 A. But the point that I am trying -- and I am trying to
- 18 work out whether we are in agreement, but when you say
- 19 the costs stack, you know, the way in which I see the
- 20 costs stack once we start to add in the return is the
- 21 cost plus stack.
- 22 THE PRESIDENT: Well, I am only interested in the costs
- 23 stack at the moment. We will come to the plus in
- a moment.
- 25 A. But then that is where we are in disagreement in terms

of economic theory, because the economic theory says
that the return that investors require is capital and
the weighted average cost of capital, and that is
important because that then sets the level of profits,
the level of returns the business has to earn to be able
to pay back that capital cost.

It is the profit of the firm that gets paid back to

It is the profit of the firm that gets paid back to owners, and the reason why I think that is important is because what the WACC benchmark gives you is the average return that businesses actually earn in the marketplace.

THE PRESIDENT: Well, thank you for that, but I think what you have answered is why it is, going back to our screen -- and I hope you still have the spreadsheet on your screen --

15 A. Yes.

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THE PRESIDENT: -- why there is no separate line for WACC in there.

18 A. Yes.

THE PRESIDENT: I think Mr Holmes said in opening when

I raised this point that that could be corrected for and

one could insert a line, but I think your position -
and I understand why you are saying it -- is that is

actually not right; that the costs stack for purposes of

assessing the questions that we need to determine is

actually correctly stated in this spreadsheet.

All I can -- in the very many cases that I have done on excessive pricing, the costs stack that is used -- and I am not saying whether this is right legally or not but from an economic perspective, the costs stack reflects the economic cost of the business, that is the costs that are required to pay for all forms of costs. One of those costs is a profit that has to be paid to the owners of the business. So in every single case that I have done the cost plus chunk is both the accounting costs and accounting costs adjusted as necessary plus the cost of capital because in the real world that is the return that businesses make, and they may either pay it back as dividends, they may retain it. 

So that is the economists' view.

THE PRESIDENT: So what we have -- and it appears that we are not able on your view of the world to draw a line between them -- is that one has an inevitable and ineluctable elision between costs and cost plus because the two are, on your view of the world, indivisible?

A. I think in the hot-tub you asked a question. I mean you could formulate the costs as these costs, excluding costs of providing capital, and then you could observe this cost versus the price, and you can measure excess, and then you would ask yourself potentially is there an excess and/or is it unfair, but to be able to help

answer that question you would have to, in that part of the stack, understand what the normal return that is expected in the marketplace and then consider once you have added in that return, whether any return above that is unfair and reasonable.

My position from an economic point of view is that

I do not need to make that distinction because I can

just include the profit in the cost plus stack and then

I only have to ask the question: is a profit over this

normal return reasonable?

THE PRESIDENT: Yes, so I think the answer to my question is "yes"?

A. Yes.

THE PRESIDENT: Okay. You see, what I am trying to do and trying to explore with you is a separation out of the cost of capital and the return, because it seems to me there may well be another ambiguity between return to the shareholder and return to the firm that is producing the product, and that is where I want to go, but in order to do so I need to get a sense of the cost to the firm as it would be included in the costs stack which does not include the question of a rate of return.

Now, I understand exactly why you are saying that is a difficulty.

25 A. Yes.

- 1 THE PRESIDENT: But let us try and see if we can overcome
- 2 that difficulty and let us work out what the answer is
- 3 proceeding along that line.
- 4 A. Okay.
- 5 THE PRESIDENT: So let us go back to the Vanilla Coffee
- 6 Shop --
- 7 A. Yes.
- 8 THE PRESIDENT: -- and let us ask the question again:
- 9 assuming that the Vanilla Coffee Shop requires £110,000
- in order to produce its espresso, and assuming that it
- is borrowing from the bank that amount of money, and
- assuming it is paying 10% for that and calculating that
- as £11,000, does one insert £11,000 into the costs stack
- of the business?
- 15 A. And you have made a distinction there between debt and
- 16 equity holders.
- 17 THE PRESIDENT: Well, do we need to?
- 18 A. The problem or the issue that I have in my mind is --
- 19 THE PRESIDENT: You see, are we going down an
- 20 over-complication here? I would like to hypothesise --
- 21 and maybe we should do that -- a form of business that
- does not have shareholders because I would quite like to
- 23 keep this simple and work out what it is that one is
- 24 including when one is financing a business by way of
- 25 elements in the costs stack. We have the two elements

- 1 that are directly implicated in the production of the
- espresso.
- 3 A. Yes.
- 4 THE PRESIDENT: We have the £110,000, we know that that is
- 5 going to be regarded as, whatever its label, if it is
- financed by debt, then it is capital, and what we are
- 7 talking about now is what one includes by way of an
- 8 extra line because that capital has a cost.
- 9 A. Yes.
- 10 THE PRESIDENT: What I am asking you to assume is that leave
- 11 the shareholders on one side, it may be that one needs
- 12 a further line --
- 13 A. That is fine.
- 14 THE PRESIDENT: -- but I do not really want to articulate
- a further line, we have enough going on as it is. What
- 16 I want to understand is what one is inserting in the
- 17 costs stack for the espresso in this case.
- 18 A. In that scenario, your £11,000 is the cost --
- 19 THE PRESIDENT: Yes.
- 20 A. -- that would go into the costs stack, yes.
- 21 THE PRESIDENT: Right. So we could, on those assumptions --
- I stress that -- add £11,000 to my total?
- 23 A. Yes.
- 24 THE PRESIDENT: Which would then represent the costs stack
- 25 for the Vanilla Coffee Shop's production of espresso?

- 1 A. Yes.
- 2 THE PRESIDENT: So we would have, in that way, a per
- 3 product, a product-specific articulation of the costs?
- 4 A. Yes.
- 5 THE PRESIDENT: Then we could go on to work out whether
- those costs in comparison to price were excessive and/or
- 7 unfair?
- 8 A. Yes.
- 9 THE PRESIDENT: Okay. Now, let us move on to the variant.
- 10 We have the ill-advised Vanilla Coffee Shop that borrows
- 11 not 110,000, borrows 500,000, and it has a 390 surplus
- that it does not know what to do with. It is a very
- silly coffee shop. Mom and pop, they have lost their
- 14 marbles. So cost of capital 10% of £500,000 is £50,000.
- 15 A. Yes.
- 16 THE PRESIDENT: If I was asking you what the cost of
- capital, what the WACC of the firm was, you would say
- 18 £50,000?
- 19 A. The actual cost is £50,000.
- 20 THE PRESIDENT: Right.
- 21 A. The question that springs to mind is whether that is a
- 22 cost that could be supported in markets where there is
- 23 workable competition because assuming that next to mom
- and pop is mom and pop 2, who have not been so careless
- and overborrowed, then obviously the other firm will

- have a competitive advantage which would lead,
- I suspect, to that firm re-adjusting its capital base.
- 3 THE PRESIDENT: Right, so --
- 4 A. It would be inefficient to do so.
- 5 THE PRESIDENT: So we are moving well away from computing
- 6 the actual costs to working out what the costs should be
- 7 in a workably competitive market?
- 8 A. Well, I think the standard assumption -- often the
- 9 standard assumption is --
- 10 THE PRESIDENT: Well, no, is the answer yes, first of all?
- 11 A. Yes, it is.
- 12 THE PRESIDENT: Right.
- 13 A. The standard assumption is that most companies who are
- 14 profit-maximising will seek to have as efficient capital
- 15 structures as they can have because it gives you an
- advantage, and you see this being played out in
- 17 regulatory markets all over the place, such as water,
- the regulator sets a weighted average cost of capital
- 19 and a gearing structure and the whole industry
- 20 restructures their balance sheets to find some
- 21 efficiency.
- 22 THE PRESIDENT: Of course I understand that in a regulatory
- 23 market you are concerned to ensure that costs are
- 24 controlled to an efficient level --
- 25 A. Yes.

- 1 THE PRESIDENT: -- but that is not the question that we are
- 2 asking here.
- 3 A. What I am saying is that competition --
- 4 THE PRESIDENT: Yes.
- 5 A. -- provides the incentive for you to be efficient
- 6 because, if you are not efficient, you will be
- 7 outcompeted.
- 8 THE PRESIDENT: Well, that may or may not be the case.
- 9 A. Yes.
- 10 THE PRESIDENT: It may be that the Vanilla Coffee Shop is
- going to go into insolvency within the year.
- 12 A. Yes.
- 13 THE PRESIDENT: But I am asking you -- and please exclude
- 14 from your mind questions of dominance or abuse; I am
- 15 just trying to get an understanding of the line you are
- 16 inserting, first of all in the firm-wide costs stack
- and, secondly, the line that we are going to be
- inserting in the Vanilla specific. We have answered it
- 19 in relation to a situation where the cost of the capital
- is £11,000 because that is what is needed to be
- 21 produced. I am now moving on to a situation where there
- has been an excess of borrowing, the £500,000, and my
- 23 first question is: what is the cost line looking at the
- 24 Vanilla Coffee Shop as an undertaking, as a firm?
- 25 I think what you are saying --

- 1 A. It would be the full amount that you have identified.
- 2 THE PRESIDENT: It will be the full amount that I have
- 3 identified?
- 4 A. Yes, absent questions of dominance and everything else,
- 5 that is the actual costs that the company faces.
- 6 THE PRESIDENT: Right. Even if that is a spectacularly
- 7 stupid decision, you do not make an adjustment?
- 8 A. I mean, I am slightly getting confused in the construct
- 9 of the argument. If the question is the company faces
- 10 no competitive constraint and is able to price and
- include it, it will, but, if there is a competitive
- 12 constraint, it would not able to.
- 13 THE PRESIDENT: Well, you see, Mr Harman, what I am trying
- 14 to articulate is an approach that is neutral as to
- 15 outcome, and I do not really want to factor in when one
- is working out what a cost line is to be subjectivities
- 17 like is there dominance, is there an abuse of dominance.
- These are all things which are at large for us to
- 19 consider.
- 20 A. Yes.
- 21 THE PRESIDENT: You are here to assist us in as close to an
- 22 objective way of computing cost so that we can answer
- 23 those questions, and what I do not want to have is the
- 24 answers to those questions inserted into the process of
- 25 reasoning to get to them because that way lies circuity.

