IN THE COMPETITION APPEAL TRIBUNAL

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

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 6th November – Friday 1st December 2023

Before:

The Honourable Mr Justice Marcus Smith
Eamonn Doran
Professor Michael Waterson

(Sitting as a Tribunal in England and Wales)

BETWEEN:

Appellants

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

V

Respondent

Competition & Markets Authority

A P P E A R AN C E S

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

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

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

Thursday, 16 November 2023

(9.32 am)

MR GREG HARMAN (continued)

Teach-in by MR HARMAN (continued)

THE PRESIDENT: Mr Harman, good morning.

A. Good morning.

THE PRESIDENT: I think if you want to pick off where you left off, we will start from there.

A. Yes, that would be great. If I could have the same slides, I cannot remember the number, but if we flick through I can stop us when we get there. {XE7/3/8}. Yes, that is the one.

So I had got down to the point 3.

People, you know, valuation practitioners, investors, shareholders, equity analysts, businesses that seek to appraise projects typically have two primary factors that they consider: one is the level of investment that they make and the second is the level of risk. I think that is kind of constant over most finance theory, and also in practice.

In previous cases, and sometimes there is this kind of misconception, that somehow the weighted average cost of capital refers to perfect competition. I do not believe that to be the case.

The theoretical background to the weighted average cost of capital, certainly as it comes to the cost of equity, is that the expected return is linked to the observed average market outcome adjusted for risk. So if you looked at the capital asset pricing model it is the risk-free rate plus a beta factor which is risk multiplied by the market risk premium and within the market risk premium is the observed average level of returns in the market, in the real world.

So the graph on the right reflects -- this is assuming, and it is an assumption that the returns in the market are normally distributed, it does not necessarily have to be the case, but it is illustrative, the point that we take as the starting point for cost plus reflects that average return, and of course, in the market, there is going to be all forms of competition, it is unlikely to be perfect competition, but there is going to be oligopoly, there is going to be monopolies, and what is evident from this is that half the market does not achieve -- half the returns in the market do not achieve the average, half of the market achieves more than the average, but when people make investments, the first things that they assume is that they are going to achieve their expected return, and on average that is what they actually achieve.

If you have a diversified portfolio, then on average that is what you receive, adjusted for risk. So not everybody gets the average, it depends on the risk that you take.

The question becomes when is it reasonable for firms to earn above that average, so if I go to the next slide I can consolidate that point {XE7/3/9}. Ah, but actually, first, in my sequencing, I had the old coffee shop example, and I wonder whether it might just help if I spend just a minute or so on this, or I could defer it to later?

THE PRESIDENT: Well, I think it is probably one of those areas where we might be benefiting from a comparison with other experts.

A. Absolutely.

THE PRESIDENT: But if it is no more than a minute, do feel free.

A. Yes. I just wanted to make, you know, a couple of very quick points.

I have taken the example as per the Tribunal has put it, there were mistakes in there, I do not think that it matters. One coffee shop has a negative excess, one has a positive excess, the primary difference between the two of them is one is facing an external finance cost, and the point that I would make when you look at shop A is does it require a return, even though it is not -- it does not have any external financing, it is a mom-and-pop shop, and the answer to that is, yes, because there will be capital that has been invested in the business, it will be internal capital: I have gone to my bank account, I have invested my life savings, and so on and so forth. I will have bought a coffee shop, I would have bought a coffee van, I would have bought the espresso machine. There are capital investments that I have made upon which I expect to earn a return on them, okay.

Now, it is not an external return, but it is what we refer to as the opportunity cost of capital: in deciding to go into the coffee shop business I have had to evaluate what else I could do with my money. I could stick it in the stock market and I could earn a return on it. So I am going to look at what my next best alternative is, and that is going to set what my opportunity cost is, because I am foregoing that opportunity.

THE PRESIDENT: Yes, I mean, I understand all that, but it goes back to the question that I left everyone thinking on yesterday which is what exactly are we trying to compute here, and what we are trying to compute is the significance of the gap between cost and price.

Now, you are narrowing that gap by looking at the cost of capital.

A. Correct.

THE PRESIDENT: If that is a "real cost" -- and I will put that in quotes -- then I understand why you are doing that.

A. Yes.

THE PRESIDENT: But if it is something which is not featuring in the pricing decisions of the enterprise, of the enterprise, of the undertaking, then I have some difficulty with the approach that you are taking.

I have no difficulty in taking your approach when you are trying to value the business or when you are trying to generate what is an appropriate level of tax to be paid, for example, and there are many other ways in which one would be valuing an undertaking, but that is not what we are doing here.

What we are doing here is we are trying to work out whether the price of an individual cup of coffee or an individual capsule is excessive and unfair, and it does seem to me that what you are doing is you are importing tests of return on the undertaking as a cost which is something that is, well, I will be quite frank, quite hard to defend given the exercise that we are undertaking here. It is just as if we were talking about a margin squeeze case where you are taking the view that you are pushing the price down to below cost.

In that sort of case, what cost is, is, I strongly suspect, not what an accountant would regard as cost when assessing the tax incidence or when seeking to value a -- so you seem to have a one-size-fits-all understanding of cost which I am at the moment having some difficulty in swallowing.

A. Ah, okay. Well, first of all, I do not think that I am referring to accounting costs.

THE PRESIDENT: Right.

A. We are talking about economic costs.

THE PRESIDENT: Okay.

A. Secondly, it is certainly not looking at the P&L and saying: these are your costs, they are the only costs that you are allowed, and I think that your further example of the coffee shops that have more layers to it, we will be able to explain how you can deviate from the costs that you have presented to a movement towards economic costs.

So there is lots of differences between economic costs. I am at the moment just trying to establish a cost plus is reasonable, it depends what goes into the cost plus. That gives us a benchmark which you may be able to charge over if there are justifications for that, but I think that that is a necessary set of steps that you have to get through first before you can answer that second question.

THE PRESIDENT: Just reverting to the conversation that we had yesterday with Ms Webster, you are very much, when you are looking at the gap between cost and price and the location of the mezzanine, you are very much a bottom-up person, not a top-down person?

A. Yes, I think that is fair to say, in part because my instruction is around the excessive limb and not the unfairness limb, so by instruction I am doing that, but I am obviously able to assist you further than that.

THE PRESIDENT: I do not want to get too much into what belongs into excessive and what belongs into unfair because ultimately that is a question for us, not for you.

In terms, however, of analysis, the way you are seeing the manner in which one locates the mezzanine, you are, I think, allowing the plus in cost plus to locate the mezzanine higher, and you are not intellectually looking at the price that has been charged and asking whether it should be lowered?

A. I think -- how would I answer that? -- I would say that obviously mechanically my approach looks like it is bottom-up, I mean, that is a fair statement. But the next step, having located that bottom, is a question as whether you believe that there is a justification for price being above that potential competitive benchmark, and that is why I see it as two-step.

Actually, if we go on to the next slide I might be able to demonstrate that a little bit more {XE7/3/10}.

This is kind of my, you know, view of the world in terms of cost plus. You have prices on the left, then we have a cost plus stack that includes direct costs, common costs and a required return. I would say that many adjustments can be made to the accounting costs to reflect economic costs, and step one says are prices above that cost plus, and if yes then there is a second question to answer.

I have said earlier in my slide deck that it is possible that that step acts as a filtering mechanism, but I think there is a question in relation to efficiency, and it is the flipside of case one in *Hydro* where you say a firm may earn higher returns if it has some special advantage in terms of efficiency, but the flip of that also exists that you may be inefficient, and in your first coffee shop example you said, well, there may be there very high costs; how would we think about that?

Well, in a competitive market, we would say that if you were inefficient in some way, efficient entrants,

efficient competitors would drive you out of the marketplace unless you were able to address that issue.
THE PRESIDENT: Well, up to a point.
A. Up to a point.
THE PRESIDENT: We know that that is not the case. I mean, the fact is one has a range of efficiencies in the market, and because we do not live in a world of perfect competition, an awful lot of undertakings remain in business even though they are less efficient than their competitors.
A. I think that is absolutely true, that does happen, but at the limit, inefficiency will reduce your returns --
THE PRESIDENT: Yes.
A. -- all else being equal. So from an economic perspective, if you were thinking about cost plus, you may have regard to both that efficiency or that inefficiency, and to an extent that happened on *Liothyronine*, right. When you looked at the business, it had procured the production rights at a very low amount. What the CMA actually did was to say: well, that is an advantage that you have as a firm, and we will take account of that, because we will have regard to entry costs which are higher. So its cost plus deviated from the actual costs of the companies to reflect those higher costs and all I am saying is that

that is absolutely sensible to do if you are efficient, that is one way you can modify the cost plus, that it is more meaningful from an economic perspective, but the flip is also true, and I have seen cases where that inefficiency is taken into account which effectively lowers the costs stack. You are saying if you were efficient you would have had lower costs. So that is just a quick point on efficiency. I do not want to labour the point.

Then there is a question, once you have established that there is an excess, there are a number of questions that you may well justifiably ask: is it a patented good? If it is a patented good, statutory monopoly, you may be able to charge more, because you have to recover higher costs, your start-up costs, your R&D, the innovation that you have done, you should be allowed a period of time with no competition that allows you to recover costs that were reasonably incurred in being innovative.

THE PRESIDENT: Yes, but the period of the statutory monopoly is in no way keyed to the costs that you have incurred in successfully applying for the patent.

A. Well, in --

THE PRESIDENT: There is just no correlation.

A. There is no correlation, but then I think you need to --

I am doing a number of patenting cases in South Africa where the Competition Commission is thinking various cancer drugs are being priced at an excessive price. When you actually look at those businesses -- and this is in the public domain, so I am not going to trespass on confidential information -- the way in which they actually operate is that they say: we have a portfolio of products at any one time, right, we have some blockbusters, we have some that are making okay returns, we have cases, you know, drugs, that are at the tail-end, and we have a whole load of R&D that is going on, some of which will be successful and some of which will not be successful.

We have great problems in determining the R&D that is associated with any one product, because it may start as one thing and turn out to be a completely different drug or it may not go all the way through. So the way in which those businesses operate is they say we need each year to have a level of R&D spend to be able to ensure that the next drugs are funded, and so one of the arguments in that case is: we will not go back and look at historical expenditure because that is very difficult to do, but the way in which you are operating as a business is that you are saying: you need to fund 30% to 40% of your revenues each year in R&D otherwise there will be no innovation going forward, and that may change over time depending on how successful things are, but that is how they operate at the end of the day.

They are including that return, they are including the return on the recovery of a certain R&D expense, and they are able to do that because they have been in business for many years, they know what they have to spend to have a successful future, but that is a different case, obviously, to phenytoin where that R&D is not being expended.

So I would say you can include R&D, you can include branding. All of these things can be valued. There is no top-down way of doing it by saying --

THE PRESIDENT: What you are doing, though -- and this may be something that we will need to explore in the hot-tub -- is you are incorporating into the cost per unit undertaking-wide costs?

A. Yes, you do. I mean, there are fixed costs of businesses.

THE PRESIDENT: No, what I mean is you are taking into account costs which have nothing to do with the pricing of the product in question. I mean, let us take the successful patent, and let us bear in mind that there are many, many patents that are successful in the sense that they are granted, but they are actually worth

nothing --
A. Yes.
THE PRESIDENT: -- or very little. So we are talking about the exceptional case where in fact you can either through production of a product using the patent yourself monetise it or you can monetise it by licensing it out and getting a large return. There will be R&D costs in relation to that particular patent which I accept are costs that would feature in the computation of whether the licence charge, to use that particular patent, is defensible or not.
What you are doing in working out when I am saying: you may use my patent if you pay me a million quid, what you are doing is you are saying the cost base in order to work out whether the million-pound licence charge is excessive and/or fair, takes into account not merely the R&D for the patent in question but all the R&D in relation to the failed patents, the ones that are not monetisable?
A. Yes.
THE PRESIDENT: And you incorporate those into the costs stack of the patent under consideration?
A. Yes, I mean, I think one has to do that because if you thought about the portfolio of products, and if they priced only to recover the successful R&D, the business

would soon go out of business because 80% of the R&D fails.

THE PRESIDENT: Of course, I understand that, but it is going back to the -- it is going to be a mantra, I fear. What we are doing here is we are asking whether a specific product -- and it is the four doses of phenytoin capsules that we are talking about, but it can be equally the coffee cups -- we are asking whether that specific product is overpriced, not whether the undertaking as a whole is engaged in generic overpricing practices, and so that is why I am pressing so hard on the question of what is a relevant cost base, because what is the relevant cost base when you are looking at the excess pricing of the undertaking as a whole is completely different to the relevant cost base when one is saying: is this particular thing, this cup of coffee, this capsule, is that overpriced?

A. I do not think that we are apart, but I think that the examples take us apart. So if we are jumping into thinking about excessive pricing in patents, I think there is a different viewpoint to thinking about it in generics. I will come on to say that I think that we can identify the costs of phenytoin on a reasonable basis that does not seek to cross-subsidise or recover the costs of the rest of the business, but there are certain products or certain businesses, and you explore this in the coffee shop example and we are exploring it now in patented, where there are some different, different considerations that need to be made.

Hopefully during the rest of this it will come out and of course during the hot-tub as well.

But just finishing on this slide, I do not think that there is an economic model that tells you what the position is between fair and unfair.

From my perspective the way in which I have always seen excessive pricing cases done is first of all to establish that there is an excess and then to determine whether there are factors that would justify returns that are higher.

Now, that can be difficult in many cases, and in other cases it can be more straightforward, and the things that I have suggested here is that there may be the presence of a patent, there may be high ex ante risk, and I think that goes to your example of if I develop a network of high costs, and I do not quite know what the future demand is going to be, there may be ex ante -- there may be a difference between ex post and ex ante expectations. You may just turn out to be more successful and you took a risk, it could have been a downside, but you are in a world that, you know, you are rewarded for the risk that you take.

There could be high innovation, the products could be differentiated, there may be temporal issues that competition can emerge and prices will ultimately fall, and there can be this issue of efficiency, and so the lens in which I have looked at this case is by saying are there justifications, do there look like those are justifications that would take you above that cost. If there is not, then that may take you down towards cost plus, it might not take you all the way to cost plus, but it may take you down to it. That is the framework that I have used.

THE PRESIDENT: I understand. Well, let me ask you this: let us suppose an undertaking that sells a single product, and it prices at the minimum at your cost plus.

A. Yes.

THE PRESIDENT: So it incorporates what you would say was a proper return to investors.

A. Well, it is a -- they are getting their expected return.

THE PRESIDENT: Okay, I am happy with that. However, they are sophisticated, they have a dynamic pricing model --

A. Yes.

THE PRESIDENT: -- and rather like Uber with surges or airlines with tickets, they will, whenever they can, price in accordance with demand.

A. Yes.
THE PRESIDENT: So if they can extract more value, they will do so?
A. Yes.
THE PRESIDENT: Whether there is lots of people ringing up for Ubers or lots of people booking tickets, that is what they do, but they never price below the expected rate of return, your cost plus, they always price above it, or at it.
Now, by definition, is that practice excessive in your book?
A. Well, I would challenge the "they never potentially charge below", because if you have somebody sitting in a car and there is no demand, it would be better to charge a price that recovers variable costs and makes a contribution to fixed costs and a return.
THE PRESIDENT: But they are not doing, though, in my hypothetical example. They have a floor, which is your cost plus.
A. Sure.
THE PRESIDENT: They do not charge below that.
A. Sure.
THE PRESIDENT: That is their model.
A. Yes.
THE PRESIDENT: It may be it is bonkers, but that is their

model.

A. No, I understand.

THE PRESIDENT: So we are looking at the instance where they are taking advantage of an excessive demand and they are monetising that.

A. Yes. Well, I think that goes to -- okay, so putting to one side whether there is competitors and entry is possible and everything else, I think what you are signalling in that example are temporary supply constraints, right. So at a particular time, there is high demand, but the supply of Ubers is low, and, therefore, you are able to extract that because nobody else at that point in time can supply.

If the market was competitive, then there would be entry into the marketplace, and there would be competition on that ground. I think that with airlines, there are obviously times, and people do make choices, where they have alternatives, they are trying to get the ticket the day before or they are -- actually flying back from South Africa last week, I finished the trial early, I wanted to fly back the day before and BA, seeing that, you know, my cookies come up on their screen that I am interested in a price, they -- with my fully flexible flight, they say we will charge you £3,000 for changing your seat on to a flight that I know is going to be empty.

So they try to get away with that, but I do not have to accept that price, right, I do not have to accept that ticket and I did not, I flew out the next day, I had a rather jolly day in South Africa and saved some money, but that is a capacity constraint that I can understand, that, if there is demand for a single seat that is left on a plane, then people may be willing to pay for that, but that is a supply constraint which I think falls into something that was talked about in *Hydro* -- it is a bit like the masks, the mask case.

THE PRESIDENT: Yes. I think we will all be agreed that price is the outcome of an interaction between supply and demand, but that is not my question. I am trying to locate myself in your excessive price universe.

A. Yes.

THE PRESIDENT: So I am going you a somewhat stylised example where the price of every product, of every unit, is at your cost plus.

A. Yes.

THE PRESIDENT: It never sinks below that.

A. Yes.

THE PRESIDENT: But where demand is high the pricing is dynamic and it goes up as high as demand will allow, and my question, just to locate myself in your excess pricing philosophy, is does it not follow from what you are saying that those prices at above cost plus, the dynamic pricing element, is inevitably excessive, and if it is not, why not, because then I have not actually understood what you are telling me?

A. I think what I am saying is that there may be justifications where it is reasonable to change price, to charge higher prices.

THE PRESIDENT: Yes, no one is saying, least of all us, that if you tick the excessive box you go down on an infringement.

A. Yes.

THE PRESIDENT: Because that is leaving out of account unfair.

A. Yes.

THE PRESIDENT: But we do have the excessive test which you are addressing.

A. Yes.

THE PRESIDENT: So what I am trying to calculate is what generates a tick in that box and what does not.

A. Yes.

THE PRESIDENT: If I may say so, you are equivocating where I was not expecting you to.

A. Okay, sorry. I think that what I would say is that if you looked at the average prices --

THE PRESIDENT: Right.
A. -- and you found that they were above cost --
THE PRESIDENT: Right.
A. -- then it may bring you -- it would bring you under limb 1, the excessive limb, it would say there is an excess.
THE PRESIDENT: Right.
A. We are on record to say that an excess is not necessarily an abuse.
THE PRESIDENT: No.
A. The question would then be whether there is a justification, and I think in your example there would be a justification because there are temporal supply constraints.
THE PRESIDENT: In my stylised example -- and I quite take on board the frailties of it -- given that average price must be at least your cost plus because of the assumption I am making about their minimum price, and I am disregarding all of the reasons why that might be, in entrepreneurial terms, not a good idea --
A. Yes.
THE PRESIDENT: -- the average price has to be at least your cost plus, and really what I am saying is does it therefore ineluctably follow -- and I think you are saying "yes" -- that the dynamic pricing element which

inflates the price to above that is by definition excessive in your understanding of that term, accepting that it is only one stage of the enquiry that we are going down?

A. Yes, that is a fair interpretation of my position.

THE PRESIDENT: Very, very helpful, thank you, Mr Harman.

A. Sorry that it took so long.

THE PRESIDENT: No, these are difficult questions and I am very grateful to you.

A. Okay, I think we can move on, and then again {XE7/3/12}.

Now I want to talk about the various ways of calculating the economic return, the required return, that is one of the issues: having got across whether cost plus is informative, how do you calculate the return.

The return on capital employed is very well used in the real world for valuation purposes. I have seen it applied on countless excessive pricing cases. It was obviously used in *Lio*, and in effect, it reflects that businesses, investors, require a return on their investment. So we can calculate the weighted average cost of capital, there are practical ways of doing that which are applied in the real world. We can calculate capital employed. Multiplying the two together gives you an absolute return, and I will come back to that because there have been some questions as to whether absolute returns are informative. Both the return on sales and the return on capital employed approach generate an absolute return, so there are no differences between them in that way.

If I just then quickly -- I might as well just go all the way down on the return on capital employed. When can it be used? It can be used I think when capital can be estimated on a reliable basis.

There is this question, if you are asset-light, can you apply it? From a theoretical point of view, there is no reason why you cannot apply it to asset-light businesses. The concern is, with asset-light businesses, is whether you are fully reflecting the asset base in terms of intangibles, and there is also a second issue that may arise, is whether you are facing some kind of contingent liabilities.

So this came up in the review of the energy markets which were asset-light, and the CMA applied a return on capital employed approach to measure value, but one of the arguments that the energy companies made was that they have to take a stab at understanding where energy prices will go. So they can price, assuming that energy prices would remain low, get a whole customer base, and then suddenly energy prices go up through the roof and they have this contingent liability, suddenly they can be out of business because of the way in which the market moves.

So for some businesses -- and it is true for asset-light and asset heavy, that there can be contingent liabilities, but for asset-light businesses obviously it is a bigger issue if there is contingent liabilities, and one way if you think that is an issue is that you capitalise the contingent liability, and there are very sensible ways of doing that, it is a feature of financial markets bar one and two, essentially ensure that banks hold enough contingent liability for those types of things.

So my starting point is that it can be used, it is used, and I think that it is a reasonable method in this case.

Now, what is the return on sales metric? It is just a valuation metric. It is like a key multiple or other rules of thumb in which you can seek to value a product, a business, by reference to what something else is worth. So these are general valuation methodologies.

What you have to do here, though, is you have to find sufficiently comparable companies, and you are going to use their observed returns as a return that you think that you should be able to earn.

Now, I can equate the two together because the return on sales is effectively your required return divided by sales, which I show in point 9, and you can think about that return as being, as I have just said, in the return on capital employed approach, is going to be a function of the weighted average cost of capital and capital employed divided by revenue.

Now, what the return on sales approach adds into the calculation is not just the identification of the level of capital employed and the level of risk, but differences in revenue as well, right, and there are two components of revenue that are important in this calculation: one is volume and one is cost.

Revenue is obviously a function of cost and revenue, so as both of those go up, all else being equal, your required return on sales falls, it is just a mathematical outcome. So if you have very high volumes, if you have very high costs, all else being equal you would need a lower return on sales, and that feeds into, if you are going to do a comparables analysis, by sufficiently comparable, you need to now control four things: risk, capital employed, cost and volume. If you do not control for those, I will demonstrate, you can get some rather bizarre outcomes.

Under both approaches, I always think you need to do two things. One, have regard to a preponderance of evidence, so do not just use the return on sales, do not just use the return on capital employed, but use as many different indicators as you can, and one of those is obviously thinking about absolute returns, under both approaches, it is not just a return on capital employed issue, it is also a return on sales issue, and why is it important? I can go back to -- and I will illustrate it later, but just so that you understand, in financial evaluation there are two principal approaches. One is a net present value which is understanding absolute value, and the other one is called an internal rate of return which calculates the return in percentage terms.

So in the real world, both approaches can be used, but normally people would prefer to base their calculations on the NPV, absolute returns, because it tells you exactly what you are getting in terms of value, not just a percentage, and I will explain that in a minute by way of an example and you will see how those two approaches can give different results.

Next slide {XE7/3/13}. So having just articulated returns, before even going into an assessment one can think about whether you believe that the return for capsules should be high or low, just as an indication. So we know that for a high return you need high capital employed, but we know that Flynn has low capital employed because it has a limited role in the distribution of capsules.

Does it face high ex ante risk? I suspect that it does not because demand is known, it is relatively if not completely inelastic, it has low financial risks in terms of having to order an amount from Pfizer, and it has certain indemnities.

If you had a lower input cost as I have just explained, that would require a higher return on sales, but in this case we know that the price from Pfizer is very high.

Then there are a number of other factors which I would say are kind of case one and case two in *Hydro* that may suggest that you would have a higher return outside of those points that I have just said. They may be correlated. Is it branded? Is there superior efficiency? Is there a temporal issue in terms of competition coming in? Again, I would say that they are not particular features that I see in the capsules market that would naturally say: you need a high return from those. So my expectation going into it is intuitively it needs a lower return than some average.

So next slide {XE7/3/14}. This is just where I want to explain how the return on sales can be tainted by high input costs and also why it is necessary to do the absolute return cross-check.

The graph on the left is pretty -- is simple, it just says the CMA has calculated an allowed return using return on capital employed and then it divides through by revenue assuming that Pfizer's price is at different levels: if it is high, the return on sales is low and conversely if the Pfizer price is low the return is high, but it is the table on the right which I think is important here, and I see that there is some confidentiality marked there.

If we start -- there were prices during the relevant period and then they fell in 2018/2019, post the CMA's discussions with the companies. You will see that in both instances the return on sales is around 30%. It suggests that both of those periods were equally profitable, right, but actually if you look at the absolute returns, you can see that during the relevant period the absolute return was far higher.

So my question to the Tribunal, or anyone, would be that: if you would prefer to have been operating Flynn in one of those two periods, would you have been ambivalent between the two periods or would you prefer one in particular, and I would suggest that rationally you would select the relevant period because the absolute returns were far higher.

Then that leads to a second question, and I can do this working back in the other direction: if I was moving from 2018 to 2019, I am facing a higher input cost, total cost, in row B, why would I need my return to increase? What is changing in my business that suddenly requires a much higher absolute return? The business is the same, it is just the cost that is increasing.

