IN THE COMPETITION APPEAL TRIBUNAL

Case No. 1251/1/12/16-1255/1/12/16

Victoria House,
Bloomsbury Place,
London WC1A 2EB

16 March 2017

Before:

THE HON. MR. JUSTICE ROTH
(President)
MR HODGE MALEK QC
DERMOT GLYNN

(Sitting as a Tribunal in England and Wales)

BETWEEN:

GENERICS (UK) LIMITED
GLAXOSMITHKLINE PLC
(1) XELLIA PHARMACEUTICALS ApS
(2)ALPHARMA LLC
ACTAVIS UK LIMITED
MERCK KGaA Appellants

- and -

COMPETITION AND MARKETS AUTHORITY Respondent

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Tel: 020 7831 5627 Fax: 020 7831 7737
info@beverleynunnery.com

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HEARING

A P P E A R AN C E S

James Flynn QC (Brick Court), David Scannell (Brick Court) and Charlotte Thomas (Brick Court) (instructed by Nabarro) appeared on behalf of the Appellant (Glaxosmithkline PLC).

Jon Turner QC (Monckton), Marie Demetriou QC (Brick Court) David Bailey (Brick Court), Thomas Sebastian (Monckton), Ravi Mehta (Blackstone) and Elizabeth Kelsey (Monckton) appeared on behalf of the Respondent

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THE PRESIDENT: Yes, Mr. Scannell.

MR. SCANNELL: Mr. President very briefly, yesterday a note was introduced by Mr. Sebastian which I indicated we would consider overnight.

THE PRESIDENT: Yes.

MR. SCANNELL: Obviously, and for reasons I am sure the Tribunal will understand, Dr. Stillman has been rather busy considering higher matters. A note is in production, it is just over one page long, it clarifies the position. The short point is that the amended table that we all heard about yesterday is wrong and we will explain that in the note that we will have today.

MR. MALEK: If it is wrong are you going to try to work with the CMA to try to get it agreed in one way or another?

MR. SCANNELL: We can certainly do so.

MR. MALEK: That makes sense if you could --

THE PRESIDENT: It should not be contentious. I know of the 2001 problems, but I must remind myself what it was. It is page 218.

MR. SCANNELL: Yes. The fundamental difficulty, without going into the detail of it now, is that that one must try to reconcile the data in these tables with the audited global finance system of GSK, the Unison system. It is common ground that the figures that appear in the Unison system are reliable, the problem is that according to the amendments which we heard about yesterday, there is a £13 million discrepancy between the figures in the corrected table and the Unison system. So we know that that cannot be right, it is a 22% differential.

So an effort must be made to reconcile the CIMS data, and you are quite right Mr. President we do know that the CIMS data of 2001 is all over the place, but we do have to reconcile the CIMS 2001 data in some sensible way with the figures which appear in the Unison system.

That reconciliation can be achieved and when it is achieved, the figures are slightly different.

THE PRESIDENT: Yes, I see. I think this is based, I think we were told on IMS data, is it not?

MR. SCANNELL: Correct. IMS being a third party market information service rather than the horse's mouth of the Unison system.

THE PRESIDENT: So it is not based on CIMS --

MR. SCANNELL: It is not.

THE PRESIDENT: -- at all?

MR. SCANNELL: Thank you.
THE PRESIDENT: If you can reconcile it or reach an agreed figures, that is helpful, if you cannot, you cannot.
MR. SCANNELL: We will use our best endeavours.
THE PRESIDENT: Thank you.
I think we have the two experts, Dr. Stillman and Professor Shapiro. If they could both -- I think you need to be resworn because you were both released, so we have to formally re-swear you. DR. ROBERT STILLMAN (affirmed)
THE PRESIDENT: And Professor Shapiro.
PROFESSOR CARL SHAPIRO (affirmed) Expert Panel Discussion
THE PRESIDENT: Thank you.
Dr. Stillman, if you have in front of you bundle {G/1/1}, there is a CRA report on market definition and dominance. If we go to internal page 42 {G/1/42} is that your signature?
DR. STILLMAN: It is my signature. Mr. President, in preparing for this part of the hearing I did notice a very small correction that needs to be made to three tables but you will see it is very minor, it is just really labelling.
THE PRESIDENT: Yes. Would you like to -- so, this is your report, I understand, yes?
DR. STILLMAN: It is yes.
THE PRESIDENT: Would you like to give us the three corrections please?
DR. STILLMAN: Yes. If you turn to table 1 on {G/1/15}, internal page 10, and you look at the top panel, which refers to, "Number of prescriptions ..."
THE PRESIDENT: Yes.
DR. STILLMAN: That should be in thousands.
THE PRESIDENT: Yes.
DR. STILLMAN: A similar change needs to be made to tables 9 and 10. However, just now as I was reviewing the bundle I realised that the version of my report that is in the bundle does not seem to include the annexes, the appendices. It stops at the experts' declaration. If you go to the table contents on page (i), which is {G/1/2} you will see that in the full report there is appendices A through G, and for whatever reason those do not appear to be in the bundle that I have in front of me. Maybe they are in another version.
THE PRESIDENT: I think they are probably in {G1/1/1}. They are, they are in bundle G1.
DR. STILLMAN: I see. Let me then see if I can get to the right reference. {G1/4/1}.
Very good. If we go to {G1/4/2} and 3, it is the same correction that is in the top panel of each of these two tables, the number of prescriptions should be in thousands.

THE PRESIDENT: Yes.
THE PRESIDENT: Subject to those three corrections or clarifications, really, does that report represent your expert opinion and views?
DR. STILLMAN: It does.
THE PRESIDENT: Then if we go in the same bundle to tab {G1/4/1} there is your second report on consumer welfare market definition and dominance and if we turn to page {G1/4/43}, is that your signature?
DR. STILLMAN: It is.
THE PRESIDENT: Are there any corrections you want to make in this report, in particular we are concerned, of course, with sections 5 onwards. Section 4 onwards, I should say, part 2 of the report.
DR. STILLMAN: There are no adjustments or corrections that I need to make to that.
THE PRESIDENT: Does this represent your views and opinion?
DR. STILLMAN: It does.
THE PRESIDENT: Thank you very much. Then if we go to bundle I, or you may have it loose, the joint statement, the first joint statement {I/1/1} of yourself, Dr. Jenkins, Mr. Majumdar, I think you have dealt with this before. Yes, I think you confirmed that before. I do not think we need do it again.
Professor Shapiro, similarly, if you could take bundle {H/1/1}. It is your first report of 27th July 2016 and at internal page 39, is that your signature?
PROFESSOR SHAPIRO: Yes it is.
THE PRESIDENT: Are there any corrections or changes that you want to make to part 8 of that report, starting on page {H/1/42}?
PROFESSOR SHAPIRO: No, sir.
THE PRESIDENT: Does that represent your views and opinion?
PROFESSOR SHAPIRO: It does.
THE PRESIDENT: Thank you very much. I think like before those, essentially, the three reports we are concerned with, plus the joint statement, I think we will perhaps use the internal numbers primarily, I will try and remember to give the Magnum numbers as well so they can come up on screen, but I suspect that mostly on this we are working on hard copies. Just as a matter of definitions, hypothetical monopolist test, HMT, and the SSNIP test, can we use the SSNIP test to mean what everybody understands it to mean, indeed, namely, the small non-transitory increase in price, but use the expression HMT not as identical to a SSNIP test but as something broader, which was the way Ms. Demetriou used it yesterday.

I am not sure you were here, Dr. Stillman, but as encompassing the SSNIP test but as other possible means of looking at what a hypothetical monopolist might do in terms of changes of expense on marketing or production or whatever.

DR. STILLMAN: If I may?

THE PRESIDENT: Sure.

DR. STILLMAN: I tend to think of them as very, very similar. Certainly in the ordinary course. We can sort of trace the history of these experiments, these thought experiments, I think probably it will be -- the first expression was indeed the SSNIP test, small but significant, non-transitory increase in price and the idea was doing market definition you started with a candidate market and you considered whether that candidate market -- a monopolist --

THE PRESIDENT: I think we know the test.

DR. STILLMAN: But it started with the idea of basically a hypothetical monopolist, of a candidate set of products and would that hypothetical monopolist then have an ability to raise price by this amount, the SSNIP, and then do so.

In that original development I think the two concepts were very similar right from the start. Of course it was always against what benchmark and we are going to have a lot of discussion about that, about what the competitive benchmark is, but that was the framework. Along the way there came to be a realisation that maybe that is a little narrow, and I would say in this case it is narrow for the relevant period because there may be circumstances where the issue -- the principal competition is not on price but on non-price. In that setting then one could generalise the hypothetical monopolist test or have a quality based version if you will of the SSNIP test, although you would not have a P, you would have a Q, I guess, and there would be a reduction in quality.

So you can make variations off the original price based test. So I do not think of them then as being one bigger super set of the other, one being narrow, the other being more broad. I think of them really as very much alternative ways of thinking about the same question.

THE PRESIDENT: Whether it is a super set or a variation, I just want to get the definition, terminology that we will use consistent. That is all. So when I talk about SSNIP test, we all know what that means. That is the classic one which you have just described. The price-based one.

When we are talking about a hypothetical monopolist test, that could be a SSNIP test but it could be what you have called a SSNIQ test or a variation of a SSNIP test, that is all I am saying, so we know what when we are using these expressions that we mean. Because you both say in your reports that actually the hypothetical monopolist test and the SSNIP test are

identical and that is indeed the general approach, but you understand the point I am making? It is just to get consistent terminology for our discussion, that is all I am trying to do.

DR. STILLMAN: I understand.

PROFESSOR SHAPIRO: Can I speak to that too please?

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: Thank you Mr. President. I do not equate the hypothetical monopolist test and the SSNIP test. I agree with the thrust of your question, that the hypothetical monopolist test is broader. The SSNIP test is one flavour or subspecies. The other two tests that one could use these terms -- you do not see them as often in practice, but they are in the literature -- would be a small but significant non-transitory decrease in price, which I have called in my reports the price down version of the hypothetical monopolist test that would apply in exclusion cases.

One could also, and this was relevant to yesterday's discussion, talk about a small but significant non-transitory decrease in quality. Decrease in quality is obviously in some ways comparable to an increase in price. If you wanted to focus on other dimensions of competition, it would be the small but significant non-transitory decrease in quality where quality would be defined broadly, it could mean literally product quality or it could mean some other dimension of competition, such as marketing.

THE PRESIDENT: Yes. I think you are broadly agreeing. You do say in your report, Professor Shapiro, at paragraph 144, that HMT and SSNIP test are interchangeable and they mean the same thing. So that is why I have picked up the point. That is the last two sentences of your paragraph 144.

PROFESSOR SHAPIRO: Okay. I would amend that actually based on my previous statement.

THE PRESIDENT: As long as we know what we are talking about, and do not get confused, that is fine.

We know that the SSNIP test is very widely used, well established and generally price is a very important factor for competition, often the most important factor. Perhaps usually the most important factor.

We also know, I think, it is common ground, this is a very particular market situation when you are dealing with prescription only pharmaceuticals, at least in the UK, and certainly in other European countries, in that the person making the choice of drug is not the person paying. It is, in this case, the general practitioner largely, sometimes the hospital psychiatrist, and the person paying is effectively at the pharmacy.

The consumer, who actually gets the drugs, does to a large extent neither.

DR. STILLMAN: The person paying is not the pharmacy, the person paying would be the NHS or the agency.

THE PRESIDENT: Yes, reimbursing the pharmacy. But the person who is conscious of price, if you like, looking at price, and looking at parallel import price, generic price and so on is the pharmacy. The actual consumer in this case neither chooses nor pays. So it is a very unusual, atypical situation, compared to most markets. I think that is a fair comment.

DR. STILLMAN: I would certainly agree with that.

THE PRESIDENT: Professor Shapiro, is that a fair comment?

PROFESSOR SHAPIRO: Prior to the presence of any generic competition, that is the world you are describing, I agree with that. The price becomes very much a mode of competition once generic products are available.

THE PRESIDENT: I did not say price is not a mode of competition, I said the person choosing the drug is the not the person who is conscious -- the person writing the prescription or choosing the drug is not particularly conscious of price, and is not doing so on the basis -- it is making the choice of product -- is not doing so on the basis of price.

PROFESSOR SHAPIRO: I guess I would disagree. Once the generic competition -- if there is an open prescription being written, the person choosing the product is the pharmacist, who is very sensitive to price. So I would disagree with --

THE PRESIDENT: No the person choosing between paroxetine and citalopram, for example. The pharmacy has always got -- even before generic entry, the pharmacy is looking at the parallel imports, there is always a bit of -- I am just saying it is divided. Normally, the person who chooses what they are going to have is the person who pays and in this case the fare is aggregated, and that is unusual is the point I am making. It is not a typical situation.

PROFESSOR SHAPIRO: Okay, I guess I am jumping ahead a little bit to: is price a mode of competition or not? You are making a predicate statement.

THE PRESIDENT: I am not asking that.

PROFESSOR SHAPIRO: I would agree it is not completely unusual. It happens a lot of time when there are markets where people are insured.

THE PRESIDENT: Yes you can get that situation, I accept that, if the entire market is covered by insurance.

The competition between different molecules, different prescription drugs, is the choice of the general practitioner, of the doctor; that is clear.

PROFESSOR SHAPIRO: Yes that is certainly correct. It is what I describe in my reports. I do not think that is controversial.

THE PRESIDENT: No, I think that is common ground --

PROFESSOR SHAPIRO: Yes.

THE PRESIDENT: -- from everyone, it is in the decision. The demand by the doctors for choosing one drug over another is not really sensitive to price, in any significant way.