- 1 A. Yes.
- 2 THE PRESIDENT: So --
- 3 A. Then yes.
- 4 THE PRESIDENT: Yes. Okay. That is the firm-wide answer.
- 5 If we were to try to work out the costs stack for the
- 6 espresso, you would exclude £390,000 because that would
- 7 not appropriately be allocated to the cost of making the
- 8 coffee.
- 9 A. I think in the construct of your example, yes.
- 10 THE PRESIDENT: Yes. So what we have now is a costs stack
- for the espresso in the Vanilla Coffee Shop which is not
- 12 £110,000 but, if my maths is right, £121,000 because we
- have added £11,000 which is the cost for producing the
- espresso.
- Now, that includes, does it not, a reasonable rate
- of return to the bank?
- 17 A. It does include a reasonable return to the bank.
- 18 THE PRESIDENT: It must do --
- 19 A. Yes, it does.
- 20 THE PRESIDENT: -- because that is the interest they are
- charging?
- 22 A. Yes, it does.
- 23 THE PRESIDENT: Assuming none of the nasty little hidden
- 24 extras the banks throw in, it has to be 10% which is
- 25 £11,000.

- 1 A. Yes. I mean -- I will not complicate it for now. We
- 2 will come back and --
- 3 THE PRESIDENT: If you are unhappy with where we are going,
- 4 then do say.
- 5 A. Because in that sense, if I, as the bank, is lending
- 6 100% of the finance to a business, it would normally
- 7 require collateral to do so, and in that sense, it
- 8 becomes the de facto owner of the business. So the
- 9 bank's required return suddenly becomes the firm's
- 10 required return.
- 11 THE PRESIDENT: Fair enough. I am happy to accept that.
- 12 A. Okay.
- 13 THE PRESIDENT: But, you are right, that is a qualification
- 14 that I am not particularly interested in making because
- I am trying to work out how the building blocks work
- together in an altogether simpler way.
- So what we have, therefore, is a situation where we
- have identified the costs to the coffee shop.
- 19 A. Yes.
- THE PRESIDENT: But we have not identified the rate of
- 21 return to the coffee shop because all we have done is
- identify costs.
- 23 A. Well, I think that is where we diverge --
- 24 THE PRESIDENT: Right.
- 25 A. -- because my assumption here in the coffee shop example

- is that you would have been paying labour its full
- 2 market value. You would be --
- 3 THE PRESIDENT: Well --
- 4 A. And I think that is an important starting point that you
- 5 are assuming that not all inputs into the firm reflect
- 6 the value that they expect, and, therefore, typically in
- 7 economics when you think about the returns of the firm,
- 8 it is the returns going to shareholders. It is possible
- 9 that the firm earns high returns, but in general, we
- 10 think of those returns then flowing up to the owners of
- 11 the business.
- 12 THE PRESIDENT: Well, okay. I am afraid I am a little bit
- lost here because what we have is three cost lines in
- 14 this example.
- 15 A. Yes.
- 16 THE PRESIDENT: Using the Vanilla Coffee Shop, £100,000 goes
- 17 to the baristas?
- 18 A. Yes.
- 19 THE PRESIDENT: £10,000 goes to the provider of coffee
- 20 equipment?
- 21 A. Yes.
- THE PRESIDENT: And £11,000 goes to the bank?
- 23 A. Yes, you have described those costs as the capital
- 24 costs, as --
- 25 THE PRESIDENT: I am just describing the costs of producing

- 1 the cup of coffee.
- 2 A. It is, but I guess -- and apologies for not being able
- 3 to express it in the way that I need to. At the end of
- 4 the day, that required return reflects the return that
- 5 businesses on average actually earn in the marketplace.
- 6 So on average they are not earning an amount above that
- 7 cost. The profits that they earn are sufficient to pay
- 8 the owners of capital for their investment and the risk
- 9 that they have taken, and the day-to-day running costs
- of the business are paid for by revenues and potentially
- 11 a little bit of capital upfront to get them started.
- 12 To the extent that there was a bigger profit, then
- normally that would get paid back to shareholders.
- 14 THE PRESIDENT: We will be coming to the profit in due
- 15 course.
- 16 A. Okay.
- 17 THE PRESIDENT: All I am trying to do is work out the costs.
- 18 A. I think that is where we are -- I am struggling from an
- 19 economic perspective because that cost is the profit
- that they need to generate.
- 21 THE PRESIDENT: Well, no, that is the profit they ought to
- 22 generate assuming your view of the world is right.
- 23 All I am trying to do at the moment is to work out
- how we compute the bottom line which constitutes the
- 25 floor where price constitutes the ceiling. We have not

- 1 mentioned price at all yet, we will be coming to that.
- 2 A. Yes.
- 3 THE PRESIDENT: But I am not interested in price at the
- 4 moment. I am trying to work out how one produces
- 5 a costs stack. I do not care at the moment about the
- for the following forms of the following form
- 7 are using to assess whether price is excessive over
- 8 cost.
- 9 A. Yes.
- 10 THE PRESIDENT: So do we agree that in the way we are
- 11 approaching the assessment of cost for the production of
- 12 espresso coffee over a year, we have three lines of cost
- which are represented in table 1 plus £11,000.
- 14 A. Okay, yes.
- 15 THE PRESIDENT: Right. So the costs stack is £121,000.
- 16 A. Yes.
- 17 THE PRESIDENT: But that is implying no return to the owners
- of the business.
- 19 A. In the calculation that you have done, yes.
- THE PRESIDENT: In the calculation that I have done, yes.
- 21 So we now look at what is produced by way of inflows,
- 22 and so what we can do is we can work out precisely how
- 23 many cups of coffee are sold?
- 24 A. Yes.
- 25 THE PRESIDENT: At what price they are sold?

- 1 A. Yes.
- 2 THE PRESIDENT: And we will get a figure.
- 3 A. Yes.
- 4 THE PRESIDENT: And because I have not hypothesised any, we
- 5 can make that figure what we like.
- 6 A. Okay.
- 7 THE PRESIDENT: We can assume a minimal number of cups of
- 8 coffee sold, we can assume a vast number of coffees
- 9 sold.
- 10 A. Yes.
- 11 THE PRESIDENT: We can assume a price of what we like, and
- that is all very easy. So the next question is let us
- assume that the coffee shop manages to sell a single cup
- of espresso for £500,000, so you have a massive margin
- over the costs on a single cup.
- 16 A. Yes.
- 17 THE PRESIDENT: So you have an extremely large gap between
- 18 cost and revenue.
- 19 A. Yes.
- THE PRESIDENT: I suspect you would not need to persuade
- 21 anyone very much that that was excessive, but let us
- 22 work out how we would go about assessing that anyway.
- 23 So what we are trying to work out, are we not, is
- how much of the gap between the £500,000 for the single
- cup of espresso that is sold and the £121,000 of cost

- that is incurred in making that single cup --
- 2 A. Yes.

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- 3 THE PRESIDENT: -- how much of that can properly be eroded 4 by reference to a reasonable rate of return?
- 5 A. In this example, the way in which I would go about it is

I would assess the -- so we are assuming mom and pop.

7 I would evaluate what the current value of the assets of

8 the business -- so if it was a coffee shop, whilst in

9 this calculation it has been given zero, obviously the

site and the premises has value. So you would find the

current replacement cost of those assets and the reason

why you would do that is because hypothetically, if

there was a competitive marketplace, they would be the

costs of entry into the marketplace, so you are able to

determine a return that reflects an amount of money

a competitor coming in and competing would face, and

that is normally the way in which you would deal with

18 capital that is not reflected on the balance sheet.

19 THE PRESIDENT: Mr Harman, we are moving very far away from

20 my nice simple example, so do bear with me that I have

21 comprehensively articulated to you the costs that are

22 involved in producing this single cup of espresso which

is selling for an absolute fortune. So there is not

24 anything else to throw into the costs line. We have

25 worked out the two costs that actually go into the

1	making of the coffee and we have also thrown in the
2	financing costs, so we have three lines, and there is
3	nothing more to add in.

I fully appreciate that that is an unrealistic assumption, but that is what I would like you to assume because I would like an answer to how one computes a rate of return on these assumptions, because I am trying to keep it simple so that I can extrapolate from that.

- A. If there is no other information, there is no other value --
- 12 THE PRESIDENT: Right.

13 A. -- then you cannot calculate what that additional rate
14 of return is because I would say that that return is
15 already captured in the amount paid to the bank.

If there is no other asset upon which somebody needs to earn a return, then you cannot calculate.

THE PRESIDENT: Okay, so if you have a situation where there is an owner, mom and pop, who are running the business but not featuring in the labour costs because they are just paying that to the baristas, they are borrowing everything but they are acting as an entrepreneur would do, so we can perhaps delete the firm from our thinking and just stick to debt, what you are saying is that the £11,000 that they pay to the bank is their return on the

- 1 business?
- 2 A. I think in that example, if the mom and pop are involved
- in the business but recording no cost, then you have to
- 4 come up with a benchmark for their labour cost.
- 5 THE PRESIDENT: I see.
- A. So they would say: I am going to look at entrepreneurs
- 7 in the region, I will understand what their level of
- 8 cost is and I would add that to the costs stack as
- 9 a reward for their labour.
- 10 THE PRESIDENT: So you would treat them -- you would
- 11 allocate them as a factor of production into labour, not
- 12 as an entrepreneur?
- 13 A. I think it depends on what they are doing. If they
- 14 are -- so the entrepreneur I would say is somebody who
- is taking risks and trying to think up, you know, new
- 16 lines of business, whereas if their role is managing the
- shop in terms of making sure their people are working
- 18 efficiently, mucking in with serving coffee, and so on
- 19 and so forth, then there is a distinction between the
- 20 two, and I think their day-to-day operating activities
- 21 could be included in the costs stack, and to the extent
- 22 that they are being entrepreneurial and there is value
- 23 that they are not -- capital value that they are not
- 24 deploying elsewhere, then that entrepreneurial aspect
- 25 could be included by reference to their opportunity

- 1 costs. That is the standard way in which you would deal
  2 with mom-and-pop situations.
- THE PRESIDENT: Why do you not ask yourself this question,

  why do you not ask: what is the minimum return to mom

  and pop that would induce them to sell espresso?
- Well, I think there are two -- those two dimensions are 6 Α. 7 what they would expect as a part of their labour, aspect one, and the second would be: what is my opportunity 8 cost? What could I do -- if I did not pay them enough 9 10 in terms of their reward, they should rationally change businesses. So they would have regard to what they can 11 12 do in the alternative. So it always comes down to the 13 opportunity cost of their labour, both in terms of the effort that they put in in terms of running the business 14 15 and a return that they should be getting on any implicit capital that is being deployed that could be deployed 16 17 elsewhere. That is the standard way of doing it.
  - THE PRESIDENT: So what you would ask yourself, but would you ask yourself this from the standpoint of mom and pop, two things. You would say first of all you have an exposure of £110,000 which you have to at some point repay?
- 23 A. Yes.

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THE PRESIDENT: And you have all of the other risks of a business.