So you might say working capital increases, so I need a return on working capital, but we have already calculated the working capital based on the high input price using the weighted average cost of capital and working capital. The return component on that is about £0.6 per unit. So for that higher cost, that is how much you need to finance that activity.

So the difference between 2018 and 2019, moving to a return of £15.23, cannot be explained by higher working capital in the calculation, and what I would suggest is that you are getting this distorting effect by saying you need to apply the same rate of return irrespective of what the underlying costs or volumes are of the business.

Next slide {XE7/3/15}. And the next slide {XE7/3/16}.

In the interests of time I might just jump to Flynn if that is okay.

THE PRESIDENT: Of course.

A. So the next slide {XE7/3/17}.

So effectively -- and I think this is an important slide because it also brings in these kind of cross-checks to make sure that, you know, things pass, if you like, a common sense test. So the CMA calculated the capital employed of the business at 3.5 million. It calculated a weighted average cost of capital at 10% based on numerous sources.

Importantly -- and I think it is always important in these cases that you perform some sensitivity analysis -- it assumed, in one sensitivity, a high capital employed of 5 million and then using a ROS of 6% it did a further cross-check. The implied level of capital at 6% is, like, 11 to 12 million, so significantly higher than Flynn's actual working capital, so that is the CMA's approach.

Flynn's approach says, well, we should have regard to return on sales, and there is various ranges. They come up to between 25% and 30%, somewhere in that range. None of those analyses control for the unique factors of phenytoin which are cumulative in terms of low risk, low capital, high volumes, high input costs, but I think an interesting way to contrast the two is to say: well, if I was to apply a return on sales approach to Flynn phenytoin capsules in the range of 33% to 36% and if I was to assume that a weighted average cost of capital of 10% was reasonable, that is consistent with the return in *Liothyronine*, what is the implied level of working capital you are earning a return on? That turns out to be per annum between 87 to 94 million per annum. That is the level of capital that you would earn a return at 10% on which would be equivalent to the return that is put forward by Flynn, but that is some 25 to 27 times higher than phenytoin capsules' actual capital employed and to me there is no -- I have no basis to understand why it would need a return on that level of capital employed.

If I can go to the next slide {XE7/3/18}. And then the next slide {XE7/3/19}.

This was just kind of my assessment of the CMA. I think that the CMA did a detailed job in terms of understanding the level of capital employed. It considered the issues of intangibles. It used sensitivity analysis to control for the fact that it may have missed some intangible assets. I have estimated the cost of capital on a bottom-up basis. I think the 10% that has been used is reasonable, if not conservative. I actually calculate a lower end of the range of something like 6%.

The absolute return cross-check is very important because it tells you something about the importance of capsules to Flynn's business. So in terms of the actual returns on capsules over the period it earned something like 8.7 million. That was double all of Flynn's other returns over that period. So quite clearly, Flynn's capsules were significantly more profitable than all the rest of its businesses.

If I go to the next slide {XE7/3/20}. This is just to say that Flynn has criticised the return on capital employed on a number of bases, but the CMA could not identify any intangible assets. Most of the reasons for including intangibles related to day-to-day activities which are already incorporated in the cost plus.

There were some issues that were put forward about human capital compensation costs, but in general in efficient markets or under workable competition I assume that people are paid their market rate and to the extent that there is some ownership element to that, that is reflected in the cost of capital at the end of the day, an additional return to owners or part-owners of the business.

Next slide {XE7/3/21}. Yes, this is just a slide summarising the level of capital employed sensitivities. What I think is important is the table on the right in that this is suggesting -- this is looking at the level of excess based on different capital employed assumptions. The results are not particularly sensitive to those assumptions. You can increase capital employed quite significantly and the excess is still high, and I think that is the only important thing that I would do there.

Next slide {XE7/3/22}. Just looking at -- quickly running through the capsules' return on sales, the comparators that have been put forward by Flynn and its experts and just to make some quick observations on each of them.

In box 1, Flynn's other products, it was suggested that their return on sales were as high as capsules, but across my three reports I have suggested that there were fundamental differences in terms of input costs, volumes and the absolute returns that are earned on products. So this is one graph, and there are a number of graphs, which just tries to isolate the differences, and what you can see here on the vertical axis is the number of packs sold, on the horizontal the gross margin per pack and what you can see here is that phenytoin is a high-volume drug, and it generates a very high gross margin per pack, and what you observe is that only products that are being sold in very low volumes have high gross margins per pack, and that is to be expected, because they would need to have a higher margin because they are at low volume to be able to recover their fixed costs.

So I say that if you have the detail, you can see that there are fundamental differences even though the return on sales figure is telling you these should be comparable, but they are not, because there are other dimensions.

Mr Williams has looked at a set of different comparators, he has refined that analysis over his reports, but fundamentally it does not seek to control for the unique factors for phenytoin: low risk, low volume, etc, and also it does not seek to control for any case 1 or case 2 factors, are these differentiated products? Are there temporal differences? I think the important thing when you look at the Flynn analysis is that you cannot just have regard to a figure, like an average across a particular company, because you cannot see what all of the individual factors are, so it does not tell you anything in terms of whether it is profitable or not.

Next slide {XE7/3/23}. Tablets as a comparator.

I think here I am going to say less. It has been addressed. I think the point that I understand is that the tablet price may not actually reflect normal and sufficiently effective competition. I note from this chart on the left that the ASP for Flynn is between 50% to 100% higher than the tablets, but you can also see, I think -- and this is an important point -- when you look at the cost line, the cost line, Flynn has a significantly higher input cost.

Now, if this was under normal and sufficiently effective competition, the question would be: would you be able to make a profit at the prices that you observe in the tablets market? So if the prices are -- let us take Teva's at 39, if Flynn was still required to pay Pfizer 40.86, it would make a loss. So all else being equal I think, when you look at normal and sufficiently effective competition, one has to have regard to the input price as well as to whether that reflects normal and sufficiently effective competition.

So if we assume for these purposes that the costs of the other suppliers are efficient input costs, then the margin of Flynn at 58.16 -- sorry, that is the revenue less costs of say 10.2, the absolute margin increases quite significantly, it increases above the absolute margins of the other comparators.

In terms of Aspen, again, there has been no analysis as to whether this average EBITDA is comparable. I can see from the judgment that there is not an issue of prices increasing because costs have increased, so I suspect there are going to be differences in terms of that unique input.

Then I am not going to say much about the PPRS benchmark, only to say that when Mr Williams puts forward a return of 19% to 28%, he is adding in a margin that reflects the manufacturer's margin. That is not the case here, because that return is captured by Pfizer. So to be able to compare 19% to 28% you would have to look at the integrated return from Pfizer and Flynn, so that is inconsistent.

Almost done. Next slide {XE7/3/25}. This is just how I see things coming together in terms of whether I think capsules are excessive.

Firstly, in chart 1, we observe significant price increases. Those prices remain high for a period of time. The second chart says you do a range of return on capital employed scenarios and including a ROS scenario at 6% and we observe that there is an excess in everything.

In 3, we say it is important to look at absolute returns. When we compare to the rest of Flynn's products we can see that phenytoin capsules earns a margin significantly higher than all other drugs. The only one that is slightly higher is a patented drug. That is Circadin. In number 4 it repeats the analysis but now does it in terms of excess, Flynn's excess is significantly higher.

What I think is important, it came up that there was this question of whether the return on capital employed approach would suggest that all other products in Flynn's portfolio would be excessive, and that is not the case because it is necessary to do the cross-check with actual returns. When you look at the actual returns you get this, a type 1 error, where the return looks big but actually the actual return is low, and I have already talked about 25, that Flynn is different from the rest of its comparators.

I think I can stop there.

THE PRESIDENT: I am very grateful to you, Mr Harman.

Thank you very much. We are very much obliged to you. We will be hearing again from you shortly in the hot-tub.

I see we have re-arranged the deckchairs on the Titanic, very helpfully. Are the barristers mic'd up at the rear?

MR HOLMES: Let me test, sir. I think we are, yes, these look as though they are working.

THE PRESIDENT: Well, what I propose we do is we will rise for five minutes just to enable Mr Harman to make himself comfortable in the front row.

Just to articulate how I think this is going to work, we have an unusually large hot-tub, and quite a lot to get through. What I am proposing to do is to ask questions on a rotational basis with one person to take the lead and provide an answer, and then for the others to indicate whether they either have an ability to opine at all on the question, because we have slightly varying expertise, or to say how violently they disagree with what has been said, but where there is simply a broad agreement but the inevitable sense that I could have put it better, I would rather you did not, and we move on to the next matter.

So if you can exercise that sort of self-restraint, that would be useful because I am anticipating certain areas where there will be quite a lot of discussion, and I would rather have the time for that.

Let me also say this: we are not regarding what you say in the hot-tub as the kind of answers given in cross-examination where they can be tested and qualified. This is intended to assist us in understanding. If and to the extent there is an answer that is so critical that it is going to perform on its own a material part of our judgment we will make certain that it is tested in some other way.

So I do not want you to think that in failing to correct what might be a difference in expression that you are in some way committing to what someone else has said, that is not how this is intended to work, it is intended to educate us and I hope you will treat it in that way, because if we get down the route of everyone trying to express exactly what they want to say in exactly their terms we are going to be here for more than a couple of days, and that is undesirable.

So I hope that assists in terms of how it works.

Counsel, I think you should feel free to intervene on a limited basis, namely to ensure that we are getting the best evidence that is said. If there is a question that ought to be asked that we have not asked or if there is a sense that one of the witnesses has not done themselves justice because they have misspoken, then I would very much want you to intervene, but I will leave that to your good judgment as to how you do that; primarily this will be a dialogue between the Tribunal and the experts.

So I hope that is helpful by way of guidance. We will rise for five minutes.

(10.33 am)

(A short break)

(10.43 am)

Concurrent expert evidence of DR MAJUMDAR, DR DE CONINCK, MR WILLIAMS, MS WEBSTER & MR HARMAN

THE PRESIDENT: I hope you all have the second version of the stylised coffee shop model, and if you do, then you will see that we have three coffee shops and a finding of infringement by the Ruritanian competition authority against Apple Coffee, and we have to accept, because it is a premise of the facts, that Apple Coffee is, for that reason, dominant. {XO/15}

Can we start by talking about relevant prices. Are we agreed that we are looking at the prices of the three products sold by Apple: the $45, the $120 and $250 coffees.

Mr Harman, is that uncontroversial?

MR HARMAN: Yes, I think that is not controversial at all.

THE PRESIDENT: Any disagreement from that? No.

Following on from that, therefore, the capsule infringements are the four infringements against Flynn and the four infringements against Pfizer. We are looking at an excess in the individual price of the products concerned.

Again, Mr Harman, you do not dissent from that?

MR HARMAN: No, that is correct.

THE PRESIDENT: And nobody else? Good.

So to what extent are we interested in the overall profitability or non-profitability of an undertaking, and I will move on, Ms Webster, to you, to answer first.

MS WEBSTER: Would you like an answer in the context of this coffee shop example?

THE PRESIDENT: Well, if you want to stray more generally, feel free.

MS WEBSTER: Okay. So the question we are being asked to consider is: is Apple Coffee prices, are the prices abusive; is that right?

THE PRESIDENT: That is the question you are being asked to consider, but the narrower question is to what extent are we simply looking at, in regard to the individual product, a cost of that product versus the price of that product, and to what extent do we need to worry about the overall profitability of an undertaking that is selling more than just infringing products.

MS WEBSTER: Oh, I see. So I will ground my answer in seeking to understand whether the price of the coffee product is abusive, in which case I would say it is relevant to consider the costs associated with the supply of that product.

THE PRESIDENT: To be clear, what you are doing is you are taking a definition of cost that is articulated by reference to the product whose price is said to be excessive?

MS WEBSTER: Yes.

THE PRESIDENT: I will go across. Does anyone have anything to add or subtract from that?

Mr Harman, you are in particular happy with that?

MR HARMAN: I am happy with that, but just to extend one of the reasons why. I think that it is important to focus on the infringing product rather than the company as a whole because in part we are trying to determine what is the outcome in a normal and sufficiently effective competitive marketplace, and if you were thinking about the portfolio as a whole, you are now starting to make assumptions about the nature of competitors, that they would also have a portfolio of businesses where there may be cross-subsidisation between them and that may not be the case. I think that, if there was a particular product where there were no barriers, then competition could emerge in the supply of that product.

So I am agreeing and hopefully that is an explanation as to why I think that you focus on the infringing product.

THE PRESIDENT: Thank you.

Does anyone have anything to add to that?

Dr Majumdar, yes?

DR MAJUMDAR: Yes, I will try and keep this short. I would agree that cost is a relevant factor to consider. I expect you will be coming on to this as well, but I would also want to try to understand the value that this Apple shop is providing consumers. I will say no more, because I expect you will come to that.

THE PRESIDENT: We will certainly be coming on to value.

DR MAJUMDAR: As regards the question of a multiproduct firm, I think you asked the question should we be looking at the profitability of multiproduct firms. I think the difficulty is that when you try to understand the profitability of a line of business and you take measures that are really more relevant to a firm as a whole, then it is very difficult because essentially then you have to allocate various costs and you have to allocate assets.

I will stop there because I expect you may be coming to that as well, later as well, but I can explain further if need be.

THE PRESIDENT: I mean, it would be possible to have an excess unfair pricing case that was saying that the entire pricing of all products of a firm were excessive and unfair, and on that basis you would look to all of the costs of that firm. You all agree with that?

DR MAJUMDAR: Yes. I mean, I would also look at the value and all the rest of it, but, yes.

THE PRESIDENT: No, no, do not worry, we are just talking about the ballpark in which we are playing. That is really what we are interested in at the moment, and what I am seeking to get consensus on is that if one is saying a particular product is infringing the Chapter II Prohibition, then costs as well as price need to be defined by reference to that product.

DR MAJUMDAR: Yes, I agree.

THE PRESIDENT: I am seeing nodding all around. I am very grateful.

We are going to go on to cost more specifically, but before we do so, I wonder if you could explain why we are interested in what is going on in the other coffee shops. So we have two entities that are non-dominant and which we have -- we have the details there, we have the Vanilla Coffee Shop and the Robo-Coffee Shop. Why are we interested in those?

And we will move on to you, Dr De Coninck.

DR DE CONINCK: I suppose you certainly have a clear idea of why you designed those two examples. What I can infer from the description of those is that you have one which is the Vanilla Coffee Shop which is labour-intensive, does not have any clearly defined capital, at least to high levels used in it, which to me is making me think of, to some extent of the situation of Flynn. So there is capital in there somewhere, not necessarily well defined, difficult to control for, and a high reliance on labour.

Now, you can contrast that with the Robo-Coffee Shop which is one in which capital is much more important and labour much, much less. You have measures of capital that are well defined, and then to me it strikes me that the approach that one should take when looking at those two different coffee shops is quite different.

If one tries to apply a notion of return on capital employed to determine what the Vanilla Coffee Shop can charge then I think that is definitely not the right approach. So that was my reaction to seeing those two examples.

THE PRESIDENT: Well, you have unpicked a number of specific points that we will be coming to, and I am not going to invite anyone to add to that.

What I wanted to capture was why, in a much more general sense, one looks to comparators. Can I reframe what you have said in a more general way and see if you agree.

The reason one looks at comparators and the reason one wants to make them comparable is because, particularly if they are substitutes -- and here they are because they are in the same market as defined -- the reason one looks at them is because one can get an insight into what is excessive and what is unfair in terms of the entity under consideration, here the Apple Coffee Shop.

So would that be a fair general articulation of why one looks at the other two?

DR DE CONINCK: I mean, of course one is particularly interested in having comparators. There is the question that you said will come later on of what can be the value, and it strikes me that even though they are in the same market, given the differentiation and the perceived value that some customers are willing to pay for the Apple Coffee Shop, one has to be careful to consider the Vanilla Coffee Shop and Robo-Coffee Shop as close comparators even if they are, you know, in the same market because of the value that, you know, would be in this example apparently created by the Apple Coffee Shop.

THE PRESIDENT: Fair enough, but just so you know when we come to these questions, I am applying to this scenario the standard test for market definition. In other words, what the Ruritanian authority will have done is they will have asked themselves the standard SSNIP question and they will have asked: if you apply, let us say, a 5% to 10% increase to the Apple Coffee Shop prices, it will not pay the coffee shop owner to increase those prices because more people will shift to Vanilla or Robo-Coffee Shop such that the price increase is not sustainable. So you can say that the Apple Coffee Shop is pricing at the limit of what is a profit-maximising price.

Now, obviously you will want to say what you will later on about value and the value of the comparators, but I am still just trying to get a sense of why it is that we are looking at these alternatives, and it is because, to a greater or lesser extent, they inform the question of whether there is an infringement by Apple Coffee Shop. Is there any other reason we would be interested in these other market participants?

DR DE CONINCK: If I may, the point that I think you are referring to, or at least that is relevant, you know, in this context is that indeed, one considers that the Apple Coffee Shop is dominant in this context, but there are alternatives which of course should be taken into account when considering whether the Apple Coffee Shop is pricing excessively.

THE PRESIDENT: Does anyone have anything to add in terms of why one would be interested in the other coffee shops?

Mr Harman?

MR HARMAN: I think that the starting point is that you would always look for comparators, and the question is whether they are sufficiently comparable. I mean, clearly here we are dealing with differentiated products, and that differentiation, to an extent is or to a large extent is explaining the difference between the prices that you observe, but it highlights a problem, right, because the prices are so different but the way in which the example has been constructed that the level of differentiation is also quite extreme.

When thinking about the comparisons, you would also necessarily need to look at not just the prices but the costs and potentially the profits that emerge, and I think what the illustration provides here is that there are costs associated with differentiation as well, so Apple has different costs to the mom-and-pop shop, so when you actually do a cost plus, that element of cost differentiation or product differentiation is captured in the costs stack.

Now, that does not tell you whether you can price above that, but I just wanted to make clear that cost plus does expand for differentiated products, and the question, once you have gone through that cost plus analysis, is then to say: well, does it really capture everything and is there still a reason why Apple Coffee Shop is able to price above that cost plus, but, anyway, the main point is that obviously they are considerably differentiated and that will often mean that it is difficult to compare.

MS WEBSTER: Might I add?

THE PRESIDENT: Of course.

MS WEBSTER: So I would agree with the statement that you made. These are valuable for making the assessment of Apple's pricing because of the value they bring as comparators. I think I agree with what Mr Harman has just said -- Dr Harman?

MR HARMAN: Mr is fine.

MS WEBSTER: So therefore they are of value as a comparator in the cost plus exercise and also in relation to prices, and, yes, there are differences, and one needs to take that into account, but that is where I see their value.

THE PRESIDENT: Would you all agree with this, that the mere fact that there is a comparable that is not in the same market does not mean that one does not look at it, it just means one needs to tread with perhaps greater care. I see you are nodding, Ms Webster.

MS WEBSTER: Yes.

THE PRESIDENT: Does everyone accept that as a broad proposition?

MR HARMAN: Yes.

THE PRESIDENT: Thank you.

DR MAJUMDAR: Sir, sorry.

THE PRESIDENT: Yes, of course, Dr Majumdar.

DR MAJUMDAR: I mean, I think there is actually a risk of using comparators in the same market, because if one is looking for a claim for excessive pricing and the substitutes are in the same market, then those substitute prices could also be affected by the higher price of the impugned firm, so I think ideally one would find comparators in a separate market.

So let me explain. So if the Ruritanian competition authority has said that the Apple Coffee Shop has charged an excessive price, and also says that Robo-Coffee Shop and Vanilla Coffee Shop are close substitutes to the Apple Coffee Shop, then in principle, their prices would also be affected by the impugned price, so normally, when one wants comparators, one would find very similar products with similar demand conditions, but in a separate market so we can be confident that they are not affected by the impugned price, sir.

THE PRESIDENT: So what you are suggesting is there is an umbrella effect: that the abuse of dominance by the

Apple Coffee Shop enables non-dominant undertakings to price higher than they would because they are substitutes. Is that a fair assessment of the point you are making?

DR MAJUMDAR: Yes, I understand in this particular example, I think that would be something that the competition authority should take into account, sir.

THE PRESIDENT: Does anyone disagree with that?

A quick question, just on classification between fixed and variable costs. You will see that there is a costs item which I have labelled as semi-variable. It is on the second page of the example, things like cups, spoons and things, where you need a certain number of costs or cups which are variable according to demand.

How would you classify those? Would you see them as fixed costs, you need to buy a thousand cups, a thousand spoons, or as variable because they are conditioned upon demand?

Mr Williams, you can go first.

MR WILLIAMS: I think it is probably outside my area in terms of expertise, but I would probably, as an accountant, treat them as variable costs.

THE PRESIDENT: Very well.

Dr Majumdar, the economist's view?

DR MAJUMDAR: I think if we are looking at -- essentially we are saying the more coffee that is drunk, the more spoons that are going to get used and the cups are going to get used and the more they get used they are going to wear out, so they are probably variable, sir.

THE PRESIDENT: Does anyone disagree with that? But would you say it is a hard example of where the borderline between fixed and variable is fuzzy, or would you say this is just a very clear example of variable costs?

MR HARMAN: I would say that it is variable, but to perhaps make a different cost distinction which is maybe relevant is whether it is directly attributable to the product. So often variable costs are directly attributable, but in the case of coffee cups and spoons, again, I think that would be directly attributable to products, because all products need a cup, all need a spoon, maybe in varying degrees, maybe certain coffees people do not have sugar, I do not know, but you would be able to construct an allocation methodology that allocated those costs directly to the products that consume those cost items.

THE PRESIDENT: Does anyone have anything to add to that? No, thank you.

Do we agree that rent, the cost of premises, is a fixed cost? I see nodding. Good, that was an easy one.

So looking at Apple Coffee's actual rents, in other words, the figure that is in their lease, what is the figure that we take into account if we are trying to work out the excess price and, therefore, the costs stack that is related to the products that we are interested in? Do we look at year 1 or do we take a longer view and take an average across three years?

Dr Majumdar, what do you say we should do in terms of the figure that we ought to be taking in terms of incorporating it into the costs stack?

DR MAJUMDAR: I think ideally we would take a longer term view and assess profitability -- in an ideal world we would assess it over three years and then we could capture all three of these costs and not have to worry about making those allocations. I hope that is not a cop-out answer, sir.

THE PRESIDENT: Not at all. You would want to take an average of the 50,000, the 75,000 and the 100,000 and incorporate that into the costs stack of the cup?

DR MAJUMDAR: Yes, I mean, I think ideally I would like to assess profitability over the three-year period so we can take each cost into account in the relevant year it is incurred. If we were only looking at year 1, I think we would be mindful when thinking about prices that there is an expectation that costs are going to go up, and that might be useful information to bear in mind when considering the level of costs versus price.

THE PRESIDENT: Presumably it must depend on the nature of the infringement that has been found by the Ruritanian authority. In other words, if the infringement is confined to year 1, would you not just take the $50,000 figure and, do not worry, we will be coming to the $500,000 figure in a moment, but let us stick to the easy bit first?

A. So I think the short answer is yes. I mean, this would still need to be allocated. I think my point was simply that if there is advance knowledge that costs are going to be going up substantially, and if a price is taken with a long-term view, so for example, that this is Apple Coffee's price and we are going to keep that price constant for the next three years, then potentially the price could be set within mind for future cost rises, so it is just context that I think we might need to understand when making the assessment.

THE PRESIDENT: Just so that I understand -- and do not worry, we will be coming both to the £500,000 alternative cost and to the allocation between cups, because we have volume versus revenue to come to, at the moment all we are talking about is the figure that we insert into the calculation as a starting point.

DR MAJUMDAR: Yes.

THE PRESIDENT: I think what you are saying, Dr Majumdar, is that you would start, if we were talking about a year 1 infringement only -- in other words no investigation into year 2, year 3 -- you would want to factor in a possible higher cost if that was something which was in the mind of the Apple Coffee Shop owner as a higher cost than the $50,000.

DR MAJUMDAR: I would put the true cost in but when thinking about implications to be drawn, I would be mindful that costs would be going up in the future.

THE PRESIDENT: Mr Harman, do you have any disagreement with that?

MR HARMAN: I think it all depends on the pricing strategy of the company and what was in the mind of the company when it set prices. Generally, customers do not like changing prices very much, you do not like to go and have your coffee one day it is £6 and tomorrow it is £7 and then it drops down to £5, you know, it creates uncertainty. So over short periods of time I think that it would be reasonable for companies to have a thought as to what future costs were and to set prices in any one period over a period of time.

To be fair, I think that, because that is quite dynamic, and you do not know how a company would price, your question is, is it unreasonable for them to have had regard to a three-year set of costs with the intention of keeping prices the same versus having prices that were lower in a given period. Because that seems to be a choice that companies could reasonably make without being abusive, then I would have regard to both costs in a particular year and average costs over a period of time.

THE PRESIDENT: What I am getting here is that there is a judgmental question in terms of what one inserts into the costs stack which is conditioned upon what an undertaking in that position might think. So if you are seeing a dramatic future increase in costs and you want to keep prices stable over that same time, your price is likely to be higher than your cost base on day 1 because on day 10 you know there is going to be an increase and you want to keep the price stable across those ten days.

MR HARMAN: That could very well be the case, and I think that you would see that in, for example, energy markets where retailers are in the marketplace, highly variable commodity prices, but they need to bring in consumers for a period of time, it might be a two-year contract, so they have to have regard to the likely changing costs over time when they are setting their prices.

