IN THE COMPETITION APPEAL TRIBUNAL
Victoria House,
Bloomsbury Place,
London WC1A 2EB

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

10 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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HEARING

A P P E A R AN C E S

Stephen Kon and Christopher Humpe (instructed by MacFarlanes) appeared on behalf of the Appellant (Generics UK Limited).

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).

Robert O'Donoghue QC (Brick Court), (instructed by Clifford Chance) appeared on behalf of the Appellant (Xellia Pharmaceuticals APS (1) Alpharma LLC (2)).

Sarah Ford QC (instructed by MacFarlanes) appeared on behalf of the Appellant (Actavis UK Limited).

Ronit Kreisberger (instructed by DLA Piper) appeared on behalf of the Appellant (Merck KGaA).

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

THE PRESIDENT: We were talking at the end of yesterday about wholesalers but can we just step back one moment and look at the generics themselves who got supplies under these agreements, GUK, Alpharma and, to some extent, IVAX. Just one thing to clarify on that: do you expect there to be any incentive for those generics to compete with each other on price when selling to wholesalers or pharmacies, Dr. Majumdar, in the circumstances here, where they are getting these fixed volumes?

DR. MAJUMDAR: Sir, sorry, just to be clear, would I expect the entrants themselves to be competing with each other to sell to wholesalers?

THE PRESIDENT: Yes.

DR. MAJUMDAR: I would to some degree, sir.

My understanding is that they may have had certain contacts with -- so, for example, Alpharma may have been more focused on full-line wholesalers whereas GUK, as I understand, perhaps more on the short-line wholesalers. So to the extent they had a slightly different customer base there would not be so much competition but nonetheless one would imagine that they would have had overlapping customers in which case they would have competed to supply them, sir.

THE PRESIDENT: Just thinking that through -- it is an inelastic demand, they have a limited supply, they have got --

DR. MAJUMDAR: Yes.

THE PRESIDENT: -- and they would expect to sell it all in any event, would they not, because the only other -- they are displacing the parallel importers. But as regards GSK, the branded product, they know that is going to be more expensive. Do they want to be beating each other down on price?

DR. MAJUMDAR: Yes, sir. So I think the way that it would work is that the wholesalers were -- sorry, the entrants were competing with parallel importers to access the wholesaler channel because they have had to ultimately go through wholesalers to reach the pharmacies. I do not think one can say that they were guaranteed to sell their product. I think what they had to do -- they had to price to induce the wholesalers to take their product and I think that was a discussion yesterday, that the competition between the entrants and the parallel importers led to wholesalers offering -- sorry, led to entrants offering lower prices to wholesalers to displace the parallel imports. So that was the competition to access the wholesaler channel if you like.

THE PRESIDENT: Yes. That is competition with the parallel importers?

DR. MAJUMDAR: Yes. I mean, to the extent that they were competing with each other, I would think really depends on the extent to which they had an overlapping customer base, sir, in which case, if they did, then for those customers they would be competing. If not, if one was focused more on full-line wholesalers and one was focused more on short-line wholesalers then there would be less competition between themselves, sir.

THE PRESIDENT: Yes. Dr. Stillman?

DR. STILLMAN: I tend to think about it in terms of what the addition of the generic supply does to the equilibrium in the marketplace. Again, we started off with a situation where you had parallel imports, accounting for about 30% of the total supply and Seroxat about 70% and then you introduced this additional fixed supply from IVAX to begin with, which was about 15% of the total.

In the standard dominant firm model one would expect the addition of that supply to result in somewhat lower prices throughout the marketplace, both for GSK and for the generics.

THE PRESIDENT: I am not coming to that --

DR. STILLMAN: But I think it is relevant, if I may, because the fact that there are fixed supplies is not really a critical point in thinking through the impact of the addition of those fixed supplies to the marketplace. We had initial equilibrium, we put on a slug of additional supplies, how does the market sort itself out --

THE PRESIDENT: But I am not asking about the impact on the marketplace; I am asking whether the generics' entrance would be competing with each other. There might be all other reasons why there is an impact on the marketplace but it is a rather narrow question which Dr. Majumdar has answered. If you would like to comment on that, that is fine but please direct your remarks to that.