- 1 A. Yes.
- 2 THE PRESIDENT: So you would say: first of all I need to
- 3 recover the costs of the enterprise from my revenues.
- I then need to recover the reasonable rate of return on
- 5 those costs, which is what?
- A. Well, this is where I make, you know, the distinction,
- 7 is that I do not think -- this is where the temporal
- 8 part comes in. If my revenues are recovering my
- 9 operating costs, I do not need an additional return on
- 10 them. I am paying my labour a full labour cost. I do
- 11 not expect then to have to make a return on that.
- 12 What I do have to make a return on is if I have
- invested capital to fund that working capital.
- 14 THE PRESIDENT: Indeed, Mr Harman, but what we are trying to
- work out is whether the gap between 121 and 500 is
- 16 excessive.
- 17 A. Yes.
- 18 THE PRESIDENT: So do we not have to ask ourselves, putting
- 19 ourselves in the position of mom and pop, what is to
- them a reasonable rate of return?
- 21 A. Yes.
- 22 THE PRESIDENT: And do we not then have to ask ourselves two
- 23 questions: first of all, what are the liabilities that
- 24 they are exposing themselves to, in other words, they
- are borrowing money which they have to repay, there are

- 1 costs, and what are also the risks of the enterprise
- 2 failing which will obviously increase the return they
- 3 would like or need. Are those not the two factors that
- 4 we ought to be considering from the standpoint of the
- 5 owners of the enterprise?
- 6 A. But the owners of the enterprise require -- I am sorry
- 7 if this is going round in circles for me --
- 8 THE PRESIDENT: No, not at all.
- 9 A. -- but they require return on the level of investment or
- 10 foregone investment where the money could have been
- deployed and the risks that they face in a particular
- business.
- So the risks would be included in the weighted
- 14 average cost of capital. The --
- THE PRESIDENT: No, no, do not let us jump to the answer
- because the weighted average cost of capital in this
- case is £11,000, so the risks to the bank are included
- in that, I accept.
- 19 A. Yes, but I would say that that is the risk to the
- 20 business as well. The bank will investigate what it
- 21 thinks the risks of the business are, and it will take
- 22 its full share of those -- will price in those full
- 23 risks in terms --
- 24 THE PRESIDENT: Of course it will, but it is not the body
- 25 that is assuming the liability. It is mom and pop who

are assuming the liability to repay. The bank is saying: I want 10%, I want £11,000, because risking

default by mom and pop is something which is priced in

4 at 10%.

So of course I accept that the £11,000 is the reasonable rate of return to the bank, but what about mom and pop?

A. So --

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THE PRESIDENT: So, yes, they are assuming an obligation to 9 10 repay £110,000. It may be that is all that they are 11 assuming. It may be they are sitting back and watching 12 the baristas do all the work and adding nothing in 13 there -- let us assume that is the case, that is mom and pop sitting on their loungers watching the world go by 14 15 having borrowed £110,000, well, they have probably 16 borrowed a bit more than that because of the costs of 17 financing, but let us stick at £110,000 because it is 18 the figure we have in mind. So that is the risk they 19 have assumed. Do they not have to say: well, I need a return on my liability, the exposure that I have 20 21 taken, and I need to load that by reference to the risk 22 of something going wrong, and does one not need to ask what the rate of return ought to be to mom and pop, the 23 24 people who are actually putting together the package for the selling of espresso, to ask what return would induce 25

1 mom and pop actually to do this?

2 Yes, I mean, you can -- you could calculate, and it Α. would be difficult, what you thought your contingent 3 4 liability might be. Obviously financial services does 5 that all the time. It could value the downside of something happening that is not expected and the 6 7 probability of that happening and then asking what rate of return they would like on that risk. That is 8 certainly one way in which you could value businesses, 9 10 intangible -- businesses that face large contingent 11 risks often do that, I explained that energy firms often 12 do that. But that is difficult. So that is difficult 13 for mom and pop to do, so what I would -- I believe what they would normally do is they would say to themselves: 14 15 I know that there is a coffee shop across the road that 16 is financed by Pret a Manger, it is sitting on a piece 17 of land, I understand the value of my land, I am going 18 to require a return on that as something to give me 19 a return that should help me to face my risks, and 20 I think the way of looking at the opportunity cost is trying to do what you are suggesting, but I am 21 22 suggesting that doing that bottom-up is complex, and mom and pop, knowing most mom and pops, would not be able to 23 do that calculation, so they would, you know -- I mean, 24 they would get some kind of measure for that by looking 25

1	at the prices of competitors and seeing how prices and
2	costs are built into that, so if you had price
3	information, you know, that can help you to back out
4	what you think the level of capital employed and risk
5	that is in the business, but I think that the only
6	operational way that you can do this from a mom and pop
7	is understanding what the replacement cost of that
8	business is and then asking what do businesses require
9	for making those types of capital investment, so it is
10	an indirect route to what you have identified is,
11	yes, they do require a risk a return for some risk,
12	but it can be connected back to the opportunity cost of
13	the capital that they are deploying in the current form,
14	then assessing what rate of return you would require as
15	owners to finance those investments.
16	THE PRESIDENT: Mr Harman, you have warred with me with
17	admirable patience. Those are all my questions. Thank
18	you very much.
19	What we will do now is we will rise for ten minutes.
20	Mr Brealey, if you have any questions arising out of
21	that, we will deal with that?
22	MR BREALEY: You will be pleased to hear that I have not.
23	THE PRESIDENT: No.
24	Ms Stratford, you have 10 minutes to think about
25	that, so do not commit, and then we will proceed to