DR. STILLMAN: Not during this time period. I think over time, probably it has become more so as there have been more efforts by the funders basically, the reimbursement agencies, the NHS in the UK, basically to try to get the GPs to think about price, but I think in this time period the killer view of the various public reports at this time was that doctors are not very sensitive to relative prices; despite efforts by PCTs to persuade them otherwise, they were not very sensitive to relevant prices in their prescription decisions.

THE PRESIDENT: They may have a bit in terms of moving to open prescriptions from closed, but in choosing whether to prescribe paroxetine or citalopram, it appears the price didn't pay much --

DR. STILLMAN: It is not to say that the price was irrelevant in this process because again we will look at later products in the data, we do see that the list prices of the different SSRIs tended to be in a band and there was some concern on the part of the suppliers about having a price that was too high relative is to the rival SSRIs, because of what that might mean for PCTs, Primary Care Trusts, in their efforts to try and influence doctors' prescriptions. But still, stepping back and looking at this from the perspective of around the turn of the century, we have a situation where, by and large, relative prices were not having a significant effect on doctors' prescription decisions.

PROFESSOR SHAPIRO: Agreed.

THE PRESIDENT: So the issue then is how, if at all, that should affect the approach to market definition and the question I think is which product, if any exercises competitive constraints on paroxetine over this period, because market definition, one is looking at competitive constraints.

DR. STILLMAN: In my view very clearly if we are looking at this time period prior to generic competition and we are thinking about this competition across molecules, a SSNIP based test --

THE PRESIDENT: Dr. Stillman, we are going to get to all that. I am just trying to establish the scope of our inquiry.

DR. STILLMAN: Okay, I am sort of in the same boat perhaps as Professor Shapiro, I am ready to go.

THE PRESIDENT: You are both extremely intelligent and worked up on this, but I am just trying to take it slowly.

DR. STILLMAN: Again, I hate to say it maybe it reflects our professions, but we will be restrained.

THE PRESIDENT: So that is the inquiry. I think Professor Shapiro you acknowledge in your report that the approach you advocate would be a different approach if one was looking at a merger without any generics on the market, a merger between, say, Lundbeck and GSK, and one would have to, as all agencies or authorities dealing with mergers, you look at their portfolio product by product, whether they have products that are in the same market or not. For that exercise, as I understand your report, you use a different approach to market definition, is that right?

PROFESSOR SHAPIRO: I would always use the hypothetical monopolist test but the way in which it is implementable is dependent on the case, and indeed the market definition that results will depend on the situation being addressed.

In the merger context between two branded or patented drugs, where generic competition is not present or a factor, then, I would look at the -- I would apply the SSNIP test, SSNIP version of the HMT, and we can talk more about that if you want.

THE PRESIDENT: Can you just, so I understand it, given this is a market where a 5% to 10% increase in the price of paroxetine would not lead -- before any generics are on the horizon -- to any switching, how would you apply that in this hypothetical merger case?

PROFESSOR SHAPIRO: Okay. So I think it is important and I do not believe this was made clear yesterday, that the hypothetical monopolist test is applied to -- the hypothetical monopolist is assumed not to be subject to price regulation. This is very clear in the OFT guidance. We happen to do it the same in the US.

So the test is designed to systematically identify competitive constraints, and basically we are talking entirely today about demand side substitution constraints.

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: So we are asking, if there were no regulation on the prices, would a firm controlling say two of these drugs charge a significantly higher price than a firm that only controlled one, if there were no regulation? This is completely separate from the question of what would be the actual effects of the merger because the price is regulated, there may be no price effects.

THE PRESIDENT: No, I understand that. But what would be your -- how would you approach market definition, that is what I am trying to understand? You say you would use a SSNIP test, one assumes no price regulation, clearly. So how would it work, the SSNIP test being applied? The SSNIP test you start with the narrow category, as I understand it, so you start with paroxetine.

PROFESSOR SHAPIRO: Correct.

THE PRESIDENT: You say if GSK were to increase the price of paroxetine by 10%~--

PROFESSOR SHAPIRO: Good.

THE PRESIDENT: -- would there be switching? The answer is no, because demand is not price sensitive.

PROFESSOR SHAPIRO: Right. It might be that if there were -- okay, two issues. First, one would think at a high enough price there may start to be some switching. Suppose it is ten times as high. So taking the test literally you would ask that question, given the actual demand characteristics --

THE PRESIDENT: But is that a SSNIP, ten times higher?

PROFESSOR SHAPIRO: Sorry, you would start with the -- the test is always comparing the price with monopoly versus the price with competition. So you would start with the price in the SSNIP version, the profit maximising price that GSK would set for paroxetine. That would be your starting point.

Then you would ask if they were to -- if we add to that another product, would the price go up significantly? That is what we are always doing with the SSNIP test, adding more products, seeing if the price goes up.

THE PRESIDENT: I thought what you were doing was increasing the price of the first product by a small amount and seeing if there is switching?

PROFESSOR SHAPIRO: Right. In the normal case where there is no price regulation you assume that the current price is the profit maximising price, and then you add another product and say, if we combine these products with the new profit maximising price, would it be significantly higher?

THE PRESIDENT: That is not a SSNIP test, is it?

PROFESSOR SHAPIRO: It is.

THE PRESIDENT: I thought you look at switching through an increase on the price of the first product. It is a slightly different approach is it not?

PROFESSOR SHAPIRO: Okay, it is economically the same thing. So let us start -- suppose I have one product, say paroxetine, and I am GSK and I maximise the prices on

that product, set aside price regulation, just for the logic of the test. We would normally assume, without price regulation, that is the current prevailing price of that product, I have maximised the profits. In this situation, for a merger, you can never have a molecule-specific product if there are no generics because each product is already at its profit maximising price. The question is: what group of products you would need to add so that we would have a significant increase in price?

You add the closest substitute, whatever drug that may be and see how much the price goes up. That is the hypothetical monopolist test.

Now, to figure out how much the price would go up, the key driver would be how much switching there is from paroxetine to the other product that you are adding. If there is a lot of switching, then that will tell you that the monopolist who controls both will raise the price.

I feel I have left you baffled. I am trying to be clear. Shall I try it a different way?

THE PRESIDENT: Mr. Glynn, who is the economist, follows you completely.

MR. GLYNN: Just to talk around it a little bit more, perhaps one of the thoughts that lay behind the President's line of questioning is, if you are thinking about the merger of two patented drug companies and you wanted to know whether, as a result of the merger, there would be less competitive constraint on the first one or on both of them, would it not be more natural to think about the way in which the merged company would be free of competitive constraints via the prescribing process, rather than via the price? Given that these are price regulated markets as well as being patented.

PROFESSOR SHAPIRO: Now we are moving to a non-price dimension. Let me say I quite agree with the other thrust of your question, before we got into the specifics of the SSNIP tests and regulated markets with completely inelastic demand, which is kind of weird. I think if you were looking at the merger you would be primarily concerned with non-price effects. I am happy to concede, in that context, it is somewhat odd to have a test that is focused on price when that is not how they compete and that is not what we think is going to happen because of the merger.

So that is why this might be the context where you could use a small but significant non-transitory decrease in quality.

I think Mr. Glynn that I would say certainly if you were looking at the effects of the merger, that is where you would focus your attention, either -- maybe it would not improve the product as much because of the loss of competitive constraints.

MR. GLYNN: Or it would save on marketing.

PROFESSOR SHAPIRO: Or most immediately they would not save on marketing and detailing.

That is what your concern would probably be in terms of such a merger, not price.

So, but coming back to market definition, rather than competitive effects. I would say in this case performing the SSNIP test would be difficult and somewhat peculiar, again in the case we are talking about, because we are ultimately trying to figure out how much cross-elasticity of demand there would be between these two drugs, but we are not going to have any data on that, we are not going to observe that, we are not going to see the prices that are profit maximising, all we see are these fairly fixed regulated prices.

So we are not going to be able to do the SSNIP test really. All we could really look for in practice is: to what extent do these two drugs really compete with each other? That is going to be marketing. In practice you can say you are going to do the SSNIP test, but you do not have price changes, the prices are all regulated. So what you are going to do is look at the marketing evidence.

MR. GLYNN: It is more natural in that situation to be talking about the HMT, the hypothetical monopolist test, rather than the SSNIP test, I assume?

PROFESSOR SHAPIRO: Yes. I guess let me put it this way Mr. Glynn, the HMT generally is a structured way of thinking about identifying competitive constraints and substitutes.

MR. GLYNN: Normally it works for price, in this market you would think about other factors.

PROFESSOR SHAPIRO: Right. There is nothing wrong with it conceptually but implementing it with price would not be workable in this setting so you would want to see, as a practical matter, you would look at probably marketing competition, like we said, the competition that we see in this world and now you are not going to have a 5% or 10% metric any more. That is what you give up when you move away from the price based test, you do not have any standard metric to apply, that I am aware of.

MR. GLYNN: But again if I could, I mean the 5% to 10% is just a convention that has emerged, is it not, there is not any really solid evidence of 5 to 10 rather than 7 to 12 or anything like that. Conceptually what you are doing is looking at the reduction in the competitive constraint on the merged company compared with the non-merged company?

PROFESSOR SHAPIRO: Absolutely --

MR. GLYNN: The basic economics you are using is identical actually, whether it is price or other factors, other ingredients of competition that you would be primarily interested in?

PROFESSOR SHAPIRO: I completely agree with that. The only part -- well, I 80% agree with that. The part I would quibble with is I guess I do take the view, Mr. Glynn, that the 5% to 10% is a useful and important uniform metric that we use across markets.

MR. GLYNN: Sure.

PROFESSOR SHAPIRO: In particular, what we are doing in making -- that use, which goes back to the 1982 merger guidelines in the US, is to ask: what group of products would, if it were controlled by a single firm, would a price in a normal case where we have price competition go up 5% or 10% as are -- in the sense we say that is significant enough that we would regard loss of competition within that group of products as a competitive concern. 1% we are going to go like -- that is so little we are not going to call that a market and measure market shares based on that. So it is a standard notion across all markets of what degree of price increase we would think would be significant in terms of raising competitive concerns so that market shares will be meaningful. Which is all this market definition exercise is, by and large; pointing us towards the way to get meaningful market shares. That is the purpose.

DR. STILLMAN: Can I respond? I think where Professor Shapiro ended up in the exchange with Mr. Glynn was pretty much what I have been saying in my reports. Namely, that if you are trying to look at the competition that takes place prior to generic competition, you have to recognise that that competition is non-price competition and you need to think about the extent to which different molecules are putting competitive constraints on one another via marketing activities and you need to look for evidence on the extent to which the different products are therapeutic substitutes and the extent to which we do see switching in response to any natural experiments we might have, vis-a-vis reductions in marketing activity or change in quality.

So I think we ended up in a place that I am completely comfortable with, and indeed I recognise in my own reports.

The beginning part of Professor Shapiro's discussion about prices without regulation, hypothetical price increase, that I do not recognise. That is not the way I think about how one would analyse a merger of branded products in the pharma sector prior to generic competition.

THE PRESIDENT: Yes, obviously Professor Shapiro is talking in the context of a merger and will take a different approach as we know in the current situation. But I was just trying to understand how he would approach a merger problem of market definition.

Now, in this case, we know prior to generic entry there is competition between the SSRIs based on -- let us step back a bit. There is competition between antidepressants based on therapeutic function, range of conditions for which they are used and so on. There is competition between SSRIs based on -- through marketing and promotions and so on and Professor Shapiro has recognised that in his report.

If there is a natural shock, as I think economists describe it, for example, a health scare in 2002, what GSK describes, somewhat euphemistically, as "adverse publicity", that led to a marked decline in demand for paroxetine and a corresponding increase in other SSRIs, can one infer something from that with regard to substitutability and constraints that is relevant to our case of looking at market definition at that time?

DR. STILLMAN: Yes I think very much so. Of course, I think the figure -- I guess the data is presented in different places but I always go to figure 4 of my first report which is {G/1/25} internal page 20.

THE PRESIDENT: Yes. Probably 4 and 5.

DR. STILLMAN: Right. I guess the background against that is also to observe very quickly on the following page that we are looking at a time period -- that is at figure 5 in the following page -- we are looking at a time period where there is no decline in the overall use of antidepressants or SSRIs plus low dose venlafaxine. You can see the solid line and the dashed line at the top, that is steadily increasing over the period. There is no, if you will, market decline taking place over the relevant time period in the use of antidepressants.

We also start off and we look at figure 4 on the previous page, against the backdrop of a lot of evidence from Professor Young and Ms. Nicholson and data that I have analysed about the basic therapeutic substitutability of these products.

We are not looking at, you know, a situation where we have tea in China and iron ore in South Africa that are just completely unrelated and might have particular interesting different time paths. We are looking at products that we have a good reason to believe are in the same class, in the same market to begin with and then we come along to this figure 4, to this time period, where we have a shock and the shock is a combination of reduction in marketing efforts at GSK, for reasons that are described in some of the witness statements, about reorganisation of the new company and the reduction in marketing spin behind Seroxat.

But probably more importantly, or certainly very important, is this health scare that you referred to. What would one expect, if these products are all close substitutes from the point

of view of doctors and they are all pretty much the same, the differences are quite small and now suddenly there is a concern about the safety of one of the products.

If you have good alternatives what you are going to do is you are going to take your new patients, especially, and put them on a different drug and what you would expect to see in the data would be a reduction in the sales of the product, in this case paroxetine, that had the health scare, relative to other products.