DR. STILLMAN: I will.

I expect that the generics, in order to place their supplies, would have to set terms to wholesalers that are -- that provide wholesalers a somewhat better deal than they previously had obtained from the parallel imports; how much of a better deal is an empirical question.

THE PRESIDENT: So there would be competition with the parallel importers to get their share. Once they have -- we saw that happened indeed and we can actually see the parallel imports were being largely taken out.

DR. STILLMAN: As well as a reduction in the GSK supplies at the same time.

THE PRESIDENT: Yes. Would the generics beyond that compete -- would Alpharma be competing on the price with GUK and vice versa?

DR. STILLMAN: Once the parallel imports had been displaced completely, one would not expect the entry of additional fixed supplies to be leading to any kind of competitive dynamic.

THE PRESIDENT: Thank you. That is very clear.

Professor Shapiro?

PROFESSOR SHAPIRO: Thank you. Good morning.

No, I would not expect the generics to compete against each other to sell to the wholesalers. Here is why -- I should say we are agreed already that the generics will have to compete against -- to displace the parallel imports. That is not the issue. Are they going to compete against each other?

So because they had a fixed quantity, what the generic needs to do is be able to price so that it can successfully place that quantity at the pharmacy level. So it must offer terms that are good enough at the pharmacy level to achieve that, to sell the fixed quantity. As I have said, that is basically matching the parallel imports price. That was what was expected. That does not involve competing to get wholesalers' business. The focus and the locus of competition is entirely at the pharmacy level and that is, I think, very important. I think we are -- I hope we are going to come back to that.

Let me say this is what we -- in fact, observed and was expected, namely the generics would go to the wholesalers and say, I need this price at the pharmacy level -- in Alpharma's case, basically stating the price at the pharmacy level -- you, wholesaler, will get your standard cut as part of my commercial necessity of offering good enough terms at the pharmacy level to sell my quantity, and that is not competing with another wholesaler -- excuse me, competing with another generic at the wholesale level; it is offering the standard terms to the wholesalers that they always get, basically the cost of doing business that the generic must incur in order to achieve its business aim, which is selling to the pharmacies.

Furthermore, we get empirical evidence that confirms all of this. When the second generic came in and the third, I think it is undisputed that there is no reduction in the price that the generics charged to the wholesalers. If they were competing against each other you would think having three, rather than one, would reduce the price of the wholesalers. That is not where the competition is taking place; it is at the pharmacy level.

THE PRESIDENT: It may be the price Alpharma gets from the wholesaler is less than the price GUK gets because the terms -- their standard terms of supply involve that difference.

PROFESSOR SHAPIRO: Yes.

THE PRESIDENT: The Alpharma is 20% below -- I think that is right -- GUK may be less than 20%.

PROFESSOR SHAPIRO: Yes. For reasons that I do not fully understand, these standard mark-ups which are done across portfolios of products were not the same for each of the generics, but they seem exogenously given here. That means they were set based on, again, apparently, a much larger set of products and were not the result of competition between generics in this market.

THE PRESIDENT: Dr. Majumdar, do you want to come back?

DR. MAJUMDAR: Thank you, sir.

It is in relation to this point about the whether the wholesaler mark-ups were exogenously set or predetermined. I considered that at page 30 of my expert report -- or rather I did not consider it, there is some evidence there that relates to the point, sir, at internal page 30.

THE PRESIDENT: [G/6/31}. Internal page 30.

DR. MAJUMDAR: At the bottom of the page there is a footnote at 67, this is talking about evidence for IVAX and it says that that:

> "Teva estimates that wholesalers margin on IVAX product would on average range between 17% and 20% of the IVAX retail price ..."

It then goes on to say:

> "The level depends on individual negotiations."

And would vary according to market conditions. It then goes on to say -- and this is what struck me:

> "For paroxetine the margins would have ranged from around 5% and 17.5% and would have varied between customers and over time."