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             re-examination to the extent there is any, but,
 2
             Mr Harman, I am very grateful to you. We will rise for
             10 minutes. Thank you.
         (3.36 pm)
 4
 5
                                (A short break)
         (3.50 pm)
 6
 7
         THE PRESIDENT: Ms Stratford, any questions?
         MS STRATFORD: No further questions, thank you, sir.
 8
         THE PRESIDENT: Mr Holmes?
 9
10
                 Oh, Mr Bailey.
                          Re-examination by MR BAILEY
11
12
         MR BAILEY: Good afternoon, Mr Harman. I would like to ask
13
             a few questions arising from the evidence you gave on
             Monday.
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15
                 If we could go, please, to page 48 of the transcript
             of Day 12 and at lines {Day12LH1/48:16-20} and in
16
17
             response to a question relating to the CMA's use of the
             ROS measure in its first decision, you explained that:
18
19
                 "... when you look at the return on sales you have
20
             to look at it through a ROCE lens because in the real
21
             world, companies want a return on capital employed and
             risk."
22
                 Then it was said in response to that:
23
24
                 "It is not quite what you said ..."
25
                 Could I take you, please, to your first report at
```

- 1 {XE1/13/39}, and this is where you set out your conceptual framework.
- Could we turn over to page {XE1/13/41}, please, and could I ask you to read paragraph 4.13?
- 5 A. Yes.

- Q. Was the consistency of the ROS benchmark, which the CMA
  used in its Original Decision, with the ROCE approach
  relevant to your view that it was reasonable for the CMA
  to use that ROS metric in its Original Decision?
  - A. I mean, yes, as I explained in the -- under cross-examination, the standard methodology for thinking about returns is based on a return on capital employed, that is what mainstream economics and finance theory tells us. The ROS metric is not a theoretical measure. It is not something that you can determine bottom-up using finance theory, but it is absolutely clear if you are having regard to the return on sales metric it is still anchored in the theory of mainstream economics that people lending money required a return on their capital employed.

So in 4.13 I am explaining exactly that, that the ROS can be expressed as a function of the return on capital employed approach divided by revenues, and that is why I then go on to say that when you use the ROS technique methodology it opens up more parameters that

- 1 need to be considered, and one of those is the 2 denominator revenue, and that is impacted by risk, capital employed, volumes and input costs. 3 4 So the ROS metric becomes more complicated to use. 5 I am very grateful. Q. If we could turn on, please, in the transcript of 6 7 Day 12 to page 56 {Day12LH1/56:} and here -- so leading counsel for Flynn, if we pick it up at the top of the 8 page said: 9 " ... the CMA's change of position ..." 10 This is, in other words, from using primarily the 11 12 ROS metric in 2016 to using primarily the ROCE method in 13 2022, it is said: 14 "... calls for an explanation..." 15 And then it was put to you the same is true for an independent expert. You may recall -- we do not need to 16 17 turn it up -- that you were then shown paragraph 5.59 of the Remittal Decision and there were various factors 18 19 that were being put to you in terms of was there new 20 evidence that had come to light. 21 Α. Yes. 22 It was then suggested there was just no new evidence to Q. justify that. I would like to go back to the same page 23
- 25 You will recall at the top of the page there is

of the Decision, if I may at  $\{XA1/1/160\}$ .

- 1 5.59.
- 2 A. Yes.
- Q. But you were not shown paragraph 5.61 of the Decision.
- 4 Could I ask you to read that, please. (Pause)
- 5 A. Yes.
- 6 Q. So do you consider that any of the points set out there
- 7 are relevant to the reasonableness of the CMA now
- 8 adopting a ROCE approach in this case?
- 9 A. Yes, I mean, as I explain and explained in my report,
- 10 the CMA, at the Original Decision, concluded not to use
- 11 the return on capital employed. In the Remittal
- 12 Decision it undertook a more detailed analysis to see
- whether capital employed could be computed, and it took
- 14 into account the additional factors that are labelled in
- 5.61 in terms of information and submissions provided by
- 16 Flynn after the Original Decision was written.
- 17 Q. I am grateful.
- 18 If we can move on, then, in the transcript of
- Day 12, this time to page 92, and there was a question
- from the President to you, in particular about the ROCE
- 21 analysis and it is really from lines {Day12LH1/92:6-10}
- 22 that I would like to ask you a further question if
- 23 I may.
- The question the President asked was about the
- 25 extent to which when you do a ROCE analysis per se

- 1 whether you adjust it to reflect a hypothetical
- 2 competitive level of costs.
- 3 A. Yes.
- Q. Could we go, please, to the work that you did
- 5 independently of the CMA at paragraph 4.5.14 of your
- third report, so this is at  $\{XE1/15/43\}$ .
- 7 So what this sets out is a sensitivity analysis that
- 8 you carried out of the CMA's cost plus calculation. It
- 9 is where you calculate the excesses Flynn would have
- 10 earned assuming 1.5 to 3 times the actual capital
- 11 employed in the supply of capsules. My question is:
- 12 when you did that calculation, did you use
- a hypothetical competitive level of costs or did you use
- 14 the costs actually incurred by Flynn in the supply of
- 15 capsules?
- 16 A. No, this is a hypothetical calculation because it
- 17 departs from the actual costs. I refer to that in my
- second report I think as an allowance for notional
- 19 capital, ie capital that might be captured by
- 20 intangibles that has not been identified. So in these
- 21 sensitivities we are giving a conservative estimate of
- 22 the level of capital employed to make sure that all
- assets are properly accounted for.
- Q. If we move on in Day 12 to page 123, please, this is
- 25 where you were being asked about whether you had carried

- 1 out some empirical investigation into the cost of
- 2 capital in the industry, and the President asked in
- 3 particular at lines -- over the page, page
- 4 {Day12LH1/124:2-5}, it is important that we are clear
- 5 about whether this was empirical investigation done by
- 6 the CMA and by yourself or whether it was done only by
- 7 yourself. I would just like to ask you about two
- 8 aspects of the work done in your third report. Could we
- 9 go to  $\{XE1/15/70\}$ , please. We can see the heading there
- "Impairment benchmarks."
- 11 A. Yes.
- 12 Q. Can I just ask you to cast your eye over that, those two
- paragraphs?
- 14 A. Yes.
- 15 Q. And then overleaf, next page, please {XE1/15/71}.
- Was this work done by you independently of the CMA
- in relation to impairment benchmarks?
- 18 A. Yes, it was.
- 19 Q. Is there anything you would like to add about the
- 20 relevance of impairment benchmarks to the appropriate
- 21 level of the WACC?
- 22 A. Yes. I think I explained that as a part of the annual
- audit process, auditors are required to consider whether
- the values contained on the balance sheet are reflecting
- 25 the underlying value of the company.

They do that by assessing the values of those using a projection of cash flows, dividing it by the net present value, and assessing whether the resulting value is either above or below the values that are contained in the balance sheet.

If the value is below, the auditors will require the company to impair the values down to that lower value. Accountants are not so concerned whether the assets are undervalued, but they are concerned whether they are overvalued, and if one goes to the International Accounting Standards No. 36 that governs impairment values, you will see that there is a very long economic discussion, corporate finance discussion, of how a company should go about that, and it requires the auditors to determine a weighted average cost of capital for the assessment, and the values that are contained in this table provide those assessments by independent accountants.

Q. I am very grateful. Could we go, please, to {XE1/15/68} of your third report. Here paragraph 5.4.6 and then the results in table 5-1, you set out a bottom-up assessment of the weighted average cost of capital, and this is in particular in the light of the exchange you had with the President this afternoon in relation to the supply of phenytoin capsules.

- 1 A. Yes.
- 2 Q. Was this a piece of work that you did independently of
- 3 the CMA?
- 4 A. Yes, I did, there is an appendix to the report that goes
- 5 into the assessment of the cost of capital in detail.
- 6 Q. Sorry to interrupt, but would it be possible for you
- 7 just very briefly to explain to assist the Tribunal how
- 8 your bottom-up assessment relates, if at all, to the
- 9 real world in supplying phenytoin capsules?
- 10 A. It is based on real world data, so this is a weighted
- 11 average cost of capital, obviously it identifies the
- 12 cost of debt which is usually slightly easier to
- 13 calculate than the cost of equity. It requires an
- 14 assessment of the gearing, the average -- the level of
- 15 debt to equity, and that is based on looking at Flynn's
- 16 credit rating and then comparing that to pharmaceutical
- 17 companies that have the same credit rating and then
- imputing the costs of debt from that real world data.
- 19 THE PRESIDENT: Just to be clear, it is done at the level of
- the undertaking?
- 21 A. This analysis is. I will come back to the thinking that
- 22 then one has to have at the firm level. It has regard
- 23 to --
- 24 THE PRESIDENT: Well, no, you mean the product level?
- 25 A. The product level, yes. I might as well say it now,

1 then.

2 So having got a firm level of the cost of capital, 3 one asks the question: is there any reason to believe 4 that the cost of capital would be either above or below 5 that for a given set of parameters, and I -- at least I believe that the result becomes reasonable because of 6 7 the unusual characteristics of phenytoin. All else being equal, a lower cost of capital could potentially 8 be justified at the product level, but I assume the 9 10 upper level for the firm rather than a lower level for 11 phenytoin capsules, which I think is a conservative and 12 appropriate type of calculation to do in these 13 circumstances.

- THE PRESIDENT: But, moving away from phenytoin and looking at how the process would operate generally, you would look at the cost of capital at the firm level --
- 17 A. Yes.

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- 18 THE PRESIDENT: -- and that would be the case whether the
  19 firm was extraordinarily large or extraordinarily small?
- 20 A. You would. I mean, there is a concept as to whether
  21 small companies require higher returns than large
  22 companies, and --
- THE PRESIDENT: Yes, I mean, let us assume that there is
  a difference in the WACC between a small firm and
  a large firm.

- 1 A. So current economic thinking is that there is not a gap
- 2 between them.
- 3 THE PRESIDENT: Okay.
- 4 A. So I think Damodaran was mentioned at some point in the
- 5 trial. If you read his readings he says he does not
- 6 believe that there is a small company premium.
- 7 THE PRESIDENT: So it may be that it does not matter, but
- 8 what you are saying is that you take the WACC as it
- 9 exists on a firm-wide basis --
- 10 A. Yes.
- 11 THE PRESIDENT: -- and then you deploy that by reference to
- the specific product in question?
- 13 A. Yes.
- 14 THE PRESIDENT: And generally speaking, what goes for the
- firm, goes for the specific product?
- 16 A. I think that is usually a reasonable
- 17 expectation/assumption.
- 18 THE PRESIDENT: I mean you look at the factors that might
- 19 make it not so, but your starting point will be what
- goes for the firm, goes for the specific product?
- 21 A. Yes. I think if you were looking at a business that was
- 22 highly diversified and had different business lines,
- then you may end up with a -- you could end up with
- 24 a significantly different answer, but I think for
- a range of products that have a very -- well, the beta

- does not tend to change significantly between firms, is
- 2 what I find, and so, if it does not change between
- firms, my assumption is that beta is unlikely to change
- 4 significantly between products.
- 5 THE PRESIDENT: But you do not take into account, for
- 6 example, the fact that if the undertaking was only
- 7 selling the product under investigation, so the capsules
- 8 or the espresso, that that might make a difference to
- 9 their WACC?
- 10 A. Well, corporate finance theory says that it is not the
- 11 firm that needs to be diversified, it is the owners that
- need to be diversified. So the general economic
- assumption on an efficient basis is that investors will
- 14 hold a diversified portfolio of assets and therefore you
- do not need to take into account the risks of a specific
- 16 product.
- 17 THE PRESIDENT: I see. Thank you.
- MR BAILEY: If, hypothetically, Flynn had a large sum of
- 19 cash in its current account and that cash was not used
- for the purposes of supplying phenytoin capsules,
- 21 would you include or exclude that cash in calculating
- 22 Flynn's WACC for capsules?
- 23 A. I think generally you would exclude. I think
- 24 Mr Williams in some of his analysis also suggests that,
- as it is not an operational asset, it should be excluded

- from the analysis.
- 2 Q. I am very grateful. Now, I am conscious that you have