So I think that is a normal competitive thing to do, but again, I would say that normally you do not see excessive pricing cases for a single year because you would think that prices are persistent in some way. So normally you would expect over two, three, four years, and then I am in complete agreement, you know, you should have regard to profitability in each year and then think about what does that mean overall.

THE PRESIDENT: Unfortunately, in this case, the Ruritanian OFT have found an infringement in respect of all products but only for a relevant period that is year 1, so that is a constraint which I am afraid we are going to have to deal with because that is the decision, but I think you are saying there is a judgmental question in terms of the inter-relationship between price charged and cost allocated to that price.

MR HARMAN: I think that is right, and if you were then to go back into the fact matrix as to what was on the mind of the party setting the prices, you would normally see that documented in some way. They would be saying: costs are going up, we want to set prices.

So normally the reason for setting the prices will give you an indication as to what factors were taken into account when setting those prices.

THE PRESIDENT: How far is this a question of the subjective thinking of the participant in question and how far is it a question of objective judgment as to what should be included in the costs stack? Because you can see there is a potentiality for a clear difference there.

MR HARMAN: Yes.

THE PRESIDENT: If I am the actual owner of the Apple Coffee Shop, I might take the view that, because I can see that my costs are increasing over a three-year period, they are doubling, I would want to factor that in into my prices for year 1, even though year 1 is 50,000, I would say taking the 100,000 cost and that might be my subjective approach, but what happens if you, as a reasonable economist assessing this, take a different view, which figure would you use?

MR HARMAN: I think that I would always want to start from the position of what the company was thinking in terms of its cost profile. I mean, that is an ex ante consideration of what you think the world is going to be. You talk about is it subjective. I mean, normally, a firm, a big firm, will have people computing what they think the future is. Of course, the one thing with forecasts is that they always tend to be wrong, but at least you go into it approaching it with a degree of sophistication to say: this is what your likely profile is.

I then think it depends on what pricing flexibility do you have when things go wrong. So if there is a cost shock and you can change prices, then that kind of risk is smaller, so if you were in retail or food, if Sainsbury's suddenly has higher prices due to inflation it can pass those on, subject to the constraint that it has to follow other people's prices. If you are an energy contract retailer and you are selling a price for two years, then you may be more cautious as to how you set your prices because you cannot change them, so you may be a little bit more conservative in the way in which you forecast costs. So I think there is a link between pricing flexibility, the degree that you can determine demand with certainty, and there is going to be situations when sometimes you get it right, sometimes you get it wrong, and that wrong can either sometimes be favourable, you end up earning more money than you expected, and sometimes you will earn less than expected, and I think that it is relevant for you to have regard to the company making that assessment save for the fact that if you thought that you were dominant and you wanted to abuse the market then perhaps you would go through that exercise falsely so that you could later on come back and say: but that was my expectation at the time. But assuming companies do not operate like that, then ...

THE PRESIDENT: Well, or they may have an extremely clever lawyer who says: the ex ante thinking was that expectations of cost would go super high and therefore you need to incorporate that expectation into the cost pricing calculation for year 1.

MR HARMAN: I think that is perfectly possible, but I think, you know, you would get a sense from the facts of the case through disclosure as to which world you were sitting in, I think.

PROFESSOR WATERSON: Can I just come on in on this? Supposing you could break the lease after one year, how, if at all, would your answer change?

MR HARMAN: So that I understand the question, you could break --

PROFESSOR WATERSON: So the three-year lease is not breakable, by assumption here.

MR HARMAN: Yes.

PROFESSOR WATERSON: But if the three-year lease could be broken at year 1 -- in other words, you could stop renting these particular premises -- what approach would you take?

MR HARMAN: I think then we are into a hypothetical world as to whether it would be reasonable for the company to break the lease given the associated costs with breaking a lease, moving premises, moving location and the impact that would have. I do not think that it is abusive per se to take on a cost that is, you know, higher, but assuming that these costs are reasonably efficient, I mean obviously they are below market price at the moment, so you would probably want to stay there if that was the only deal that you could get, but, I do not know, I think that if that was your forecast of what costs were and that was your intention, to stay put, then I think you would probably have lower regard to the ability to break the lease.

THE PRESIDENT: Let me try to capture what I think you are saying, Mr Harman. You can then tell me just how wrong I have it and then we will move on to the other experts to see what they say.

I think what you are saying is that expectations are a relevant factor in terms of the cost price inter-relationship and in particular, you ought to take into account the expectations of the undertaking in terms of their future costs in order to work out why they are pricing at a certain level, subject only to this qualification: you would only want to factor in reasonable expectations and you would want to exclude unreasonable expectations for whatever reason, whether it is an after-the-event lawyer-manufactured expectation or a mis-expectation that is outside the realm of the reasonable in this case.

MR HARMAN: Yes, I think that you have put it much more succinctly than I did, so I agree with that. Just to give you another example as to more common instances where this is relevant. It is relevant where you may have invested quite a lot of money in a new venture where demand is uncertain but not only is it uncertain, the speed at which demand will take place over time is uncertain, and so at the beginning with a low customer base, if it is a business with high fixed costs, the unit cost is going to be extremely high, but actually you are not going to be able to attract customers at an extremely high cost. So you have to make some projections going forward.

So if you were in a networked business, telecoms, mobile, companies like that, then you have to make forward expectations because people are not going to pay the money when demand is low, but the risks are very high. So you are forced, you are compelled, to try and understand what the forward-looking position is going to be. That is it.

THE PRESIDENT: Just focusing on my formulation of Dr Harman's position, can we go through and see if anyone has any qualifications they want to make to that.

Ms Webster?

MS WEBSTER: Yes, if I may.

THE PRESIDENT: Of course.

MS WEBSTER: So I understand the point around expectations and how prices are set, and that being an important factor. I would add that I think there is a question about what we assume -- what we would assume competition in this market, if it were working well, to deliver. So if, for example, there is a rival firm that has the same cost in year 1 for the premises and similar other costs, I might then expect that although I, as Apple Coffee Shop in this case, I might have a desire to set a higher price in year 1 that I can then carry through in years 2 and 3 and not feel pressure to change, I may not be able to do that because I am facing the competitive pressure.

So the rival will come in and say: well, I have these lower costs, I will undercut you, Apple, I will take some of your market share, and I would expect that would be happening if competition were working well.

That is a first point. I think the second point, then, is what is the reality for this situation, and it is a bit different in the example because, by construction, Robo-Coffee and Vanilla Coffee do not have that constraining effect on price.

If I were to assume that there could be a relevant benchmark -- or I am trying to assume, am I not, what would happen under a competitive market, what the Robo-Coffee example tells me here is that the commercial rate would have been 100 for that competing coffee shop, so that might tell me that actually -- if I were doing this exercise I would do cost plus, as Dr Majumdar says, I would start with year 1, I would include the costs from year 1 and I would be mindful of the other years and costs in other years. Then I would calculate my cost plus for Apple Coffee for year 1 on the basis of the costs in year 1, and then I would think: well, okay, are there reasons then to think that that is potentially artificially low, and one of the reasons could be because Apple is not paying a commercial rent. Rivals would, say, be paying a commercial rent, so rivals who were operating in the market would have a somewhat higher cost, and it is 100 in year 1 according to Robo-Coffee, and I think that is relevant when we look at a comparator.

So one might take the example of Apple here as the efficiency that you describe in case 1 of *Hydro*, so there is something driving a wedge between cost plus as measured for the business and price, and some of that is inefficiency on the basis of this case study here.

THE PRESIDENT: I think we are running a little bit ahead of ourselves.

MS WEBSTER: Right, sorry.

THE PRESIDENT: It is a helpful answer, but I want to go back to what in an ex post evaluation one is supposed to do with expectation.

Now, you are absolutely right, I am sure everyone would agree, that part of the expectation you factor in is what your competitors are going to do. The fact is we are assuming that Apple, as the dominant undertaking, is pricing at the limit, that if they increase by a SSNIP they are going to lose out. So to that extent in this example price is actually fixed at the maximum, but what we are really asking is the extent to which when one is working out the gap between cost and price, what Apple can legitimately do to narrow that gap to say: do not worry, my prices are not excessive.

Now, it may be that in this case Apple's prices are so high compared to their costs that it is not a problem, but we, of course, are concerned not with this case, we are concerned with another case, and so I am interested in the way in which you would evaluate the costs stack given the question we are asking, and I think, but let me summarise so that you can tell me whether it is wrong, I think what you are saying is that reasonable expectation is the relevant test for what cost should be included in terms of the costs stack even in year 1, but you are saying that as part of that reasonable expectation test, you need to swivel over and look at the costs base of others because the costs base of others is going to inform the reasonable expectation of the undertaking that we are looking at.

Would that be a fair articulation of what you have said?

MS WEBSTER: Yes.

THE PRESIDENT: I am very grateful.

Anyone else who wants to add or subtract anything from that?

Dr De Coninck?

DR DE CONINCK: Maybe I should add that I think I share Dr Majumdar's view that we are looking at one year, but there may be strong linkages between the years, and, therefore, we may have to consider that in the cost, I think that is important. The fact that others will have a higher rent is probably an indication that the rent in year 1 is particularly low, so I think we would have good reason to do that. I mean, often when you rent you have some incentives in the first year which goes back to the question of breaking the lease, I think. You know, this is a factual question about whether this is a realistic option or not, but if it is not, then I think we should factor in some of the obligations that comes from the lease in the following years.

THE PRESIDENT: Mr Williams, do you have anything to add?

No.

Dr Majumdar?

DR MAJUMDAR: No, sir.

THE PRESIDENT: No.

Okay, let us move on to the allocation of the cost, and we will just say that we have discussed expectations, we are going to park that and lose it. We are talking about the year 1 cost of $50,000 because I like a nice round number and we will just talk about that.

We have, of course, got three infringing products, and we need to allocate that cost to each of them because they are all infringing. If there were two infringing products and one non-infringing, again, we would have to do an allocation to work out what is the relevant costs stack for the two infringing products. Do we do it by revenue, or do we do it by volume of coffee sold, and, Mr Williams, I think it is right to start with you because that is something you have expressed a view on. What do we go for in terms of allocating this fixed cost to a scalable set of

products?
MR WILLIAMS: I think I would say that what I would do, I would typically follow a revenue-based allocation, although I am sensitive to the fact that there could be circularity in that, so I may well adjust the revenue from the actual revenue to perhaps a lower figure, so I would give less of an allocation, but I probably would not do it on a per-cup basis.
THE PRESIDENT: So the circularity that you are referring to, if I can just articulate that, and you can tell me whether it is right or wrong, is this: we are here dealing with an alleged or indeed a found unfair excessive pricing case, and so it seems a little bit odd to incorporate into the assessment what is at least allegedly -- I appreciate there is an appeal in this hypothetical case -- at least allegedly and provisionally found a price that is excessive, because one might say that is distortive, and I think you are accepting that --
MR WILLIAMS: I am accepting that, absolutely.
THE PRESIDENT: -- in terms of your adjustment, but does that not beg an awful lot of questions, because this case, I accept, is a stylised and extreme one, but just what sort of adjustment do you make to the "amazing 'health' decaffeinated latte" at $250 when that is

actually not sold by either of the rivals in the market but is, looking at what they do sell, a really remarkably high price? I mean, you move away from 250, but what do you move to?

MR WILLIAMS: I think putting it in the context of the current case what I did is move to what the authority believes is a fair price.

THE PRESIDENT: Is that not begging one enormous question that the authority is right? I mean, do you not need to be able to articulate independently of what the authority has said what your adjustment is going to be?

MR WILLIAMS: Yes, I think what you have here is you have two points that you can look at. You can look at an allocation basis on an unsensitised revenue basis and you can look at it on a sensitised, and then you can take a view whether that actually makes a material difference to the alleged excess.

THE PRESIDENT: Indeed. I think the concern I am articulating is that, given that the very matter that we are investigating is an excessive price, it seems, you put it as circular, I will put it as dangerous to the analysis, to include that very element in terms of an assessment of allocation, because you may be, assuming the authority is right, embedding in that allocation an excessive price and thereby distorting the process.

I suppose, to put the question another way, why do you not like volume?

MR WILLIAMS: The reasons I do not like volume necessarily are because you could end up -- I keep bringing it back to pharmaceuticals, I must bring it back to coffee -- is that you could end up allocating the same amount of money to a cup of coffee at $5 and one at $5,000, and that seems to be an appropriate way of a business recovering its overheads. It has to recover its overheads and its common costs, its fixed costs out of its revenue in its entirety, and it seems to me somewhat illogical that the one that costs $5 attracts the same costs as one that costs $5,000 or $50,000, which in a pharmaceutical environment is probably not so unrealistic.

So I do not dismiss volume, there are multiple ways of allocating common costs. One of the problems, of course, with allocating it on a volume basis is typically expensive products are under review by competition authorities. They tend to be within a company's portfolio, they may be some of the higher priced products, and, therefore, in the way that there is some circularity that exists if you just do it on a simple revenue basis, there is a little bit of inbuilt bias if you do it on a volume basis, because you allocate a lower amount to the expensive product, and, therefore, you maximise the excess.

So I think we need to look at various points and triangulate, and you will probably know from my evidence that I did not use an unsensitised revenue basis. I accepted that that was inappropriate, and I looked at two other methods of allocating. One would be not relevant to this example, which was what I call the normalised volume basis, where all the pack sizes were equated to 28s, but I also looked at a sensitised revenue basis.

PROFESSOR WATERSON: Can I just check: an alternative method if -- I am assuming here that it takes far longer to make the super coffee than it does the other ones, would you consider, say, an activity-based approach?

MR WILLIAMS: Yes, I think I would.

THE PRESIDENT: So again, to capture what I think you are saying, your view is that the starting point ought to be a revenue-based allocation, but you would not blindly want to follow that revenue-based allocation; you would want, to take your word, normalise it in order to make it a proper basis for the allocation of this particular cost and in order to do that, you would seek to eliminate the excess and you would also seek to consider, to a certain extent, the relevance of volume sales because that is a material factor in terms of what you charge for a given product. In other words, if you are only selling one cup of coffee, the marginal price is likely to be higher than if you are selling 50,000?

MR WILLIAMS: That is, I think, a very fair summary, sir.

THE PRESIDENT: Dr Majumdar, anything to add?

DR MAJUMDAR: Yes, briefly. I think I am right in saying that most economists would say there is no economically correct way to allocate common costs, and I think the discussion highlights that rather well.

There are several measures, so Professor Waterson mentioned the activity-based, sometimes you could also try direct cost as well, so you allocate the common costs by direct costs is another way, so there are many metrics.

THE PRESIDENT: How do you define direct costs?

DR MAJUMDAR: Well, variable costs, say.

THE PRESIDENT: I see.

DR MAJUMDAR: So my point would be I do not personally think there is an economically correct way of doing it, therefore, I think one has to apply an element of common sense, for example, that might be because this is the way the business normally does it, and certainly one has to sensitivity-test these two alternative metrics to be sure that the same answer is found.

THE PRESIDENT: Mr Harman, Dr Harman, I beg your pardon.

MR HARMAN: Mr Harman.

THE PRESIDENT: Oh, Mr Harman.

MR HARMAN: Thank you.

I think, yes, absolutely correct that there is no economically correct way to allocate fixed costs because there is no causal relationship between the cost and the activity. I agree fully that the concern in competition analysis is that if there is one excessive price and everything else is not excessive, then you end up allocating more costs, and that could distort the calculation of excessiveness, as you have articulated.

Standard practice, I think, is to think about the alternative methods, and there are a number of alternative methods. So volume is one. I think that in relation to direct costs, as advocated, is a very common approach, especially in regulatory sectors, it is called the equi-proportional mark-up approach. So effectively what it is saying is if it costs more to develop one coffee, then maybe you could allocate more cost to it. Again, no causal relationship there, and so you may think that that is a sensible thing to do, and it is credible, but I do not think that it is any more credible than volumes, and it is not more credible than allocating an equal cost of the premises to each set of products, just on a pure, you know, equal basis.

In my first two reports where cost allocation was significant, more of a dispute, effectively I chose volumes, equi-proportional mark-up and equal, and considered the allocation on those various bases, and you would not want the excessiveness to turn on a particular cost basis of allocation. I mean, that would be problematic, I think, but I do think strongly that the revenue approach does have that circularity in it, and so if I was, you know, forced, I would say volumes, I see that very often, actually in *Liothyronine* they did an ABC costing model, some form of volume was used in that, I think FTI did that analysis, but I also favour the equi-proportional mark-up approach, because it does give some reference to different costs associated with it.

The fact is, as a customer, when I go in, I am enjoying the presence, so why should I pay more than somebody else coming in who is spending more money? Again, it goes back to this causal relationship issue. You can kind of get something in your mind that seems to make sense, but actually, you can come up with counterarguments to say something different. So any reasonable methodology I think is one that does not include a circularity.

THE PRESIDENT: Again, trying to capture what I think you are saying, unlike Mr Williams, whose, I think, starting point is revenue but adjusted, you do not have a defined starting point in any given case; you think it is a question of judgment where you start from, but on any view you would want to adjust for context so that you get, to use the term Mr Williams used, a normatively adjusted allocation that fits with the process and the context that you are observing?

MR HARMAN: Yes. I mean, I think that when I come to it, my starting point is I will try volumes equal EPMU as sensible starting points. I want to make sure it passes the test on all three of those. I would be very reluctant on revenue unless I could adjust not just the focal products' revenue for excessiveness but potentially for other products, either because they are excessive, or maybe because they are being priced at below a reasonable return, and, therefore, would attract less of an allocation.

So if you were going to go down that route, I think you would have to look at every single product and normalise every single one of those, if you are going to use revenue.

THE PRESIDENT: Given we are looking at a competition law infringement and that is as serious a business in

Ruritanian as it is here, is there something to be said for taking the most generous measure of cost allocation to the undertaking, so that you narrow the gap between cost and price in the undertaking's favour so that you are only capturing the most manifestly excessive instances where price exceeds cost? In other words, ought one to inform what is the right approach by reference to the reason one is undertaking it?

MR HARMAN: I would have -- I mean, putting to one side something where we think is circular and distorts the analysis, I think, as I said, you would want to ensure that all the methodologies, non-distorted, lead to an excess. Whether that means that you say, well, we will think about the most beneficial, I do not have a problem with that because there are measurement issues and there are difficulties in allocating costs.

THE PRESIDENT: Thank you very much.

Ms Webster, do you have anything to add?

MS WEBSTER: I will be brief. I agree with the position as described by Dr Majumdar and then elaborated by Mr Harman. I do not have anything beyond that described by Mr Harman, I agree.

In response to the question that you have just posed about whether we should take the approach that is most favourable to the undertaking, I think I would say yes, but not extending necessarily to using a revenue-based approach, in the sense that one could construct a situation where, let us say, a firm makes 100 products and one of them, the one where the allegation is in relation to excessive pricing, is priced at a substantially higher price than the rest, and attracts 90% of the revenue, and I think then taking a common cost and seeking to allocate 90% of it to that one product, I think that could lead to a situation where a price is then not found to be excessive in relation to cost plus but where that would not be the correct answer it would be masking exploitation, so I would be mindful of that.

THE PRESIDENT: Thank you.

DR DE CONINCK: Maybe if I can just add very quickly just I think that if one thinks there is a circularity issue with a value-based allocation that does not mean that the next best alternative is necessarily to go with volume, and as Dr Williams mentioned, there are ways in between that can address the problem.

THE PRESIDENT: Thank you very much.

Moving on to the question of what rate should be used, we have two instances where the rent might be said to be wrong, and I am using tendentious language quite deliberately. In the case of Apple, they are legally paying 50,000, but I am hypothesising that a commercial sole rent is set out in brackets as being ten times that amount, and that is obviously a deliberate problem that I am going to ask you to comment on, but equally we have a similar issue in the Vanilla Coffee Shop where actually the mom-and-pop shop just does not express the cost because the shop has been in the family for generations and they just do not look at it when they are ascertaining their price.

Moreover, they are deriving a benefit unrelated to the business in that they are living above the shop, so there are complexities in both cases. It is not the commercial rate, but there are difficulties in terms of shifting to a commercial rate because I am making life awkward for you.

We have to be clear exactly that in the Apple premises, because one has the dual purpose of using the coffee shop to monetise and leverage sales of whatever else it is that a Mega-Corp sells, and that is something which may or may not be taken into account.

So the question is, in our costs stack, and leaving on one side all of the other interesting questions we have debated, do we go for 50,000 or 500,000 in the case of Apple or somewhere in between, and, in the case of the mom-and-pop shop, do we extrapolate or transport the

Robo-Coffee Shop rents into the Vanilla mom-and-pop shop example in order to include a rate.

Now, I think I am going to start with Dr Majumdar and then we will have, I think, by interesting contrast, Mr Harman after that.

So Dr Majumdar, you first.

DR MAJUMDAR: Thank you, sir.

So in answer to the question, I think there is a general principle which is ideally we would use current market values or current commercial values where we can, and so in the Mega-Corp case, if the space being used for a coffee shop could be rented on the external market at 500,000, then that would be my preferred, if you like, true value, that is the external market value.

I think a similar point then really carries over to the mom-and-pop shop. I mean, if -- although they do not, as it were, charge themselves rent, if we could observe on the external market the value of the downstairs part, ie if they could rent that out to someone else operating a shop, that would be a good external market benchmark that we would use.

THE PRESIDENT: A follow-up question: how does that fit with the area that we were broadly agreed on that expectations, or reasonable expectations, need to be taken into account when considering the cost price nexus, because here one might say that the expectations of the mom and pop in this case, is that they do not pay rent or there is no rent cost featuring in their pricing decision and in the Apple case, there is a one-tenth rate which is stipulated in the lease but which happens to be arguably a non-commercial rent.

So the expectations are going with the actuality here, and what you are doing is you are saying: well, let us bin the expectations, let us look at the commercial rate.

Now, how do you square that particular circle?

DR MAJUMDAR: I see. So, for example, just to make sure I understand, you might imagine the mom-and-pop shop, because they just historically never charged themselves rent, when they set their prices they do not think: we are going to recover rent, they just do not perceive there to be a rent. That would suggest to me that if we were using the mom-and-pop shop as a comparator, its price might be on the low side, so we might say: well actually because of the expectations this mom-and-pop store has and because they do not anticipate paying rent in the future, they are actually pricing in a way that demonstrates those expectations and in fact for the purpose of our assessment, it probably means that this price is a bit on the low side for a comparator, because really if this shop was being operated in an external market environment the price might well be higher. So I think I would try to take into account -- sorry.

PROFESSOR WATERSON: Can I help you here --

DR MAJUMDAR: Please.

PROFESSOR WATERSON: -- with a suggestion which you are free to take on, which is that mom and pop might be thinking of retiring quite soon, in which case how would you discuss that?

DR MAJUMDAR: If they could retire really quickly and sell the shop on the external market that would be rather helpful, because then we could generate the information that we need.

Well, if they were retiring, that could change expectations in a different way, because, you know, if, for example, they were trying to retire and sell the shop, externally, they might then, for example, want to show that it is extremely profitable because then someone might pay more for it. So I do not think there is a right answer to that question other than we need to understand fully the context. I think my answer is ideally we would have external market comparators if we can.

Does that answer your question?

PROFESSOR WATERSON: Yes. I think, just to carry on, supposing a local authority decides to issue a limited number of licences to taxis, so someone starting a taxi business can sell their taxi business to someone else when they choose to retire, what would be the situation then?

DR MAJUMDAR: Right, so, you mean we may have some comparators because we would have already seen other families or taxi drivers sell on licences so we should actually have an external comparator? I think that would be a good idea, sir, yes.

MR DORAN: So if you are using the mom-and-pop shop as a comparator, you would insert costs that they do not perceive so that you can compare properly?

DR MAJUMDAR: No. Actually, I think -- yes, it is a good question. I think what I might say is if I am comparing literally the price, I might take into account the fact that the mom-and-pop shop does not perceive rent as a cost, if you like, and, therefore, it is probably pricing on the low side, so I do not think that means we then put rent into their accounts. I think what it means is, if we then compare their price with Apple's or with Robo-Coffee Shop, we might be mindful of the fact that their price is potentially a bit on the low side for the purpose of being a comparator and find possibly a sensible way of nudging it up, or say, well, look, this is a good lower bound, I mean, the bound approach can be quite useful. We know this is probably too much on the low side, but that is informative in itself for just setting bounds.

MR DORAN: That gives them some scope, if one was thinking about whether they were an excessive price?

DR MAJUMDAR: Sorry, that gives a scope?

MR DORAN: That gives them scope, if one was assessing whether they were pricing excessively, because one would say: well, for comparison purposes we take account of the fact that there is not any rent, and, therefore, actually does that mean that the price that they are charging is in some sense rather more than their costs stack would suggest?

DR MAJUMDAR: I see. Okay, so my comparator point was if the mom-and-pop shop was being used as a comparator for, say, Apple or Robo-Coffee. I think you are making the point that if we then turn our attention to Vanilla Coffee Shop then we do need to take into account that -- sorry, take that cost into account, otherwise we might erroneously think that their profit is too high and I would agree with that.

MR DORAN: Is it erroneous, I think was the point I was questioning?