So that suggests to me that there was a difference --

THE PRESIDENT: I am so sorry, you are at which paragraph?

DR. MAJUMDAR: This is footnote 67, sir. This is the first --

THE PRESIDENT: This is the IVAX margin, is it?

DR. MAJUMDAR: Yes, sir. So what it says there is that Teva estimates that wholesale margins on the whole would be between 17% and 20%. It talks about negotiation with wholesalers. Then it goes on to say -- this is the bit in bold, sir:

> "For paroxetine the margins would have ranged from around 5% and 17.5% ..."

That suggests to me there was a separate deal on paroxetine different from the average 17% to 20% and led me to think that there was not necessarily a predetermined mark up in this particular case when one is talking about paroxetine.

THE PRESIDENT: That is IVAX?
DR. MAJUMDAR: That is IVAX.
MR. MALEK: Dr. Majumdar, where it says "between customers over time", that is just the wholesalers?
DR. MAJUMDAR: That is my understanding, sir, because IVAX primarily sold to wholesalers. The next one there I talk about is the witness statement of Mr. Collier at paragraph 20. I am afraid I did not give a quote there but my recollection is that Mr. Collier in that witness statement describes the Alpharma scheme. So I think Professor Shapiro's comments about the predetermined mark-up seem to relate primarily to the Alpharma scheme.
What Mr. Collier says in his witness statement at 20 is that he does not know the GUK scheme so well but he suggests that the prices could have been individually negotiated on a customer-by-customer basis.
It may be worth just calling that up.
THE PRESIDENT: But for Alpharma they do not?
DR. MAJUMDAR: Yes. So what I am saying is that I have reflected on what Professor Shapiro said yesterday and I think his point seems to apply for Alpharma, where I am prepared to accept that that may well have been a predetermined typical margin. But I do not agree, sir, that that necessarily applies for IVAX or for GUK based on this information, sir.
PROFESSOR SHAPIRO: May I add something here?
THE PRESIDENT: Just one moment.
So the Alpharma mark-up and therefore reduction is lower -- the standard reduction seems to be lower than the IVAX one. That seems to be the position on the evidence you are citing.
DR. MAJUMDAR: That is what is occurring, sir, indeed.
THE PRESIDENT: That was the position in respect of paroxetine?
DR. MAJUMDAR: That seems to be what Mr. Collier is saying, sir, yes.
THE PRESIDENT: He is telling us what Alpha is and you are pointing to evidence to what GUK is and that is the result, is it not?
DR. MAJUMDAR: Yes, sir. I am just saying that they are different --
THE PRESIDENT: So there seem to be different mark-ups supplied by the different wholesalers.
DR. MAJUMDAR: Yes, sir. So I am making two points. I am saying that one of them -- the Alpharma one may have been a predetermined industry norm, but looking at the evidence here, yes, there were different mark-ups and it may -- it is not clear to me that they were necessarily predetermined industry norms; it looks as if they may have been negotiated on a

paroxetine-specific basis. Either way, sir, I am not sure it is material because I think both Professor Shapiro and I agree that whatever the cause of the lower prices for wholesalers, it is again for wholesalers in any event. But I just wanted to flag that point, sir.

THE PRESIDENT: There is that gain for wholesalers. I was just trying to work out whether it is agreed -- it is one thing if there is a gain because there is a higher mark-up for the generics' supply than a parallel imports supply. That clearly gives them that gain, subject to pass-through, which we will come on to.

There is another question whether there is a gain because there is competition as between the entrants and that was just what I wanted to bottom out. Alpharma is clear that that is their standard mark-up, which was applied. What I was asking, notwithstanding that, are you saying that they are, with this new supply that they get from GSK, the unbranded paroxetine, then would they be competing with each other? Would Alpharma be competing with GUK and vice versa?

DR. MAJUMDAR: Yes.

THE PRESIDENT: As I understand it, you are just telling me that there are different mark-ups.

DR. MAJUMDAR: Yes, sir.