- 3 had an exchange with the President this afternoon about
- 4 cost and cost plus, but it was put to you on
- 5 {Day12LH1/133:} that essentially the approach you
- adopted meant that there was really no plus in cost
- 7 plus?
- 8 A. Yes.
- 9 Q. Then this morning you were taken to the European
- 10 Commission's decision in Aspen, and I would like to show
- 11 you a passage and then ask a couple of questions. That
- is at  $\{XN6/7/31\}$ , please.
- 13 This is the decision that Dr De Coninck and
- 14 Mr Williams have referred to in their reports. Could
- I ask you to read recital 154? It is sidelined.
- 16 A. (Pause) Yes.
- Q. Does the Commission's explanation there reflect your
- understanding as an economist of what the plus element
- 19 covers?
- 20 A. Yes. I mean, I think I quote this paragraph in my
- 21 report, and it is comparable to other statements in,
- 22 you know, the OECD has said something similar, Oxera has
- 23 said something similar, the OFT has said something
- 24 similar.
- 25 Q. And why should there be no further recognition of the

- remuneration of capital employed above the costs of capital?
- Because as I said, the companies or owners when they 3 Α. 4 invest, they have an expectation or hope that they are 5 going to earn a return. They look at the market and they understand what the level of market return is, so 6 7 they set their expectations based on expected market returns in the market adjusted for risk, and on average 8 in normally competitive markets that is what businesses 9 10 tend to earn because that is the nature of the 11 calculation that is being determined. It is looking at 12 the difference between essentially prices on a cash 13 basis and costs on a cash basis and understanding then the level of share dividends that get paid and any 14 15 increase in the share value of companies, and so that is 16 why cost plus, including that return, provides an 17 indication -- an indication or a benchmark for what you 18 might expect in competitive markets.

There may be instances where you can earn more, but there are also instances that you can earn less, and I think my view has been that you will be higher if there is justifiable reasons for that, and there may be reasons why you earn less than that.

Q. I am sure you and everyone here will be very glad to hear this: my last question arises from today's

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1		transcript and you were asked some questions about the
2		6% return on sales cross-check, well, it was referred to
3		as the PPRS benchmark.
4		If we go, please, to page [89] of today's transcript
5		we can see at the bottom where you are being quizzed
6		about it. At line {Day13LH1/88:2-3}, you said:
7		"I mean, we can go to the Remittal Decision, we can
8		look through the factors that"
9		Then you were not given a chance, actually, to refer
10		to any passage.
11		Can I take you, please, to {XA1/1/239}. I would
12		like to show you paragraphs 5.411 and 5.412 of the
13		Remittal Decision. Could I ask you to read
14		paragraphs 5.411 and 5.412 and are those the passages
15		that you had in mind when you gave your answer? (Pause)
16	А.	Yes.
17	0.	Is there anything you wish to add in relation to the

Q. Is there anything you wish to add in relation to the reasonableness of the CMA's rate of return cross-check?

A. Yes, I was explaining that at 2% that gave rise to the same absolute return to Flynn as Pfizer's 10% on its costs, and the reason that 2% equals the same level of return is because the costs stack is significantly increased by Pfizer's prices. So there you see that — and this is one of the problems that I have with the return on sales, is that you can have the same level of

- absolute return but the observed percentages are
  significantly different and in this case 2% for Flynn
  and 10% for Pfizer, but it is the same absolute return.
- 4 So if you are then thinking about a 6% return, in 5 essence, that is the same as allowing Pfizer a 30% return on its costs stack. So it seems to me that 6% 6 7 is, on an extremely large input base, provides a reasonable cross-check. It assumes, if you were to 8 back out the level of capital employed, a level of 9 10 capital employed of something like £11.5 million versus 11 the £3.5 million it actually needs to finance its 12 business.
- Q. You referred to Pfizer there, but at paragraph 5.412 it talks about the return on sales of 6% being equivalent to a WACC of -- an implied WACC of 31% to Flynn. Do you agree with that?
- A. That is. It is the two sides of the same calculation.

  So either it is £11.5 million capital employed at a 10%

  rate, or it is a 31% WACC on their actual capital of

  3.5%. Both of those numbers, a weighted average cost of

  capital of 31%, I mean extraordinarily high, you do not

  normally see those types of returns. I would say, yes,

  a WACC of 31% is extraordinarily high.
- MR BAILEY: I have no further questions. I am very grateful.

Τ	THE PRESIDENT: Mr Harman, thank you very much. You have
2	borne with us nobly. We are very grateful for the
3	evidence you have given. You are released from the
4	witness box with our very considerable thanks. Thank
5	you very much.
6	Mr O'Donoghue?
7	MR O'DONOGHUE: Sir, we have both risen. So we now move to
8	the final batch of evidence which is the QALY evidence.
9	THE PRESIDENT: Yes.
10	MR O'DONOGHUE: Although this is the appellants' appeal,
11	there is a consensus between the parties that Mr Hawkins
12	would start the teach-in as he is being tendered as
13	a witness of fact and cross-examination would then
14	proceed in the same order. So it is Mr Hawkins,
15	Dr Skedgel, Professor McGuire.
16	THE PRESIDENT: If the parties are agreed, then you will
17	receive no pushback from us. We are very happy with
18	that.
19	MR HOLMES: I was simply going to ask, it is obviously quite
20	late in the day now: is the Tribunal content to proceed
21	immediately to the health economists evidence?
22	THE PRESIDENT: Oh yes, indeed, we will run until 5.00
23	today. If you can stop at five-to, I think we need to
24	have a five-minute discussion about timetable because we
25	have eroded two hours at least of the parties' time

- 1 through my questioning of Mr Harman, and we will want to
- 2 make sure that we comfortably finish by close of play
- 3 Friday, and, if not, we will have to work out what
- 4 contingent plans we have to finish the evidence before
- 5 scheduled closings.
- 6 MR HOLMES: Yes, indeed.
- Well, on that basis, we may do a little
- 8 rearrangement because Ms Morrison for the CMA will be
- 9 handling these witnesses, but if we could call, please,
- 10 Mr Hawkins.
- 11 THE PRESIDENT: Indeed.
- MR JAMES HAWKINS (affirmed)
- 13 THE PRESIDENT: Mr Hawkins, do sit down, you are very
- 14 welcome. Make yourself comfortable. I hope you have
- a glass, you have certainly got some water, and you will
- 16 be asked some questions.
- MR O'DONOGHUE: Sorry, before we start, I could not help but
- notice Mr Hawkins has a sheaf of papers. Could we just
- double-check what he has and has not got.
- 20 THE PRESIDENT: Yes, of course, perhaps Mr Hawkins you could
- 21 explain what you have.
- 22 A. Just the notes for my presentation.
- 23 THE PRESIDENT: They are not annotated, they are just your
- 24 presentation?
- 25 A. They are my presentation, my words, so they are just

- 1 what I have put in each section of the PowerPoint.
- THE PRESIDENT: Very good. Do you want to see them,
- 3 Mr O'Donoghue?
- 4 MR O'DONOGHUE: We would like to see a copy, yes.
- 5 THE PRESIDENT: Okay. Why do you not hand them over and
- 6 Mr O'Donoghue can have a look at them.
- 7 A. Shall I do that now?
- 8 THE PRESIDENT: That will be helpful. (Handed).
- 9 I think while Mr O'Donoghue is looking through that
- 10 you can put the reports to Mr Hawkins.
- 11 MS MORRISON: The first thing I was going to do was ask if I
- 12 could I pass up these hard copies to the Tribunal in
- 13 case it is useful for the Tribunal to receive hard
- copies.
- 15 THE PRESIDENT: Yes, of course, we would be delighted to
- 16 receive them, thank you. (Handed).
- Just so I address you correctly: is it Ms Morrison
- or Ms Kerr Morrison?
- 19 MS MORRISON: Ms Morrison.
- THE PRESIDENT: Ms Morrison is fine. Very good. I think
- I was double barreling you earlier.
- 22 MS MORRISON: No, that is fine, it happens a lot.
- 23 MR O'DONOGHUE: Sir, a few things. First of all, these are
- 24 38 pages for what is meant to be a 30-minute teach-in,
- 25 there are also handwritten notes, so virtually every

- 1 page has notes embedded, there is also a handwritten
- 2 note tagged on at the back, and if one, for example --
- 3 in a sense it is indicative -- so if you take an
- 4 example, his last slide he says:
- 5 "Delivery note summary slide. Sorry for abrupt end.
- 6 Slightly unsure what you wanted to concentrate, but
- 7 happily to clarify anything."
- 8 This seems to be a script, for want of a better
- 9 word, and I cannot look at 38 pages of these notes
- 10 handwritten and typed on the hoof. We would like a copy
- of this, and I may need to cross-examine further on the
- 12 basis of this. This is highly irregular.
- 13 THE PRESIDENT: Well, thank you very much, Mr O'Donoghue.
- MR O'DONOGHUE: He is a factual witness.
- 15 THE PRESIDENT: Mr O'Donoghue, just pause there.
- Mr Hawkins, do you need these notes to give your
- 17 evidence or are you --
- 18 A. I probably do not.
- 19 THE PRESIDENT: You can do without them?
- 20 A. Sir, this is a new environment to me, I am just --
- 21 THE PRESIDENT: Mr Hawkins, do not worry at all.
- 22 Mr O'Donoghue, do you want to hand the notes back to
- 23 Ms Morrison?
- 24 MR O'DONOGHUE: Yes, we would like a copy in due course.
- MS MORRISON: Sir, I think either Mr Hawkins has them and my

learned friend has a copy, or Mr Hawkins does not use
them. I think I would note as well, sir, that this is
a teach-in, so I mean, in a sense they have all been
allowed to prepare for it, so I am sure Dr Skedgel and
all of our experts have prepared for them; Mr Hawkins
has just got his notes to help him give a teach-in.

THE PRESIDENT: I do not want this to become too much of a problem.

First of all, if, Mr Hawkins, you need them for your teach-in, then you may have them, but in that case I think Mr O'Donoghue gets a copy. If on the other hand you do not need them, then I do not think Mr O'Donoghue does get a copy and we just proceed as we go. So we are in your hands, Mr Hawkins. I want you to be as comfortable as possible. It is just that if you have material to assist you in the giving of evidence, then the other side ought to see it, but if you do not need it, then my thinking is that you probably should not use it because you will have to give a copy to the other side, so if you are happy to proceed with your teach-in with nothing more than what you have there, very good.

A. I am happy to.

- 23 THE PRESIDENT: Well, then we will proceed on that basis.
- 24 MS MORRISON: If I could give you a hard copy of it then,
- 25 just the slides, that everybody else has got, just to

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1
             make it easier for Mr Hawkins.
 2
         THE PRESIDENT: Mr O'Donoghue, if you want to make an
 3
             application to see those things, then you make it at
 4
             some other time when we are less pressed, but for the
 5
             moment, my provisional position is that they stay on the
             CMA side of the fence?
 6
 7
             I am not sure how the technology works with the --
         THE PRESIDENT: That is all right --
 8
         MS MORRISON: I will explain it all, do not worry.
 9
         THE PRESIDENT: Ms Morrison, are you going to put the
10
             witness's statements to him?
11
12
         MS MORRISON: Yes.
13
         THE PRESIDENT: Just sit there, you will be asked some
             questions and do not worry, you are in safe hands with
14
15
             counsel. I do not want you to be in any way
16
             uncomfortable. If you have any problems or difficulties
17
             or you do not know what is going on, these processes are
18
             difficult, just say, and we will sort it out.
19
                     Examination-in-chief by MS MORRISON
20
         MS MORRISON: Mr Hawkins, you have your teach-in
21
             presentation, I know that. Somewhere, hopefully in
22
             front of you or behind you, there will be a XC1 that has
             the witness statements in. Can you see that anywhere?
23
24
         THE PRESIDENT: Can someone help him?
25
                 Thank you very much, Mr Holmes. (Pause)
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- 1 MS MORRISON: Hopefully now you have that tab 6 of the
- 2 bundle should have your first witness statement in
- $\{XC1/6\}$ , if you can find that.
- A. Yes, I have got my first witness statement.
- 5 Q. Okay, and if you could turn to page  $\{XC1/6/14\}$  of that
- 6 witness statement.
- 7 A. Yes.
- 8 Q. Could you confirm whether that is your signature on the
- 9 page?
- 10 A. That is my signature.
- 11 Q. Can you confirm that the facts set out in the statement
- there are true to the best of your knowledge and belief,
- 13 please?
- 14 A. Yes.
- Q. Now to your second statement, Mr Hawkins, which should
- be in the next tab, it is  $\{XC1/6.1\}$ .
- 17 A. Yes.
- Q. If you go to page {XC1/6.1/17} of that witness statement
- 19 which I think is the last page of that one.
- 20 A. Sorry, I think I am lost in here.
- 21 THE PRESIDENT: Tab number again, I think, Ms Morrison.
- 22 Mr Hawkins, are you in tab 6.1 in that bundle?
- MS MORRISON: 6.1.
- 24 A. I am not used to this tabulation. I have only got two
- 25 tabs, B1 and B2.

- 1 THE PRESIDENT: Right, okay.
- 2 MS MORRISON: Do not worry, Mr Hawkins, we will find it.