That is exactly what we see in this data. So to me this is a very nice natural experiment that really makes the point that these drugs within the SSRI class can be regarded as substitutes from the point of view of doctors.

THE PRESIDENT: Professor Shapiro?

PROFESSOR SHAPIRO: So I agree that this health scare, whatever, this shock, confirms what we see in the other evidence, which is the various drugs are competing for doctors' attention and this is bad news for Seroxat and I imagine the reps out there detailing the other drugs were delighted and it made their sales pitch easier. So it is all very consistent. I do not think there is any dispute that there was a certain degree of competition or substitution in doctors writing prescriptions between different SSRIs.

I do not think it is relevant for this case for market definition, which was the last part of your question. We can turn to that when you are ready.

THE PRESIDENT: Yes. Can you go on to say why the fact that we have this non-price competition that you have described, that there is, as you said, a certain degree of substitution and competition for doctors, but not based on price; why is that not relevant in a situation where there is no competition based on price? That is our starting point.

PROFESSOR SHAPIRO: Well, let me put it this way, if there were no prospect of generic entry and this were simply the world that we were in and that was going to continue, then this would be the story of what competition is going on. It is non-price competition on these dimensions and -- but the case we have before us is that the world is about to shift dramatically or it might, not for sure, but it might shift dramatically with the entry of a generic paroxetine and one needs to understand what those competitive constraints would be that are not yet present in 2001, let us say, and that is the heart of the case.

To ignore those looming competitive constraints would be, to me, missing the main show, and market definition, therefore, must, to make any sense and be useful here in this case, account for those powerful competitive constraints which happen to be on the price dimensions even though they are not yet in evidence at this moment, but they are in prospect soon and that is what the case is about, those competitive constraints.

THE PRESIDENT: So if there was no prospect of potential generic entry based on this sort of information, do I understand you, that you are saying then you would consider that the product market might embrace all SSRIs?

PROFESSOR SHAPIRO: Well, for example, the merger case we talked about; suppose two of the SSRIs were merging, it is entirely possible that the relevant market would be the sole group of SSRIs. I do not know whether it would be a subgroup of that, but, yes, generics would not be part of the picture, that is not a real world competitive constraint in that situation. You focus on the competitive constraints that are in the real world and are relevant for the case. So, yes.

THE PRESIDENT: Just so I understand the implication fully. If we move away from merger and think about abuse of dominance, but again a situation where there is no prospect of looming, as you put it, generic entry. Suppose that -- say that, as a hypothesis, that all these SSRIs had to be administered intravenously and therefore a nurse had to attend the patient and GSK said, well, we have got a nurse visiting service, there is an extra charge for that, we will only supply Seroxat if you also take our nurse visiting service. But there are lots of other competing nurse visiting services, so it is a tie in that way.

Clearly, anti-competitive, one could say, in broad terms, but Lundbeck for citalopram, which also has to be administered intravenously, they do not have that obligation, they leave the surgery free to appoint any nurse visiting service.

So if the Competition Authority brought a case against GSK, said well that is an abuse, GSK would say, no, we are not dominant, what would -- so one would have to start by establishing are they dominant? The market definition there would be the one we have discussed because there is no prospect of generic entry, is that right; it would be on the basis of substitution?

PROFESSOR SHAPIRO: Yes, that would be the question you would ask. I think you would want to know whether paroxetine was sufficiently distinct from other SSRIs that it might be considered a must-have drug, that could then be a source of power as a tying product to tie the nurse services to, and I would think if you had this type of evidence -- well let us say extensive evidence that there was active competition, doctors were switching from one type of SSRI to another, etc, that that would be unlikely that it would be a must-have drug.

So you would not find a relevant market in that case confined simply to Seroxat.

THE PRESIDENT: In which case, unless you could bring the case under what we call Article 101, Chapter I, as I think you have now learnt, there would be no sanction through

competition law, there might be through health regulation, whatever, but you could not address that practice of GSK, assumed practice, through competition law because they are not dominant?

PROFESSOR SHAPIRO: That is my understanding certainly of how your law works, and EC law as well. It seems to me just, speaking as an economist of course, that sounds like the right result is that if there is all this competition, this particular drug, paroxetine, is not must-have, it is not that distinct from other SSRIs, we would be unlikely to have real harm in the nurse market, whatever that is exactly, the tied product market. There just would not be enough power vis-a-vis other SSRIs to cause that harm so we would not need to get into whether there was an abuse, whether the tie was justified, we would cut things off with the lack of dominance based on the market definition.

THE PRESIDENT: The power would be that the doctor choosing paroxetine would not be affected by the fact that there is an extra cost of having to use that nurse service because the doctor is not interested in cost, they would still choose it in exactly the same way as before. That would be the anti-competitive effect.

PROFESSOR SHAPIRO: I am feeling like this is a job for the regulators of the sector to say wait a moment, since there is -- there is competition in detailing and to get doctors to prescribe, but if there is no check on the system here regarding these other services, maybe that is a rule that has to be passed. Now we are moving into kind of a zone where I would not want to do too much with competition law simply because it is sounds like there are other problems in the market. But it does not -- again, just sticking with market definition. It does not seem like in this fact pattern, there would be a relevant market defined based on the one molecule because you have competition on the dimensions, you know, that are significant at the prescribing level.

THE PRESIDENT: I think that is a clear exposition of how you approach it in those situations, which is effectively, I think, the way Dr. Stillman approaches it --

DR. STILLMAN: Yes I agree --

THE PRESIDENT: -- before you have generic entry.

DR. STILLMAN: Excuse me Mr. President, I interrupted you, I did not hear the tail end of your sentence because I started to speak.

THE PRESIDENT: I was just saying as I understand it that is consistent with the way you would approach it in those situations?

DR. STILLMAN: That is correct sir.

THE PRESIDENT: The approach that you have -- we have discussed of looking at substitution by the reduction, the way that Professor Shapiro, you say, would be appropriate if there is no generic entry; the natural shocks, the degree of effect on promotional spend and so on. Is that what is described as the cellophane fallacy? Does it involve the cellophane fallacy? You said it is the right thing to do in those situations.

PROFESSOR SHAPIRO: The cellophane fallacy arises when we have a case when there is an alleged exclusion of a competitor. So the merger cases we talked about are not in that category. When there is a possible exclusion, then we have to consider the fact that the current prevailing price is already at an elevated level. The OFT and EC guidance is pretty clear about this issue.

So, the previous discussion we had, where we had no prospect of generic entry, there was no discussion in your tying case of any exclusion, it was the exploitation of the power to possibly harm competition in a neighbouring market. So we have not come on to -- we only come onto the cellophane fallacy when we are talking about exclusion, and in that case it is not the hypothetical monopolist, we have possibly an actual monopolist and we have hypothetical competition, which has not yet arisen and we are still comparing competition and monopoly. We have not come to that yet with your tying case.

THE PRESIDENT: I thought the cellophane fallacy was not limited to a case of exclusion of competition, it is just a question of how you can approach -- apply a SSNIP test or hypothetical monopolist test for market definition, given that the price might already be at its -- might already be a monopoly price, such that any SSNIP will produce switching, and then it is a broader fallacy.

PROFESSOR SHAPIRO: That may be. I guess the part of it that I am applying here, and how I have been using the term in this case, is the concern that when you are doing market definition and you have got the prospect of entry that is coming, or that has been blocked out, you need to compare the current price to the price that would prevail with that competition, and as you know I am arguing that that lower price is the one that is very important here.

That may not be the only type of cellophane fallacy out there in the literature, but it is the one that is applicable to this case.

THE PRESIDENT: Yes. It was just that -- I was puzzling over the point you make at point 3 of this part of the joint statement at page 39 {I/1/41}, where one is discussing using therapeutic substitutability. I can understand why you say that is the wrong approach and the criticisms

you make. What I struggled with is to see how that can be described as the cellophane fallacy, which I always understood as referring to something else.

I think you use the same criticism in your report, saying this is the cellophane fallacy.

PROFESSOR SHAPIRO: I do. So point 3 there says:

"Defining the relevant market in this case based on evidence of therapeutic substitutability would be the cellophane fallacy."

Let me explain exactly what I mean then, since you were puzzled and still look puzzled.

Let me focus on price. We see a price at which GSK is selling Seroxat. We see that there is this non-price competition with the other drugs. That is what we observe before generic entry.

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: Defining the relevant market here, in my opinion the normal application in an exclusion case, would be to compare the price we see, the pre-existing Seroxat price, with the price that would result from competition in the candidate market, namely with generics.

So, to brush that aside and focus instead on the therapeutic substitutability on the non-price competition would be an error and I am calling it the cellophane fallacy.

THE PRESIDENT: Well, I understand why you say it is an error. It is just not the way I understood the cellophane fallacy, which is a different kind of error.

If it was said that here one was taking the price charged by GSK, forgetting that it is regulated, or the maximum price that it could charge, and then saying, well, a 5% increase on that price would not cause switching, or would, that seems to me the territory of the cellophane fallacy because you are taking a monopoly price. The fallacy relates to a use of a profit maximised price, does it not?

PROFESSOR SHAPIRO: I see, okay. No.

THE PRESIDENT: It is not a term for any general criticism of using the wrong approach.

PROFESSOR SHAPIRO: I understand. So, I guess I was using it more broadly, and maybe different than how you understood it or it may appear in some places in the literature, so let me clarify.

I was using the term cellophane fallacy to mean the following: we observe indications of competition between the product in question and other products in the current status quo situation; we therefore conclude this firm is not -- the market must include these other products because the firm is competing against them, on whatever dimension it is

competing, and this is a logical fallacy because any monopolist, any firm, even if it is a monopoly, will compete with some other products, in whatever way they compete.

I think your rendition of the cellophane fallacy, it would be price competition. If they raised the price of cellophane, people would switch to wax paper. But in my more general version of it, whatever dimension of competition we see, of course we are going to -- in this case non-price competition, therapeutic substitution, of course we are going to see that. It does not tell us though about what a competitive price level would be and in this case we actually know a lot about that, that is a much lower price level. That is what I meant.

THE PRESIDENT: Yes, I see.

PROFESSOR SHAPIRO: I think it is really a different usage of the term cellophane fallacy, not anything about the underlying economic analysis.

THE PRESIDENT: Yes, well, you explain what you mean. I do not think we need to spend more time with that because we might as well move to what is the underlying issue.

It does follow, does it not, from your approach that if competition before generic entry is not based on price and generic entry has a dramatic effect on the price of the product, as it did here and as it usually does, that your methodology will mean that most patented drugs that are then susceptible to generic entry after the patent expires will be dominant, will be in their own market?

PROFESSOR SHAPIRO: I think generally, if you have a drug that is facing generic competition and the case involves allegations that that generic competition has been excluded, then you would typically have a relevant market for that drug and its generic equivalence. I would submit to you that is a correct result because there is very significant competition at stake in those cases and it is specifically on price. Of course, to define the market that way in no way pre-judges whether there was abuse, but it would tend to lead to a dominant position unless of course there is already a generic competition. The patent holder's share might be quite low, in that case you would have a single molecule market but no dominance, and I think Dr. Stillman would agree, in that circumstance you could very well have such a relevant market.

THE PRESIDENT: Yes.

DR. STILLMAN: I am just reading the transcript to see what I agreed to or what it was suggested I agreed to, because I am not sure I do.

PROFESSOR SHAPIRO: Fair enough.

THE PRESIDENT: I will give you a chance to do that. (Pause).

DR. STILLMAN: I will ask it through Mr. President, but I am just trying to get a clarification of what the proposition is and that is, was the hypothesis that we are in a world where there already is independent generic competition and then at that point we are trying to assess what the relevant market was? I am not sure I understood the proposition.

THE PRESIDENT: No, it is that we are in a situation where the drug is still under patent and when it comes to the end of patent or the patent is set aside, then there will be generic entry. So it is a valuable drug that attracts generic entry; in that situation, I was asking Professor Shapiro whether his methodology means that you would always have a situation where the market definition is limited to that drug?

DR. STILLMAN: I think you probably know from my reports that certainly my take on this, that is my reading of the implications of the CMA's approach and Professor Shapiro's approach, is namely that because it is very common, certainly for this kind of pill type of product, that when you have independent generic entry the prices are going to fall, that then applying the approach that Professor Shapiro and the CMA have been advocating would imply that nearly all such drugs are going to be considered dominant prior to a generic entry. Professor Shapiro tries to basically do a carve-out and say, well, it really sort of depends on the nature of the alleged abuse and the conduct, when we think about how to define dominance. I do not think that is actually the standard approach or the appropriate approach. What I would just observe again is that this approach implies that nearly all commercially successful patented drugs are going to be considered dominant. That has some very serious implications in terms of special responsibilities on patent holders that can have negative effects on the competitive process that I think need to be considered.

PROFESSOR SHAPIRO: I think we are getting very close to the nub of the matter here now, okay, we are really at the heart of it. Just to be clear, let me refer you to paragraph 122 of Dr. Stillman's second report, internal page 32.

Dr. Stillman, this is just to clarify my previous statement, of what I was attributing to you. In paragraph 122 he is talking about market definition --

THE PRESIDENT: Just pause while people find it. Page 32 of the second report which is Magnum page {G/4/35}. Yes.

PROFESSOR SHAPIRO: Okay it is up on the screen now. Thank you. In this paragraph Dr. Stillman is talking about the situation after the entry of independent generic competitors. Let me draw your attention to the final sentence, where he says:

> "Thus, after independent generic entry, it may make sense to assess the competitive effects of a proposed merger in the context of markets defined at the molecule level."