THE PRESIDENT: It is a slightly different point, is it not?

DR. MAJUMDAR: I think they are related. I was responding specifically, sir, to the point made by Professor Shapiro that there were predetermined mark-ups and I was saying that that may be correct in Alpharma's case but I was not convinced it was correct for IVAX and for GUK.

In relation to your specific question, sir, my understanding is that Alpharma focused more on full-line wholesalers whereas GUK was potentially focusing more on short-line wholesalers, which is why I said, sir, earlier on they would not necessarily be directly competing with each other.

IVAX I am less sure about. To the extent that they were also focusing on short-line wholesalers, I would expect there to be some competition between them as well, sir.

PROFESSOR SHAPIRO: Three points. First, I believe we are mostly talking here about what would reasonably be expected based on economic analysis at the time the agreements were entered into. I would come back to the basic point that, with competition among wholesalers, we would expect the generics, who are competing to place their fixed quantities at pharmacies, to obtain competitive prices from the wholesalers, whatever those might be. I think that is pretty simple, a pretty robust point that answers this question conceptually.

Looking a little more at the detail, the second point, this footnote now that Dr. Majumdar has referred us to, I would interpret it slightly differently based on everything I know about the case. The individual negotiations between generics and wholesalers -- to my understanding, it was to be checked that these would be over a large number of products; they are not normally negotiating over a single product.

So the reference to individual negotiations I think of as what -- as the wholesalers do compete to carry whole lines of products. They come up with some ranges, some mark-ups associated with that. So that is not -- of course, paroxetine is just one of a very large number of products. So that does not in any way indicate to me that there are negotiations over paroxetine in particular.

Second, I think to further support that point, the range that is reported here for paroxetine margin -- it says a range from 5% to 17.5%, which Dr. Majumdar, if I hear him correctly, is interpreting as some indication of negotiations over that price. That is not how I would read it because we understand that the mark-up for parallel imports is very substantially lower, in more the 5% range, and actually I would not expect that lower mark up at all from the other evidence for the generic products. So I believe the range is most likely to be referring to that, namely parallel imports with the lower margins and perhaps even branded products -- they would not be in this case, I take that back.

Parallel imports and the generics. So that is the range. It does not in any way, I think, undermine my previous point that these negotiations are at the portfolio level for many drugs.

My third point --

THE PRESIDENT: Can I just interrupt you?

PROFESSOR SHAPIRO: Please.

THE PRESIDENT: I suppose, given that we know the parallel imports price fluctuated quite a lot, that the supply from parallel importers -- the price that parallel importers would charge would depend on currency variations, where they source their product and so on.

That was my understanding. That would then explain why these discounts -- why these margins varied over time because if you are saying it was responding to parallel import price, the parallel import price varied over time, did it not?

PROFESSOR SHAPIRO: That is not what I meant to say. Let me clarify. What I meant was -- I believe -- what I am quite sure is the case is the standard wholesaler mark-up for parallel imports is considerably smaller than for generics.

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: So the statement here for paroxetine, the margins had ranged from around 5% to 17.5% --

THE PRESIDENT: 5%.

PROFESSOR SHAPIRO: The low end of that is most likely parallel imports. It is not that they negotiated a low margin for a generic, so it does not reflect negotiations, I believe, most likely, over paroxetine; it reflects different types of paroxetine that have been distributed.

MR. MALEK: But I understood from Dr. Majumdar that he thought that the reference to "customers" in that fourth line is the wholesalers and so what we were looking at is not parallel imports but is talking about the margin wholesalers would get on IVAX's product rather than parallel import product. I may have misunderstood what he was saying but that is how I understood it; is that right?

DR. MAJUMDAR: Yes, sir. To clarify, my understanding -- and indeed this is consistent with the CMA's understanding because the CMA used this particular line in bold to come up with its mark-up assumption. My understanding is that this refers to the mark-up on IVAX products.

MR. MALEK: Can we just look at the document, the reference that has been given on the screen and then just look at it for myself.

THE PRESIDENT: Does somebody have the reference?