- 3 Someone is going to come --
- 4 A. Sorry, it is all new to me.
- 5 THE PRESIDENT: It is not your problem to find your witness
- 6 statement.
- 7 MS MORRISON: It is page 17, the last page of 6.1, the
- 8 second witness statement. {XC1/6.1/17}. Is it in
- 9 a different file? I think they are organised
- 10 differently to the Opus.
- 11 THE PRESIDENT: We have the statements and the exhibits in
- 12 one file.
- MS MORRISON: I think in Opus it is organised statements and
- exhibits separately, but I think it has been done
- differently in hard copy which is causing some of the
- 16 confusion. We will at least swear Mr Hawkins in by the
- 17 end of the day.
- For Opus it is  $\{XC1/6.1/17\}$ , the final page.
- 19 Mr Hawkins, do you have it in front of you on the
- 20 Opus screen? It might be quicker doing it this way.
- 21 A. I have an  $\{XC1/6.1/17\}$ .
- 22 Q. Perfect. Can I just ask you to confirm that that is
- your signature?
- 24 A. That is my signature.
- 25 Q. Can you confirm that the facts set out in your second

Τ.	statement are true to the best of your knowledge and
2	belief?
3	A. Yes.
4	MS MORRISON: Mr Hawkins, although of course you are a fact
5	witness, the parties have agreed that you can give
6	a teach-in, so we will move to that first.
7	THE PRESIDENT: Mr Hawkins, welcome, that was a bit of
8	a rocky start, I apologise for that, but it is over to
9	you, you have the floor, and if we may, we will
10	interrupt with the odd question, but otherwise just give
11	us your teach-in.
12	Teach-in by MR HAWKINS
13	MR HAWKINS: Can I just ask for the next slide, the next
14	slide.
15	$\{XC3/1/2\}$ I am just going to give a brief outline of
16	my presentation, firstly just who I am and what the
17	National Institute for Health and Care Excellence do or
18	NICE, we are going to call them from now on.
19	I am going to give a very brief overview of health
20	economics, we do this at NICE, it is a day course, and
21	that barely scratches the surface, so I have only got
22	a few slides in here, so I am not sure how deep we are
23	going to go, but I will do my best in the time I have
24	been given, and I am also going to discuss the NICE
25	enilensy guidelines of 2012 and of 2022, and I am going

to discuss some of the similarities of the NICE 2022

model which I worked on and Dr Skedgel's model, which he

has submitted in evidence.

Next slide, please  $\{XC3/1/3\}$ .

About myself, I am a health economic adviser at NICE, and I have worked on NICE guidelines for 10 years, I have worked at NICE for the last two years and the eight years before that I worked at external collaborating centres which were funded by NICE.

I think I was six years at the Royal College of Obstetricians and Gynaecologists working at National Guideline Alliance which is where we produced half of the epilepsy guideline of 2022, and then two years at the Velindre NHS Trust at the National Collaborating Centre for Cancer.

In my current role I lead on the health economic parts of the guidelines and there are three main parts to that: reviewing the previous evidence, when there has been previously published economic valuations we look at them, see what evidence it gives us, present that to a committee, get them to make recommendations on it.

I build bespoke economic models where there is an evidence gap and there is a need for that and the committee would find that useful in their forming of recommendations, and I also advise committees on health

economic aspects, how they should interpret health economic evidence, whether it is strong evidence, whether it is weak evidence, and how that should feed into their decision-making.

I am also a manager, so I supervise technical analysts on guidelines, giving them advice on how they should approach modelling questions or other economic aspects of the guideline, as well as quality assuring their work, making sure it is of high standard and that it matches the methods and processes of NICE.

I also do that on a more formal basis, so when -for every NICE guideline there is a parallel quality
assurance team, so I will check with the guideline that
somebody else has produced, firstly that the
recommendations made by the committee are congruent with
the evidence that has been presented to them, that the
technical team have followed the NICE processes and that
there is no errors in there, and that the work is of
a high standard.

I just want to make this clear, we are not -- the technical team at NICE we are not specialists in any clinical area, I am not a specialist in epilepsy, if I get asked any questions about epilepsy I might be a bit evasive, I do apologise for that, but I do not want to comment outside of areas of my expertise. At

NICE we operate a cab rank system for assigning
technical members to guidelines, we tend to just jump on
the next guideline that comes along.

Just for complete openness, I did jump the queue to work on this guideline because we were expecting a lot of stakeholder comments on it so we wanted an experienced team on it and we were expecting to do a network meta analysis which I have the technical skills in, so that is why I was assigned to that quideline.

Next slide, please  $\{XC3/1/4\}$ .

So I was a member of the technical team throughout the development of the 2022 NICE guideline for epilepsy in children, young people and adults.

Just to be absolutely clear, I was not involved in the 2012 guideline, but I reviewed these documents prior to developing the 2022 guideline, and I revisited the 2012 guideline as part of this process, just to remind myself of what we did in 2012.

I think importantly and why I am here today is that I led on the evidence review F and the economic model that was attached to it, which was looking at add-on therapy for generalised tonic-clonic and focal onset seizures, and I worked on that, I led on it but I did work alongside other technical team members so I cannot

1 say I did absolutely all the work on it.

2.2

As I have already said, I have led on the network meta analysis and the economic model, importantly considering phenytoin as an add-on treatment for focal seizures.

Phenytoin was also considered in other sections of the guideline, I have not covered that in this presentation, I think it is outside of the scope of what you would want to know.

Next slide, please  $\{XC3/1/5\}$ .

So what do NICE do? So we produce useful and usable guidance for health and care practitioners. We have the largest publicly owned library of guidance in the world, and our aim is to have that guidance to improve population health, reduce health inequalities and to remove this so-called postcode lottery where you get variations in care between different areas of the country, and we do that by providing rigorous independent assessment of complex evidence for health technologies, and the evidence can be difficult.

Sometimes you will get two really high quality studies that contradict each other. You will have strong results from a low quality study, you will have sub-optimal studies, so ideally you would want randomised controlled studies, but they would only be

less on the evidence hierarchy, things like observational studies or case control studies, and we have often less than perfect information, far below perfect information, we have to make recommendations around how we should configure our healthcare services.

This is usually done through systematic reviewing and cost effectiveness analysis, I am going to explain them in more detail in a future slide, and that cost effectiveness is typically considered with respect to cost per additional QALY. Again, I am going to explain them more in a future slide.

I think it is important to point this out, that even though I am on the technical team I do not make the recommendations. The recommendations are developed by independent advisory committees of medical provisions and patient care members. I just advise, I do not feed into the recommendation, and these are consulted on by stakeholders, hundreds of stakeholders, but they are mostly patient groups, NHS trusts and manufacturers, and I think this is quite important, we do consider ourselves price takers and not price makers. We do not indicate prices, we do not set prices, we do not assess prices in a competitive or a commercial sense. I think that is important to point out.

Can I have the next slide, please  $\{XC3/1/6\}$ .

Just because a lot of the evidence is discussed in both guidelines and technology appraisals, just to be clear, I work in guidelines, I have never worked on technology appraisals, but technology appraisals is the process for new technologies or new licence indications of technologies, usually pharmaceutical products, but not exclusively, and that is in a very specific patient group and in a very specific condition. Guidelines, they cover much broader, multiple questions in a broader health or social care area. They are usually technologies already available in the NHS but not always, and any relevant TAs are incorporated into the quideline without revisiting the evidence. So if Cenobamate had a technology appraisal prior to the -- it was published during the development of the NICE 2022 quideline, we did not revisit that evidence, we put it in as the TA was, we cannot change TAs, there is a hierarchy there, the TAs are somewhat above quidelines, an informal hierarchy, I should say.

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The guidelines in TAs, they have different methodological approaches reflecting -- the differences in the legal frameworks and the nature of the products produced. There is some differences between them, but there is a lot of overlap, but if you read the quidelines manually, read the technology appraisal

manual, there seems to be a presumption there that

technology -- people doing the technology appraisals are

going to have more recent evidence, more high quality

evidence such as randomised control trials, whilst

I think the guidelines manual is more accepting that we

are going to have sub-optimal evidence, we are going to

have to use evidence which is weaker to make

recommendations on.

Next slide, please  $\{XC3/1/7\}$ .

So these are just the key methodological differences outlined. I have put them all in there. I do not think VAT and severity modifiers are relevant here. VAT is excluded from technology appraisals, we are a bit inconsistent in guidelines. We have severity modifiers in technology appraisals, we do not have them in guidelines. That is where the more severe conditions are often given more QALYs. The weighting of quality adjusted life years in more severe conditions are weighted higher. I do not think either of them are relevant here, but I think these other three are.

So cost effectiveness, I am going to talk more about the ICER in a future slide, but the technology appraisals use incremental cost effectiveness ratio of between £20,000 and £30,000 per additional QALY, and TA, technology appraisals often use the upper end of that.

Whilst guidelines, we don't have that range, we have an informal threshold of £20,000, and we are routinely below that.

The second key difference is the funding implications. If you get a positive technology appraisal, that leads to a statutory funding requirement. It has to be funded, if a doctor thinks that is appropriate for their -- and the patient thinks it is appropriate for their treatment. This does not apply to guidelines, we are advisory only. There is no statutory duty to either fund what we recommend or to follow it.

Then finally I think another important one because it feeds into headroom analysis which has been mentioned a few times, there is a process for commercial liaison in the technology appraisals process. So this is done before the assessment of the evidence, during the technology appraisal. That is where manufacturers can recommend a patient access scheme. That is often a discount on the list price, but it can be other things such as stock upfront or rebates, more complex ones, and that is to make their product more -- well, essentially to make it more likely to pass the TA process, but that is decided before the technology appraisal, and NICE accept that patient access scheme based solely on

plausibility, whether it be -- it is possible to -- it would be possible to have that scheme within the NHS, and then it goes through the usual appraisal process: is it a cost effective and effective use of NHS resources, and there is no formal process for this in guidelines, there is no engagements with manufacturers.

Next slide, please  $\{XC3/1/8\}$ .

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Just I think some other important differences in process just for me to point out. So in TAs, technology appraisals, the evidence is submitted by a manufacturer, they get told that their product is going to go through a technology appraisal process. They have a timetable in which to submit their evidence of effectiveness and cost effectiveness. That is then reviewed by the Evidence Review Group. They have recently in the last couple of months changed their name to Evidence Assessment Group, I have kept it as ERG in here just to be consistent with the evidence, but just in case you are looking it up on Google later they are now called the Evidence Assessment Group, and that is a team external to NICE of health economists, evidence synthesis specialists, information specialists, people who look for the evidence that is out there in the databases, the health literature databases, as well as clinical specialists, and that is quite a brutal

process, they really go -- really forensically go into the evidence that the manufacturer has submitted to advise the advisory committee on making their recommendations. For example, cenobamate was 100 pages of critiques of the economic model.