DR MAJUMDAR: Oh, I see. Well, I think in that scenario, if we were looking at the Vanilla Coffee Shop, we would want to -- we would not simply say: because you perceive yourself as getting the services of your downstairs shop for free we are going to treat that as zero cost and say that you are charging an excessive price. I think I would struggle with that. I think I would prefer to, in that scenario, impute a cost for the store.

MR DORAN: Thank you.

THE PRESIDENT: Mr Harman?

MR HARMAN: Let me start with the Vanilla because I think that is slightly easier, but you will tell me otherwise, I am sure.

I mean, in general when we think about cost plus and its link to normal and sufficiently effective competition, we are thinking about almost the price of what entrants into the market would price if it was competitive, you know, at a set of prices. So we would normally think about the assets that a business has as being the replacement cost of those assets today, and that has two dimensions. Either that is the cost that somebody could enter the market at and compete at the prices that you are setting, or it is the value that the owner of that business has in their hand, and here, assuming that the mom-and-pop vanilla shop is a shop and not kind of a stand outside somebody's house and they are selling coffee on the road, there is invested capital and that capital has value and any reasonable person, business, is going to say: I am not going to work for free if my next opportunity is to sell this to somebody else and the person buying that would buy the store at its current value, you know, in the marketplace. Otherwise you end up with a situation where you set prices so that you do not earn a return on the asset that you are sitting on which probably would compel you to earning returns that are far too low by reference to what you could do in the marketplace.

So, you know, generally speaking, you would need to replace their zero costs with a set of costs that you would expect to see in a competitive market. Of course, there may be other mom-and-pop shops and they may all believe that they can charge lower because they do not have this perceived rental cost given the asset that they are sitting on, but that is not going to be the long-term situation because people will want to earn some money for the effort that they are putting in so they will increase the price up to which competition will not emerge in a marketplace and compete with them.

So I think that, in general, if it looks like you have this advantage that you do not have a price, you have to take that advantage into account by reference to what everybody else would face in the marketplace. Similarly with *Liothyronine* when it did not have any value on product rights, but you did not sit there and say: okay, well, we will just do its costs stack at that lower cost. You know, we are going to assume that in a competitive market somebody else would have to face that cost, and it is reasonable to include that in the costs stack.

I think the Apple one is --

THE PRESIDENT: Pausing there, before you go on to the Apple case. I think you would accept that if a large undertaking in the same market as small undertakings gets economies of scale in terms of the goods it purchases, so it gets them at 10% cheaper, that is something which you would not inflate by that 10% saving because it is a competitive advantage that the undertaking gets through its size.

MR HARMAN: Yes, I mean, I think that is an interesting point in terms of if I have scale advantages compared to the rest of the market, should I be able to adjust my costs stack to what I observe others in the marketplace have, and there is potentially an argument for that, if the market is acting competitively.

It kind of depends a little bit on how you got that scale in the first place, but in general I think that companies that have cost advantages, as long as they have not been gotten by illegitimate means, should be able to enjoy those cost advantages.

THE PRESIDENT: Yes, I am just assuming that Apple store buys ten times more coffee beans than the others and they negotiate a volume discount. That is what I am hypothesising.

MR HARMAN: Yes, I think that is their cost advantage, at the end of the day.

THE PRESIDENT: Right. So why do you say that the mom-and-pop in the Vanilla example, having simply inherited the house out of which they run it and therefore they have never paid for it, they have just got it, why are you factoring in the absence of rent and differentiating it from the efficiency case that I have just put to you? I mean, I appreciate of course that if the business were to be sold, you would not be giving the house away for free, that is blindingly obvious. But we are not talking about that scenario, we are talking about what the costs stack is in terms of assessing whether a unit price for a cup of coffee is or is not excessive for purposes of a competition law analysis.

So why do you draw the distinction that you are drawing between the economies of scale in Apple Corp and the free inheritance of property in the mom-and-pop case?

MR HARMAN: But I do not think I am. I think that actually we are both taking into account, in both of those cases, sorry, the special advantage. I said that with Apple there may be economies of scale and they should enjoy those scale benefits, and the way in which they get to enjoy that in an assessment of excessiveness is by increasing their cost base for the size of that advantage. So in the *Liothyronine* case that is equivalent to taking product rights at zero and adding a higher value to reflect that efficiency.

For the small mom-and-pop shop, it also has an efficiency: it owns the building, so it does not have to pay rent. So in the same way as Apple, it should be allowed to charge prices that reflect the value of that asset. If it did not do that and it set prices by reference to the costs that it observed, effectively the mom and pop would be working for free, where would their money come from, if they had not established within prices a return on the value of the property that they own.

Obviously, in a cost plus scenario, that is beneficial to the mom-and-pop shop. In trying to ensure that the cost plus is not set too low, that would suggest that there are, you know, an excess, when there is not by reference to what we expect in the marketplace.

THE PRESIDENT: Thank you.

Ms Webster --

MR HARMAN: In terms of Apple --

THE PRESIDENT: Oh, so sorry. Apple Corp, yes, you are quite right, I apologise.

MR HARMAN: -- in terms of Apple, I think this is a difficult one in part, because again it depends on what we expect in a competitive market, potentially someone like Apple -- maybe it is the Samsung store. Now, the reason that it may have the lower rent, and you will have to tell me of the fact base on this, is that it is quite common, let us say you were taking a mall, for the marquee first shop in there to get a lower rent because it is going to attract other stores, so, you know, often you will see when a new mall opens the first thing that they highlight is Marks & Spencers is moving into that so they may get a lower rent because that is going to be valuable to the mall. So I think there is a question as to how competition would emerge against the Apple store as to whether any premium brand would also want to be located in a store that had some kind of beneficial value between the two.

Now, if that was the case, then you may say we should take the lower price because it is an arm's length price, it shows what they can do. If, on the other hand, you think that a suitable competitor to Apple would have to incur the arm's length price, it is not clear to me that you would take the 500,000, 750,000 because we can observe that the Robo-Coffee Shop has lower rents. So I think you would have to determine what the nature of competition is against Apple before determining which of those sets of rates was reasonable, and I can see arguments for both depending on the facts.

THE PRESIDENT: Thank you very much.

Ms Webster?

MS WEBSTER: Yes, I will not add anything to the discussion on the mom-and-pop shop, I agree with the views as set out by Mr Harman.

The Apple case is more difficult. I think there are two elements that are worth giving consideration to.

As I understand it, the higher commercial rent here is based on sole purpose. So if it were the case that this other activity taking place in the shop were to disappear, could Apple Coffee take on the whole of that commercial rent, and I think Dr Majumdar's answer would be: well, yes, let us use the whole of that commercial rent, but if we are thinking about how does that interact with what would happen in a competitive market, I think there is a real question about whether the value that comes from having that whole space would be a value that customers really would be willing to pay for in that market.

It would be a case, I think, that Mr Harman described of the dominant position enabling some costs to be inefficiently incurred, and I think it would be inappropriate to the extent that those costs are inefficiently incurred to be added into the costs stack as justification for the higher prices.

I think that is one thought.

Because it is a shared space, another thought is, well, what should be the allocation of the commercial rent, so 500,000 in year 1, instead of just going with the 50,000 that was charged, to make an assessment of: well, let us think about how that cost of 500,000 should be allocated, and then perhaps use some of the principles that we have discussed.

So it is a commercial rent, but appropriately attributed to the use that the coffee shop makes of the space that it has.

MR HARMAN: Sorry, there is just one other point that may or may not be relevant. We have been told in the facts matrix that if there was a 5% increase in price there would be substitution, so there is also then a question as to whether Apple could incur, legitimately, those additional costs and still price at the same because then there would be switching, so that is, I think, another consideration as to whether --

THE PRESIDENT: Well, you are assuming that those additional costs would be passed on.

MR HARMAN: In most markets, between monopoly and perfect competition, costs are expected to be passed on between 50% to 100%, so it is what they would do, but I think it depends, you are right, on how much profit buffer there is in its costs stack which we would need to determine.

THE PRESIDENT: Indeed, but on the likely view -- I mean, I appreciate that we have quite deliberately kept volume of sales out, but if one assumes volume at a sufficiently high level, Apple are making a killing here.

MR HARMAN: I think that is reasonable.

THE PRESIDENT: So if they are going to find that increasing price pushes away more sales than can be justified by the increased revenue in terms of price on the sales that remain, they are going to absorb it, are they not?

MR HARMAN: I think under those assumptions, yes.

THE PRESIDENT: Thank you very much.

Ms Webster, you said that a dominant position might enable some costs to be inefficiently incurred, and you were agreeing with Mr Harman there. Could I just ask you why that matters? I mean, I appreciate that we want costs to be efficiently incurred, but is not a dominant undertaking, even a dominant undertaking, entitled to allocate and determine its costs as it wishes provided it is not an abuse?

MS WEBSTER: So I am grounding this in an understanding of what I would expect to be the case were competition working well, so if I imagine that Apple Coffee takes over the whole of this space and it is only doing coffee now and it has a rent of 500,000. If competition is working well, there is going to be a neighbouring coffee shop which does not have the beautiful environment that I think is described in the case study; it has something which is more perfunctory and will cost a lot less.

Now, my expectation would be -- sorry, maybe I should not form it as that. We could have two states of the world, could we not? We have that competition that comes in with something more perfunctory, and they have lower costs, lower prices, and one state of the world is that customers flock there because actually that is what is needed, and they choose not to value this wonderful space that is very expensive.

The alternative is that customers do value that and there is something so magical about it that the 500,000 is justified and these two businesses can stay in business and coexist and they are doing something different, and the issue is that we do not quite know in this example because we have a situation where Apple Coffee is dominant and there is not a constraint -- the picture that I have presented there, the price is constrained and customers are choosing it because of the value. We do not know that in this case. So it feels that we cannot assume that all of that 500,000 would be efficiently incurred.

THE PRESIDENT: Ms Webster, we actually are not ever going to know, because embedded in your answer is a question which we will come to, but I mention it now: why is it that the purchasers of Apple Coffee are choosing to spend multiples of price over and above what they could do elsewhere?

Now, we do not know --

MS WEBSTER: No.

THE PRESIDENT: -- what they are valuing. They may value the absolutely unbelievably clever way in which ingredients are put together by the Apple staff to make coffee that you just want to drink, or it may be that actually the coffee is exactly the same and you like the environment, or it may be a mixture of both.

Now, unless we go into the market and interview each and every customer and do a survey, which may or may not be reliable, how are we going to answer the question that is posed, which is what figure do we use in our costs stack, and how do we objectively justify that outcome?

I am saying it is a range, 50,000 to 500,000, it is a big range. It may or may not matter in the context of this case, who knows, but how do you answer that in a rationally justifiable way?

MS WEBSTER: Yes. My answer is that I would not feel comfortable using the 500,000 in the context of knowing that Apple Coffee occupies a dominant position, and therefore -- sorry, in this situation, Apple has pricing which is -- sorry, let me start -- I would not feel comfortable going all the way to using the 500,000 because, firstly, that is not the situation that is described; the situation as described is that the Apple Coffee exists in a part of this space and this space is shared. So I would be comfortable using a commercial rent, more comfortable using a commercial rent, and then say what is the Apple Coffee's share of that rent.

I think there is a risk if we go all the way to looking at the 500,000 that we are assuming that there is value for the customer that comes from Apple Coffee taking on that whole liability, and I think we cannot judge that in this situation because of the dominance.

THE PRESIDENT: Is it because of the dominance or is it because we do not know what attracts the customers to the store?

MS WEBSTER: Both, I think.

PROFESSOR WATERSON: So to put it another way, is this a sort of standard problem of complementarity, you know, how do you value a cow? Well, a cow is going to produce milk, and maybe calves, and it is also going to produce some end product when it goes to the slaughterhouse, but a cow -- you cannot value the slaughterhouse bit separately because you have the other bits in between, the cow comes with multiple products.

MS WEBSTER: Yes, I think that sounds fair.

PROFESSOR WATERSON: Just getting down to cows, you know.

THE PRESIDENT: Dr De Coninck.

DR DE CONINCK: I mean, I think quite simply on this case, I think people going to the Apple Coffee Shop for one reason or another value the coffee and the environment, the space is part of that, and I do not think I would be inserting a judgment on which particular part is what makes the product successful. I just observe a bundle of characteristics of these products, one of which is the space.

So if the real commercial rent for the space would be 500, I would want to consider that to the extent that it relates to the product of the Apple Coffee Shop.

So now the dual purpose, I am not sure exactly what is meant by the dual purpose here in the question to what extent it can benefit from other activities, but if it is just, you know, you drink your coffee and you stay and you enjoy the place, that is clearly part of the product that is provided by the Apple Coffee Shop.

THE PRESIDENT: So just to be clear, absent the dual purpose and I will articulate that further in a moment, absent the dual purpose, you would substitute in the costs stack for the 50,000, the 500,000?

DR DE CONINCK: If the point is -- if the question is that we are trying to see whether -- to determine to what extent the price of Apple would be excessive and we do that based on a cost threshold, then I would want to be careful that, you know, real costs are taken into account, so, yes.

THE PRESIDENT: So, yes, you would use the 500,000?

DR DE CONINCK: Yes.

THE PRESIDENT: Just to articulate the dual purpose in mind so that you can change answers if you wish, we are assuming that whilst people are drinking their coffee, they purchase Mega-Corp's other products because the coffee shop is in fact also a sales room, so that is the dual purpose.

DR DE CONINCK: Exactly, and if that is indeed the dual purpose, then one needs to find a way to make an allocation to subtract the part that is related to that from the 500,000 recognising the difficulty of the complementarity, of course.

THE PRESIDENT: One more question of Mr Williams, I think it will be short, but we will see, and then we will rise for a few minutes.

Mr Williams, do you have anything to add?

MR WILLIAMS: Nothing to add, sir.

THE PRESIDENT: That was short.

We will rise for ten minutes and we will resume then.

(12.18 pm)

(A short break)

(12.38 pm)

THE PRESIDENT: Moving on to a different question of costs you will have noticed that at the foot of page 1, the Apple Coffee Shop was thinking about planning an additional line of product, the "life-enhancing" coffee, estimated sale price $500 a cup {XO/15/1}, and they have spent some money on this already, and they are expecting to spend considerably more.

My question, I think it is Dr De Coninck's turn
next, I may have that wrong, but there we go,
Dr De Coninck, do we take those costs into account in
the costs stack, or do we not?
DR DE CONINCK: You are talking about the 100,000 --
THE PRESIDENT: I am talking about the 100,000 and the
expectation, indeed, of paying a further 400,000 --
DR DE CONINCK: Right.
THE PRESIDENT: -- on something which has nothing to do with
the three products actually sold.
DR DE CONINCK: So it is a very difficult question because
we are looking at specific products already, right, so
if the analysis is on a particular product, it is
difficult to say you would take into account
expenditures that relate to other products, but I think
this brings us to a point about portfolio and a range of
products, meaning that some can be successful, some
cannot.
So I do not think I see -- if I do not see a direct
link with the products for which we are focusing on,
then it is hard to allocate them, but on the other hand
what I think is -- why I think it is relevant it is
because it tells us that there is a level of investment
and innovation that takes place to develop these
particular products, but also others, and some may be

more successful than others, some may be failures in a way, which I think means that when looking at, then already skipping some steps, but the margins that are made on some of the products that are the focus of our analysis, one must somehow take into account that those could be the successful products, but there are others for which there is a lot of investment and may not be so successful and certainly that would call for a margin of caution before condemning the most successful products.

THE PRESIDENT: But putting you on the spot, given that this is not an unrelated line, it is a further line of coffee which will be sold in the same shop, on these facts, do you include this 100,000, or do you include the full half million in the costs stack or not?

DR DE CONINCK: Okay. To the extent that is part of the focus of the line of products, so we have capital of 100,000 that has been spent, and that is capital that in a way is sunk, so does not directly affect your price of the other products. On the other hand, it is capital that has been spent for a particular line, and, therefore, it is part of all the costs that you would incur when doing a cost plus exercise.

So I am saying it does not directly affect your pricing of the other products that you will have, but it is part of all the costs that you should take into account.

THE PRESIDENT: So it is in?

DR DE CONINCK: Yes.

THE PRESIDENT: That is a "yes"?

DR DE CONINCK: Yes.

THE PRESIDENT: Yes.

Mr Williams?

MR WILLIAMS: I will bring this back once again to what the Department of Health would do in the situation where a product had got upfront investment and equally a plan for future investment.

Mr Harman, in his teach-in, did mention of course that effectively the revenues that one earns on today's products pay for the research and development today will produce the products of the future and there is some analogy with your example here that we have had 100,000 of sunk cost and we are expecting a further 400,000, of course with no prospect of -- guarantee of success and that is exactly the same as pharmaceutical R&D.

So my short answer is it is in. I would also say that when I do my ROS-based cost plus exercises for new product approvals it would be in. Typically the upfront sunk costs would be slightly different here because the 100,000 had not yet produced a result. In my new product that I am bringing to market it has obviously got a marketing authorisation, so it will have a result. They will typically accept that to be a cost that is amortised over the first five years of the product forecast. They will typically expect that to be amortised pro rata to revenues, and equally the 400,000 is in the nature of research and development, and of course, they would also take into account expected research and development ratios of the company, even though they know that that R&D dollar in the future has nothing to do with the product they are approving today.

So it is part of the overall costs of the business, it is part of the long-term economics. This is why, of course, if you price at cost with a very small margin you do not actually have anything left over to invest in research, etc, so in.

THE PRESIDENT: Dr Majumdar?

DR MAJUMDAR: Yes, I will keep it short.

So this is an R&D -- this is research and development expenditure, it relates to coffee lines, so I would include it. I think Dr De Coninck made an interesting and important point as well which is the survivorship-bias point: if this tells us that this is, if you like, the Apple business model, namely that you come up with these creative coffees and that requires research and development, sometimes they are successful, sometimes they are not. It means that the successful products are where Apple Coffee Shop got lucky and there might be lots of very unsuccessful products on the way. So one would therefore, when assessing profitability, need to take into account, if you like, the risk of failure as well.

THE PRESIDENT: Thank you very much.

Mr Harman?

MR HARMAN: Yes, a difficult question. You know, it has a passing similarity to big pharma, patented pharma and R&D, but my assumption here is that this coffee is not going to be patented.

THE PRESIDENT: There is no intellectual property question.

MR HARMAN: Right. So the reason in big pharma you are obviously interested in innovation in drugs, because they are life-saving, and the patent protection allows you to recover your R&D, ie you have a monopoly for a period of time, where normal and sufficiently effective competition does not take place. I think the issue here is that if one was to price the three existing products higher to reflect these costs, then would that be something that could be achieved if there was sufficiently effective competition in the marketplace, if they were not trying to recover those innovation costs? So I think that is one wrinkle.

The second point that I would make in respect of this is that one has to understand what is the likelihood of success. Is it just yes or no, or is it that if you spent another 100,000 then it becomes more likely? I think if there is a degree of certainty, more certain than not that the investment is going to be successful, then I think that is a relevant cost of the new product, and then there is the issue, obviously, of the 100,000 versus the remaining 400,000 that has not been spent, and I think there is a distinction between those two, because obviously at the point in time that you are doing the assessment, the degree to which you are going to spend the 400,000 is uncertain, and there is a question whether the prices for the three existing products were priced recognising that those were future costs.

So I think there is an expectation, I think that you may treat the 100,000 and the 400,000 differently, I think that it is relevant to take into account success probability. The more likely that it is probable, the more I would say that you would allocate it to the product in question and the ability to be able to allocate it to the other products would depend on the nature of competition and whether it is patent protected or not.

THE PRESIDENT: I am grateful.

Ms Webster?

MS WEBSTER: Yes, I would agree with the way in which Mr Harman has set it out. I think one could see this as another example of an idea that the Apple Coffee Shop has for something, new products it wants to bring to market, but where actually those products are not going to be bringing a level of value associated with that, and so if competition were working effectively there might not be an expectation that prices could exist for those products which would allow for them to be recouped.

So, therefore, that would lead me to be cautious in terms of the inclusion of those costs in full, so what I might do is run sensitivities and then see the impact of the inclusion of those costs, but knowing that the full inclusion may not be justified for the reason that I gave.

I think the other point to add, which I think is very similar to the other experts, is the inclusion of these costs depend on seeing Apple Coffee's model as being -- innovation being central to that and it being across the various lines that they do. If actually the costs that we are talking about, the 100,000 and then the subsequent 400,000 are much more narrowly focused on something very specific which is to come in the future, I think there would be more reason to not include those when looking at the pricing of the three products which they currently have.

THE PRESIDENT: I am very grateful. Thank you very much.

Now, so far --

MR WILLIAMS: Could I just make one more point, sir?

THE PRESIDENT: Yes, of course.

MR WILLIAMS: Just in response to something Mr Harman said. The research and development point is not the unique domain of patented pharmaceuticals, and indeed, speciality pharma invests and researches, albeit probably in creating a new marketing authorisation of a branded generic or a new formulation of a branded generic, so when I said that these things are taken into account when one goes to do a cost plus exercise with the Department of Health, this would equally apply to speciality pharma even though they are not doing blue sky research.

THE PRESIDENT: Thank you very much.

Now, we have been treading very carefully around volumes sold. The factual assumption that you have been making is that the proportions the market held are 20, 20, 60 -- 60 to Apple Coffee, obviously -- but we have not said anything about the absolute quantities of coffee sold.

Now, obviously this is relevant both to dominance and to the return that is made because you are incurring all these costs, and the only costs that are truly variable are the costs of the ingredients in the coffee, and what return they are all going to make is going to be dependent on how much they actually sell. Now, that is a given, a pretty obvious one, but it is important to note.

Clearly that is going to be informative of the gap between cost and price: you need to have volume known in order to ascertain that. So that is why we would be interested in volumes, and I understand that, I am not going to ask anything further, I see the nods, it is pretty obvious.

What I want to ask is, having ascertained, using cost, price and volume, the gap -- and I appreciate there are all sorts of subjectivities that we have been discussing about how one calculates cost, but having got to a gap between cost and price, do we need to worry any further about the volumes sold? I mean, does it matter, for instance, that one has a product that is very, very expensive but sold in small quantities versus a product that is much less expensive and sold in a great many units? Or have we explored the relevance of volume to the full extent that is necessary? I am not sure who we were at, I think it was Mr Williams next, was it not?

MR WILLIAMS: Again, I think this is probably more for the economists, but what I would say, of course, is volume, you spread your fixed costs more thinly over a larger volume and that does have an impact.

THE PRESIDENT: Yes, so it is relevant to the margin, obviously, but once you have worked out the margin, does it matter any further?

MR WILLIAMS: I do not have an opinion on that, sir.

THE PRESIDENT: I am grateful.

Dr Majumdar?

DR MAJUMDAR: I am just thinking about it. So do volumes matter further over and above the fact that with fewer volumes, fixed costs are spread over fewer volumes and hence on a per unit base larger? Does volume matter beyond that for the purpose of understanding whether the gap between price and cost is large? I do not think so. I mean, the size of the market can matter for other questions such as the ease of entry and so on, but I think in relation to that specific question on the gap, I do not think further adjustments would need to be made.

THE PRESIDENT: I am grateful.

Mr Harman?

MR HARMAN: My position is that it is important in a related dimension. Obviously volumes is going to tell you something about the return per unit you require. In the presence of fixed capital the higher the volumes, the lower return you need on a per unit basis, so that is a primary input into the cost plus, but as I navigated or spoke about this morning in my teach-in, it is also important to understand what total returns are to give you a sense of how much a company is actually earning from a particular product range.

My view is that you can end up in a situation where it is difficult to compare two numbers. It depends in part because of the level of capital employed is not constant across the three coffee shops so there are some different dimensions.

So if it was the case that coffee shop A required a £2 per coffee margin and Apple also required £2 per margin, would they be equal, or, putting it in a different way, would you be ambivalent between choosing which shop that you would want to invest in? The answer to that is potentially no, because once you have multiplied Apple's unit, absolute profit per unit by the higher volumes, which is 60% in this case, you would see that Apple is significantly more profitable.

Now, I think what you would need to do to complete the analysis from kind of a net present value basis, is that you would need to deduct from that absolute profit figure the value of capital employed in the business which would give you, if you like, the margin that you are getting after taking into account your investment, and if Apple had a much higher return on that basis, then that tells you that there is something different between Apple and the mom-and-pop store.

THE PRESIDENT: Thank you very much.

Ms Webster?

MS WEBSTER: Yes, so just thinking about the impact that -- sort of from a mechanical perspective, the impact of volumes on this comparison that we then have between the cost plus per unit and price, you could hypothesise a world where Apple Coffee sells a very small number of cups of coffee at the price that it charges, and as a result of that, these costs that we see in the case study are -- at a per unit level lead to a very high level of cost plus, and then, when one compares that with the price, one might reach the view, well, that is not -- it would not suggest that there is an excess.

My question in that instance would be: well, I mean, (a) it looks like an odd business model, I might question whether if I drop my price actually below the levels set out in the case study I might then make more sales, and then as a result of that, my costs per unit go down and my overall profits go up.

Actually, I think as set out in your case study, we are assuming that there are not small volume -- so sorry, that is one way in which one might want to be wary of and knowledgeable about volumes sold because they interact between total costs and then costs per unit and that will obviously feed through into the comparison of cost plus per unit and price.