He says that. I would broaden that out a little bit -- and he can indicate whether he would disagree with my broadening -- to say when you have a market where there is -- the drug has been genericised, that then will typically be a relevant market, in and of and to itself, and it is fairly clear, I think, from the hypothetical monopolist test, we would just ask: if a single firm controlled all of the supply of that molecule, would they substantially raise price? And the answer is well we know they would because that was the much higher price that arose prior to independent generic entry.

So, this would be very common situation and I think that is common ground. What I am saying is back up the clock a little bit before generic entry took place. Let us say it is two months and the branded firm -- let us say it still has a patent. Let us say the patent is about to expire. Suppose maybe it is six months and it enters into some conduct which is designed to stop effective generic entry. Maybe they purchase key inputs that the generics would need. Maybe they withdraw marketing authorisation. There are a whole range of different types of conduct that we might consider. At that moment there is still no generic entry. There is no price competition yet.

I would say at that point the relevant market will still be the molecule, just as it will be in six months from now, because the critical competitive constraints that are at issue are the generic competition. I think Dr. Stillman would agree, if a year goes by and now they are saying -- suppose the branded firm still had -- let us say after a month or two of generic entry, still had a large share and they engage in this conduct, it could be abusive. Anyhow there would be a relevant market, we should worry about loss of competition in that realm and the same is true slightly earlier.

So it does not make economic sense to me to define the market prior to generic entry in a radically different way than you would immediately after generic entry. That is the problem with Dr. Stillman's approach of saying: no, just look at the current market conditions, no generic entry, compete with other drugs, not -- you know the relevant market is very broad and then it is suddenly going to shrink to a molecule if generic entry comes in.

There is a problem with that approach. That does not work.

THE PRESIDENT: Yes, Dr. Stillman?

DR. STILLMAN: Thank you. First of all, I am glad we went to this section of my report because I would like to have the record somehow reflect that Ms. Demetriou's description of my report, what I agreed to, yesterday, I think it was at page 40 {day12/40:1} of yesterday's transcript, where she said that I -- she implied that I agreed that the definition of the market

should depend on the nature of the conduct at issue in the case; if you can pull up the transcript?

THE PRESIDENT: I do not recall her attributing that to you.

DR. STILLMAN: Maybe I was being hypersensitive --

MR. MALEK: Dr. Stillman I think you are right and she did say that and I was wondering whether that was right when she did say it. I am glad you are responding now.

DR. STILLMAN: It is not right. Maybe we should pull the transcript up.

MR. MALEK: It does not matter.

DR. STILLMAN: Anyway the point is what I actually said is described in section 5.1 of my second report, which is the page that is currently on the screen {G/4/35}, and I was referring to how the relevant market could depend on the time period, whether you were before or after independent generic entry.

MR. MALEK: That is what I understood. Because look, once you have got independent generic entry, as I understand it, you fully accept that is the -- paroxetine is the relevant market.

DR. STILLMAN: That is correct.

MR. MALEK: Because you have GSK branded product competing with the generics and you can see all the price changes. But what you are saying is prior to that, that is not the relevant market.

DR. STILLMAN: Yes, that is right. Then we do get to what Professor Shapiro described as the nub of the issue: what about at the border? You know what about when we are moving from one to the other? I think nonetheless that the correct approach, as a general approach to analysing dominance and trying to counsel firms about whether they are dominant in the sector, is to take the standard approach of looking at the competitive constraints that one faces in the environment, that we do not have dominance being defined based on the conduct that the firm is considering, the firm is -- to follow up on the President's questions to Ms. Demetriou yesterday afternoon, where the hypothetical was GSK, or I guess it was SmithKline Beecham at the time, has Seroxat and it was seeking advice in the late 1990s or 2000 time period from its attorneys about how worried does it have to be about competition law issues and when it comes to pricing practices, be it levels or rebates, or agreements; just what kind of concerns does it have to have about the possibility that it might be found dominant because, as we know, in Europe, if you are dominant you have these special responsibilities?

So that is an important question that comes up a lot. So to have an approach where, as Professor Shapiro advocates, which in this particular fact setting he said would be

appropriate because of the fact setting of this case, but nonetheless has an implication that would imply that all nearly all patented drugs are to be considered dominant, is an approach that I think has very bad -- potentially bad effects on competition throughout the sector.

MR. MALEK: What do you say, let us say we are one day prior to the GUK/BASF trial about to begin; what is the vision then?

DR. STILLMAN: Always the hard cases are at the corners.

MR. MALEK: Well this is a hard case. Let us see where we are.

DR. STILLMAN: I think that we still need to think about what the implications are of the approach to dominance that is being suggested and what they imply for the operation of the sector. To have an approach that implies that nearly every patented drug is going to be considered dominant, I think is a dangerous and misguided approach.

I also object to it, sort of -- it is really the same point but kind of in different language because that approach treats as the benchmark for assessing when the prices are competitive and profits are competitive the situation we observe after generic competition. Again, I think that is problematic and not the way that we would normally analyse whether particular prices and profits are competitive in a sector.

MR. MALEK: Okay look. We know what the position is in 2004 because you have independent generic entry and I think you are agreed as to what the relevant market is there.

You go to the other extreme and look at 1995 when they still had the original patents. All very strong and not really any threat from everybody else.

What I am interested in just looking at the day before the GSK, BASF trial. What is the relevant market at that stage?

DR. STILLMAN: I have sympathy for thinking about the constraints and how they -- if they exist today and how they are likely to evolve. We do not know how they are going to evolve. It is uncertain how they are going to evolve. This is a possibility that the outcome of the litigation would be such that we then have independent generic competition.

So I understand that framework. I still think that having an approach that basically treats -- which implies that any patent holder is going to be regarded as dominant prior to independent generic entry, is a flawed approach.

MR. MALEK: I fully understand that and that comes out very clearly from your evidence. Yes.

PROFESSOR SHAPIRO: If I may, I have --

MR. MALEK: Yes.

PROFESSOR SHAPIRO: First, Dr. Stillman mentioned counseling firms and his concern that they will all be found dominant. Well I have counseled quite a few firms actually and I think the counseling here is very clear. Actually it is exceedingly clear and rather easy. I would tell GSK or any other firm, drug firm, I would say: look, if you are facing the prospect of generics -- your product becoming genericised and that is the threat, you should be extremely careful on NHS grounds because that is a powerful form of competition.

So if your business strategy and conduct is directed at foreclosing that threat, you should be careful, including unilateral conduct. It is a specific part of your operations, you should be well counseled, you should be extremely careful here, whether it is going to end up being 101 or 102. But unilateral conduct -- I would counsel that and I think that is the right advice to have the pharmaceutical industry on alert regarding that.

Other areas? No. Okay. I understand Dr. Stillman is going to say, or Mr. Flynn will say: well, once they are dominant they have these special responsibilities. I do not know, I can talk about that if you want, but let us just say, now we are into the question of abuse and what is abusive, I just think the counseling advice is very straightforward. Generic competition is powerful, you may be very unhappy if you are facing it before your patent expires. Sue them, do all those things that are fine, but if you are going beyond that, some sort of self help to block them out, you should be careful, including unilateral conduct. I do not think that is a difficult counseling story. I think it is actually important that that be the message that be sent.

Second, the fear that all branded products, all patented drugs will be found dominant. I think that is a false canard, it is not what I am saying, it is not what this approach implies and it is not what a decision in favour of the CMA would itself imply here.

What it says is, in a situation where the company is acting unilaterally to block generic entry, yes, the abuse of dominance issues can arise absolutely. But in other areas, in the merger context, no, they are not going to be found domestic not. Not in the tying context, it is not a relevant market for the single molecule.

That to me is the right economic answer and it guides you in all of these cases, in the right way, starting with market definition and then where we will be taken, if necessary, when we get to the abuse stage of the inquiry.

Third, the conceptual point, Dr. Stillman said well hard cases at the corners. This is not a hard case and it is not at the corner in my view. The hypothetical is at the corner, because, you know, we have one day or one week before generic entry, but the concept is much broader, the concept is a firm that is acting to exclude a competitor and we have reason to

believe that the addition of that competitor or group of competitors will significantly add to the competitive constraints facing the firm. That is what market definition is supposed to pick up. That is not a corner case. That is not a hard case if you know that the competition at stake will in fact lead to dramatically lower prices. That is an easy case in terms of performing the hypothetical monopolist test, in terms of defining the relevant market, and in terms of protecting competition.

The other thing with this corner case is if you were to take the view that Dr. Stillman was advocating, so I am a firm and I have a position that is very profitable to my firm and I would like to protect it, I see some threats coming, they are not here yet, I am competing with some other products so far but I am worried about this threat, it is something close to what I am selling. Let us move away from drugs, any industry. I am concerned somebody is going to come -- maybe it is a "me too" product, sort of an imitation. It is a closer competitor than I have faced so far, I am going to lose sales, I am going to have to lower my price. This is not good news, I don't like this at all, but it has not happened yet.

If we are going to ignore that looming competitive constraint and define the market based on all those other firms I am admittedly competing against now, but we would change that market definition as soon as that company gets in and the prices fall, all we are doing is inviting this firm to act early, to engage in this conduct before the entrant actually is on the scene. That is a terrible incentive. You are basically asking them to strangle babies in their cribs, to use an overly lurid example, I admit.

Strike that, that was too much maybe.

But to exclude a competitor before they are on the scene and define the market in a way that does not factor in that competition because it has not arisen yet in that competitive constraint.

MR. MALEK: If I could just see where we are. If you have got a scenario where it is the day before the trial and you go to counsel and say: look, what is going to happen here? We do not know in this case because they have claimed privileges over the advice that they got at the time. Counsel says: look, I think you are likely to lose. I can see that Dr. Stillman may or may not agree with that situation, that you define the market including the generics because you know that more likely than not the generics are going to be coming in as a result of this trial.

But what he is saying is no we have not got that scenario, we just do not know what the court will do, so how can you presume that what in fact you are doing is excluding

competition; surely you should be defining the market his initial way rather than your way? I think that is where we are, is it not, Dr. Stillman? Have I misstated where I think you are?

DR. STILLMAN: I think that is a good -- I actually said something slightly different and I referred to the probability or the likelihood.

MR. MALEK: You did, yes.

DR. STILLMAN: But I think when one thinks about the approach that the CMA and Professor Shapiro is advocating, which is to take the price after entrance of generic competition as the benchmark, that is basically what you are suggesting in your hypothetical, namely that the originator is going to lose at this trial.

MR. MALEK: There are two hypotheticals. One is that you envisage you are going to win and the other is you envisage that you are going to lose and you may end up looking at two different markets depending on which is the view. I am just trying to test it this way.

DR. STILLMAN: Clearly, there is no prospect that the originator was going to lose, and that the patent was going to be upheld, then it would not make much sense for using, I do not think, as a benchmark the price after independent generic competition.

MR. MALEK: Yes.

DR. STILLMAN: The other extreme, that I think we have a better case for considering, you know, 100% probability if we had this trial tomorrow, that we would have an outcome which would lead to independent generic competition. I can see the logic in starting to consider using that post-litigation environment as the benchmark.

But, I still want to take a step back because I think we have gone off the rails, in my view, a little bit because we are really now starting to talk about defining the market with reference to the alleged conduct or the conduct at issue and that is the -- that was, I think, embedded in all of what Professor Shapiro was saying and that is not the usual approach.

The usual approach is to say I am going to try to define the market, assess dominance in that market, the market as exists and then what I am going to do is I am now, having done that and I have got a firm that appears to be dominant, I am going to move on and consider the conduct and consider whether it is abusive.

You could construct economic arguments: why actually if, as an economist, I was redesigning competition law I might not do it that way, but that is the approach that is used. When one uses that approach, then I then worry about that approach as is being proposed in this case which has an implication that in all situations nearly all situations with commercially successful patent drugs we have an implication that the firm is going to be dominant and the implications -- the issue with respect to advice and counseling that I was

referring to was not with respect to a particular conduct of vis-a-vis generics. It was advice with respect to the everyday business practices of the firm, where it is trying to decide, well, you know, can I engage in rebates, can I enter into certain distribution agreements? What about the level of my prices? Do I have to worry about excessive pricing cases from the CMA? If not the CMA, do I have to worry that even if the CMA would not bring that case, I might have the Department of Health trying to leverage off this approach to bring some kind of damages action in favour of the NHS because my prices are too high?

So there are a lot of potential consequences of an approach that throws such a wide net around the industry as to who is going to be considered dominant.

THE PRESIDENT: The two points are quite separate. The first criticism you make is that this involves determining dominance according to the conduct at issue, and that that, you say, is very unusual and not the established approach.

If that is what is being proposed, and of course it does not apply to all the firms' practices because it does not apply to excessive pricing or tying in, you have to look at the conduct. If, on the other hand, the approach is one that just establishes dominance, full stop, then it would have the second consequence that you pointed to; is that not right?

DR. STILLMAN: Yes, that is correct.

THE PRESIDENT: I think Professor Shapiro that what you are saying is that you do define dominance according to the alleged conduct because, as I understand the point you made, if the conduct is potentially excluding, or excluding potential generic entry, then you bring them in when looking at the market. If the conduct was tying -- nothing to do with generic entry -- then you would not. Have I understood you correctly?

PROFESSOR SHAPIRO: You have understood me. I guess I would put it slightly differently, it is really a matter of nuance really. Market definition is about systematically identifying competitive constraints. That is common ground. In my view the competitor's constraints you want to look at for market definition are the real world constraints that are relevant in the case at hand. That is all.