Then that is then -- once the Evidence Review Group has done their evidence review, that is then presented to the advisory committee to make their recommendations, and a key part of this is the stakeholder involvement throughout. So stakeholders, you have patient groups, you have NHS trusts, you have manufacturers, but anyone can feed into this. They can provide statements as part of the evidence, why they think it is a good use, we would be a good use of NHS resources or not a good use of NHS resources, and they also get to provide comments on the provisional recommendations that the standing committee make, and then they can go back and look at them if they -- to address those concerns.

Next slide, please  $\{XC3/1/9\}$ .

So the process is slightly different -- well, it is a lot different in guidelines. So here the evidence is collected and developed by NICE alongside the guideline committee, that is a team of clinical experts in the disease area and patient/carer members, and this evidence is collected, but this is led by the guideline

committee, so they will tell us which evidence to search for, they will tell us what assumptions they want in the economic model. If I put an assumption in my economic model I will always run it past the guideline committee first to see that they agree with it.

Then based on that, recommendations are made by the guideline committee, and then both the technical side of it and the recommendations side of it are then reviewed by a parallel team of experts at NICE, and, again, there is stakeholder involvement throughout, stakeholders can comment on the scope of the guideline, what we are going to cover in the guideline, what questions we are going to ask, and they also get to comment on the draft guideline, the recommendations that we make and we respond to all stakeholder comments and adjust the guideline if necessary.

Next slide, please  $\{XC3/1/10\}$ .

These are types of recommendation in technology appraisals, and there is five main ones.

I am going to just dismiss three of them straightaway, so this one about the case is partially supported, for example, it is supported for a specific subpopulation of the population of interest. Neither myself or Dr Skedgel have looked at subpopulations in our model, so this would not be relevant.

Then there is these kind of two recommended for managed excess, recommended only in a research context, that is to get the drug into the NHS, so more evidence can be collected about it, and I am just going to make a jump here and say since phenytoin has been in the NHS for decades we are probably not going to collect any more evidence on it by allowing it to be in the NHS. if phenytoin was to go through a hypothetical technology appraisal, I think it would either be one of these two recommendations which is when the case is fully supported, that it is an effective and cost effective intervention, then we recommend it, and when the case is not supported, it is not an effective or cost effective use of NHS resources, we do not recommend it. That is very binary in technology appraisals. But we are slightly different in guidelines if we go on to the next slide, please  $\{XC3/1/11\}$ .

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There is actually very limited rules about how we write the recommendations in guidelines. They are much more nuanced. I think that reflects the complexity of the decisions, there are often multiple, multiple treatments, and often we are recommending different treatments for slightly different patient groups, so we need a more nuanced way of writing our recommendations rather than just "recommend/do not recommend", but there

is a style. "Offer" is used before recommendations where there is strong evidence underpinning it and usually in pharmaceuticals that would be good, randomised control trial evidence, and "Consider" is where the evidence is more limited. I think in respect of the 2022 NICE guideline you will see that our monotherapy recommendations have "Offer" before them reflecting the stronger evidence, and the add-on recommendations have "Consider" before them, reflecting that the evidence is more limited.

Next slide, please  $\{XC3/1/12\}$ .

So a very brief overview of health economics, this is the whole day into a couple of slides. Next slide, please {XC3/1/13}. So this is the incremental cost effectiveness ratio, the ICER which you have probably already heard a lot about. There are two parts to this equation, the cost side and the effectiveness side, which is usually measured in QALYs, which I am going to discuss in the next slide, but these are two different components. You could do a study just looking at costs, comparing the total costs of one treatment compared to another treatment over a set time horizon, and you could also do the effectiveness side by itself, just look at the QALYs from one treatment — quality adjusted life years from one treatment compared to another treatment.

- 1 THE PRESIDENT: Cost in that case would be what the NHS
- 2 would be charged by the pharmaceutical providers for
- 3 that course of treatment?
- A. Sorry, can you repeat the question?
- 5 THE PRESIDENT: Yes, of course. You have two parts: you
- 6 have cost and effectiveness. Cost is simply the price
- 7 that the health service would be charged by the
- 8 providers of a medicine for that particular course of
- 9 treatment?
- 10 A. No, the cost here would be the total cost to the NHS
- over the time horizon of interest, that would be your
- 12 future GP appointments, your future A&E visit, any
- 13 future prescriptions you have, any treatments for
- 14 adverse events, so it is all costs to the NHS and
- 15 personal social services, not just the initial treatment
- 16 costs.
- 17 THE PRESIDENT: Yes, I see, but it would include the initial
- 18 treatment cost?
- 19 A. Yes, it would.
- 20 THE PRESIDENT: Yes. Thank you.
- 21 A. I think I have just covered this second point, but, yes,
- 22 the cost of those to the NHS and personal social
- 23 services, we do not include other costs in the base
- 24 case, we often do not include them in scenario or
- 25 sensitivity analysis either, and these include out of

pocket costs and time off work costs. When I present this to the NICE guideline committees they always ask why we do not include time off work, and that is because we know certain groups are underrepresented in employment, those who are elderly, those who are disabled, and if you start including time off work costs, you end up weighting interventions against them, you are more likely to recommend -- more likely to make recommendations for interventions which impact on essentially middle-aged able bodied people, and I think simply said if you start including time off work in your analyses you would go from the National Health Service to the National Back Pain Service, but I think the key point here, this is no different to any other cost benefit analysis, just that our cost is that to the NHS and personal social services and our effectiveness is just measured in terms of quality adjusted life years, and all we are asking is as we do in any other cost benefit analysis: is the additional cost worth the additional benefit, and that would be no different if you were expanding a restaurant, is the cost of doing the extension at the back of your restaurant worth the extra seats you could put in, the extra customers you can get in, it is no different to, you know, if you hired four more vans and four more drivers to do more

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1	deliveries,	is	that	worth	the	additional	cost,	we	are
2	just balanci	ng	the o	cost.					

THE PRESIDENT: Just pausing there though: you do not ask or do you what the costs to the NHS and personal social services would be of not engaging in this particular treatment? In other words, suppose you have a form of treatment that will deliver a certain number of QALYs, and we will be coming to those: not providing that treatment will result in a whole series of costs to the NHS which may be, you know, GP appointments, all of these other costs. 

2.2

Do you assess those as part of your analysis, or do you simply look at the cost of the treatment envisaged and the QALYs, the effectiveness that that form of treatment delivers?

A. No, it is a comparative analysis, so it will be the course of action compared to what we would do if that was not available, which would usually be current practice if we are looking at a new technology.

THE PRESIDENT: Right, so in fact, the process in the first bullet point is rather more complex than set out there:

you will look at the cost and effectiveness of the existing form of treatment, and then you will ask yourself what incremental cost the new form of treatment will be and what additional effectiveness it delivers?

- 1 A. That is correct, yes.
- 2 THE PRESIDENT: So in fact you will have two lines: it will
- 3 be cost and effectiveness of the old regime and cost and
- 4 effectiveness of the new proposed form of treatment?
- 5 A. Yes, I think that is right.
- 6 THE PRESIDENT: Okay, thank you.
- 7 PROFESSOR WATERSON: Good. Can I just check in the, let us
- 8 say, hypothetical case where there are two treatments
- 9 that have been around for a long time, each of them,
- 10 would anything trigger a new investigation or would the
- investigation be done just once? I am talking about in
- 12 terms of guidelines, really.
- 13 A. In terms of guidelines, there is two things that tend to
- 14 trigger a quideline update: we have identified variation
- in care between different parts of the country, or that
- 16 the evidence has changed since last time we did the
- guidelines, there has been new RCTs published, there has
- been new treatments brought in. So it is possible to
- 19 trigger an update without having new treatments if there
- is still wide variation across the country.
- 21 PROFESSOR WATERSON: But to come closer to what we are
- 22 considering, supposing that one changed in price a lot
- compared to another, would that trigger an investigation
- in terms of guidelines or not?
- 25 A. Yes, so we have just prioritised a guideline now for

update base, that something has just gone off patent, the previous guideline it was recommended at a lower line, essentially the lines of treatment just followed cost: you would have your less intensive one first then you get to more intensive treatments, it just happened that the more intensive treatments are also the more costly. The update -- the surveillance team who check for changes in the evidence, they identify that actually now this thing we had fifth-line is now actually the cheapest intervention now it has gone off-patent. So the reasoning behind that recommendation was wrong, so that is now going to be updated, we are going to get a committee together to look at that recommendation.

14 PROFESSOR WATERSON: Thank you.

THE PRESIDENT: But ignoring things like matters coming off-patent, you do not monitor simply changes in price which might make the original calculation, the original cost benefit calculation incorrect according to its own assumptions?

A. I would expect the -- if there has been a large change in price I would expect the surveillance team to pick it up. Small fluctuations, or slightly -- you know, a gradual lowering or gradual increase probably not going to trigger it, but I would have thought a large change in price would trigger a guideline update.

- 1 THE PRESIDENT: Okay, so I mean just to give you an example 2 of what would trigger an update, and you tell me if I am 3 right or wrong: suppose one has an existing form of 4 treatment which has a certain cost of -- well, it does 5 not matter what it is, but it has a certain cost and 6 a certain effectiveness. One then has a new form of 7 treatment which has a defined cost and a defined effectiveness, and it is marginally better than the old 8 version, and you go for it. If suddenly the cost of 9 10 that treatment triples, you would expect the 11 surveillance team to pick that up and revisit the cost 12 benefit analysis and think about reverting back to the 13 old form of treatment which is now better value. Would that be how it works? 14
  - A. If the surveillance team looked at the price change and thought it was feasible that a guideline committee may change their recommendation, then, yes, that would trigger an update.
- 19 THE PRESIDENT: Okay. Sorry, do go on.

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A. We talk about this incremental cost effectiveness ratio.

It is sometimes converted to a net monetary benefit

which I think is how most of my results are presented,

and that is essentially where you change the benefit

side of it, the quality adjusted life year side to it,

to a cost per QALY. It is usually £20,000 in

1		guidelines, £20,000, because that is what we use as our
2		"threshold", inverted commas, in guidelines, and then
3		essentially positive values then indicate a cost an
4		intervention is cost effective and a negative value, an
5		intervention is not cost effective.
6		So if you, let's say, pay £19,000 more for a drug,
7		and it gives you one additional quality adjusted life
8		year, you can convert that quality adjusted life year to
9		£20,000, you have paid £19,000 to it, your net benefit
10		is £1,000, so you are getting more than what you are
11		paying for it, and that is comparative, just to whatever
12		the current treatment is.
13	THE	PRESIDENT: Okay. So it would not be fair to say that
14		you are assessing one year of perfect health at £20,000?
15	Α.	I will talk about the thresholds in a bit, it is quite
16		a nuanced question, so if I could carry on with my
17		slides.
18		If I do not answer it, do return to the question.
19		Could I have the next slide, please {XC3/1/14}.