In this case study, actually, we are hypothesising that Apple has 60% of the market, so I think we are abstracting from that situation. We are saying that prices that it is charging is not causing it to have particularly low volumes, so in that case, I am then sort of less worried about the impact of sort of needing further to look at volumes in order to make an assessment of cost plus versus price.

THE PRESIDENT: Thank you very much.

Dr De Coninck?

DR DE CONINCK: If I may, sir, I think that volumes are not an additional criteria that we should take into account when determining excessiveness beyond the calculation of the cost plus price comparison.

Now, of course, volumes will affect absolute profits for -- absolute total profits for a given per profit price, and this may have an impact on the return on capital employed from an investor perspective, but I think, looking at a business, thinking about whether the price is excessive or not, comparing the price of a firm -- the margin -- sorry, the prices in the margins for firms with those of other firms, one should not discard comparators, for example, on the basis that they have a different volume level.

That means that, you know, your excessiveness then would depend on the volume, so if you have a firm that sells more at the same margin, would it make it more excessive? I do not think so, and for that reason I do not think it should be an additional element.

THE PRESIDENT: I am very grateful to you.

MR WILLIAMS: Can I chime in with one more, sir?

THE PRESIDENT: Of course.

MR WILLIAMS: Without risking to tread on economist toes because I am not an economist, but looking at this from an accounting perspective, one of the sort of beauties of your model is that as far as I understand it, once we determine the capital base of this coffee shop it does not really change with volume, unlike a company where of course there is additional working capital investment that would increase the capital base.

So if we have the scenario -- I think maybe I was echoing what Dr De Coninck said, is that, you know, if we have a scenario where we know the capital, we have applied the appropriate return, and let us say in that point the pricing was exactly on the margin of excessive and not excessive, so it was right at the top, then, if it sold twice as much, it would suddenly go over the top because its return as a return on capital is a fixed sum of money and suddenly by being more successful, it becomes excessive, and that to me -- it may be my lack of understanding of economic theory, but in terms of common sense, that does not seem to be sensible.

THE PRESIDENT: Thank you.

I see the time. What I am going to do is I am going to leave you with the question that this has all been leading up to and let you think about it over the short adjournment and we will resume at 2.00.

So the question is this: we have been talking about the computation of the gap between cost and profit, and we have identified, I think at least five, possibly six, subjectivities, as I will call them, which affect the level of cost, and just to trip through them quickly: we have a subjectivity in relation to allocation of fixed costs; we have a question of costs that are at an un-market rate; we have a question of unrelated costs; we have the effect of expectations of future costs; we have the question of how one computes a return on profit; and we may or may not have a question on volumes.

In saying that these are subjectivities, I am saying that reasonable persons could differ and differ quite markedly in terms of what value they attributed to these subjectivities in terms of identifying what the costs stack would be, and it may depend on the individual case, but it is, I think, clear from the discussion that we have had this morning that the effect of these judgmental questions could be quite material.

So we have a problem in that the gap between profit and cost is one that is dependent rather acutely on a question of judgment.

Now, if that is right, we need to articulate what judgmental questions and decisions we are making in determining whether the gap between cost and profit is or is not excessive, and one of the questions that we will have to be answering -- and it is not for you to answer but for us -- is what excessive actually means, but could you take, as a working test -- and I am not committing us to it -- that an excessive price is one that is demonstrably immoderate over cost, and there are two elements there: one is, is it or is it not immoderate, the other is whether it is demonstrably so, because we are a court of law and the two need to be met because we will have to produce, just as the CMA does, a reasoned outcome as to why immoderation pertains in any given case.

So even with these subjectivities we have a band, a strip if you like, between cost and profit, and we discussed that yesterday, Ms Webster, when we were talking about floors and ceilings, but I am talking about that band between the floor and the ceiling, and we will be no doubt coming on to the mezzanine in due course.

Why do we not take the most conservative view, the most certain view, of cost, one which strips out all of these questions of judgment, identify the band between that floor and the ceiling that constitutes profit, and say: we now need to apply a judgmental test to the question of whether that gap is demonstrably immoderate and what we need to do is, in order to determine whether that test is satisfied, look at all these subjectivities and quite possibly others, no doubt the list that we have been compiling is an incomplete one, and equally I have no doubt that in some cases the subjectivities may matter more than in others, but why does one not start with a conservative assessment and as close to absolute as one can in terms of cost, and then apply these subjectivities to an articulation of the band that is thereby derived between what is unarguably a cost and what is the profit, and I would be grateful if you could all consider that over the short adjournment and explain why that is not an approach that one ought to determine the question of demonstrable immoderation, and Mr Harman, I would be particularly interested in your reaction because I think -- you may disagree and if you disagree that would be great as well -- but I think it implies a rejection of your cost plus a certain return approach because what we are doing is we are embedding the return or profit into an articulation of whether the band is demonstrably immoderate along with all the other factors that suggest that the band is too wide or not wide enough or just right.

So that is my thinking, but I will obviously want to know what all of you say about that approach, and I will hear from you at 2.00.

Thank you very much.

(1.10 pm)

(The short adjournment)

(2.01 pm)

THE PRESIDENT: So, Mr Harman, do you want to begin?

MR HARMAN: Okay, so excuse me if I do not recall the exact question, it was rather long.

THE PRESIDENT: If you have the parameters, then --

MR HARMAN: I have the broad parameters.

I think the first thing that I would say with respect to subjectivity and the points that you raised and the issue of whether you should put forward the most conservative case, I do not think that I have any issues with that, save to say that I think that conservative has to be bounded by reality and that there are going to be certain judgments which are -- there is going to be certain assessments which are blatantly -- they will definitely be conservative, but they would not be logical, fair or reasonable based on the facts, and I think that that approach is consistent with what the CMA has done.

When we talk about subjectivity, there are obviously some cases where that subjectivity is greater, and I have been on a number of cases where transfer prices between entities, establishing whether they are at arm's length, very technical cases where you are thinking through what is the replacement cost of assets and there are no benchmarks, so the assessment has to be done bottom-up.

There are some cases where, you know, fixed costs are a significant proportion of the overall costs stack and cost allocation matters more. There are some cases, such as in patented projects where there is R&D costs where, again, the valuing of those R&D costs can be difficult.

There may be cases where intangibles are relevant, and there are techniques, obviously, to value intangibles and they can be used. Like any valuation there can be a degree of subjectivity to that, bounded subjectivity, I would say. You know, there is definitely answers that are wrong, and the answers that are right are likely to fall within a range.

I think one has to be wary on cases that there is high degrees of uncertainty, how one goes about that. I do not think that this is particularly a case that has that uncertainty in the sense that it cannot be determined within a relatively tight band, so the first point that you talked about was about allocation. The level of common costs is not a significant cost in the costs stack for Flynn. The major cost is the direct cost of purchasing capsules from Pfizer, that dominates the costs stack, that cost is known with certainty.

The CMA tested the cost allocation. I also tested the cost allocation in my first and second reports, and the level of excess did not change. I mean, it changed, but not materially so. So the answer to the allocation is, I would say, there is limited subjectivity in terms of the range being -- the resulting range being narrow.

THE PRESIDENT: Mr Harman, let me be clear, I am not, in articulating this list, saying anything about this particular case.

MR HARMAN: No, certainly.

THE PRESIDENT: That would be inappropriate given the context in which we are discussing things.

MR HARMAN: Correct.

THE PRESIDENT: What has motivated the approach is, when one reads the expert reports in this case -- and I am not quite sure what the absolute number is, but it must be coming close to about 40 -- one discovers a hardening of positions such that one has a debate -- and let us take ROS/ROCE as one, but there are obviously others -- where one is arguing about who is, in a bright line sense, right or wrong, and what that approach seems to me to be missing is what I have rather rudely called and you have very kindly adopted it, the question of subjectivity, and I want to be very clear what I mean by subjectivity: I mean a situation where competent and capable experts can reach different views in terms of judgmental matters, and of course you are absolutely right, there are some things which are simply out of court in that no reasonable person can hold those views, but the one thing that we seem to have learned this morning is that there are a number of matters in which judgment appears to feature.

Now, they may feature to a lesser extent than to a greater extent in this particular case, but we cannot prejudge that because that is the very purpose of this appeal, to determine whether the CMA is indeed on the merits right or not by reference to the grounds of appeal, and so we have this ROCE/ROS debate, to pick one, where people are saying with a great deal of heat, and perhaps less light, that they are right and the others are wrong, and what I am seeking to get to is to establish certainty in terms of the upper and lower limits so that one is benchmarking both the ceiling and the floor and, in this case, the ceiling is much easier than the floor, we have been spending most of this morning on the floor. So we have the band and then we say: look, this is a very big band. I mean, clearly, in the Apple Coffee Shop example it is going to be an enormous band, and we will then ask ourselves: is it excessive? Is it fair? We are on the stage at the moment of is it excessive, which I mean -- we may have argument about that -- demonstrably immoderate.

Now, that is a nice phrase. We know what it means, but we do not know it in a decimal point kind of way, we know it in a judgmental sort of way, and so what I am seeking is a sense of whether that sort of approach enables the real issues to be unpacked.

So to go to the question of return, you have pressed very hard on ROCE as being the appropriate measure in certain cases, and we have now got an enormous amount, a little cottage industry of a debate about whether this is the right or the wrong measure, and my question is really is that actually the right question? What we ought to be doing is we ought to be looking at the band, and we ought to be saying: look, is this a demonstrably immoderate margin to make in this case, and the margin will be nibbled away by the sort of facts we have been talking about which may or may not matter to a greater or lesser extent, fixed allocation costs, expectations, all of these things you use to say: well actually what looks like a wide margin is, in the hypothetical case, narrower than it is, and then you say, well, looking at things like risk without particular reference to an accounting measure, but by reference to just the margin that is left after you have come to a view about the upward pressure on the floor by reference to the judgmental matters, you come to a sense that either the gap is too great and you have to say it is demonstrably immoderate, or it is not, and really my question to the experts is: is that a better way of framing the points that you are articulating, rather than getting hung up on a very specific methodology which, I think you are all agreed, is not a one-size-fits-all approach in every case, it is something which one needs to understand why it is one is doing that, and that is I suppose where I am getting at.

I think you are -- subject to the points you are quite rightly making regarding the importance of not allowing bad points to be made in terms of adjusting the floor, and not allowing bad points to be made in terms of judgmental factors that exist, both points obviously we accept, but subject to those caveats, I am not sensing that you are hugely unhappy with that as an approach to this particular question?

MR HARMAN: So I understand the direction, I understand that that has some attractions to it. What I would say is in this case, you know, we may disagree to some degree about what costs should be included in the costs stack, I think those differences are smaller. The big difference in terms of thought is around the return. That is the significant point.

My view in trying to work out -- so if I understand correctly, you would be putting forward taking the return element out of the costs stack, so it would no longer be cost plus, it would just be cost, and then you would have regard to the level of profit and you would ask the question: is that immodest?

THE PRESIDENT: Looking at -- yes, looking at all of the other factors, all of the other subjectivities, in conjunction with that.

MR HARMAN: Yes.

THE PRESIDENT: So you establish, as it were, the certainty of the upper and lower parameters, and then you go to town on the gap.

MR HARMAN: Yes.

So I think the problem that I have or foresee -- and maybe it is not a problem -- is that in understanding whether the gap is immodest, the question that comes, you know, to my mind from an economic perspective is to understand if it is immodest you need to understand almost what is an expected return at the end of the day, and so you could take the expected return and take it out of cost and then say: let us compare an expected return to the total return and we will see if that difference is immodest. I guess you could do that.

I think what would end up in this situation is that there would still be this dividing line between whether the return on sales methodology or the return on capital approach is the right one to use. You may say: well, we will have regard to both, but I think in this instance

I would say actually calculating the return, it is not a -- I would not say it is a subjectivity, I would say that there are known issues with the return on sales approach which makes it inappropriate, so it falls into the camp of reasonable subjectivities. I would say the return on sales approach leads to something that is not reasonable for the reasons that I explained this morning in my presentation in terms of it leads to absolute returns which are significantly higher than anything in Flynn's portfolio, for example.

So I see no problem in taking plus out and comparing, but I humbly submit from an economic perspective that understanding what an expected return is, is important in the overall consideration.

THE PRESIDENT: Yes, just to package that last point in terms of what you are saying, I think you are accepting that in the general case there are a number of ways of assessing what might be an appropriate return, but in this case what the CMA has done is, within the range of reasonable approaches that a competition authority can take, and that the attacks that have been made on the CMA's methodology are not enough to dislodge that approach as being a reasonable articulation of how one assesses this question, bearing in mind that it is a very serious finding to make that one has abused a dominant position.

MR HARMAN: Yes. I mean, obviously for Pfizer, I think the two approaches, ROS and the return on capital employed approach, lead to very similar answers as I understand the calculations. We get a different answer for Flynn because I would say, of the very high input price, and that is the sole factor that differentiates, I think, when you can use a return on sales as compared to when you cannot, and that is the key critical issue.

THE PRESIDENT: I am very grateful.

Ms Webster?

MS WEBSTER: Thank you.

So taking your general question about the construct of the test, I think that is in line with how I have also been thinking about this, and I shared a diagram yesterday, floor, mezzanine, ceiling, and that all goes to the question of what is the gap and whether you call that the gap from the floor to the ceiling or the mezzanine to the ceiling, getting a handle on the size of that gap, and actually let us be clear, the larger the gap is from the floor to the ceiling, the more confidence one would have that it lies above the mezzanine, working, as I have done, from a mezzanine which is anchored to the floor and some way above it.

On your question about taking a conservative approach in relation to identifying the relevant costs which go into the costs stack, I think that probably is a sensible approach to take subject to the qualification that Mr Harman made of sort of not considering something that is untenable.

I think if one were to take a conservative measure of the costs that go into the costs stack, then that somewhat interacts with the distance between the floor and the mezzanine, so my grey box, because if you recall part of what I said yesterday was if one has some uncertainty around the elements that go into the costs stack, one might want to build in more of a margin for error in the gap there between the floor and the mezzanine. So if one is more certain, has taken a conservative view, then one equally does not need quite such a big gap to the mezzanine, I would suggest.

Then just to conclude, perhaps to echo what Mr Harman has said in relation to the case that we are looking at in relation to capsules, where I have understood that some of the sensitivities and subjectivities that we have pointed to, there is not so much disagreement and where the disagreement particularly is, is in relation to Flynn and return on sales versus ROCE, but that question needs to be answered one way or another. Quite where you put it in the costs stack, or you treat it separately, will need to be addressed.

THE PRESIDENT: Just to press back on one point, I have quite deliberately avoided reference to the mezzanine for the moment, and let me explain why that is the case to see whether its absence makes you more or less unhappy.

At the moment, we are talking about what is excessive, and it seems to me that that is a binary question, albeit, as I have suggested, a judgmental one, between an articulated floor and an articulated ceiling, and the ceiling is relatively easy, it is the price. The floor is, as we indicated, uncertain depending on how many of these subjectivities you incorporate into the definition, and really all we are talking about is whether one turns the floor into something that is a confident floor --

MS WEBSTER: Yes.

THE PRESIDENT: -- and one moves the subjectivities into an analysis of the gap, but to be clear, I do not see at the excessive stage the mezzanine as featuring. It seems to me one is simply asking is, is the gap, looking at all these factors and no doubt others, too much, and, if you say, yes, it is, then you move on to the next question of is the gap unfair, and you then have to work out where you draw the line and to which line it is tethered, and we will then have an argument about whether it is, as it were, tethered by elastic to the ceiling or whether it is in some way tethered by -- well, I am not sure what it would be, it would not be elastic, it would be something else, a trampoline, perhaps, that pushes it up.

And that is, at the moment I am articulating it, an unfairness question rather than excessive question, so I push back on that because you mentioned the mezzanine a couple of times and we will come to that, but at the moment I see that as belonging in the next stage of the test and one we do not need to worry about when we are simply asking about the gap between floor and ceiling.

MS WEBSTER: Yes, understood. Then I am ahead of myself --

THE PRESIDENT: And you are happy with that?

MS WEBSTER: -- and I am happy with the way you have articulated it.

THE PRESIDENT: Thank you.

Dr De Coninck?

DR DE CONINCK: Just to add a few comments on that question. I think it goes to the key of the matter. I hear a lot of agreement on the need to be conservative on the calculation of the cost, I think it is hard to disagree with that, especially since we are looking at building a floor for a measure that is used for intervention for excessive pricing, and obviously this is something that I think a competition authority has to be greatly careful about doing.

So I think that is the first point. I see agreement there. I think the important point -- and I quite like how it was put, the demonstrably immoderate. So what we have seen in the case of the CMA is a calculation of costs, and we can agree or disagree on some of them, but essentially the main issue is that on top of that the plus that they have is the cost of capital which is a small return based on the capital that is employed.

Now, is that the right floor to determine an excess? We have heard before, at least in the first stage from Mr Harman that once you pass above this cost plus, which is a measure of cost, and the plus is a cost of capital, we are in the excess territory.

Now, I think that is quite a strange test because essentially what you are asking is whether the firm in question covers its cost. I mean, I would argue that you would hope that a firm covers its cost. Is it enough, really, to start -- to take as a starting point for measuring excess? I think that is a threshold that is not particularly informative.

That is why I think if we do look at cost and then returns and then have a sense about whether there is something extraordinary about those returns, which one can get by looking at what is observed in similar markets for other products, then I think that is a much better basis for intervention than just setting a threshold where the first level of considering an excess is whether you charge more than your costs, essentially.

THE PRESIDENT: Thank you very much.

Mr Williams, I do not want to push you into areas you are uncomfortable with, but if you have anything to say of course we would want to hear it.

MR WILLIAMS: No, I am happy to make some comments if that is okay, sir.

I have spent some time looking at your coffee shop model, I even tried to find some relevant comparators from Companies House, but I am afraid I failed in the time available, but it does come down to the importance of comparators, I think.

There is, as Mr Harman says, really frankly not a lot of difference between us on cost. There were a lot of subjective items in your coffee shop model. I think in this particular situation we agree on the direct costs, we agree on the common costs pool, we have some disagreement about how you allocate that pool, but that is a small element in terms of cost differences.

I would like to, if possible, draw the Tribunal's attention to one document from one of my papers, if Opus could bring that up. It is reference {XE6/5/16}. If we sort of focus on the top two-thirds of the page, one of the things that you said, sir, before we broke for lunch was that one needs to potentially do our calculations and determine the gap between cost and revenue using a conservative basis.

Really the only degree, as I have said, of disagreement between us is on the allocation of common costs, and frankly, the difference between my most conservative basis in terms of giving us the most cost, I should say, and the CMA's basis is only about £2.5 million, and in the context of a costs stack of over £70 million, it is not huge.

But you also said that there is a test of demonstrably immoderate, and that I take to mean that you need to be able to demonstrate it, and the only way I can think of demonstrating something is by comparing it against other things, in terms of then determining is it in line or is it out of line with those other things that you are comparing it with.

I, as you know, have taken an approach of comparing it with other companies that sell similar types of products in similar markets and have similar sizes and similar subcontracted activities such as manufacturing.

Even on the CMA's own figures, the excess is 47%. It is a different order of magnitude to my understanding that we saw in *Hydrocortisone* and *Liothyronine*, a completely different order of magnitude, but again, looking at my sensitivities in terms of what I think is a reasonable return, I would firstly say the return that the CMA have calculated at 1.5 million is demonstrably immoderate in the other direction.

1.5 million, a 2% return on the sales of 70-odd million is not sufficient to fund other activities such as research and development, etc.

PROFESSOR WATERSON: Could I just check, Mr Williams --

MR WILLIAMS: Yes.

PROFESSOR WATERSON: -- about the business that you are talking about; are you talking about Flynn or Pfizer or Pfizer plus Flynn?

MR WILLIAMS: My apologies, sir, I am talking about Flynn. This table just relates to Flynn. It takes -- within direct costs, obviously other purchases are made from Pfizer at actual cost, there is no dispute about those numbers.

I then look at a range of sensitivities to determine whether my gap, my gap between cost and revenue, is immoderate, and if I use even the lowest of the returns on sales -- and for the reasons I have explained before I think ROS is really the only option here in an asset-light company -- that is 19% return on sales. If I use the CMA's own cost allocation basis, I only get an excess of 22%. If I go to what the market average from my small comparator group is of 30%, you know, I am down to an excess of 5, and I think those are not demonstrably excessive returns.

Thank you, sir.

THE PRESIDENT: Thank you very much.

Dr Majumdar?

DR MAJUMDAR: Thank you, sir. I focused really on limb 2 in my reports. I did discuss cost plus, in particular in my first report, and what I said in relation to cost plus there was that to my mind it is rather similar to long-run perfect competition, because when you have perfect competition and a flat supply curve which basically means constant returns to scale, what happens is firms break even, they cover their costs plus their cost of capital.

So when I discussed cost plus in my first report I said: well, look, to my mind this is long-run perfect competition, it is therefore that sort of idealised competition, and, therefore, it is a benchmark that is particularly low for a limb 2 benchmark.

So that was my view on cost plus, and I was interested to hear from Ms Webster yesterday that that, if I understood correctly, that cost plus is actually the top of her box for workable competition. I know we are going to come back to that later, I just wanted to flag that now because I think that is a very important potential difference in approach that will then be useful to bear in mind when reading and sort of reviewing the evidence -- rather our respective positions, sir. So I just wanted to flag that point that came out yesterday in Ms Webster's helpful clarification of her approach.

So that was my view on cost plus: long-run perfect competition, idealised, too low for limb 2.

Turning to limb 1 which is your question, I think as I understand your framework it makes sense. I think what you said was: look, let us start off with something that is clear and identifiable as a cost measure, let us look at the gap and let us identify certain factors which might narrow the gap or might widen it, be they fixed costs, expectations, and so on and so on, and then let us make a call as to whether that gap is so large we should go on and consider limb 2, and that seems to me a sensible approach.

THE PRESIDENT: Thank you very much.

Moving on, not quite to stage 2 but just a couple of catch-up points on assessment of costs. I just want to ask -- it is mainly Mr Harman -- how one would compute the ROCE test on the labour and capital costs of the two rivals to Apple?

So if you look at the staff cost, you will see that the Vanilla Coffee Shop is spending $100,000 on staff, whereas the Robo-Coffee Shop is only spending $10,000 on staff, but by a coincidence that is not a coincidence those figures are precisely inverted in the equipment to make coffee in that the Vanilla Coffee Shop only spends $10,000 on this and the capital expenditure of the Robo-Coffee Shop is 100,000. Now, both of those add up in total to £110,000, but one is a capital expenditure and the other is not.

If you are computing on a ROCE basis the return on capital, are you saying that one would only look to the -- I am just assuming these two items, so we can disregard everything else -- are you looking only to the 100,000 figure and the 10,000 figure under the equipment to make a coffee head when calculating what is an appropriate return on capital and could you explain to me your thinking behind that if that is what you are doing?

MR HARMAN: Yes. Obviously it is a stylised example.

In general, there is a difference between, I would say, costs that are incurred prior to sales, ie in the investment in assets to conduct your business, and it is that investment, that level of investment, that you require a return on at the end of the day. So that is one aspect.

The second aspect is that there are some costs that are incurred in the actual sales of a product which, in this case, is labour, and you are paying that labour its market value, but I am not having to make an investment in that labour prior to them performing their tasks, they get paid at the end of the month, so I am not making an investment in them, we get a return for each sale based on that labour, and that return -- I am sorry: you sell coffee, the sale of coffee pays the expense of that labour. As a company, I am not investing any of my money in that labour in advance, so I do not need any return on that.

That leads to the converse that, if I have to spend money on a coffee machine and/or premises, then that money is upfront. That money has been diverted, I cannot spend that money on something else, and therefore I need a return.

You are flagging, I think, within this extreme what happens if you have just a full labour business.

THE PRESIDENT: Yes.

MR HARMAN: If you have complete labour. In that world, you do have a problem with the return on capital employed approach potentially, because there are no assets, and the value of the labour -- you know, for example, if it is a set of lawyers, are not earning a return on the labour capital as an investment, they are earning the return based on their ability to add value to an end client.

So I think there are instances where the return on capital employed approach becomes problematic, and that would be for companies that are all labour based, because there is no investment in the capital, unless there were instances that, in some businesses like consulting, sometimes they are sold to private equity or they are listed on an exchange and therefore there is capital that has been invested in the business upon which the shareholders of that business would require a return.

In this instance, the big part of the costs stack is not labour, it is actually the direct cost of manufacturing the product that is sold by Pfizer. So we do not quite get into that issue of it being dominated by labour. That does not have an intrinsic capital value associated with it.

THE PRESIDENT: Thank you.

A follow-up before we go to others. You will have seen the last line in the table in respect of the Robo-Coffee Shop that I have hypothesised a level of borrowing, and I have calculated, or that has been calculated as a $45,000 margin over Robo-Coffee Shop's total costs which are at 255,000, if I have my maths right, which I very well may not have done, but let us stick to 255 as the figure.

So let us suppose Robo-Coffee Shop is borrowing £300,000 per annum at 10% interest.

MR HARMAN: Yes.

THE PRESIDENT: First of all, the 10% interest you would include that as a cost in the cost line, would you? You might have to apportion it, but would it be included or not?