The real world constraints will depend on the conduct that is alleged and the real world situation you find yourself in. But it is not about backing out from the conduct, it is identifying the real world competitive constraints that are relevant in the case at hand. So the constraint imposed by generic products is obviously very relevant in this case. It may not be at all relevant in other cases. Suppose you had a situation again where the patent was strong, no generics were thinking of coming in any time soon, why would you look at that? It would make no sense. You would be looking at some fantasy.

So the competitive constraints, yes they depend on the case. That is all I am saying.

THE PRESIDENT: I think that is an appropriate moment, a little late, to take our 5-minute break.

(12.00 pm) (A short break)

(12.15 pm)

THE PRESIDENT: This is all extremely interesting and it is bit like almost an academic seminar and you are both getting very engaged and sometimes animated. The result is that you are speaking rather fast and we have a request from the transcribers, they have trouble keeping up with you. So try to slow down in what you are saying.

Can I just clarify my thinking, Professor Shapiro on what, I think -- where we are getting to, and approach it this way: if a patentee, it could be GSK, brings an infringement action against a generic because the generic is threatening to enter into the market, but we know just bringing infringement proceedings is not an abuse, but is it, by the fact that it is bringing the proceedings, does that mean that the market definition is then including the generic and it is therefore the narrower market, which is probably dominant for that purpose?

PROFESSOR SHAPIRO: I would like to know what -- since the bringing of the infringement case is not itself -- nobody would consider that possibly an abuse, presumably the case involves some other conduct? But if the conduct at issue is allegedly --

THE PRESIDENT: Suppose the generic, badly advised perhaps, says: you threatened us with infringement, that is an abuse of your dominant position, and they counterclaim in the case in court, the civil court, saying that is an abuse of your dominant position. Is the only answer for GSK to say no, it is clearly not an abuse or can they also say, (a) we are not dominant because of the market and (b) in the alternative, even if we were, it is not an abuse?

As you know, parties to litigation always like to take every defence they can.

PROFESSOR SHAPIRO: So I have been told. So I think this is in the spirit of your question, suppose you had what in the US we would call "sham litigation", an allegation that was a sham litigation, do you call it a vexatious litigation?

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: Let us suppose GSK -- I do not want to put it on them -- a patent holder brought a suit against a generic, the generic said this is complete nonsense, it is totally without merit, and the bringing of the suit alone is an abuse and you are dominant. I think this is at least close to your question. So my view would be --

THE PRESIDENT: No, it is not actually. Sorry to interrupt. It is not my question. We are not assuming anything about the strength of litigation. It is bona fide litigation --

PROFESSOR SHAPIRO: Okay, I am sorry.

THE PRESIDENT: -- badly advised perhaps, but possibly thinking they can get something out of all this, *Servier* and potential judgment in this case, the generic counterclaims saying, this is an abuse of dominance.

PROFESSOR SHAPIRO: I see.

THE PRESIDENT: The patentee defends saying, nothing abusive about what I am doing. We all agree with that. But it also says, furthermore I am not dominant because I have a market with other SSRIs and now the court might shortcircuit that argument, as judges like to do, saying there is clearly no abuse so we do not like to decide the question of dominance. That is very tempting for courts. But if they did have to decide it, I was just trying to think through what you are saying, what would you say is the correct analysis?

PROFESSOR SHAPIRO: Okay I understand that.

THE PRESIDENT: You see the question?

PROFESSOR SHAPIRO: I do. I would say for the purposes of market definition, the competitive constraint that is at issue is the possible generic entry because that is what is being potentially blocked by this lawsuit. So, what I have said about the molecule specific market would apply. I suppose that -- I think that is basically my answer. I am thinking -- I think out loud a little bit which is dangerous. Suppose there were other evidence where there was really no serious prospect this generic is going to come in anyhow; they did not have the capability to make the product for example.

I could imagine an argument that this is not a real world competitive constraint that applies but that is already getting into some other facts.

I would be inclined to say yes, the relevant market is the molecule, because that is the competitive constraint at issue and we would need to look at whether there is -- presumably it would be dominant in that market and so then we would need to consider abuse. Again, that might be a quick inquiry but we would need to consider it.

THE PRESIDENT: That is very clear. If before trial the patentee, the originator, got advice that you have a 90% chance of success, that would not change your analysis of the market and dominance, would it?

PROFESSOR SHAPIRO: No, that would not change. I think what we are talking about now is the threshold, I guess, is there is some situation where the competitive constraint on which I am focusing, and I think the market definition exercise should focus, is so remote in

prospect that I do want to consider it a real world competitive constraint that would apply to market definition.

I think the cleaner approach is to take it on its face. Because the allegation here would be from the generic, they have been blocked from the market and they had a real prospect of getting in and so I would take that on its face as the competitive constraint at issue and define the market around that and then handle other stuff, other issues such as the likelihood of winning, could they manufacture the product, were there regulatory barriers, whatever other factors would come in and would affect -- might affect whether there is any actual effects of the conduct, and of course you might not find the conduct abusive.

Yes, I think the more straightforward approach would be to define the market that way, as I have said.

THE PRESIDENT: Yes. That is clear and consistent. So really if there is exclusionary practice directed at a potential entrant, what you are saying is then one should include that entrant in the market for the purpose of market definition?

PROFESSOR SHAPIRO: That is exactly what I am saying. In part -- I will just add, I have done many more merger cases actually than exclusion cases, but I think of market definition as one does not want to pack the whole analysis into market definition. It is just the way of identifying competitive constraints, measuring market shares in a way we think is informative and then getting on to the actual effects analysis, as the case may be.

So, yes, this is what I am saying.

THE PRESIDENT: If one thinks about dominance, after the generics are in the market and they flood in, as we see here, it is quite possible that the patentee is then not dominant.

PROFESSOR SHAPIRO: That would be the norm. In that relevant market you would typically see the original patent holder's share being rather small and the price at this competitive level that reflects multiple generic entries. So I would think the norm would be, there would be no dominance in that market.

THE PRESIDENT: So would there be an anomaly that one is including the potential entrant in the market, for the purpose of market definition, to establish a position of dominance but once the potential entrants are in the market, the patentee is not dominant?

PROFESSOR SHAPIRO: No, I do not think there is any problem with that. Let us take an example that I think will help highlight the differences here. Suppose I have a patent and there is just one firm that could come in as a generic because it is a very complicated manufacturing process, and maybe the patent expires but there are still these other barriers and I maintain still a large market share, I might very well still be dominant, okay? So the

presence of generics does not change -- we need to look at the market shares in the actual competition in the relevant market for the molecule and it may be the firm has dominance still, it may be it does not, but it is not going to be governed by the patent anymore, that barrier has melted away.

Furthermore, if you go back to the earlier time period, the fact is, suppose we have a situation where the patent is expiring. I am still dominant -- I am still -- let me not use that word. I am still the patent holder. It is three months before the patent is going to expire. I am still the sole producer and I have a dominant -- well -- I keep saying it. I am the sole supplier. But everybody knows beyond question that that power is going to evaporate in three months. I will have no power left. The generics will come flooding in. No barriers. So we could ask, am I dominant now, if that is the relevant market? So I think your question goes to that type of situation and I would say, I might have in fact no power left other than whatever remaining pricing power I have for people who need the drug in the next three months before the generic entry. I do not have inventories. But that is residual. That is going away.

So the only situation where we will be talking about remaining dominance and power would be if I could somehow stop this flood of generic entrants coming, and that is worth investigating and we would do that in the effects analysis or the abuse analysis, within this relevant market for the molecule. So the relevant market definition is going to guide us well and the shares in those markets will be informative. Although the firm's degree of market power or whether it is dominant or not can very well shift over time and may shift dramatically upon the expiration of the patent.

THE PRESIDENT: Dr. Stillman do you want to --

DR. STILLMAN: Yes.

THE PRESIDENT: I think Professor Shapiro has clarified very clearly what his position is and where it leads one.

DR. STILLMAN: Yes, maybe I should deal with your hypothetical as well.

I think what ended up in that last exchange between yourself and Professor Shapiro was a discussion around, again, whether the conduct in question, namely, the action by the patent holder bringing in an infringement case against the potential generic entrant, whether that could be, in any meaningful sense, described as an abuse of dominance, where then the nature of the conduct informed the analysis of dominance.

I understand that approach and it has a certain logic to it, certainly under some circumstances. The problem that I have with that approach, however, is that while one

might -- maybe there is a way to articulate the definition of dominance so that it is specific to conduct, but that is not the way it is normally done and that is not the way, at least in my understanding and experience. Therefore, if we have an approach to dominance that is informed by the conduct in the way that is being suggested in this case, what it implies is that we have a comparison of the prices and profits prior to independent generic competition, relative to those afterwards, which is an approach that is going to, if applied illiberally, or liberally I guess, not in the narrow way that is being suggested, runs the risk of finding a variety of firms in the pharma sector to be dominant.

That is certainly a risk of that interpretation that firms would face when deciding what kind of business policies and practices that they feel comfortable engaging in.

I think what we have to recognise is that with rules there are -- no rule is perfect. We have costs. In the one case, if we do not take the conduct into account, maybe there is a case we miss. But, on the other hand, if we do take the conduct into account and use that as the way in which we are trying to define the approach of dominance and we do it in the way that has been suggested by the CMA and Professor Shapiro, there are other costs, very broad costs, that I think very much need to be taken into account when considering the appropriateness of that approach.

THE PRESIDENT: Yes. Do you want to come back? Otherwise we will move on. I think we may have covered this point.

PROFESSOR SHAPIRO: If I could, just very briefly. I think when one thinks more broadly, it actually -- the approach I suggested looks even better because we can protect consumers. We can protect generic competition, and that is very important. Dr. Stillman has said a number of times that with the approach I am suggesting, every branded drug would always be dominant, and that is not true.

THE PRESIDENT: I think with the clarification given he accepted your approach is taking the conduct into account in deciding whether or not the firm is, for that purpose, dominant, even if it is not dominant for other purposes. But he is saying there is a lack of clarity for firms. The simple approach: they know you are dominant or you are not. Your approach: it gets rather more complicated and for firms making business decisions, who do not want to always rush to their lawyers, that this could be -- I think he did not use that expression -- but a chilling effect or an additional imposition on firms which might deter them from doing things that in fact would not be anti-competitive.

PROFESSOR SHAPIRO: Okay. Well, maybe then Dr. Stillman and I are agreed that the approach I advocate involves taking the relevant competitive constraints into account in

defining the market, and I think that will be beneficial and I guess Dr. Stillman fears that that will cause problems in terms of lack of clarity or business guidance. I have already spoken of that. I will not go back to it.

MR. MALEK: But do you need to look at the conduct concerned? Because if you decide that the generics do impose some form of competitive constraint, why do you need to look at the conduct of the patent holder? Why do you necessarily have to look at the conduct of the patent holder?

PROFESSOR SHAPIRO: I guess I am trying to distinguish between competitive constraints, which is what market definition is about --

MR. MALEK: Yes exactly.

PROFESSOR SHAPIRO: -- and specific conduct. Once we know a case involves the prospect of generic entry, that that competitive constraint is in play, I am just saying it should be accounted for in market definitions, the particulars of the conduct are no longer important for this exercise.

MR. MALEK: That is what I am trying to segregate.

PROFESSOR SHAPIRO: Was my answer clear on that then?

MR. MALEK: You can expand on it if you want.

PROFESSOR SHAPIRO: So let us imagine different types of conduct a random firm might engage in. It might withdraw -- to stop generic entry they might -- that conceivably might be abusive, bringing a lawsuit maybe. Not normally, but that may be ... purchasing critical ingredients, maybe loyalty arrangements, okay? Some things might be Chapter I. So there is a variety of conduct. I do not want to get into the particulars of that when I am defining the relevant market. That is what I am saying. All I am saying is, we have a case where the issue is whether generic entry has been blocked, delayed, weakened in some way. So that is the competitive constraint that is in play or at issue here, so we should then define the market with close attention to that competitive constraint, particularly in the pharmaceutical sector, where we know that is still powerful.

It is a pretty quick move to identify the competitive constraints. Later on when we get to if there is a dominance, then we are looking at abuse, then we get into the particulars of the conduct.

MR. GLYNN: The bringing of a case by a patent holder would mean that you were defining the market in relation to the potential entrant against whom the case was being brought, irrespective of the strength of the case?

PROFESSOR SHAPIRO: The patent infringement case?

MR. GLYNN: Yes.

PROFESSOR SHAPIRO: Again, I am very firm that the patent holder needs to be able to enforce their rights. Bringing the case is not in any way an abuse in my view, unless it is some sort of a sham.

MR. GLYNN: The mere bringing of the case would affect the market definition? I am merely repeating points you have made.

PROFESSOR SHAPIRO: I agree, but just to be very -- to pierce through this, if that were the case in front of the competition, I would say there is no case here, all they did was -- it is very easy to dismiss that based on there is no abuse of conduct. We do not need to get into market definition.

MR. GLYNN: But the logic of what you are saying -- it is just to clarify, I think it has been covered already -- is that the mere bringing of a case would mean that the relevant market definition, insofar as it is important, was the one which included the potential generic entrant?

PROFESSOR SHAPIRO: Yes.

MR. MALEK: Can I come back. If you have got the generics here, and you have got the patent holder here, and there is a risk of the generics coming in, you do not need any conduct by the patent holder in order to say that the market will include the drug, including the generic version of that drug, even though the patent holder has not actually started a proceeding; is that right?

PROFESSOR SHAPIRO: I am not in the habit -- I do not think we need -- we would not be defining the market unless we had a competitive issue in front of us. I do not know what the issue is in your example. You just said they were sitting there.

THE PRESIDENT: If the issue is unrelated to exclusion of the generic entry, then you would not bring them into account?