20		So these are our quality adjusted life years, and
21		essentially QALYs are a combined measure of both the
22		quantity of time in a health state and the
23		health-related quality adjusted life year, the utility
24		of how good your health is within that health state.

This essentially is just a way of comparing across

- 1 multiple treatments, so, you know, lowering your blood
- 2 sugar in diabetes compared to losing weight in obesity,
- 3 compared to progression-free survival weight in cancer,
- 4 we can measure them all on a common metric.
- 5 THE PRESIDENT: Yes, I mean, I get your blue and green and
- 6 red examples because what you are talking about is
- 7 apples for apples comparisons in terms of perfect health
- 8 over a year, but how do you equate, say, the saving of
- 9 someone from blindness when they are otherwise going to
- 10 be fine? How many QALYs does that get or how much of
- 11 a QALY does that get?
- 12 A. I do not know the value of that, but essentially what
- you are trying to do is you will have one person in what
- 14 we call time trade off, you will have one person in
- 15 perfect health, then hypothetically you lose your sight;
- how much longer will you want to live before you are
- indifferent between the two states, and say if you had
- one more year to live but if you lost your sight you
- 19 would live for three more years, then you would say your
- 20 utility weight is a third, 0.33.
- 21 THE PRESIDENT: I am not asking for a specific answer to a
- 22 specific health impairment, what I am asking is how do
- 23 you equate what would appear to the outsider to be
- 24 incomparable things. I mean, we have here one year of
- 25 perfect health for one person equals one QALY, but what

- 1 happens if we are talking about one year of impaired
- 2 health that is, let us say, cured? I mean, suppose one
- 3 has a situation -- well, I mean, any number of
- 4 incomparable situations. How does one translate those
- 5 into whether it is one QALY or half a QALY or
- 6 three-quarters of a QALY? I mean, what is the process
- 7 by which you do that?
- 8 A. So we essentially compare these incomparable things. We
- 9 will get a large sample of people, we will give them one
- 10 description of health state, say that you are
- 11 overweight, you have difficulty walking, you get out of
- 12 breath easily, compare it to a different state,
- paralysis, you cannot walk, you cannot do your usual
- 14 activities, and then we will ask people to trade off
- 15 time between them, and if you do that over a large
- sample then you will get that preference from the
- 17 survey, and that is how you would calculate your
- 18 weightings for your quality adjusted life years.
- 19 THE PRESIDENT: I see, so it is essentially subjective
- values of a large number of people which you average out
- 21 in order to achieve an aggregate or averaged outcome
- 22 which then feeds into how much of a QALY you get for
- 23 that particular impairment or cure to the impairment?
- 24 A. I am not sure I would use the word subjective, there is
- a process for doing it, there is science and statistics

behind it, but --

question.

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- THE PRESIDENT: I appreciate that, but if you start with

  what an individual says: I rate this particular cure at,

  that is surely subjective, you may objectify it by

  taking a large sample, but the starting point is the

  subjective views of the individual who is asked the
- I probably have not explained this quite right. So 8 Α. there is different ways of -- I will try not to go into 9 10 too much detail, but there is different ways of 11 measuring quality adjusted life years. The most common 12 one, one that we put from NICE, is the EQ5D. 13 breaks your health states across five domains, I am not going to remember them because I have not got my notes, 14 15 but it is: usual activities, depression, anxiety, the 16 five things, and then there is three domains within each 17 of those, no problems, some problems, serious problems. 18 Different health conditions are mapped to those domains, 19 so if you are overweight and you cannot walk that would 20 be a certain amount of those ticks on a thing, and then 21 all these different kind of -- different conditions are 22 then grouped into those based on whether they would cause difficulties for your walking, whether it would 23 cause you depression/anxiety, whether it would impact on 24 your usual activities. Then essentially just trade off 25

1	between them. So you would be able to put a health
2	condition into one a patient could fill in an EQ-5D
3	form, so: you have lost your sight, has that impacted on
4	your usual activities, has it impacted on your
5	anxiety/depression, and then that could then be
6	converted into a quality adjusted life year, weighting
7	for a quality adjusted life year.
8 THE	PRESIDENT: Thank you.

- A. Sorry, I have usually have about ten slides on this,

  I am trying to fit it into one without my notes.
- I think you said you got this QALY bit, so I will skip past this diagram.

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13 THE PRESIDENT: Well, I wonder whether it would be helpful to the Tribunal -- and do say, Mr O'Donoghue, if there 14 15 is a problem with this -- but it would be helpful I think to get some sort of sense as to how, in 16 17 a granular way, QALYs are assessed because it does seem 18 that in any cost benefit analysis the cost is something 19 which can be computed, the benefit is something which 20 is, well, I hesitate to use the word since I have been 21 told not to, but it does seem rather subjective, and for 22 our part I think we would like to have some sort of feel for how these things are calculated. 23

I am not expecting this witness to explain to us how it is done because it is obviously a very difficult

1	process, but I think, if there is something which gives
2	us a bit of meat to put on the bones, we would quite
3	like to look at it if there is not going to be any
4	objection from the appellants.
5	MR O'DONOGHUE: No, sir, that seems to us eminently
6	sensible. Of course, Dr Skedgel has built a number of
7	these models and is well placed to assist.
8	THE PRESIDENT: Well, indeed. Given that it is NICE that is
9	conducting these assessments, we would quite like just
10	some material, ideally original material, not something
11	that has been processed for this trial, just so that we
12	can understand this very nuanced and sophisticated
13	process of calibrating what is at first blush not very
14	easily capable of calibration, so the sort of schedules
15	that the witness has mentioned, that might be a good
16	starting point.
17	MS MORRISON: We will try and look into that over night.
18	Obviously we will not be able to speak to Mr Hawkins,
19	but we will try and find something that has already been
20	prepared.
21	THE PRESIDENT: I do not think there is a problem in
22	speaking to sorry, is it Dr or Mr Hawkins?
23	A. It is Mr Hawkins.
24	THE PRESIDENT: Mr Hawkins. I do not think there is any
25	problem in speaking to Mr Hawkins because we are not

Т	imposing purdan until cross-examination begins, but I do
2	not want Mr Hawkins
3	MR O'DONOGHUE: I am sorry, the direction given to other
4	witnesses was that if a teach-in broke they should not
5	speak to their legal teams
6	THE PRESIDENT: That is not my recollection. Is that right
7	MR O'DONOGHUE: on {Day5LH1/173:}
8	MS MORRISON: I am sorry, I wasn't actually asking. I was
9	just saying because we were not going to speak to
10	Mr Hawkins, I was proceeding on that assumption, so
11	I had the same assumption as Mr O'Donoghue. I do not
12	know if Mr Holmes can assist, because he was here.
13	THE PRESIDENT: Oh well, in that case it was my mistake.
14	MR HOLMES: Sir, we are really at an uncontentious stage of
15	the evidence, so I think, rather as you were assuming,
16	I had assumed that there would be scope, if needed, to
17	speak with the witness and to see what sources of
18	material could be identified, but we are in the
19	Tribunal's hands. If it is a contentious matter
20	THE PRESIDENT: Then that just goes to show how bad memory
21	is, because I was extremely confident that I drew
22	a distinction between purdah in cross-examination and
23	purdah during teach-in.
24	MR HOLMES: That was my recollection as well, sir, for what
25	it is worth.

1 MR O'DONOGHUE: Sir, can we go to {Day5LH1/173:}? 2 THE PRESIDENT: Okay, let us do that. 3 MR O'DONOGHUE: It starts at {Day5LH1/173:17}: 4 "We will swear them [in] once, they will be released in terms of being able to speak to their legal teams 5 after their teach-in is concluded, not in the middle of 6 7 the teach-in if we have a break ..." So sir between teach-in and cross-examination, they 8 could speak; within teach-in if there is a break, no. 9 10 MS MORRISON: Sir, there is no real issue here. We are 11 quite happy to try and locate something for ourselves. 12 THE PRESIDENT: Yes, so be it. 13 MS MORRISON: We can obviously ask Mr Hawkins after the teach-in finishes. It just means that we might not be 14 15 able to produce it until after we speak to Mr Hawkins at 16 the teach-in. THE PRESIDENT: I fear we will have to have a rethink about 17 18 how we do these things, but Mr O'Donoghue has made his 19 point clear. I am not sure that is actually what I am 20 saying, but there we are. 21 MS MORRISON: Sir, we will endeavour to do our best 22 overnight to find something that originates from NICE that is not recreating the wheel, because I am sure 23 24 there is material out there, there are huge manuals and 25 things. If we cannot locate it overnight, we will speak

1	to Mr Hawkins after his teach-in tomorrow and try and
2	get that to the Tribunal as soon as possible, because
3	I understand how it would assist.
4	THE PRESIDENT: That is very helpful, thank you.
5	MS MORRISON: Sir, we did say we were going to finish five
6	minutes before the end to allow a discussion of
7	timetable.
8	THE PRESIDENT: Mr Hawkins, we will resume with you tomorrow
9	at 10.00. Thank you very much for your help so far.
10	Please do not speak to your legal team without reference
11	back to the Tribunal. I am sure that will be a relief.
12	So have a good evening. You are very free to go. We
13	are going to have five minutes discussing
14	A. (inaudible) to the previous point, we do have this
15	covered as part of our day course that we do at NICE.
16	It will take me a few seconds to get that out, that part
17	of the teach-in out, if you did want to see that.
18	THE PRESIDENT: Well, Mr O'Donoghue, you do not want that to
19	happen, that is fair enough.
20	Thank you, but we will leave the CMA to fend for
21	themselves, and I am sure they can speak to someone else
22	at NICE to assist. If you really cannot, we can get
23	this stuff after the teach-in is concluded and we will
24	do it that way. So, Ms Morrison, thank you very much.
25	Mr Hawkins thank you If you want to go now feel

1	free. We will have five minutes to talk about things
2	which are nothing to do with your evidence, but just how
3	we manage the trial going on. I do not want to keep you
4	in the witness box unnecessarily. Thank you very much.
5	THE WITNESS: Thank you very much.
6	Housekeeping
7	MR HOLMES: Sir, we are obviously slightly behind, not very
8	behind. These things happen during the course of
9	a trial.
10	Would the Tribunal be prepared to consider
11	continuing its 10.00 to 5.00 sequence of sitting days
12	for Thursday? We may not need it on Friday, but it
13	might assist in ensuring that we get back on track.
14	THE PRESIDENT: No, we are clearly not on track, and that is
15	not the parties' fault but the Tribunal's questioning,
16	so we will carry on with the 10.00 to 5.00 regime
17	certainly tomorrow and almost certainly on Friday.
18	MR HOLMES: I am much obliged.
19	THE PRESIDENT: I see that we have a reserve with the
20	Tribunal finishing early due to Panel member's
21	commitments. I am happy to say those commitments have
22	magically been removed. There was a degree of pressure
23	involved in that, but we have done it, and we can
24	therefore run through if needed until 5.00 on Friday as
25	well.

Τ	I am getting nods from others, so I hope that will
2	assist the parties because I do not want there to be
3	pressure on this part of the evidence.
4	MR HOLMES: We are grateful, sir.
5	THE PRESIDENT: So we are very grateful to the parties for
6	their accommodation.
7	MR O'DONOGHUE: I think we will see how we go.
8	THE PRESIDENT: We will see how we go.
9	MR O'DONOGHUE: I think in cross-examination there was
10	a half a day for each of the three witnesses. Speaking
11	for my part, I will need every minute of that. This is
12	quite bitty, there is quite a bit to get through.
13	THE PRESIDENT: Well, we are interested in this, and we do
14	not want anyone to feel that they need to be pressed.
15	I do not want to raise this now, but it is just
16	possible, if this is not enough, that I can free some
17	time for Monday morning next week. I do not want that
18	to be taken as an open offer, I want that to be taken as
19	something which, in the direst of emergencies, we can
20	consider.
21	That may be problematic for other parties, but let
22	us work to that, and we will consider whether there is
23	a need for other we will start at 10.00 tomorrow and
24	we will see how we go.

MR HOLMES: I am grateful.

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THE PRESIDENT: Thank you all very much. We will resume,
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 2
            then, at 10.00 tomorrow.
 3
         (5.06 pm)
                   (The hearing adjourned until 10.00 am on
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 5
                         Thursday, 30 November 2023)
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