MR HARMAN: I mean, I do not tend to distinguish, per se, the difference between debt finance and equity finance. They are both providers of finance to the company. They as -- you know, between the equity holders and the debt holders, are the owners, from an economic perspective, of the business. Absent the providers of capital, the ownership is, from an economic perspective, less interesting than the providers of finance.

I think that in this case it is just a debt company. Obviously you are able to determine what the cost is, but if you were just 100% owned by, effectively, a bank, then you are effectively paying them an amount that relates to the profits of the company that then has to be paid to the debt holder, so again, that goes to this distinction between is it a cost or is it a return. It is the required return that the bank wants or needs for the level of risk, and it reflects the average outcomes expected in the marketplace. So when it was discussed that this is just a cost and people expect to earn more, it is not just a cost, it is the return that they require, they may desire to earn more, but often they earn less, so that is why I still think that it is reasonable.

The difference between these businesses is that here you have external finance, but both of the other coffee shops need some kind of financing, whether it is internal, ie mom and pop --

THE PRESIDENT: I understand that. If I may, I will pause you there and we will come back to that in just a moment, but let us suppose, then, that the Robo-Coffee Shop's business model is, as you have rightly suggested, 100% based on debt, and so they are anticipating their annual costs at 255, they are borrowing 300, and the

45,000 that is, as it were, a bunce or a surplus is to the tune of £30,000 taken up by the interest charge --

MR HARMAN: Yes.

THE PRESIDENT: -- and you are left with a contingency of $15,000 on that basis, but the contingency does not really matter, we can disregard it if you wish.

My question is, as a starting point in terms of ascertaining what the cost base of the business is, including your ROCE, is that the £300,000? Is that the cost including ROCE?

MR HARMAN: If 300,000 has been lent from the bank, then obviously that is the investment somebody has made in the company, it could have gone to many different things, it could have gone to the failed three attempts which I would say would have to be recovered.

THE PRESIDENT: There are no attempts here, we are simply looking at the funding of the costs as articulated in this column. So it is a nice simple case: Apple do experiment, but Robo-Coffee Shop do not. All they are doing is making espresso, cappuccino and bottomless coffee, and they are pricing as suggested and they will make volumes as they go, but we are looking at the bottom, the floor.

My question to you is why, as at least a starting point, on your analysis, is the floor not 300,000? You might have to then spread it across products, but as a starting point is that or is that not your starting point?

MR HARMAN: Yes, I mean, sorry, there were some abortive costs in relation to the Robo-Coffee Shop prototype.

THE PRESIDENT: You are right.

MR HARMAN: So I was wondering whether that 300 is an investment into those, if you like, start-up costs.

THE PRESIDENT: You are absolutely right.

MR HARMAN: And those start-up costs, I would say that you would normally capitalise those, and then you would expect to earn a return on those costs.

THE PRESIDENT: Let us leave those out of account and start with the easier case of abandoning the several efforts to get drinkable coffee and keep it very simple, so we have an undertaking that gets it right first time.

MR HARMAN: Yes. So, I mean, in this instance -- again there is a number of dimensions potentially -- there is 300,000 that has been invested, so you might take that as the starting level of capital employed because it refers to how much has actually been lent, obviously apportioned to the products as required.

The unknown is whether the company itself has effectively funded itself by retaining earnings in the business. So normally a firm can either pay it out to a shareholder or to a debt holder or it can re-invest it in the business, and if it re-invests it into the business, that would increase the level of capital that has been invested upon which you would expect to earn a return.

In this case, not knowing anything else, I think that you would take the 300,000 as the starting level of capital employed, and you would consider whether the interest rate was reasonable. Here, no doubt, it is a contractual one, and, therefore, you would expect it to reflect market rates.

Interestingly, if you are 100% debt-financed, your actual cost goes towards your equity cost because effectively you no longer have priority over payments from equity investors, so you are more likely to get your money back if there is a gearing between equity and debt. If it is 100% debt, that increases the debt risk to banks and the rate goes up towards an equity rate. But the short answer is, yes, I think 300,000 would be a starting level of capital employed that you would consider.

THE PRESIDENT: So translating that over to the Vanilla Coffee Shop, let us suppose the Vanilla Coffee Shop borrows, again, 100% debt finance, no failures, it is just funding the two lines of coffee that are produced, and it borrows £140,000 plus the interest needed to service the debt, so £14,000 on top of that. Again, would that then be your starting point for the cost base in this case? Of course, again, you would have to apportion that to the two products, I think it is two products in issue, but is that how you would go about it?

MR HARMAN: I mean, the way in which I -- it would be two-pronged, the way in which I would -- I mean, to the degree to which we can see an invested amount in the business, if you think about the balance sheet, you have assets and liabilities on one side and you have debt and equity finance on this side, right, and the two balance.

So the two approaches that you can take is you could have regard to the equity and debt values of the business as being an indicator of capital employed within the business, though, if you are not a listed business, the equity is probably at some nominal amount based on accounting principles as opposed to reflecting market value, or you can add up all the assets less the liabilities on the other side as an indication of what your level of capital is. Hopefully they would come out, as long as the accountant has been good and has balanced the books, those two should be equal to each other.

So either you could look at the level of assets in the business, or you can have regard to this level of capital employed, and that gives you a return, the 14,000 in your case, as the return that debt holders require for funding your business. It is their required return. They do not get any more than that 14%, you know, as the owner of the business, that is what they get at the end of the day. The company over the top of that may earn more, it could earn less.

THE PRESIDENT: But, again, you would be content to use that as your starting point in terms of a cost that could then be apportioned by reference to the two lines that are produced -- the espresso and the cappuccino -- by the Vanilla Coffee Shop?

MR HARMAN: I think that is reasonable, but just to absolutely clarify, just to make sure we are aligned on terminology, when we are using "cost", I am saying that that is also synonymous with the business's required return.

THE PRESIDENT: Oh, yes, because I am including in the total cost 140,000 of the total cost plus the 10% return.

MR HARMAN: Ah, no.

THE PRESIDENT: Right.

MR HARMAN: So you are not taking the 140,000 in cost and adding that in each year, because you would end up over-allocating that amount. So what you are including is the 14,000 as the cost to the business.

THE PRESIDENT: Yes.

MR HARMAN: But not the 140,000 because that is the level of capital upon which you need a return.

THE PRESIDENT: Yes. What I am postulating is that the annual costs of the total business are 100% financed by the bank.

MR HARMAN: Yes.

THE PRESIDENT: So there is no question of equity, there is no question of anything else. To the extent that the mom and pops take money out, it is in the form of salary, which is listed as a cost item here.

MR HARMAN: Yes.

THE PRESIDENT: So if those are the costs of running the business for a year, these two lines, and we are not including -- well, we can assume that the equipment, the $10,000, is depreciated over a year to keep things simple, so it is a renewable cost. Why is the 140,000 plus 10%, the servicing costs, not the starting point for the cost base which you then apportion across the two product lines that we are producing?

MR HARMAN: Both of them are a starting and can be allocated.

THE PRESIDENT: Yes.

MR HARMAN: But let us say that the loan is on a 10 year tenure: you borrowed 140,000 for ten years, could be longer, could be shorter, and in fact you may revolve that, you know, you end up paying the 140 back to the bank and then you take another 140 out, so they could be end-loaded. When you loan the money, when you loan the money, there are two aspects to that: one is you need a return of your capital, that 140,000, over time, and you need a return on your capital which is the 14,000 annually, though that may decrease if you are actually paying back the debt on a -- so if you were thinking about the costs stack in any one year, given these figures, you would say 140,000 divided by the length of the loan, because that is how much you would have to pay back in that given year, plus the interest that you have to pay on the outstanding level of the debt in each year.

THE PRESIDENT: So what you are saying is I have -- and you are right about this -- I have left out of account how one repays the debt.

MR HARMAN: Yes.

THE PRESIDENT: Okay. But leaving that out of assessment, because that will simply increase the cost burden, you are going to have to repay it somehow, why is, in terms of the assessment of the cost of running the business for a year, 140,000 not a starting point in terms of working out what it is to run the business?

MR HARMAN: Because the 140,000 is -- you know, is a cost that has a temporal aspect to it.

THE PRESIDENT: Okay, so it is too low, you are saying?

MR HARMAN: No, I am saying that the 140,000 is funding activities over many years.

THE PRESIDENT: Well, no, I am not assuming that. I am assuming that -- I mean, obviously the variable costs are for one year.

MR HARMAN: Yes.

THE PRESIDENT: We do not have any costs of rent --

MR HARMAN: Yes.

THE PRESIDENT: -- because they are out, we have the equipment, I am asking you to assume that that is capitalised over one year --

MR HARMAN: Yes.

THE PRESIDENT: -- and we have labour, which is obviously not a capital cost, but it is spent in that year.

MR HARMAN: Yes.

THE PRESIDENT: So the 140,000 is going to be spent in that year.

MR HARMAN: But can I ask what is it going to be spent on, because that matters?

THE PRESIDENT: It is going to be spent on what I have just listed:

MR HARMAN: Say again?

THE PRESIDENT: It is going to be spent on what I have just identified.

MR HARMAN: Yes, but what is paying for the costs of the business is not the loan but the revenues of the business.

THE PRESIDENT: Right, okay.

MR HARMAN: So you would normally borrow money to invest in tangible assets, right, the shop, the machine. Maybe you need funding if your business is structured so that your working capital is negative, so you are selling but you are paying providers, your creditors, before you are getting the money in. That would be, like, our kind of business, I get paid before money comes in, but in a coffee business you are selling coffee every day and that is paying for the labour directly in that business.

So assuming that the activities of the business are paying for the day-to-day expenses, which is a reasonable assumption, you would not need to loan the money for funding the day-to-day business. There may be points in time that you do, but that is usually when you want to invest in something.

So my assumption is that that 140,000, and that may be the wrong number for this business, would be used to fund asset investments or R&D expenditure or innovation or whatever it is, which will give rise to revenues at a different date.

So typically speaking, the way in which you price is I have a -- I borrow some money, there is a cost of me having that money, but at the end of the day I give that money back because my business has generated enough cash to be able to pay back that loan, or as I said, you simply pay back the loan and you have another loan, and if you keep on doing that actually the 140,000 into perpetuity is actually never really a cost to the business. What is a cost to the business is the 14,000 that you spend every year.

So in the cost plus you would take the 14,000 and, to the extent relevant, you would include any amount that has been repaid. If an amount has been repaid in the following year, the 14,000 would fall, and it would fall over time until everything had been paid back.

THE PRESIDENT: Just to be clear, that is an answer that pertains in exactly the same way to the Robo Shop example?

MR HARMAN: Yes.

THE PRESIDENT: Because I understood you saying something different and I will take the correction.

MR HARMAN: Yes, I am very sorry --

THE PRESIDENT: Not at all.

MR HARMAN: -- I did not realise that you --

THE PRESIDENT: That is absolutely fine.

MR HARMAN: -- now I understand. The same as those.

THE PRESIDENT: The same answer?

MR HARMAN: Yes.

THE PRESIDENT: Thank you very much.

Does anyone have anything to add to that?

Ms Webster? No? Thank you.

So the question of unfairness, we are moving to that now, from excessive, is a matter not for you but for us, so we are not going to ask you about what is unfair, but we are going to ask for your help on what is economic value, and what we want to explore with you is the extent to which who pays the price is relevant to any value assessment that we might undertake, and clearly it is an easy question to ask in the coffee shop example; it is a rather more difficult question in the case of the capsules.

So obviously, in the coffee shop example, it is the coffee purchaser who pays the price and they receive their coffee in return, nice and easy, bilateral transaction. In the question of the capsule, it is not the patient who pays the price of the capsule. I mean, let us leave out of account the prescription charge, because that bears no relationship to the price that is in fact paid in this case, but when we are trying to understand value, we can understand the value in the coffee example very easily in that I pay my money and I get my coffee in return and that is to me valuable.

In the capsule case, that is rather harder, and ought we, in order to analyse value, to deem that it is in fact the patient who is paying the price, not paid by the patient, but deemed to be paid, so that we can assess what is and what is not valuable by reference to the patient?

I will start, Ms Webster, with you, since Mr Harman had the burden of the last set of questions.

MS WEBSTER: Yes, thank you.

If I may start with the coffee shop example and then move to the application to capsules, I think that would assist.

The situation which we have in the coffee shop example, focusing on Apple Coffee, we can see that we have a huge amount of product differentiation in this market.

So I take your construct: the products of all coffee shops in this example are in the same market, but clearly Vanilla Coffee and Robo-Coffee are very poor substitutes in the eyes of customers for Apple Coffee, and as a result of that, it has enabled a certain degree of pricing freedom for Apple Coffee, it has moved its price up to the limit as you describe, and on the basis also of the cost figures which you have included, it is clear that they are making a very large amount of profit, and some of that profit will be associated with value, and some of it will be associated with the absence in the eyes of consumers of good substitutes, close substitutes.

So the question then comes to my mind: well, how would I unpick that, identifying the value to the consumers as opposed to the profit that is taken because of the ability to exploit the absence of effective competition there and then in the market in year 1? It comes back to the themes that I talked about yesterday.

So if I imagine that this market is working well, what I would expect is either that Vanilla Coffee or Robo-Coffee get better in the eyes of consumers, do something which more closely matches what Apple Coffee is doing in order to benefit from the same level of profit, or to tap into some of that profit. Alternatively, we might have a new entrant that comes in, and just says: actually I am looking at what Apple is doing here, I think I could do that, so I am going to -- I cannot do it in year 1, it is going to take me a bit of time to get up to speed, but I will come in in year 2, and I will bring my product to the market, it will be similar to Apple Coffee, and I will marginally undercut them and actually, consumers will then flock to me because I will be really similar.

THE PRESIDENT: Ms Webster, sorry, I am going to interrupt, because this is very helpful, but it was not quite what I was asking, and I wonder if we can bank your answer and just get on the record the question that I clearly put badly, because I am quite keen again to get the framework of what it is that we are talking about.

So to go back to the coffee shop example, we have a trade, price of coffee for coffee, and we know who is selling and we know who is buying, and we will have to talk about whether the purchaser is getting value or not and what value means in a moment, I quite get that.

What I was interested in is the situation which we do get in the capsules case but we do not get in the coffee case, which is that the person who gets the value or may get the value, the patient, they get the capsule, is not paying the price, and what I am really asking is in terms of analysis, ought we to be deeming the patient to be paying the price that is not paid by them in order to work out whether there is some kind of relationship between price and value, or do we have to postulate the situation which in fact exists and analyse that, namely that it is not the patient who is doing the paying but the CCGs in order to appropriately analyse matters.

So is this or can the capsule case be proxied to a bilateral situation or do we have to, in order to understand it and evaluate it, see it in all its glorious complexity.

MS WEBSTER: Apologies --

THE PRESIDENT: Not at all.

MS WEBSTER: -- I had that very question in mind, and if I shortcut to the answer. Sticking with coffee for the moment, if competition is working well my hypothesis is that in equilibrium, in the long term, prices will fall to a level that is reflective of costs, and that will be a good proxy. Also it will include the value to consumers.

So value will be consistent with cost plus and a price consistent with cost plus, that will be a price that reflects the value to the consumers when competition is working well.

Now, if I transplant that to capsules, therefore, I do not think that I need to take a step of considering whether it is the end patient who is paying or the NHS or any other body. What I need to think about is whether this price that is paid in the market is one which is above the mezzanine, if we put it in that way.

So I need to locate the cost plus, I need to understand how confident I am in cost plus, I need to add a margin, and then I need to look at where the actual price paid was in relation to that mezzanine, and I need to make a judgment, is that abusive or not, and this all stems from the idea -- it is sort of picking up on what Dr Majumdar said earlier -- that under conditions of workable competition -- and I am not making an assumption of long-run perfect competition, but under workable competition, then prices will tend towards cost, and those prices will already bake in the value that is given to customers, consumers.

THE PRESIDENT: So I think the answer is that the simplifying assumption that I am suggesting does not need to be made in your case.

MS WEBSTER: Yes.

THE PRESIDENT: Is that everyone's position?

DR DE CONINCK: Yes, I think -- so obviously economic value is a very difficult question, and --

THE PRESIDENT: Yes, that is something I want to come on to. I thought this was actually an easy question, but it clearly is not.

DR DE CONINCK: But yes, no, I think here we are looking at patients, and in the end, the value of the drug is to the patient, so they may not be paying for it, but you would hope that whoever is paying for it is taking into account the value that it creates for patients, so I did not make any distinction on this point.

THE PRESIDENT: Is there anyone in disagreement with Ms Webster?

Mr Williams?

MR WILLIAMS: I think I broadly agree with that. We have this strange triumvirate with medicines that the doctor orders but does not pay and does not consume and the patient consumes but neither orders nor pays and the government pays but neither orders nor consumes, so you have this triangle, which is most unusual.

One of the problems with asking patients how they value the drug is they do not really have a frame of reference. They really have no idea whether insulin should be £60 a month or £600 a month. It is the government that makes that decision, in a sense, for them, particularly for new medicines, when it determines what it believes is value and that gets into the thorny issue of QALYs.

So I think that does make it rather difficult. Certainly some patients would say: I would happily pay £1,000 a week for my insulin if I was not paying if the alternative was not to get it, so it is very different from coffee where you have a choice.

DR MAJUMDAR: Thank you, sir.

In answer to your capsules point, I see the Department of Health as the sophisticated representative of the patients, the buyer that is tasked to acquire on patient behalf. So that is how I see the Department of Health acting on patient interest in the capsules market, and, forgive me if I am getting ahead of myself, but for that reason that is why I see the comparator of the tablet market as so very useful for this question, because we know that the Department of Health, as the sophisticated representative of patients, went in to intervene to change the price of a therapeutically equivalent product and for me that tells us quite a lot about this question of value which I believe we are coming to, so I will pause my answer there.

Just one -- I am happy to elaborate further, if we get on to it.

So for me that is why the comparator of tablets is so very important because we learn a lot about what the Department of Health thinks.

Now, the second point, switching to the coffee example just to respond to Ms Webster, is there is another way of thinking about this coffee example.

Sir, you explained that the Ruritanian competition authority had conducted a SSNIP test and that if prices therefore went up for the Apple Coffee store, let us say by 10%, by £4.50, in other words, there would be switching to the --

THE PRESIDENT: To make the price increase not profitable?

DR MAJUMDAR: Unprofitable, yes, yes, indeed. Now that tells me quite a lot about value. So forgive -- hopefully let us just do a little bit of maths in our head. Let us think about the espressos. The espresso costs £5 in Vanilla, it costs £6 in Robo and £45 in Apple. Let us suppose that the value, the value Apple is offering is 54, so there is a difference in terms of value and price of £9, and let us suppose that the Vanilla Coffee store has a value of £10, so the difference between price and value is 5 and Robo the value is £11 so the difference between the 11 and the price of 6 is 5.

So, in other words, from a consumer perspective, you look at your three offers, and you say: well, I can get £5 value net of price, ie consumer surplus, from my Vanilla, I can get £5 from Robo, that is the 11 value less the price of 6, or I can get £9 from Apple, that is the 54 minus the 45. Then the price goes up by 10%, that is an increase of £4.50, so that reduces the value from £9 to £4.50, so suddenly these other two stores become more much attractive, which is why this switching occurs that the Ruritanian authorities have found.

What we are learning from this example is Apple is offering a very substantial value to consumers, sure, when the price goes up they switch, but it is offering a value of at least in my example 54, so that is explaining why its price is so high. So I just want to put that out there as quite an important contextualiser.

THE PRESIDENT: Yes, thank you.

We will absolutely be returning to value, Mr Harman. If you have anything to say about the narrower question, then we will hear you and then we will rise for ten minutes.

MR HARMAN: I do not have anything to add on that question.

THE PRESIDENT: Very good.

Well, I think that is a convenient moment. We are on course for finishing my part of the hot-tub this afternoon and then it will be Professor Waterson who will resume, I think, probably on Monday morning, but we may get a start this afternoon.

So we will rise for ten minutes.

(3.15 pm)

(A short break)

(3.28 pm)

THE PRESIDENT: Let us start, when we are talking about value, with the coffee shop, and we will come on to the capsules in due course.

So how, is the area for debate, does one capture value in the case of the coffee shop, and what we are seeking to measure in each case is the gap between what the consumer did pay and what the consumer would have paid had the price been higher.

In other words, is it right to say that value in the coffee shop example is the price paid by the consumer plus whatever surplus remained in the consumer that they did not pay.

Do you want to start with that, Dr De Coninck?

DR DE CONINCK: Yes, sure.

So I think we are looking at customers buying cups of coffee for very high dollar amounts here. If they do so, obviously it is because their value for the product is higher than those amounts, otherwise they would not buy it.

So certainly there is a measure of surplus that is observed for these customers and this coffee is creating value for those customers on top of those prices, so I think that is certainly an indication of the economic value that is created for those customers who would buy the product.

THE PRESIDENT: To be clear -- and again I am going to repackage what you have said and you must correct me if I have it wrong -- you are defining economic value, at least in the first instance, as willingness to pay backed by ability to pay?

DR DE CONINCK: Yes, and I am conscious that here we can consider different approaches of economic value, it is not that there is one set notion that everybody would agree on. What is in standard economic theory is the consumer surplus and that is what we discussed for those customers who are willing to pay, and that is a notion of economic value that is created for those customers.

Now, I am not saying that you cannot come up with other measures of economic value, I am just saying that the willingness to pay is, and the consumer surplus, are the standard economic concepts that are used for measuring economic value, then of course I hear your follow-up question, which is, you know, this also relies on the ability to pay, because when I mentioned this I was referring to a set of customers who buy this, and it could be also priced lower with more customers buying it, creating value for those customers too.

So that is a qualification that we can make, but if we are thinking about -- and maybe I am jumping ahead here, but justification based on economic value, there is the question about which customers we are talking about. Are we talking about the customers who are buying? Are we talking about a higher set of customers? So we could potentially consider alternative measures of economic value under different situations of competition, where you will have a different price, creating a different level of consumer surplus.

THE PRESIDENT: Dr De Coninck, forgive me for interrupting, but I am interested in your evidence on what economic value is. I am quite sure that we are going to get at least five different assessments of what economic value is, and I am sure we will have our own.

DR DE CONINCK: Exactly.

THE PRESIDENT: So I am interested in what you think. I will readily take on board that there are other ways of framing it, but I am interested in how you understand it and I would be grateful for your opinion as to how it is articulated.

What I am putting to you, and what I think you are accepting, is that the value of the Apple cup of coffee that is purchased by a consumer is at least the price that is paid.

DR DE CONINCK: That is correct.

THE PRESIDENT: And that it is at least because it may be the case, unless one is the marginal consumer at the intersection point between the supply and demand curves, the marginal consumer will have no consumer surplus but everyone anterior to that consumer will have a degree of consumer surplus that exists but which is harder to measure.

DR DE CONINCK: Yes, that is correct.

THE PRESIDENT: Now, as Dr Majumdar was saying earlier, one gets a sense of the extent of the consumer surplus in the Apple case because of the way in which the market is defined. Do you agree with Dr Majumdar's assessment of the fact that, because when one applies a SSNIP to the Apple coffee prices it becomes uneconomic to raise the prices by the SSNIP?

DR DE CONINCK: Yes, that is right, yes, I do.

THE PRESIDENT: Therefore one can infer from the market as defined that the consumer surplus is of the order of 10%.

DR DE CONINCK: Yes, I think that is -- well, of course, we are looking at the marginal customers that would switch in the SSNIP test, so I think the calculations get a little bit tricky there, but it does give us an idea of the value for the customers who would switch with a SSNIP, yes.

THE PRESIDENT: I quite understand, no more than a ballpark, but it is an indication.

DR DE CONINCK: Yes.

THE PRESIDENT: Very good.

So what do we do if that is the definition of economic value if we are postulating a case of an excessive price?

DR DE CONINCK: So that is of course a very good question.

I think here one has to think about whether there is something that is calling into question the price. So clearly we know that a set of customers are buying this product at this price. Now, does that mean that we would have -- that we could not have an excessive price case, I think that is really what you are going to. I think in the case of Apple here, in a case where you have competition, so I do not think that, the Apple Coffee Shop, that you should prevent the coffee shop that faces competition to price its coffee at a certain level.

Now, you can be in situations where you have less competition than the coffee shop markets, which of course is easy to set up, and then in those cases where you think that because of lack of competition there may be grounds for intervention for the excessive price, and then of course this would not work with this definition of economic value, and you may consider that you would consider economic value for similar products in which there would be, you know, some more competition like in your coffee shop example.

THE PRESIDENT: I think you have identified a fragility with the equation of economic value with price, and it is this: that if one assumes an excessive and unfair price, but if one says that price equals value, then one has no way of working out whether the price in question is excessive or unfair because it is circuitous.

DR DE CONINCK: So definitely, you know, and that is why I was referring to, you know, alternate measures of economic value that could be considered in a case of excessive pricing, and that is why I think if you want to approximate what could be economic value but which is not equated to price, then you would want to look at, again, comparator market, it would be a lower floor -- the price, in comparator market that are subject to competition would provide you with, you know, a lower floor on the economic value, so that if based on that comparison you think that the prices that you observed in the market of concern are not out of line, then you know that economic value could be a justification for that.

I think to me that is the way to work out economic value, because we know that if we look at the price in a market where there is some competition, this price will be at least a floor on the economic value.

THE PRESIDENT: Forgive me, just going back to what you said in the opening words of that answer:

"So definitely [you said], you know, and that is why I was referring to ... alternate measures of ... value that could be considered in a case of excessive pricing..."