PROFESSOR SHAPIRO: Good. Suppose we had these generics and they are manoeuvring to enter, they have not come in yet, the patent holder is worrying about it. Maybe they are thinking about suing them. That is one front.

Separately, the patent holder has the tying conduct that you talked about earlier. In the tying case those constraints are not really present.

We would evaluate the dominance there, the market definition there based on the current situation. Now, there is a wrinkle. So it would be kind of irrelevant for the tying case. Unless -- suppose we said, actually, it is very likely in 3 months' time all these generics are coming in. Then you might say wait a moment the market is going to change. Even if it is

a narrow market they are not going to have dominance anymore. So that could answer your tying case. So it is not irrelevant but it is a feature of the market environment that is changing. But the fact that it is going on, let us suppose it is some years off alternatively, the generic entry, and the tying is going on now, it would be irrelevant and we would be focus -- as I said before, the relevant market and the tying case would not bring in the generic possibilities because it is not relevant to that analysis and it is not -- the market does not yet have that feature.

MR. MALEK: So for you, in any given time, there may be more than one market definition, depending on what you are looking at? That is right, is it not?

PROFESSOR SHAPIRO: Yes. I think by the way that is absolutely inevitable. Take the case where you have got a dominant, must-have drug, and we all agree that is a market in and of itself; a patented product.

MR. MALEK: Yes.

PROFESSOR SHAPIRO: For the purposes of abuse that would be a market. That drug. If we had a merger, the same moment, the same industry, the same country, there was a merger where the company who owned that drug wanted to buy some other drug, the market for the merger would be broader than the one molecule.

Market definition does not mean there is a single market for all purposes at its point in time, it is a tool to evaluate competitive constraints that depends on the case. You cannot get around that at all. It is not a feature of what I am saying here or this case. That is inherent in the notion of competitive constraints in market definition.

MR. MALEK: I would like to hear from Dr. Stillman.

DR. STILLMAN: I think in the example of the merger where, if you had a truly must-have drug, where they really did not have any alternatives, I would sort of want to know what that merger is about because it is not clear to me what this other drug -- what kind of competitive constraint it might be placing on this must-have drug. I am not so ready to agree that, in this setting of the hypothetical merger, we would have this -- somebody would have -- if you had a must-have drug, that somehow in the merger context, the market would be broader.

What I would like to say Mr. Malek, if I may, is to respond to something the President said in summarising my testimony, which I did not have a chance to react to and which I did not 100% agree with.

MR. MALEK: Before you do that. Can you tell me whether you agree or do not agree that there can be a different market definition depending on what you are looking at?

DR. STILLMAN: Yes, I think that is correct. I mean again most obviously, as I say in my papers, if I am talking about the period prior to independent generic entry and I am thinking about the tying example or I think about a merger in that setting, the market that would exist in that setting would be across molecules as I believe it is in this case. Whereas if I had a situation after the generic competition, the market would be narrower.

MR. MALEK: Yes, I understand that over time market definition can vary, what I am asking you is whether at the same time you could have more than one market definition depending on what you are looking at?

DR. STILLMAN: Yes, I am not so sure I agree with that because I am thinking about the merger, you know before independent generic competition. I am thinking about a merger case versus a dominance case and while I appreciate that we could have a situation where the market is about to change structure and there is a question about how one would want to take that change in structure into account in assessing whether there is dominance before the change in structure, I keep coming back to the same place, and that is while I understand that temptation -- this actually is a point that I wanted to clarify, that idea of trying to use -- well, maybe it is not exactly the same point. But I think I want to insist on a simple rule, a safe rule that I think has safe implications for business operations, and that would be in the case of an analysis before independent generic competition to be focused on the competitive constraints that exist at that time.

PROFESSOR SHAPIRO: If I may?

DR. STILLMAN: Before you go back there, I do want to --

MR. MALEK: Answer that first and we will come back to that debate.

DR. STILLMAN: It is on my mind and I want to engage with your discussion but I do want to clarify one thing. I think the President suggested that I accept that the conduct in question can be relevant for defining what the market is in the analysis of dominance. Maybe I misunderstood your summary. Obviously that is -- I think it is clear that is not my view, for the reasons I have explained.

THE PRESIDENT: No, all I said is that is Professor Shapiro's view and if that were the case, then it would follow that businesses would not -- they might have a different concern but they would not have the concern that they are restrained by being dominant in all that they do.

DR. STILLMAN: If you could have clarity on that, that is the issue that --

THE PRESIDENT: Yes, the problem would be a lack of clarity but it would not have the effect that they know: oh, gosh we are now dominant and all these things that we might otherwise wish to --

DR. STILLMAN: Right. I am concerned with what I think would be the real world effects of that policy.

THE PRESIDENT: Yes, I fully understand and it goes back to what you just said, the simple safe rule.

MR. MALEK: Can I look at a bridge scenario. You are on the bridge, the river is underneath. You are on the middle of the bridge. You look at one side and that is where you are -- you have not got to the halfway yet, but you are there and you are looking at one side, and you say well, for therapeutic reasons and all that, you look at the SSRIs, they are our competition, we were competing against them, we have been marketing with all the doctors on one side.

Then on the other side you look and you can see the generic entrants are waiting to come in. You know, can you have two markets for the purpose of market definition? One is you are looking back and the other is you are looking forward, or what? I am just trying to see where we are because the fact is, despite all these refined arguments we are hearing, we have a scenario where we have got to look at what happened in this case, which is the day before trial there is a settlement with GUK and there is a -- whatever those terms are, but there is a transfer. I am just trying to get back to where is everyone on this particular case?

DR. STILLMAN: Let me try to deal with that example and I think I will build on one of the examples Professor Shapiro mentioned. Let us flip it around a little bit and say we have a firm that really does have a must-have drug and really is before independent generic competition, one that could be said to be dominant in the market defined as basically whatever -- well, in its own molecule because it is a must-have drug. Then we have the likelihood of a large number of independent generic competitors coming into the marketplace. Then there is an allegation that the conduct of that dominant firm vis-a-vis one of the generic competitors is somehow regarded as an abuse of dominance.

The question would be: does that make sense -- if there are ten other generics about to come in, does it make sense to regard that firm, that patent holder as being dominant under those circumstances, facing the kind of competition it is going to have in the very, very near future?

As a matter of sort of just standard economics, just thinking about what is the right conclusion in that case. The right conclusion is that it does not make much sense to regard

the efforts by the originator to deal with one firm in an environment where there is a bunch of other generics as somehow anti-competitive exclusionary conduct. It is not a coherent theory of harm. So, a way of thinking about that is to say actually, even though it might be that today the firm has the only drug, we know that tomorrow there is going to be a whole bunch of competitors and so the right way to assess the case is in the context of the competition that is about to occur tomorrow.

Now that is, I know -- that is how I would think about that. Then the question becomes: now have I strayed radically from the approach that I have recommended?

Because I think what I just outlined is a sensible economic approach. I think that again it goes back to this issue of rules and clarity that I worry about. While I am sympathetic to this approach, in that example, of thinking about the competitive environment that is about to happen, I think I would rather catch that case at the abuse level rather than at the dominance level.

I do not have that case at hand here but I do worry about the approach -- not only risk -- I know I will be repeating myself, the point is I worry about an approach to dominance that ends up having the potential implications that would basically regard nearly all patent and drug holders as being dominant.

MR. MALEK: Okay that is a very clear answer. Do you want to answer that as well?

PROFESSOR SHAPIRO: Yes. So let me go to your bridge metaphor.

MR. MALEK: I am trying to explore whether you can have more than one market at the same point in time.

PROFESSOR SHAPIRO: In this situation, for this case, there is no ambiguity in my view. The day before the trial we have an agreement, we are evaluating that, that is what this case is about.

The relevant market at that time needs to include and account for the real world competitive constraints that were driving the business of the time, clearly generic entry was at the heart of that.

Let us remember market definition is in service of finding whether a firm is dominant for screening purpose. The whole idea is if we can determine that this firm had no significant power, we do not need to look further. So we are trying to screen. If you think about it that way, the dominance part of the screen is: does this firm, did they have the ability to seriously -- to damage competition in any way that is meaningful and when you think about it that way, it is immediately clear that if they can block generic competition, that damages competition in a fundamental way.

So, we would not want to -- the screen should not let this case, in this fact pattern, go forward. That is what the relevant market, as I described it, will do by defining the market at the molecule level here and then focusing on the competitive constraints that were operative.

Let me address Dr. Stillman's point about multiple generic entry. That was just with one generic entrant, that is the story.

If you have multiple generic entrants some other issues do come up. For example, you might think, the incumbent firm, the patent holder, there is a whole string of these people coming, the hordes if you will, and you can knock one out, you can knock another, third, but they are all coming and you cannot really stop it and so you do not really have dominance. There is no way to have power in this future world.

A couple of things would happen there. First, we would not see a substantial payment for one because you would be wasting your money. Why spend a bunch of money to have one person stopped when all the others were coming?

But the market definition exercise would still ask, if you could block all of them and control all -- block all generic entry, would it be a concern? Would that lead to higher prices? So the market definition exercise would stay, that is the molecule level. We might find that there is no dominance in that market because the entry is unavoidable or there was no abuse, whatever. But it is still right to say blocking all of those entrants would be a problem.

My last point, this was in response to your previous question, Mr. Malek, where you asked Dr. Stillman~...

Should we stop?

THE PRESIDENT: No, no.

PROFESSOR SHAPIRO: This will be brief.

Would he agree that you would have different markets, relevant markets at the same time depending on the case or what we are looking at?

I think he has not conceded that point. Let me go back to where I think, with all due respect, he made an error. Take the case of the dominant must-have drug and the merger as acquiring another drug.

I think Dr. Stillman said for the merger that there would be a different market. With a dominant drug, for an abuse case there would be just that drug alone. That is the starting point.

In a horizontal merger we are always doing -- we are doing the SSNIP test normally. So we are asking: what other drugs to add to that one would be sufficient grouping that it would be profitable to raise price? So the market must, by all implementations of the hypothetical monopolist test and merger analysis that I have ever seen, be broader than the one drug.

Another way to see why that has to be right, take this dominant drug, let us imagine, maybe not in the UK, but where there is some price competition with other drugs, or a non-price competition actually, based on detailling. This drug has totally the inside track, they are way better, there is no side effects. But of course there are some alternatives.

If Dr. Stillman were right that, for a merger analysis that drug was still its own market, you could have no horizontal mergers involving that drug because the horizontal merger involves firms, products in the same market. And I guess by that, that firm that owns that drug could buy all of whatever the closest drugs are. That is not how merger analysis goes, that is not how merger analysis should go.

So the relevant market in that merger would involve a broader market at the same time, while there would be a molecule specific market for a dominance case. This is, I think, not in doubt.

THE PRESIDENT: Just to clarify one thing before you respond Dr. Stillman, just trying to understand what you said. You said there would be no horizontal merger because it is a must-have drug?

PROFESSOR SHAPIRO: I said if you accept Dr. Stillman's view that for the merger analysis the drug is in its own market, then it does not have any competitors and so any drug that it went to buy would be in some other market and therefore would not be horizontal. That is not correct.

THE PRESIDENT: I understand.

DR. STILLMAN: May I respond very briefly? I realise we are getting near the lunch break.

I guess I am not following what Professor Shapiro is saying here. I thought the hypothesis was that we have a drug that is a must-have drug, has no close substitutes. So it has no close substitutes. There is always some degree of substitutability but there is no close substitutes. If that was the situation, then a merger analysis of the must-have drug, with whatever the closest competitors are, is not going to have any kind of appreciable effect on competition and so it seems to me we can get there, to that conclusion, by the market -- at the market definition stage and say we really effectively do not have a truly meaningful horizontal merger. That is my analysis.

PROFESSOR SHAPIRO: Let me say if we had a drug that was dominant and a very impressive blockbuster drug, and that company went to buy its next closest competitor, albeit an older drug, not quite as good, but its closest competitor -- there is going to be a closest competitor, even for a dominant drug, that is the nature of it --

THE PRESIDENT: If it is a must-have --

PROFESSOR SHAPIRO: -- that would be a competition concern.

THE PRESIDENT: If it is a must-have drug, by definition, it has no competitor. That is what must-have means; it is the only one you can get for this condition.

PROFESSOR SHAPIRO: That is fine.

THE PRESIDENT: But that is my understanding of a must-have drug. Not a dominant drug, a must-have drug.

PROFESSOR SHAPIRO: Okay. Let us just say what I had in mind was not quite that stringent a definition. Let us say a drug that is -- doctors will all prescribe that if they are allowed, but if it became unavailable or the price went up sufficiently, they would turn to something else. Let me put it this way. There is some cross-elasticity of demand between this drug and another drug. Let me put it differently and not use the word must-have, because that would bring in an extremely strong notion of dominance that I do not intend. What I mean is a drug that is sufficiently differentiated that we would be concerned that it has a dominant position and still has some competition but it is relatively weak.

So there is a cross-elasticity of demand with other drugs, but it is weak enough that we would call this drug dominant and define a market around it.

THE PRESIDENT: Just a minute. Sorry to interrupt you. There seems to be a big difference between saying this drug is dominant in a market which is broader than that drug. So it might have an 80% share. It has a competitor with a 20% share. Of course, if it bought the competitor, that would give it a monopoly which it did not have before. But you are not then changing the market definition.

PROFESSOR SHAPIRO: Not in that example, I agree.

THE PRESIDENT: The proposition you were saying and advancing, which is what Dr. Stillman is querying, is you could have a different market definition for the purpose of a merger from the market definition for the purpose of a dominant abuse case. I am not sure this example of the dominant drug quite fits that.

PROFESSOR SHAPIRO: Let me try to wrap up very quickly then. So maybe there is less distance here between us than I thought a moment ago, with Dr. Stillman. If you have a situation where you would have a drug that is sufficiently distinct that you would define a

relevant market for dominance around that drug alone, yet there was some degree of substitution with other drugs, because after all relevant markets do not include all types of substitutes, they just include close ones -- if you had that situation, then you would inevitably have a different market for the merger than for the drug alone and the dominance case.

That was my point. I could probably think of other examples. That is the one I had in mind a few minutes ago.

MR. MALEK: I still would like to come back later about the concept of more than one relevant market.

THE PRESIDENT: Dr. Stillman, if you would like to think about that and come back to it at 2 o'clock.

DR. STILLMAN: Yes, sir.

THE PRESIDENT: We will not then I think spend much more time on this. We will move on to what is I think the final issue, which is the question of the benchmark for a price based test, something that you both discussed in your report. That, I think, will be the last issue that we want to discuss with you.

MR. MALEK: So you can think about it over lunch, you look at the bridge example, so can you accept at one level that the relevant market is you and the other SSRIs because there is a lot of the conditions and there is not that much difference between the product and the other SSRIs? That is one relevant market.

Can you have another relevant market which is the generics were about to come in; can you have two relevant markets at the same time? The generics have not yet come in, they are at the other side of the bridge.

That is the scenario I am trying to look at. You do not assume that you have got a must-have drug. Because your answer assumed that. When we come back to it, I would like both of you to deal with that scenario. I am just shaking the tree to see where we go.

Thank you very much.

THE PRESIDENT: Very good. 2 o'clock.

(1.03 pm) (The short adjournment)

(2.00 pm)

THE PRESIDENT: Dr. Stillman I think we left you with a question.

DR. STILLMAN: Yes, I think I had the homework question. It is in mind.

MR. MALEK: I hope I did not ruin your lunch.

DR. STILLMAN: No you did not.

So just to -- I will state the question again just to make sure I have it, but I think it is clear, which is that you want me to -- I will even use names in this case. We have GSK on the bridge and we have GSK competing against Lundbeck, against other suppliers of SSRIs, as we got to the bridge. Then, on the other side of the bridge -- and let us just take the litigation issue out of it, let us assume we are at patent expiry, if that is acceptable for the example, maybe we will twist it afterwards.

MR. MALEK: Yes.

DR. STILLMAN: We have the prospect of a number of generic entrants into paroxetine and the question was, in that setting, especially in that setting, can we think about there being possibly more than one market depending on the nature of the question?

MR. MALEK: Correct. That is the issue. Thank you.

DR. STILLMAN: So I think the answer to your question is yes. What I thought about over lunch was actually in terms of a merger analysis, where one possibility might be a proposed merger between Lundbeck and GSK and in that analysis, and analysing that merger, you would be very much thinking about the kind of interaction that takes place and would continue to take place as we get over the bridge between the different molecules, and whether -- and because merger analysis is forward looking we would be probably most interested in where we would be after we step off the bridge, but in an environment where we would face generic competition. But we would also have ongoing competition, to some extent, between the different molecules and in that hypothetical merger between Lundbeck and GSK, our principal focus would be well, to what extent is that merger across molecules is likely to impact the competitive outcomes in the marketplace?

That would be one scenario. In that setting I think we would be very much interested in, in this post-generic entry environment, the importance of ongoing competition across molecules.

Another setting or another issue might be, what if, instead of a merger between GSK and Lundbeck, we were imagining a merger between GSK and some of the leading generics suppliers. Again, we are -- merger analysis, as is most competition analysis, is forward looking so we are going to be primarily interested in what is going to happen after we get off the bridge. In that setting we would be primarily interested in the impact of this merger of what will be after we get off the bridge, quite close competitors, and the extent to which that might result in a different level of prices in the marketplace than we would observe if we did not have the merger.

So I think there is certainly then -- this is a scenario where you have different markets that you would be looking at. Certainly different analyses depending on the nature of the question.

MR. MALEK: If you are looking behind you, you are saying, well look, we know we are in the SSRI market because you have these other drugs that Lundbeck and others have. That is where we currently are. We are still there. But can you also be in a parallel universe where you are looking forward and say, well look, the generics are at the door; is there not another market that you can look at for the purposes of assessing the relationship between GSK and the generics?

DR. STILLMAN: Maybe what I am saying is I think it probably comes down to different markets, although I tend to think of it as sort of the the broad question being what are the likely competitive effects of these two transactions as we go forward. Because, in the second example where it is a merger of GSK, supplier of paroxetine with these generic suppliers, I think practically speaking we would end up in effect focusing on a market of paroxetine for the purposes of that analysis.

MR. MALEK: Yes, okay.

Professor Shapiro?

PROFESSOR SHAPIRO: Thank you. I think you will be pleased to know that I very largely agree with what Dr. Stillman has just said. My lunchtime musing seemed to have parallelled his pretty closely in fact. Let me describe it the way that I was thinking through it. It might be instructive to see a slightly different mode of analysis that gets to the same result actually.

So let us take the Lundbeck/GSK merger that Dr. Stillman hypothesises. So the way we always do merger analysis, if you look at the OFT guidance, they talk about performing the SSNIP test starting with a focal product. You will see that term there.

So let us do it, if we start with Seroxat as the focal product and we are definitely looking ahead, the same as Dr. Stillman said, to generic entries about to come, so that is the environment where we are evaluating the merger in.

If you said well what is the closest substitute to Seroxat? If they tried to rise the price what would people give -- we are thinking price based. Clearly people would substitute to the generic in the world where there would be a generic. We would very quickly find that if we started with Seroxat as the focal product and applied the SSNIP test, we would get a relevant market of paroxetine.

It is Seroxat and its generic equivalents, and I believe that is what Dr. Stillman also said. That would be a market to look at for this merger.

Notice in that market Lundbeck is not present. They do not sell paroxetine by assumption. So there is no problem with the merger, we say that is fine. That is a the relevant market but there is no concentration there, no problem.

Then we go to Lundbeck's other focal product, the other merging partner. This is what we normally do. We start with each firm's emerging product and build a market from that. We take that you are product and say, what is the closest substitute to that product?

We might then say Seroxat or we might say some other SSRI, I am not actually sure what it would be or whether we would know. Let us suppose we said there is a lot of marketing non-price competition right now among the different SSRIs, we are not going to take a subset of those. Let us say there is a lot of subsets. The hypothetical monopolist test, the SSNIP test, would lead us to take a group of SSRIs as the relevant market using the SSNIP test.

So that would be the relevant market. If you look at that market now, that is going to include Seroxat and the generic versions of Seroxat -- of paroxetine. So we have a different relative market starting with the Lundbeck product. This is a horizontal merger now in this market because both GSK and Lundbeck are participants.

Probably not much of a problem because we have got a whole bunch of other SSRIs and Seroxat's share will probably fall. If we measure market shares now in the relevant market, which is what we would do next, we would probably not see much of a problem, but that would be the relevant market.

The only other thing I would say to close on is what we find, once generic entry is in prospect, is paroxetine and its generic products will be yoked together. These are very close substitutes, so whatever markets you end up with, they will be together. In these two markets I just defined one was paroxetine. They were both in that market. The other was all SSRIs. They are both in that market as well. It is a broader market.

I think we get to the same result that Dr. Stillman did. I would note that this is another example, actually of how we end up with multiple relevant markets at the same time in the same industry for the purposes of evaluating competitive constraints. As I say in my expert report, you should not think of the world as partitioned into these markets in some way, even at a point in time that is, that is the partition, those are the markets. It really depends on the competitive constraints of the analysis. In one particular merger we would actually

get two relevant markets that would useful to measure market shares in, because we have done the analysis starting with two different focal products.

MR. MALEK: I understand both of you now. We probably have a lot of other topics to move on to.

THE PRESIDENT: Yes. Just before we turn to the competitive benchmark price, can I just be sure we have got correctly Professor Shapiro the point you made about market definition depending on the question one is addressing.

Moving away from mergers, but I think the example I put of patent holder bringing an infringement action against a generic and the generic counterclaiming for abuse of dominance and assuming it is not a vexatious claim, you said, well of course there is no abuse in that simple fact, but as a matter of market definition one would include the generic if it is being alleged that the bringing of the infringement case was an abuse because it is seeking to exclude.

I think you are nodding, but we need an answer for the transcript.

PROFESSOR SHAPIRO: That is correct.

THE PRESIDENT: Thank you. Clearly, if, having brought that infringement case, then the patent holder pays a lot of money to the generic to concede the case and agree not to enter, which is close to our case, then equally the market definition would include the generic?

PROFESSOR SHAPIRO: That is correct. I cannot help but point out the presence of the payment would suggest that there was some reasonable chance that the patent holder would lose.

THE PRESIDENT: Yes. We have got that point.

PROFESSOR SHAPIRO: I know.

THE PRESIDENT: I hope by now we have got that point.

Equally, I think you said that if there is no prospect of generic entry, the patent holder engaged in some tying practice, such as my hypothetical example of requiring the nurse administering the drug intravenously to be, as it were, taken -- hired from the patent holder company, for that purpose you would not include the generics in the market as this has nothing to do with market exclusion?

PROFESSOR SHAPIRO: Along with the -- clarifying there are in fact no generics competing, and there is no prospect of it, so that would be a fantasy, so it would not include it.

THE PRESIDENT: Suppose that you have the patent litigation going on, it lasts, as litigation can sometimes, several years. In the course of that period of time quite coincidentally the

patent holder engages in that tying practice, for the purposes of analysis of the tying practice, would it still be the case then that you would not have regard to the generics if an abuse of dominance case was against the patent holder because of its tying?

PROFESSOR SHAPIRO: So, in the tying case you would be evaluating whether the patent holder was dominant with this drug. If it was viewed that there was a high prospect -- a likely prospect that generic entry would come soon, then that could be an argument that while -- even if that drug were relevant market, that might not be dominant. There would be a potential defence in the tying case that there was generic entry and therefore erosion of market power that might otherwise exist.

THE PRESIDENT: But the market definition would be what, in the tying case? Would you bring in the generics or would you say, no, this conduct has nothing to do with trying to exclude entry?

PROFESSOR SHAPIRO: I think we have been assuming for the tying case that this drug was, I do not know, a must-have or a uniquely placed drug.

THE PRESIDENT: No, it is not a must-have. It is just that the decisions on choice of drug are not based on price.

PROFESSOR SHAPIRO: Thank you. Fair enough. Right. So it would seem to me that the relevant market in the tying case is going to be this drug and then the question will be -- the dominant in that market --

THE PRESIDENT: The market would be this drug because of the litigation going on against the generics.

PROFESSOR SHAPIRO: No. I thought we were in a world where the price is regulated. There is no -- the decisions on the drug are not made based on price and so there might plausibly be some power associated with the drug because people really want it and the company cannot charge them everything they pay, so they trying to extract the value through a tying arrangement?

THE PRESIDENT: No let us take our drug. It is paroxetine. There are other SSRIs. There is this non-price competition with the other SSRIs. GSK thinks it has an opportunity to make yet more money out of paroxetine by tying in the supply that is the nurse injection administration service. So it does that and because the doctors are not concerned that that might be more expensive than taking a nurse from the open market, it does not affect their prescribing practices in choosing paroxetine over one of the other SSRIs.

PROFESSOR SHAPIRO: If I am following you correctly I believe my answer is that the relevant market in the tying case is unaffected by the presence of the patent case, but when

we get to market shares in that market, we would want to include the fact that Seroxat, let us say, might have a smaller market share because if generics come in they will lose a bunch of sales.

THE PRESIDENT: So they may not be dominant?

PROFESSOR SHAPIRO: Correct. They might not have been dominant anyhow if all these -- if the market included a lot of --

THE PRESIDENT: If the SSRIs are included, yes.

PROFESSOR SHAPIRO: -- other SSRIs. So this may not matter very much, is my point. That is the answer.

THE PRESIDENT: Yes. So you do get, at the same point in time -- unless it is close to patent expiry, which is different -- when you know the generics are coming in, you do get, according to the different alleged conduct under scrutiny, these two different market definitions?

PROFESSOR SHAPIRO: That is correct and therefore possibly two different conclusions about dominance. This goes back to the back and forth with Dr. Stillman about whether this is a good thing or a bad thing in the guidance associated with it.

THE PRESIDENT: Yes, which we have covered. Then I hope the last question on that point, in the present case, where we do have alleged exclusionary conduct against the generics and therefore, on your view, clearly the generics are to be included in the market for the purpose of market definition, but for the purpose of dominance they are not included, is that right, because if they are included then GSK may not be dominant because its market share is then much lower?

PROFESSOR SHAPIRO: Well, in this case, we can talk about dominance but the market share -- to the extent the share is based on other generic companies having fixed allotted volumes, there it does not reflect independent competition.

THE PRESIDENT: I am thinking of the market share after independent generic entry.

PROFESSOR SHAPIRO: Once independent generic entry occurs, then I would think that GSK, like most branded drugs, would no longer be dominant in the molecule market that results.

THE PRESIDENT: Sorry, I was not very clear what I was contemplating, which is for the purpose of assessing the conduct of GSK in seeking to exclude generic entry, the starting point is: what is the relevant market? You include the generics not because -- forget about the fixed supply quantities -- take a simple case, they are just excluded, so there are no generics there, so a simple pay for delay case; you would include them in the market

definition because they are the potential competitors and therefore the market definition is paroxetine and not SSRIs?