But that is precisely the question we are asking: is this a case of excessive and unfair pricing? So what tools enable us to articulate whether price does not equal economic value? How do we break that circle without presuming that which we are testing for which is that the price is unfairly high?

DR DE CONINCK: My answer to that is, again, comparators.

THE PRESIDENT: Right. So does it mean, then, that, without saying anything more, in this case, because Apple prices are way above those of its competitors, that Apple is guilty not merely of excessive but also unfair pricing.

DR DE CONINCK: No, obviously not.

THE PRESIDENT: Why is that obviously not? I mean, it seems to me to follow from what you have just said.

DR DE CONINCK: Right, and thank you for mentioning that, because obviously then I should have specified that what I mean is comparators and specificities of what the firm is doing to know whether the comparators are actually informative for the question. So you are looking here at a coffee shop that is quite particular, that is managing to sell those cups for a certain very high amount, because they are doing, you know, something special. They are investing, they are developing something that customers like and which is different from the Vanilla and the Robo-Coffee Shop.

So indeed, if you make just a comparison based on products that do not do that, or do not do that to the same extent, then that will not give you the right answer on the value that is created by the company that you are looking at, so I should probably have clarified my answer when I say comparator: comparator that can be used as a base for the value that is created taking into account the differentiation, the innovation, that is taken by the firm in question.

THE PRESIDENT: Well, would you then agree with this proposition: that in a case of dominance where excessive pricing is alleged or is found but is under appeal, the equation of economic value with price is a completely useless measure.

DR DE CONINCK: So the equation of economic value and price of the firm or, you know, more broadly, I think price can still give you indications on the lower bounds of economic value, the question is which price, and, indeed, if you take the price of the dominant company as necessarily indicative of economic value, then you cannot run an excessive price case.

Now, that does not mean that price cannot be informative as to economic value, and, again, if you look at comparator firms that do have similar type of characteristics, then the price that they charge will be -- and subject to some competition, what the price will be there will be a lower bound on the economic value.

PROFESSOR WATERSON: Can I just bring a different example into play?

DR DE CONINCK: Yes.

PROFESSOR WATERSON: Supposing that a Picasso is auctioned and someone wins the auction and is willing to pay £79 million for the Picasso, okay? Does that indicate economic value?

DR DE CONINCK: Okay, so it is certainly -- yes, so it is certainly a lower bound on the economic value for the buyer, so --

PROFESSOR WATERSON: For that one person?

DR DE CONINCK: Yes.

PROFESSOR WATERSON: But above the value of any other person?

DR DE CONINCK: Obviously, you won the auction, so -- but that person could have a value which is much more than the 79 million?

THE PRESIDENT: I think you are not accepting my rather extreme proposition that in a case of dominance where excessive pricing is alleged the equation of price and economic value is completely useless. I think what you are saying -- and do correct me if I am wrong -- it is not completely useless, it is an indicator, but one must tread with great caution in making that equation of economic value and price, would that be a fairer way of putting what you are saying?

DR DE CONINCK: Yes, that is correct, thank you.

THE PRESIDENT: Okay. So sticking with the coffee shop example, and let us look at the Apple Coffee Shop super deluxe espresso which they are paying $45 for and 60% of the market is paying this, what we know is that if you increase the price by $4.50, Apple will lose enough customers to make that price increase not economically worthwhile. So we know that, but we do not know very much else.

We do know that Robo-Coffee Shop and Apple Coffee Shop are charging a fraction of the $45, they are charging $5 and $6, so a huge mismatch. How do I discern from these comparators and this data that the price being charged by Apple is unfair? What do I get from these comparators to answer that question?

DR DE CONINCK: I do not think you get much from the comparators themselves. What you get is from the switching. So the fact that you know that you would have switching in case of a price increase means that there is competition into that market, and given that even if the products have a difference, so when I say you do not learn that much by just looking at the comparator, it means that it is a different product, you should not compare it directly, but the insight you get is from the switching and from the competition, so when I was talking about price that can be an indication of a lower bound on economic value. When you have competition I think this can be an example of the price being an indication of the lower -- of the economic value because of those other coffee shops being present.

THE PRESIDENT: So in this case, because there is switching at this price, you infer that there is competition and that the Apple price, albeit very much higher than the espresso prices of both Robo-Coffee Shop and Vanilla Coffee Shop, nevertheless the Apple price is not unfair?

DR DE CONINCK: That is right.

THE PRESIDENT: Mr Williams, do you want to say anything on this?

MR WILLIAMS: Not on this part.

THE PRESIDENT: Not on this part, I understand.

Dr Majumdar, do you have anything to add or subtract from the conversation that I have just had with Dr De Coninck?

DR MAJUMDAR: I will try to keep this very brief, because I think I made my point just before --

THE PRESIDENT: Indeed, but do say exactly what you want.

DR MAJUMDAR: Okay, thank you, sir.

So I agree with your first point, which was that if you take price plus the consumer surplus that takes you to the maximum willingness to pay which is what economists would often call economic value.

In terms of the switching example, as I mentioned just before the break, I think you asked about are there any tools that would then help us understand value. In that example, if the Ruritanian competition authority had conducted a survey of coffee drinkers, for sake of argument, in the Vanilla store, and identified that their maximum willingness to pay was $10 that would then give us a sort of anchor. So we would know their maximum willingness to pay was 10, the price they pay is 5, so they get consumer surplus of 5 at Vanilla.

We combine that information with the information that switching away from Apple is something that will happen sufficiently to deter the price rise if prices go up by 10%, and then so what that means is when prices go up from $45 to, say, 49.50, so that is the 10% increase, that reduces consumer surplus there at Apple to less than $5, which is at least for some consumers, ie those that prefer to get their surplus somewhere else.

So what it gives us is that sort of roughly a sense of maximum willingness to pay. So I think you said it might be 10% of price. I think in this example it could be 10% to 20% of price. It very much depends on the consumer surplus available elsewhere.

I hope that is clear. I can explain it again if not.

THE PRESIDENT: No, no.

DR MAJUMDAR: Okay, thank you. So what that says to me, then, is in an ideal world, one would have a way of identifying what maximum willingness to pay is, and that is not always available, but again, as I mentioned before the break, I think in this case we actually do have a rather nice example from the comparator market, and it is not the tablet price that we are talking about here, it is actually that intervention price.

THE PRESIDENT: I do not want to get into the facts of the capsules at this stage.

DR MAJUMDAR: Right, okay.

THE PRESIDENT: So if you would not mind confining your answer to the analytical process that we have to go through, and then as necessary we will explore other questions. At the moment, we are trying to get a grip on what the approach ought to be, and that is why we are zoning-in on hypotheticals rather than actuals.

DR MAJUMDAR: Understood, sir, in that case I apologise.

THE PRESIDENT: Not at all.

DR MAJUMDAR: In that case my answer is what we need, then, is a tool or a method or some way of trying to identify what the maximum willingness to pay is, and I will leave my answer there.

PROFESSOR WATERSON: Can I just come back on two points, Dr Majumdar.

DR MAJUMDAR: Please.

PROFESSOR WATERSON: The first is, I am sure you accept this, but just so we can fix facts, that your number of £54 just depends on your example. So it could be £52, for example.

DR MAJUMDAR: Yes, I accept that.

PROFESSOR WATERSON: All we know is that it is -- well, we have to know something about the other firms as well.

DR MAJUMDAR: Yes, absolutely, we have to know, as you say quite rightly, the surplus available elsewhere in Vanilla, for example.

PROFESSOR WATERSON: Yes. So that is just a minor point.

The second point is you equate value with the maximum willingness to pay, so that might be the willingness to pay of only one patient.

DR MAJUMDAR: This is where I think it is so important to think about the Department of Health as the sophisticated buyer that is representing the patients because, you are absolutely right, in principle, patients could have a wide variety of different willingnesses to pay. From my perspective, the interesting point about the pharmaceutical markets that we are looking at is we do have a single buyer in this case, which is the Department of Health.

PROFESSOR WATERSON: Right, okay, so that is your reason for your particular definition of willingness to -- of value?

DR MAJUMDAR: Yes, sir.

THE PRESIDENT: Let me try and frame the question somewhat differently. We have been discussing the corridor between cost and price but in the context of what is excessive. We are now discussing the same corridor in the context of what is unfair. That is the question we are seeking to answer.

So the question is: to what extent, using the unfair test, ought what is, in the real world, pure producer surplus needs to be re-allocated as consumer surplus. Would you agree with that framing of the question?

DR MAJUMDAR: I would actually frame this floor, mezzanine, ceiling discussion differently. So I would make my ceiling the willingness to pay, and then I would ask the question: does the impugned price leave enough room between the ceiling to allow for surplus -- so if you think what is happening, if you have -- forgive me doing this with my hands, but actually, if you think about the floor and the difference between the price and the floor, that is producer surplus, because that is price less cost, and then the difference between the ceiling -- my ceiling would be willingness to pay and the difference between willingness to pay and price is the consumer surplus, so I would be asking the question: is the impugned price low enough to leave a big enough gap between willingness to pay, such that there is sufficient consumer surplus generated, is it getting the right balance between producer surplus and consumer surplus. That would be my way of thinking about this sort of mezzanine question.

So my mezzanine -- I will pause. Do you see what I am getting at, sir?

THE PRESIDENT: I see what you are getting at, but we are running into definitional problems because you are quite clearly using "ceiling" in a different way to Ms Webster and in a different way to me, and I think one thing we really want to avoid is ambiguities in definition, so I am going to repackage what you have said and you can tell me how far that repackaging with common labels works.

So "ceiling", as I am using it, and as I think Ms Webster was using it is the price actually charged, and the reason that is a ceiling is because that is the price actually charged that is said to be excessive.

It may very well be that in another world the Apple Coffee Shop might charge even more and we would have a different question, but the question that we are seeking to resolve is whether the ceiling being the price as charged is unfair.

So that is why I am using the word "ceiling", but I completely understand that in terms of working out where the ceiling ought to be, you are saying you need to have regard to the amount of consumer surplus which, by definition, exists above the ceiling, and what you are saying is that if that consumer surplus is sufficiently large, then what is by definition producer surplus, the stuff below the ceiling, up to the floor, is a fair allocation.

DR MAJUMDAR: Yes, sir.

THE PRESIDENT: So what you are saying is whilst in theory it might be that the ceiling could be moved up because the consumer surplus is so vast, and so you might say that the mezzanine, now completely inappropriately named, could sit above the ceiling, you are saying -- a second floor -- you are saying that that is a possible outcome depending upon the answer to your point about allocation above and below the line in terms of the producer and consumer surplus.

DR MAJUMDAR: Yes, sir. I think the way you put it is very good. If the mezzanine could be above the ceiling.

THE PRESIDENT: The mezzanine does not have to be, you are saying -- and I quite understand why you are saying it -- does not have to be located below the price.

DR MAJUMDAR: Correct.

THE PRESIDENT: Okay, that I understand. However, we are not in fact interested in what is going on above the ceiling as I have defined it. We are interested in whether the price in fact charged should be relocated, and the reason you are saying the consumer surplus above the ceiling matters is because you are saying that the line of the price, the ceiling, should stay as it is and there is no warrant for adjusting it downwards.

DR MAJUMDAR: Yes.

THE PRESIDENT: So what you are saying, I think, is that in the case where there is abundant consumer surplus above the line, the mezzanine aligns with the ceiling.

DR MAJUMDAR: Yes.

THE PRESIDENT: You have no headroom, effectively.

DR MAJUMDAR: Yes, because in that scenario -- sorry, sir, just to play back what you said, because in that scenario, there would be no reason to push the price down, you would leave the ceiling where it is, yes.

THE PRESIDENT: Exactly.

DR MAJUMDAR: Yes, yes.

THE PRESIDENT: So the short answer is: no mezzanine?

DR MAJUMDAR: Yes.

THE PRESIDENT: Good, okay, well, I think we are terminologically there.

The next question is how does one get a handle on the consumer surplus and whether it is large enough above the line that is the ceiling to justify not moving it. And reframing, but putting the same question that I put to Dr De Coninck to you, if we are assuming a case of dominance, and if we are assuming a case of an unfair price, how do we test for whether and if so how far the price is excessive? What tools do we have to determine whether the ceiling is an appropriate ceiling? Because I think you would accept that the syllogism of economic value equals that which is charged cannot pertain in the context where there is a dominant undertaking and an allegation of an excessive price.

DR MAJUMDAR: Yes, so I would therefore look for the evidence that I could gather on the extent to which there is consumer surplus above the ceiling. So we would look for evidence on -- in essence we would be looking for evidence on maximum willingness to pay, and that would be a factual point that you would consider, but as economists I think we can help as well by looking at the data, and then we would try to work out roughly where that is, and then we would ask the question: well, does that look like sufficient consumer surplus that has been left to the buyer or the representative buyer.

Now, in terms of -- I guess the next question is, well, what does sufficient consumer surplus mean, and for me I would say that if the impugned price is close to what we consider to be workable competition -- I appreciate we can debate what that means, but let us just call it "workable competition" -- if the impugned price is closer to workable competition and a long way from maximum willingness to pay, ie leaving a lot of surplus above the ceiling --

THE PRESIDENT: Just pausing there: willingness and ability to pay, the two together?

DR MAJUMDAR: Willingness and ability to pay, yes, yes, sir. Yes, exactly, something that in practice would be paid, yes, sir.

THE PRESIDENT: Yes.

DR MAJUMDAR: So, as I was saying, so we have our ceiling, and then I would look for evidence on the surplus above the ceiling in terms of willingness and ability to pay, I would look for evidence of how much room there is there, and then there is still a question of is there sufficient -- that may be enough as it is, but there may be even -- yes, that may be enough as there is, actually, so that is the point that we are looking at, is it not, yes.

Then I would also want to understand -- I think also we have been looking at workable competition as well, and I think that can also be useful, although thinking this through, the most important question is the surplus question.

So I will pause there, yes. The most important question there in this context is understanding, if we can, the surplus above the ceiling.

THE PRESIDENT: Does that not mean that the only constraint on economic value is actually the hypothetical monopolist test? In other words, given that we are accepting that there must be, assuming an ordinarily-shaped demand curve, some consumer surplus above the line, the only reason the price line is not moving up is because the Apple store will lose more revenue than it gains in pushing price up. So there will still be some consumer surplus, it will be eroded, but the reason the ceiling is not going up is because it is not in the seller's interests that it go up?

DR MAJUMDAR: Yes. So in this coffee store example, we are assuming profit-maximising behaviour by firms, we are assuming that were the price to go up further there would be sufficient switching to defeat that price rise, so, therefore -- yes, so the constraint on it going up further is exactly that, in the coffee example, that the SSNIP would not be profitable.

THE PRESIDENT: Okay.

Could we then maybe invert the test? So far we have been equating or using economic value as the equivalent to price because price is a measure of ability and willingness to pay, because if you pay the price you are clearly able to do so and equally you are clearly willing to do so, but what about those who are willing to pay the price but unable to do so?

So by definition, they will not be buying the Apple Coffee; they will be buying, if they are buying coffee at all, Robo-Coffee or Vanilla Coffee, if they want coffee.

You mentioned earlier the potential significance of the consumer surplus that exists in, let us say, the

Vanilla Coffee Shop. Now we see there that for an espresso the consumer at the Vanilla Coffee Shop is paying $5 for their coffee, and we could -- it will probably require a survey or something like that -- we could ascertain what the element of consumer surplus was in that example, and one could say that the consumer surplus in the case of the Vanilla Coffee Shop is, let us say, $5, that the average consumer would be prepared to pay that. Obviously, it will vary from consumer to consumer, but the average is a $5 amount meaning that the average price that could be levied is $10.

Why does one not take that measure and translate it over into the context of the Apple Coffee Shop and say: well, this is the willingness to pay of the Vanilla Coffee Shop user, they are being excluded from the Apple Coffee Shop. Actually any price above the Vanilla Coffee Shop consumer surplus adjusted price is excessive and what Apple Coffee Shop ought to be charging is in fact $10 a cup, rather than $45 a cup. Why is that not a means of adjusting the ceiling down?

DR MAJUMDAR: Because in that example, the Apple shop would be generating at least $35 worth of value for which it is not charging. So it would be for sure generating a lot of consumer surplus for anyone that would consume its product at that price of $10.

However, that might seem on the low side considering how much value that the Apple store is generating, so I think the question is how much of that value generated should the Apple store be allowed to keep?

THE PRESIDENT: Thank you. We will be doing another round, but we will move on, Dr Majumdar.

Mr Harman, are you doing a double act with Ms Webster, or do you have independent things to say about this?

MR HARMAN: I am only going to say something very quickly, and that is on a definitional thing, and it may turn out not to be particularly helpful, but in my -- I am not going to floors and second floors and basements and all that, but it is on the definition of "economic value" and how I understand that, and normally for me economic value is the price that you would expect to have under conditions of normal and sufficiently effective competition, so that can be quite difficult in these circumstances if there is no comparator, but I think that is important because I am drawn to your distinction that the willingness to pay cannot reflect economic value, that does provide producer surplus obviously to one of the parties, but the other side of the equation is obviously consumer surplus. So for me, understanding what would happen under effective competition is important.

In this example, you may have the scenario or hypothesis is what would a company more similar to Apple charge for this same level of differentiation, and that price may well turn out to be lower because there would be more direct competition between the two, and that would be a better understanding of what the economic value is, because that would be reflecting what people are willing and able to pay when there is effective competition for that level of differentiation.

So that is all I will say.

THE PRESIDENT: Mr Harman, that is very helpful, but are you not simply repackaging the very difficult circular question that I put to Dr De Coninck a few minutes ago? I think he accepted that the syllogism of price equals economic value is, I think he would say, unreliable and I put it to him rather higher than that, but he would certainly accept unreliable because in conditions of dominance where unfairness is alleged in price, you cannot make that equation which you are making in the context of a competitive market. I think you are saying in a competitive market, economic value does equal price because that is what markets do.

MR HARMAN: Correct.

THE PRESIDENT: And courts do not need to worry about price because the market does the job for them. The problem that we have is that you cannot magic away the dominance because a dominant undertaking is not necessarily abusing in the prices it charges, so what you are trying to hypothesise away is the abuse, but again, we have no tool for working out what a non-abusive price charged by a dominant undertaking would be.

MR HARMAN: Yes, I mean I think, again, I am going to allow Ms Webster to talk about it in more detail because obviously her reports go into that. Just to go back to a point that I made during my presentation, at least the cost plus element can be modified to provide some indication in some circumstances, but potentially not all circumstances. So sometimes the price element of differentiation, differentiated products, may relate to the cost of those products, whether you are going to buy a leather jacket versus another jacket, the difference in those costs may well reflect the differences in value, not always, but sometimes they can.

Similarly, if there is a business that has differentiated and it has gone through a process of trying to innovate and therefore has start-up costs and it has had to do some R&D and the likes, those costs can also be capitalised, as an indication, a cost indication of what we might expect companies to try to recover in those differentiated markets.

So at the limit, if there were two differentiated companies competing actively against each other, one may expect it to fall towards a cost plus that includes those costs of differentiation. Not in all circumstances, but in many circumstances.

THE PRESIDENT: In a sense, Mr Harman, what you are saying is that the lessons we learn from perfect competition theory ought to be translated into our understanding of what is unfair, not literally translated, but that there ought to be a substantial steer to the fact that in perfect competition, prices will not just trend but gallop towards cost plus, and you are saying that that theoretical working ought to be exported into the market where the dominant undertaking sits, and one ought to say that unless there is a good reason identified by reference to product differentiation, the price of the dominant undertaking will be abusive and unfair unless you can justify a margin above the cost plus line. Would that be a fair way of --

MR HARMAN: I think there is some essence of what I am saying there. I am not saying that I expect perfect competition outcomes. Most competition models price by reference to cost in some way, so there is always a connection, even under a monopoly pricing, the quantity is selected where marginal cost equals marginal revenue, but then you extract what somebody is willing to pay at that level of quantity, so there is still a connection between cost, and so what I am saying is that all other things being equal in many forms of competition, there will be a trend towards cost plus, not necessarily all the way down to a perfect competition outcome, but there is some connection, and I am just saying that one can modify the costs in a non-standard economic model to say what are some of those costs that I am pricing differently for.

So it would be a highly modified perfect competition type of model to say, well -- most costs in these things are sunk, right, in terms of the R&D and so the standard economic model does not think about sunk costs, it is not thinking about things at the margin. I am saying that you can modify a cost plus to include certain types of cost differentiation which sit outside a normal economic model, and that may be informative. I am not saying that it necessarily collapses to that, but I would expect, if there was strong competition between differentiated products, that would apply some constraint on the ability to price at above a certain level.

THE PRESIDENT: So to move to the concrete, your process in the Apple Coffee Shop -- let us stick to the $45 for the super deluxe espresso -- your first step would be to identify those aspects of attraction to the consumer that the Apple Coffee Shop has, and let us say it is, one, the environment --

MR HARMAN: Yes.

THE PRESIDENT: -- and, two, the fact that the baristas employed by the Apple Coffee Shop are just really good at their job and they make better coffee out of the same ingredients compared to the Vanilla Coffee Shop and the Robo-Coffee Shop -- so those are the two things that draw customers to the Apple Coffee Shop and induce them to pay $45 for an espresso.

MR HARMAN: Yes.

THE PRESIDENT: Now, we are tasked to ask ourselves whether that $45 is unfair. Let us accept for sake of argument that it passes the excessive test, so we are not worried about that, it is excessive, it is manifestly too much, but is it unfair?

Now, your answer to that -- and do correct me if I am wrong -- your answer to that is that you look to the costs of the differentiation between Apple Coffee and its competitors, you monetise those costs and you add them to a generous cost plus, and you do not stint in terms of how much you add to cost so that you have a generous baseline, and then you add to that the costs of these differentiated matters, and you end up with a mezzanine which is pitched at that level.

Would that be a fair way of capturing what you are aiming at?

MR HARMAN: Yes. I think I am not necessarily saying that the resulting cost plus is definitive in the determination of something is unfair, but it provides another ceiling/floor structure upon which you can say, well, if the price is above that point, is it manifestly, you know, unfair, but it is one way, it is one way to help the court to decide on a preponderance of evidence basis whether any remaining gap looks unreasonable, and it is something that can be quantified.

THE PRESIDENT: I accept all of that. My pushback lies in the fact that it appears to be that you are throwing out in your analysis the fact that the existing consumers of the Apple Coffee Shop are choosing to pay $45 and they know that they could get a cup of coffee for $40 less, but they are choosing to spend that $40. Why can they not choose to pay that and why can Apple not charge that just because it can?

MR HARMAN: I think that I would make two points there. The first is that the level of differentiation between Apple and Robo and Vanilla may be so great that they would prefer to buy Apple because the other two coffee shops are providing a service that is not to their taste, but, if there was a competitor to Apple that was providing the same level of differentiation, you may well see switching to something that is comparable on the differential scale.

So what I would say is in that calculation what is missing is not what the existing customers of Apple are willing to pay, but it is the loss of customers who are unwilling to pay that price that are either not drinking coffee or have had to switch to something else which is below what their preference would be, but they had no alternative.

So the question for me is not just about the existing customers, it is about the consumer surplus that is lost from the other customers.

THE PRESIDENT: So if one moves away from your cost alignment test to instead the consumer surplus that exists in the Vanilla Coffee Shop, and let us say as I postulated with Dr Majumdar it is $5 for the espresso, why do you not use that as the means of identifying that which is a proper price for Apple to charge? Is it because it leaves costs out of account?

MR HARMAN: No, I think that it is difficult to compare a price of 5 to 45 if you are getting something significantly different at 45. You are not comparing like with like, and that is why I say that the missing comparator here is potentially something that looks like Apple, the Samsung coffee shop that is offering a similar level of differentiation. That would be similar to, like, airlines, for example, right. I mean, if you are a user of BA you might consider using Virgin because it has that level of branding and differentiation. It is a big jump to go down to a low-cost carrier.

Now, you might go down to the low-cost carrier because you are being charged too much on BA to justify it, but that does not mean that if there was not more effective competition in that branded premium level of aircraft provision there would not be consumers switching from the low cost back up to the high cost, which would give you a different level of consumer and producer surplus which are both important to the question of overall economic value: what is the correct distribution of the available surplus between the two parties.

THE PRESIDENT: Let us suppose we have a scenario that your Samsung Coffee Shop is gearing up and it is going to be -- has wonderful coffee, has a wonderful location and it is going to come online in three months' time. Does that make the $45 that has been charged for the super deluxe espresso a fair price, or does it make no difference?

MR HARMAN: Does it make an unfair price? What is the price point of the alternative? If the Samsung comes in at 44, then you would probably say the margin of difference is too small. If Samsung came along and offered effectively the same level of differentiation but was charging 10, that may be an indicator of an excessive price at the same quality point because under normal and effective competition there is a lower price point.

Now, there may be other factors that affect switching and everything else, but if there is efficient competition you would expect the price at which the alternative comes in to be a sensible reference point, all else being equal.

THE PRESIDENT: Again, is there not a circuity in what you are saying, because if the Samsung Coffee Shop comes in at $43 an espresso, do you infer from that that the price is fair?

MR HARMAN: Well, putting to one side the competitive dynamic that may play out after a single period, but if you are assuming that it is 43 and that is the long-term price, to the extent that they are both sharing the 60%

market share, I think that you may conclude that a price of 43 was fair and the difference between 43 and 45 was not so different to warrant a further investigation based on issues as you have said, the determination of, you know, costs, there are some uncertainties associated with that.

THE PRESIDENT: Let us suppose our Samsung shop comes on and it looks, to all intents and purposes, like the Apple Coffee Shop. It prices aggressively below the Apple Coffee Shop at, say, $30 an espresso, and the consumers just do not shift. What does one infer from that?

MR HARMAN: So, yes, like in the real world when Samsung comes out with a new phone, nobody from Apple switches, obviously because they are built into the Apple ecosystem, but I think in this scenario, if you are saying that somebody has come to market with an equivalent product at the same level of product differentiation, there may be two explanations.

One explanation is that there is some kind of switching cost between the two that has to be overcome on some basis, we see that in energy markets, people have lower bills but for a long period of time nobody switches, there is a level of inertia. Maybe you have a frequent Apple Coffee Shop card that you want to keep hold of; if you go to Samsung you will not get your free coffees at the same degree or access to the VIP room because you have drunk so much coffee, which we see in airlines with BA Gold cards and the like.

So one thing might be there is some inertia, there may be some switching costs associated with it, but absent those functions, if nobody actually then went to Samsung, which is hard to believe, if we think that they have the same level of differentiation, but it may be the case, maybe it is a locational issue, this is *Scandlines*, that you would be willing to go to the Port of Helsingborg because the location was better.

If you could control for those factors and say hand on heart: I think that these are differentiated products at the same level but there has been no switching then I think you may conclude that the price that Apple was charging was reasonable, because consumers have choice, and they have elected not to use that choice, and, therefore, there must be a demand side factor that is important to them.

THE PRESIDENT: That is exactly where I wanted to end up, because the fact is value is not easily monetisable, and the informants of choice are hard to turn into Ruritanian dollars.

But is that not a problem that underlies not merely our hypothetical Samsung store but our hypothetical

Vanilla and Robo-Coffee Shop, because we are presuming to know why it is that consumers are going and being willing to pay more for Apple than for the rivals that are offering coffee but just in a different environment at a radically different price.

So what I am putting to you is it could be the case that in fact the Vanilla and the Robo-Coffee Shops are substitutes, but there is precisely the choice that you have articulated operating on the minds of consumers such that they are willing to pay this manifestly excessive price that is charged by the Apple Coffee Shop.

So what I am putting to you is that the Samsung example is actually no more than a variant on the Vanilla Coffee Shop and Robo-Coffee Shop theme.

MR HARMAN: Only to the extent -- well, I would say there is a difference because of the level of differentiation.

THE PRESIDENT: Well, yes, I mean, I put to you that one would identify the level of differentiation as the wonderful environment and the fantastic way in which the baristas make the coffee, but both of those are reasoning from the outcome. I mean, they do not necessarily emerge from the facts that we know, and it is very hard to know what is informing consumer choice, because value is not that easily monetisable.

That is why I worry that we are chasing our own tails here, because we are assuming that there is something which is attracting consumers to the Apple Coffee Shop, and that is a safe assumption, because Apple Coffee Shop is charging what it is, but you are then saying: well, let us work out what it is that is bringing the consumers to the Apple Coffee store and to that we do not actually know the answer.

MR HARMAN: No, but I think part of the issue is the construct of the example which, you know, is quite --

THE PRESIDENT: It is stylised.

MR HARMAN: -- unique in its interpretation of what we might expect in these markets, right. I mean, normally speaking, you would expect in any type of good versus a more branded proposition for the volumes to be higher in the Vanilla and the Robo and less in the Apple store because less people are going to be able to afford the very high price. So that is a little bit of a distortion in this example.

What I would say is that if you believe that switching is sufficient amongst these different branded goods, there is competition in the market, and, therefore, you would not be finding an excessiveness with Apple. That seems to be a bit of a difficulty in the example at the end of the day. It is almost trying to have it both ways, but I do not think that it quite works, because the level of differentiation is very, very different, and the price is very high and we are at that point where, if I raise one extra pound or dollar everything switches.

THE PRESIDENT: Well, not everything; only enough to make it uneconomic to do so.

MR HARMAN: Unprofitable, yes.

THE PRESIDENT: So it will not be necessarily that many, given the price that they are paying in the first place.

MR HARMAN: Yes. Well, I would imagine -- what do we think the shape of the demand curve is for this, right?

THE PRESIDENT: That we do not know.

MR HARMAN: No, we do not know, but I think it is an extreme example, but I would say that if there is differentiation, and there is switching between it, then that is not normally the type of market we would expect there to be an excessive price. It kind of follows from Motta and De Streel, you know, kind of four factors of where we may find an excessive price, and that is there are insurmountable barriers to entry, that the company charging the price has not done anything that justifies the higher price, that you cannot control the abuse without intervention, and it is a market that there is no price controls in.

This example does not follow what I find from an economic perspective, quite a reasonable, you know, first order test of where we would be finding excessive pricing. Differentiated products, people have a choice.

THE PRESIDENT: Mr Harman, I could go on, but I think it is time to give Ms Webster a go, but that is not because I am not finding this extremely helpful. It is because I have half an eye on the clock.

So I have some questions, Ms Webster, that I am going to put to you as a continuation of the debate that I am having with Mr Harman, but before I do that, could you give us your views on where you agree and where you disagree with the debate that has taken place already?

MS WEBSTER: Yes, certainly.

So going back to, I think, the beginning of this discussion, my view is that when we are looking at economic value in the context of an excessive pricing case, it is not appropriate for the reasons that you have said to be thinking about economic value being determined by the price that is paid or the willingness to pay.

Certainly in a market such as capsules, where there is a very -- it is a very important product, there is no alternative, then the willingness to pay and the ability to pay will be high. So the price that will be paid will be high. Now, that will, to some extent, reflect value, and it will reflect an exploitation of the market power that exists in that situation. So price cannot be the signal for economic value.

So the question is what do we then look at instead? My view is what we should be seeking to identify is to identify economic value with reference to the price that would be paid for that product with its value if sold under conditions of normal and sufficiently effective competition.

So then the question is, well, how does one identify that, and there has been lots of discussion about that so far, and I think there are three things in my mind that would be relevant to look at.

One of them is cost plus where, as Mr Harman said, it is not cost that would arise under perfect competition, it is cost plus reflecting differentiation of the provider in question. So to the extent that they have added value to that product by adding innovative features or particular characteristics, whatever, they will have made some investments that allow that value to be generated, one can measure those investments, one should include those, they get reported in cost plus.

My proposition is that, if competition is working well, that in equilibrium, prices will tend towards a level that reflect that accurately measured level of cost plus, and the reason I say that is because, if we imagine a world where that is not the case and the company in question is making very large profits, above normal profits, for an extended period, and we assume there are not substantial barriers to entry, then I would expect companies to come in and, because the profit there is so great, they will think: well, I will have some of that, I will offer a price which is just below.

So I think in the Samsung example, you know, maybe they come in at 43. Then, I think, actually this all unravels. It will take a period of time. You know, Apple might then say: oh, well I have lost out on those profits, I am going to go to 41, 39, and so it whittles down until the point at which those companies say: I am not going to cut any more because if I cut my price any more I am not going to make a margin at all, so there will come a point where they will not cut further, and that would be equivalent to the price that I would expect under normal and sufficiently effective competition, and it will be relatively close to cost plus, and I would not say it is going to be at cost plus, I think there is a band around wherever that is measured, but I would not expect, under normal competition, for the price, even reflecting value, to sit substantially above cost plus.

THE PRESIDENT: Well, are you not just playing back to me the face mask example?

MS WEBSTER: Yes.

THE PRESIDENT: So if we had a situation where the Apple Coffee Shop sets itself up, gets its metrics absolutely right in terms of what attracts customers in, charges for a six-month period which is the period of time it takes to set up. It is $45 for a cappuccino, but in that six-month period, yes, they can charge away, but that attracts other people in. Then on those assumptions you have no problem with the $45?

MS WEBSTER: That is right. So when I talked yesterday in my teach-in and I identified that sort of grey band, one of the factors that I pointed to is you could have prices which are above cost plus, but if actually they are temporary, they can be expected to attract entry, then I would not --

THE PRESIDENT: I completely understand what you are saying --

MS WEBSTER: Yes.

THE PRESIDENT: -- it makes perfect sense, but of course moving to the capsules, that is not this case.

MS WEBSTER: No, that is right.

THE PRESIDENT: So do we not need in fact to have an answer to the patent problem? In other words, going back to our discussion yesterday where we have, let us say, a Ruritanian patent for twenty years which -- I am so sorry?

MS WEBSTER: No, do you want to finish?

THE PRESIDENT: I will, but unless you had a correction to make.

So you have a patent for twenty years, which is valuable in the sense that it differentiates to the exclusion of all others the product that has been sold, do we not need to understand whether there is a limit on that which a patent owner can charge above cost, or are you saying that, in the case of the patent, the patent holder can charge what they like for the whole 20-year period?

MS WEBSTER: So I suppose my question is whether the patent example is relevant for capsules. So my understanding is when a patent is granted, it is because it enables the originator of the drug to recoup the investment and actually R&D and all sorts of other things which have failed, potentially, through the sale of the drug which becomes patented, becomes successful, and they have a period over which they are allowed to -- you know, I do not quite know how prices are set in that instance, whether it is through the PPRS, but there is a process of working out what is the right price in that instance.

I think the case that we have in relation to capsules is, unlike the patent, so we have a position where a monopoly position is granted through the continuity of supply guidance --

THE PRESIDENT: I am going to stop you there, because I do understand where you are coming from, you say there is not an equivalence between the patent and the continuity of supply case here, and I do understand that, but I am anxious to, first of all, finish at 5.00, and secondly, to understand why it is, assuming that the monopoly created by the continuity of supply is equivalent to the patent, and I know you say it is not, but if it is, what the answer is, unless one is saying that one can charge what one wants.

So let us take another hypothetical. Let us suppose that the Apple Coffee Shop in fact has two patents in play: one is a patent in regard to the taste of the "Extra wonderful cappuccino" at $120 a shot, in other words, it is an inventive step that simply goes to the enjoyment of coffee but is monetisable, but one has an "Amazing 'health' decaffeinated latte" which, let us say, has magical properties of eliminating seizures for epilepsy and they are both patented.

Now, my question to you is whether the approach to excess and unfairness ought to be different in those two cases, and, if so, why?

MS WEBSTER: So in the case of the -- taking the patented one -- was it the "Amazing 'health' decaffeinated latte"?

THE PRESIDENT: Yes, the one with magical anti-epilepsy properties.

MS WEBSTER: Yes. So in that case, a patent will be granted for that.

THE PRESIDENT: I am assuming a patent in each case, yes.

MS WEBSTER: And that will enable -- and that will exist -- I guess it will have been deemed necessary in order to protect the company from competition, so that might assume that absent a patent, somebody would come along and copy it and then that would drive the price down, because that is what would happen under competition, and then the returns that would be available to Apple Coffee would not be sufficient to have rewarded them for the investments that they would have made.

So we are still in a world, are we not, of the patent existing in order to create profits that enable investment costs and direct cost of production to be covered, and the patent exists because, if competition is allowed, then that cost recovery cannot happen.

So in some sense, I know it is quite a different situation, but it has the objective in the end of making sure that investments can be recovered and sort of normal profit made.

Now, I am not an expert in how patents are set. There may be a judgment that there wants to be a reward over and above just recovering the costs and some extra amount allowable to the company in order to incentivise this type of R&D in order to be developing these highly innovative and valuable products, but I think that is where this example may be different from when we come to capsules in terms of -- my understanding is we are talking about a drug where all the R&D has been done, and it is a case of just making sure that it comes to market and the particular value that we talked about yesterday is that it comes reliably to market, so there is not an absence of supply at any point because that would be problematic for the patients that are stabilised on that capsule.

THE PRESIDENT: Ms Webster, we could spend a lot of time, but we are not going to, on the patent bargain and its nature. Instead, I am going to ask you about why you are not drawing a contrast between the patented "Extra wonderful cappuccino" which is simply a taste benefit, and the patented "Amazing 'health' decaffeinated latte" which provides a novel cure for epileptic seizures.

So in each case, the patent serves an exclusionary function. In each case unless you pay, in one case $120, and in another case, $250, you are not going to get the benefit.

MS WEBSTER: Yes.

THE PRESIDENT: Do you see any difference between those two cases? In other words, is your analytical approach to excess the same in those two cases?

MS WEBSTER: I could see reasons why it might be different in the sense that the granting of the patent will -- in doing so, it may be that the authority that is doing that is taking into account a view of value to consumers or patients or purchasers of these products.

So it may be that there is a difference in terms of how that patent is granted.

THE PRESIDENT: Well, take it from me that there is not any difference in the patent regime. The difference, if it exists, is in how a competition lawyer is going to react to what are arguably unfair prices. So the patent bargain in each case is exactly the same. You get -- provided you can show an inventive step, you get a monopoly. You have to publish the invention, but if you publish it, it is inventive, and it is valid, if you infringe, you will get injuncted, so you get a monopoly and let us say in Ruritania you get a monopoly for 20 years, but that is exactly the same whether it is an invention for taste or an invention for a life-saving medicinal property.

So the control, if it exists at all -- and that is what we are exploring -- does not lie in patent law. There is no consideration of what is a fair price in the patent bargain; you simply get the monopoly.

So we may have to have an argument about that later on, whether I have summarised patent law correctly or not, but take it from me that that is Ruritanian patent law, and you have got to live with it.

So are we saying that the monopoly that exists in relation to both the health-giving, life-saving hot drink and the hot drink that merely tastes really nice is exactly the same? Let me explain to you where I am coming from: we have been talking about the articulation of the economic value by reference to those who are included, in other words, those who are included are those who are willing to pay but also able to pay.

Now, there is a group of people out there who are willing to pay but not able to pay, and ought we to be saying: the reason why you want the product and the reason why you are being excluded on economic grounds is a factor that is relevant to ascertaining whether a price is excessive, in other words, in the case of the "Extra wonderful cappuccino" that is patented but just tastes really good, well, if you want to pay $120 a cup, then that is fine because we are not particularly worried about that, you can go and get your remarkably less tasty product from either the Vanilla Coffee Shop or the Robo-Coffee Shop, you will pay far less, and you will get much less benefit, but we do not care because, frankly, it is just a taste of a cup of coffee.

On the other hand, when one looks at the "Amazing 'health' decaffeinated latte" with magical health properties at $250 a pop, you are not getting a beautifully tasting cup, we are making no assumptions about that, what you are getting is something which you cannot get elsewhere: you are getting a cure from epileptic seizures, and what you are doing is you are including in those who have the money, and you are including out those who don't, and so my question is are you going to differentiate between identical patented products by reference to a question of social need? Is that what we ought to be grappling with in terms of value, that it is a loaded term, but the manner in which it is loaded is by reference to the nature of the substitutes that exist?

Now, I accept that we are moving very far from a proper substitute, even in the case of the super-good tasting "Extra wonderful cappuccino". I do not know what would happen in this instance if the price went up by a SSNIP, the scenario does not tell us that, but do we care if the price goes up by a SSNIP and the customer base does not shift? I am suggesting to you not a lot, but that is my value judgment about relative tasting cups of coffee.

I am also suggesting to you that in the case of the "'health' decaffeinated latte", I do care not about people sticking with the product even if you increase prices further, I am concerned about the person who is willing to pay 500 but can only pay 249, and what I am asking you is, is that something which one ought to use to work out whether the price is too high, unfair or not?

MS WEBSTER: I now understand the question better, and, as I have understood it, it is the difference in those two situations in terms of the outside option that is available to customers, and in the situation of the cappuccino, we have made an assumption that there are alternatives, yes, not very good alternatives, but there are alternatives, and that is different from the latte where there are no alternatives, and I think I am more worried about excessive pricing, unfair pricing, I should say, in the context of there being no alternatives, and that is because I am more concerned that the price that is charged reflects an exploitation of the market power.

THE PRESIDENT: Just to interrupt there, you are using the phrase "no alternative", but in the scenario that I am unpacking, there is no alternative to either. It is just that you are, like me, suggesting that a super tasting product is something which you should pay through the nose for if that is what the supplier chooses to do, but that matters are different when it comes to things like needs.

So is the distinction one between need and simply would like to have?

MS WEBSTER: I suppose I might be feeling somewhat uncomfortable about that as an economist, because it feels like there is a value judgment in that.

THE PRESIDENT: There absolutely is, yes. That is right.

MS WEBSTER: Yes, and I feel that that is probably not for me to comment on as an economist.

What I would say is welfare will be reduced by allowing a price which is far above the competitive level and excluding, as you say, a set of people who can no longer afford to pay that price, and the higher the price is, the more people will be excluded and the greater the reduction in welfare.

THE PRESIDENT: Well, yes, but if you exclude -- and I quite understand why you are doing that -- if you exclude the value judgment, then there is no difference between the two cases, because you are being excluded in one case from the super taste --

MS WEBSTER: Yes, that is right.

THE PRESIDENT: -- and you are being excluded in the other from the epileptic cure.

MS WEBSTER: And if the price is above the competitive level in both of those situations, then that would lead to a welfare loss, and if the high price is particularly high relative to, say, what might arise under workable competition, particularly high relative to cost, and it exists over a long period, then that becomes clearer to me that in both situations you have a price there that would be abusive.

THE PRESIDENT: Well, except, does not your welfare loss in itself contain a value judgment, because what you are saying by the welfare loss is that you are losing consumer surplus in the pricing, but you are at one and the same time and pound for pound gaining producer surplus? So there is a value judgment in where you are allocating the two questions, and what you are saying is that I am choosing in a manner that seems to me incorporates a value judgment, I am choosing to locate the mezzanine in a manner that allocates more to the consumer and less to the producer, and why should we do that beyond wanting to prefer the consumer over the producer?

MS WEBSTER: So apologies, I should have been clearer in my language. I think total welfare will be reduced, not just consumer welfare, so consumer welfare will be reduced and the sum of consumer and producer surplus will be reduced.

PROFESSOR WATERSON: Is that because of the triangle you are talking about?

MS WEBSTER: Exactly, the deadweight loss.

THE PRESIDENT: I think it might be helpful if at some point you were to produce a little graph that showed that.

MS WEBSTER: Yes, I can bring that.

THE PRESIDENT: Because I am not sure, but I am not an economist, that what you have just said necessarily follows, because the price that we are postulating in the market is one which is the coincidence between the demand and supply curves as they exist, and that, in my understanding, is the optimum price, unless there is a deficiency in competition, and of course, whether there is a deficiency in competition is precisely what we are trying to answer, and one cannot presume from what one is trying to answer.

So I think that graph might be something that would be helpful to look at.

MS WEBSTER: Yes, I can do that.

What I should also add at this point is the size of this loss will be dependent on the shape of the demand curve, and what we have in this instance, which I think may be leading you to your conclusion, is very inelastic demand in relation to capsules, and, therefore, what we are really talking about, probably in this case, rather than coffee, is the distribution of the surplus between Pfizer and Flynn on the one hand and the NHS on the other, so I think I can produce that, I think, thinking now on my feet, I think the inelastic nature of the demand curve leads us more to sort of where we -- the judgment that we have about whether it should be consumer surplus that we are maximising or producer surplus.

If I might add --

THE PRESIDENT: Just to pause there, before you do, it may be that there are peculiarities in the present case which differentiate it from the hypothetical case that is being put to you, but we want to proceed in stages, and what is being put to you is quite deliberately a hypothetical example so that we can get together the building blocks to answer the actual example.

The problem with the actual example is it is loaded with inbuilt conclusions which you have all reached which we are testing for, and that is why I am at this stage not that interested in the differences.

Obviously, at the end of the day, we are extremely interested in the particularities of this market, that is what we are here to decide, but we are quite reluctant to articulate an approach by reference to the case that is actually under debate because we are skewing the deck in a way that is very hard to control for.

So it may very well be that the answer lies in the difference between the hypothetical example and the actual, but to be clear, I would like to know what the answer is in the hypothetical before we move on to the differences that exist in the hypothetical and the actual.

So you may very well be right, and we will absolutely get there, but at the moment I am still struggling to understand the answer that you have given me on the hypothetical, and that is, I am sure, my fault, but a graph may very well assist.

MS WEBSTER: I can follow up.

One thing which I was --

THE PRESIDENT: Yes, I interrupted you, I am so sorry.

MS WEBSTER: No, that is all right, because I was just coming back to how to assess economic value in the context of excessive pricing case.

We talked about the role that understanding an accurate measure of cost plus can have in that regard. I would add I think that there are two other sources of information which can help ground that.

The second is comparators, and I am sure that has been mentioned, and the comparators, one needs to find something which is as similar as possible for the reasons that Mr Harman described.

Perhaps the third factor is trying to identify what the source is of the ability to price at a level which is significantly above cost plus or significantly above comparators such that they exist, and I think it is looking for the justification.

So is it the case that that price is allowed for by the barriers to entry that exist or by the barriers that exist to customers switching, or is it there is something that is truly differentiating about the product which cannot fully be captured by understanding the investment that has been made?

So one example of that would be where there is genuine scarcity, and Professor Waterson talked about the Picasso. There will be only one of those paintings, and so that is a very different case of sort of trying to identify the economic value of that compared to a product where there is not genuine scarcity.

THE PRESIDENT: You are defining scarcity as meaning a limit on supply?

MS WEBSTER: Yes, and sort of more than that almost, an inherent -- if you take a talent in the market -- I mean, footballers would be similar: there are more of them than of Picasso, but they have such a talent and there is not an expectation that that can be replicated easily, and if I contrast that with the coffee shop example you talked about the value that comes in the Apple Coffee comes from the environment and the baristas, and there may be a temporary scarcity of those such that another coffee shop entering the market cannot find either of those to the equivalent quality of Apple, but my view is that those are not inherently scarce factors; they can be brought together over time.

THE PRESIDENT: No, I understand. My point is that scarcity has got two meanings. It can be scarce because there is not enough to supply, or it can be scarce because that which is plentiful is priced so high that people who need it cannot get it.

MS WEBSTER: So I am referring to the first of your definitions.

THE PRESIDENT: Yes, I understand.

I apologise, but I think we are going to have to allow at least 10 minutes more for Dr De Coninck and Dr Majumdar to say what they want to out of this. I do apologise to the transcriber. Would it assist if we took a break or shall we just get it over with?

THE TRANSCRIBER: Just get it over with.

THE PRESIDENT: That is entirely fair enough.

Dr De Coninck, you heard what the transcriber said. Do go on.

DR DE CONINCK: I will be very brief.

I think if we go back to this example of the coffee shop. Well, first, I think, it does tell us something indeed about value and about whether -- what would want to have an excessive price. In the case of the very expensive Apple Coffee Shop, I mean, we have in the situation here where we have 60% of customers that do buy this very expensive coffee, so I think that is, you know, an indication that a lot of customers do value this coffee at more than the 45%, and that is clearly a reason why in my view here we should not intervene on competition ground for excessive prices in this case, in particular given the alternative that the customers have.

I think there is a very interesting discussion that was started on the patented case, in the patent case, which I do not want to enter in the details because I think we can go on for hours on that. Maybe just mentioning one point that I think was a bit absent from the discussion, in particular, when the discussion was going about the difference between want and needs is that, in particular, if we consider here the example of the amazing health coffee, this is precisely what one would want to anchorage as an innovation from a dynamic point of view.

So I think all the discussion here was very static in the sense that we do not want that -- or you know one interpretation could be that we do not want that because we do not want the price to be too high there because potentially this is a product that is very needed, but I think we should not forget the other side of the coin which is it is especially for those products that are particularly needed that we want to be able to encourage innovation and reward for that innovation, so I think that is a point that maybe was not discussed enough.

THE PRESIDENT: Thank you very much.

Mr Williams, I am going to pass over you.

MR WILLIAMS: Nothing from me.

THE PRESIDENT: I am very grateful for that indication.

Dr Majumdar, you have the last word.

DR MAJUMDAR: I will keep it very short then, sir. Thank you.

I do not have much more to add, really. So I think you raised the question should we worry more about certain patented products and I think that is a value judgment that I am not sure I can assist on as an economist. I understand the question, but as I say I think that is perhaps not for economists.

I think the second point is a very interesting one, the one about exclusion, namely is it the case that when price goes up that leads to a reduction in demand and hence there is some exclusion, and I think what matters there is, as Ms Webster was saying, the shape of the demand curve, so the more vertical it is, the less that, as price goes up, demand goes down, so if it is pretty much straight up there will be no demand effect, hence no exclusion, so that is my second point.

My third point actually, Dr De Coninck has already made it, I was going to say sometimes you need to exclude to include, by which I mean sometimes actually short-term exclusion to promote innovation is a good thing to create new products, but those points have already been very well made, sir.

THE PRESIDENT: Thank you very much.

That concludes my portion of the teach-in. Professor Waterson will resume on Monday.

We will start again, I think, at 10.00 on Monday. Is that right? We will adjourn until then, and you have my sincerest apologies, I am sorry we have gone on, but it has been worthwhile. You can take that home at least, but I do apologise. We will rise until then. Thank you very much.

(5.16 pm)

(The hearing adjourned until 10.00 am on Monday, 20 November 2023)