PROFESSOR SHAPIRO: That is correct. The market would be paroxetine. When we come to measure market shares, if they are excluded, then GSK would have 100% and would obviously be dominant.

THE PRESIDENT: Yes, I think that is clear.

Shall we move on then to the benchmark for a price based test, which you have both addressed. I just wanted to understand for myself, Dr. Stillman, how you say this comes in. You have addressed it in your first report.

Can I ask you both, first of all, is it necessary to find a competitive benchmark for the analysis in this case?

DR. STILLMAN: I think the issue of the competitive benchmark is so closely wrapped up with everything we have been talking about, I think when we start to explore it we will find there is not too much additional meat on these bones.

I do think, having said that, I would still like to maybe make my position clear, and that is that when you go to a textbook and think about what dominance is, it is defined as the ability to raise price profitably above the competitive level. A very standard definition.

Which then begs the question of what do we mean by the competitive level? As I sort of showed in my first report, most authors in this area try to skirt that question. But that when people do talk about what they mean by the competitive price in general terms, the usual view is that we do not think about short run marginal cost as being the benchmark. Instead we describe it in very much the way that Professor Shapiro described it in answer to some questions from Mr. Kon, the other day, which was transcript -- day 9 of the transcript around page 60, {day9/60:1}, when he was talking about what we mean by competition at the wholesale level, and he said what we mean is profits that allow -- revenues that allow the firm to cover all of its costs including a return on its capital, fixed costs.

That is the kind of benchmark that most economists talk about and that is what I point out in my report. What I then go on to say is against that benchmark, what we can surely conclude is that the price after independent generic competition is below that level.

So those are the points I make in my report and I stand by those. But there is a close relationship between this issue of the benchmark and the discussions we have been having today about really what is the right way to think about market definition and dominance in this case.

THE PRESIDENT: I mean, if the market definition is paroxetine, then it is accepted that GSK, prior to generic entry, was dominant. If the market definition was, as you say, SSRIs, even before you get to that one SRNI product, it is accepted that it was dominant?

DR. STILLMAN: That is correct, sir.

THE PRESIDENT: So looking at a competitive benchmark price and asking for the ability to raise prices appreciably above it is not a necessary exercise, is it, in this case?

DR. STILLMAN: Sir, I do think that there is importance in the sense that -- but it goes that if you adopt the CMA's approach to market definition and dominance in this case, it carries with it that the right benchmark -- the competitive price we ought to be using is the price after generic competition, and that price is one that means if you use that benchmark, that basically all holders of patented drugs are going to have pricing and profits that are above the levels implied by the prices and profits post-independent generic entry.

THE PRESIDENT: I see. But you are not suggesting that if we use the benchmark you put forward, then after generic entry, the hypothetical monopolist would not be able to achieve a SSNIP above that? Because I think you accepted that after generic entry paroxetine would be the relevant market.

DR. STILLMAN: That is correct. Let me re-state it to make sure we are saying the same thing. If we imagined the world after independent generic competition, so prices have come way down and margins have come way down, and we now imagine a hypothetical monopolist coming in, a merger that rolled up all of the suppliers; that firm would have the ability to raise price, certainly by a snip and then some.

THE PRESIDENT: Yes.

MR. GLYNN: I wonder Mr. President if we could ask the experts to look at the chart on page 39 of Professor Shapiro's report, which talks about the pharmaceutical life cycle pricing. It is on page 39 of the first report.

PROFESSOR SHAPIRO: May I speak to that then?

MR. GLYNN: Please.

PROFESSOR SHAPIRO: Thank you. So, perhaps that will be called up on the screen in a moment.

I think there is a significant disagreement between myself and --

THE PRESIDENT: Sorry. Just let me interrupt you. It is {H/1/39}. I am sorry.

PROFESSOR SHAPIRO: Of course. I really do think there is a disagreement here. Dr. Stillman, especially in his first report, talks about the competitive price level as reflecting a reasonable return on investment.

I believe that it is much more practical, effective, to think of the competitive price level as the price level that would result from the forces of competition, the competitive process, if competition is not impeded.

Let me give a little more clarity on that by reference to the very figure that Mr. Glynn you have directed us to. So this shows in schematic terms the initial period before generic entry is expected, a higher price with exclusivity and then a lower price facing generic rivals. The difference between the red and the blue price paths has to do with when generic entry actually occurs. Let us call the red one the expected price path if there was no disruption of the competitive process. Very conceptually now.

Then we would have this earlier date at which the price falls.

My view is the competitive price level -- if one wants to use that term, and I do not object to it -- is not a static concept in this type of industry, and indeed in many industries where companies make investments, they get returns on their products, then the returns fall away and they have to make new investments. The markets are dynamic. But it is very striking in the pharmaceutical industry to be sure, because of this pattern we all agree on.

So to me the competitive price path is shown in red on the diagram and that is, if you had to ask me what is a benchmark, that would be that path.

MR. GLYNN: Sorry, do continue.

PROFESSOR SHAPIRO: You might ask, how does that relate to the firm's return on capital and whether it made an extra profit. The answer is I do not know, in the following sense, we are not going to go back and look and see, for this case or other cases how many millions of pounds GSK invested to develop this drug, how risky things were at the time. I think we all understand patent protection is very important. These are pro-competitive important investments companies make. No, what we are going to say is any company that is doing that, they are taking a bet that they are hoping the market -- the other products will not be so competitive and generics will not enter too soon and all that and they hope to get these margins. That is part of the competitive process.

To me, if you are asking about competitive benchmark, it is whether we have had a disturbance in comparison with the red path, and I have illustrated on the diagram the blue path, where generic entry is delayed. So there is a period of time, shown in this green shading, where the prices are kept up and that has harmed the consumers and harmed the competition.

From my way of thinking, it is the difference between the two paths that indicates the super-competitive pricing. I am not objecting, if you will, to the prices that GSK was charging

before all this started. You have your regulatory scheme. But setting that aside, whatever prices they could charge in the market, following applicable laws, reflecting the superiority of their drug, that is fine, that is all part of the competitive process. The issue is delay in generic entry. I do not want to have us -- I do not think you should and I certainly have not focused on what their profits were. I do not think competitive price levels is a static concept and the concern is the delay here, and so the extension of the higher price and the delay of the lower price.

MR. GLYNN: Thank you. The point I really wanted to bring out, I think it may be one that you and Dr. Stillman would fully agree on, is when you are thinking about the long run equilibrium price or the long run average price or such concepts as use in this industry, then we naturally think in terms of that being the result of the price path such as you have sketched in this chart.

If you did not, if the competitive price were always and simply the generic price, then by definition there would be no return on investment and it would all be -- it would make no sense at all.

PROFESSOR SHAPIRO: That would be a very bad outcome.

MR. GLYNN: It would be a very uncompetitive outcome --

PROFESSOR SHAPIRO: I agree.

MR. GLYNN: So the question, when the Tribunal is thinking about what is the competitive price -- this is perhaps where I am with you Dr. Stillman, in thinking there may not be much on this additional subject compared with what we discussed already. The question really is whether or not there is a consumer overcharge, or whether we are in an area where the prices that are being charged are perfectly proper reflection of the existing patents. In a way one comes back and back to that question of whether or not there has been an abuse here, which has, in an anti-competitive way deferred entry, in which case we get your green block. If there has not been, which obviously is what the rest of the case is all about, there would be no green block, the high price would have stayed higher and then come down.

In short, the question of the competitive price that we should be using depends, I think entirely, on the view one takes about whether the deferral of entry was an anti-competitive result or the result of the legitimate application of the patent.

DR. STILLMAN: Let me respond to that one, if I could, because I think that way of thinking about it actually then completely conflates the issue of abuse with the question of dominance, and I think that is certainly a way of thinking about things. But I think

ordinarily we do separate those two issues and try to analyse the question of markets first and dominance in that market before we get to the issue of abuse.

MR. GLYNN: I agree with that. I am simply addressing the question of -- this is for the Tribunal's and all our benefit, to be clear about what you mean by the competitive price as a yardstick and also what you mean, Dr. Stillman, by the long run, in this industry, of the long run average price.

DR. STILLMAN: I would say, Mr. Glynn, that I agree that this is the normal path, there is a period of exclusivity where prices are very deliberately at levels which allow the innovator to realise a return on the innovation. There comes a time when there is generic competition, prices do fall. The main point I am making is that -- and maybe it is blindingly obvious -- but I will say it anyway, which is we cannot use the price after independent generic entry as a benchmark for assessing the prices over the path.

MR. GLYNN: Of course.

PROFESSOR SHAPIRO: Let me I think crystallise things here a little bit by telling a slightly different story and then bringing it back to market definition, which is our topic still, right?

Suppose a generic had found a way to produce a product that did not infringe the patent and the patent holder was concerned -- very concerned this would spoil the market for them pretty badly and they paid them not to enter or acquire them, some other act to stop this from happening.

I hope we would agree -- I should not put it that way -- my view would be, while the patent holder naturally was hoping that they would be able to maintain the higher price until the patent expired, forces of competition have intervened and are about to make that not possible.

So the competitive price, starting tomorrow let us say, by which I mean the price that would result from competition without some disruption to the competitive process, is about to fall.

So stopping that would have an anit-competitive impact and we can pick that up in market definition by observing that the product and its generics would satisfy the hypothetical monopolist test, this is a relevant market and so forth.

That all fits together quite neatly in my view and the argument that, well, it would really be rather nice for innovation if this firm could maintain its higher price for the length of the patent that they were granted. It may be true that would help encourage innovation but that is not what they were granted in a patent. Okay, they were only granted the right to protect a certain set of technologies and this product does not infringe.

Again, the price that results from the force of competition without them being stifled, that is the competitive price. I am not making a value judgment here that the firm should be getting a higher price or that there is something wrong with the lower price. I am saying that is how it would come out from competition and that is what we should respect, in my view, in terms of defining markets and assessing conduct.

THE PRESIDENT: Dr. Stillman.

DR. STILLMAN: I go back to where I started I guess, and that is why I sort of hesitated before speaking again, and that is that what we have with the CMA is -- approach the market definition and dominance -- is a focus on the fact that prices dropped sharply after independent generic entry, as one would expect.

Embedded in that approach, it seems to me, is the idea that the price after independent generic entry could be treated as a benchmark for assessing the competitive position of GSK prior to independent generic entry and I think that is not a sound approach for the reasons that I have explained.

MR. GLYNN: Professor Shapiro, you would agree with that if you were in a world in which the patent was being applied legitimately? In other words, the competitive process, including testing the patent, if that resulted in the patent being validated and approved and the price was high, then that would be the competitive price for the purpose of analysis at that point in time?

PROFESSOR SHAPIRO: Absolutely. Let me do two very quick things to make sure we are understanding each other. Suppose the generic threatened to come in and was about to come in, the patent holder sued them. They did not want to enter at risk because they decided it was not worth doing. The patent holder won. They won. It was validly infringed, no entry occurred, the price remained high. That is competition at work. That is totally fine.

MR. GLYNN: The competitive price is the high price?

PROFESSOR SHAPIRO: Exactly.

So that is clear.

MR. GLYNN: Yes.

PROFESSOR SHAPIRO: The other thing though is, if there was payment there in that case to drop the case, then we would have other issues.

MR. GLYNN: Of course.

THE PRESIDENT: Dr. Stillman is there anything more you want to say on the benchmark price that you have put forward?

DR. STILLMAN: No, I think I have adequately expressed my views in writing and in answers to your questions.

THE PRESIDENT: I think we have concluded our questions, but if counsel -- you have the opportunity if you wish for any supplementary cross-examination. We have had a fairly full exploration it seems to us of the issues. Mr. Flynn, is there anything you want to ask?

MR. FLYNN: Sir, I would like to take instructions. It would normally be of course for the CMA to go first if they wished.

THE PRESIDENT: Ms. Demetriou?

MS. DEMETRIOU: I do not have any questions.

THE PRESIDENT: Would you like to us rise for 5 minutes? Mr. Flynn, do you want us to rise for 5 minutes so you can take instructions, would that help?

MR. FLYNN: No, sir I think on that basis we will not ask any questions either.

MR. MALEK: Dr. Stillman and Professor Shapiro, you both provided impressive and clear reports and all the work you have put into this case is very much appreciated by the Tribunal and these exchanges have been very positive, including a lot of give and take. I have also appreciated the good humour that you have both exercised and the clear mutual respect of both of you.

I just wish I had the same clarity of mind that you both evidently have. So thank you very much.

DR. STILLMAN: Thank you, sir.

THE PRESIDENT: I will echo Mr. Malek's remarks. I think the taking of what is formally called concurrent evidence, colloquially referred to as a hot tub, is still at the initial stages in this jurisdiction. I do not know how it applies in the US, and Professor Shapiro is shaking his head, perhaps not at all. We, as a Tribunal, find it very valuable, precisely because of the sort of constructive exchanges that we have had over the last few days.

PROFESSOR SHAPIRO: Thank you. Let me just say I was very curious about what this would be like, never having done it before, and we do not, as far as I know, use it in the US courts and I will go back with a positive report.

THE PRESIDENT: Thank you very much and thank you all. We will resume now on Monday week for closings and I think you have been written to about length -- well, the CMA and GSK were both here. I think we have written to all counsel about lengths of closings which are due on Tuesday afternoon and of course Dr. Stillman, Professor Shapiro, you are both formally released.

Mr. Malek just reminds me, the request that we sent for the paragraph from *Lundbeck*, that you would like us to read, if we could have that sooner rather than later, if possible by the weekend. It should not be too difficult. It is just a list of paragraph numbers so we can start the reading, thank you.