MR. TURNER: [A/2/22}.

MR. MALEK: I just want to see what is called document 2160, whatever that is.

MR. TURNER: Sorry, [A/2/23} I am told.

MR. MALEK: Let us have that on the screen.

PROFESSOR SHAPIRO: Are you saying this may just be Teva's margins for IVAX so -- then I would be mistaken about the parallel imports.

DR. MAJUMDAR: Yes. This is Teva's margin and that is certainly how the CMA interpreted it, sir, because that is the -- this is a reference they give at footnote --

MR. MALEK: I am not disputing what you are saying; I just wanted to see it on the screen.

PROFESSOR SHAPIRO: It sounds like I was mistaken in what I previously said.

MR. TURNER: It is [A2/23/ 2}.

DR. MAJUMDAR: It is under "Scheme business".

PROFESSOR SHAPIRO: This may be short-line versus full-line wholesalers. It is another possibility. It sounds like I was mistaken about the parallel imports. I am ready to move on, but if there are more questions on this -- has it been clarified to your satisfaction?

MR. MALEK: I am just looking at it. There is the scheme business and the direct business. I think that has clarified it. I think Dr. Majumdar is right on that.

PROFESSOR SHAPIRO: I was mistaken about the parallel imports. So I am uncertain in this area. There may be a distinction and maybe Dr. Majumdar could help clarify this, I do not know, on -- the short-line versus the full-line wholesalers is another possibility.

I still would say I am not convinced -- this does not convince me at all of their individual negotiations on paroxetine rather than a range of products. But it is a factual question and I do not know for sure.

MR. MALEK: Okay, that is fine.

PROFESSOR SHAPIRO: Look, my third point is actually probably the most important of these three. If you believe -- if one believed there was a significant competition between the generics to sell to wholesalers, you have what an industrial organisation economist would consider one of the best tests you could possibly look for.

We observe the market with one generic, then two, then three. You would expect, if that competition were significant, going from a monopoly to a duopoly to a triopoly, that is a significant increase in competition, if that were a meaningful locus of competition, and we see no effects at all and I believe that is basically not disputed.

That is what I would expect on an ex ante basis for the reasons I have explained and the ex post evidence seems to confirm that.

THE PRESIDENT: Dr. Majumdar, did you want to come back?

DR. MAJUMDAR: Thank you, sir.

On that point, I think it is important to emphasise that even if there were no or only very modest reactions by incumbents to entrants coming in, it is still the case that entrants coming in enabled wholesalers to obtain a substantially better price for paroxetine than otherwise would have been available, namely purchasing parallel imports.

To give an example, sir, if it is the case that, for sake of argument, the entrants were focusing on a slightly -- on a somewhat different customer bases, then it may be they that they did not react strongly to each other's entry. However each of their customer bases, ie the wholesalers, would nonetheless be obtaining a product at a substantially lower price than their alternative of parallel imports. So it is still improving the lot of wholesalers without necessarily causing a reaction from the other entrants, sir.

THE PRESIDENT: Yes. I think the fact that the wholesalers got a lower price than the parallel import is something that was established at the end of yesterday. This was a slightly different point. They get that benefit and then that takes one perhaps to the next point about what would happen then in the supplying pharmacies.

In other words, you say, I think, in your report at round about page 12, stamped page 13 [G/6/13}. In the second bullet you say:

> "Wholesalers compete in selling to pharmacies and would be expected to share some of these benefits [ie the greater margin or lower price compared to parallel imports] with pharmacies in the form of lower prices and/or greater availability."

Can you just expand on how you think the wholesalers with their new generic paroxetine would be -- why would they be passing that benefit on to pharmacies --

DR. MAJUMDAR: Yes, sir.

THE PRESIDENT: -- therefore reducing the margin benefit that they get?

DR. MAJUMDAR: Yes, sir. So I would expect them to reduce the price to pharmacy of the entrants' products to a sufficient degree to permit them to sell the entrants' products. I would expect them to -- they have to price to sell the product. The question then becomes: by how much do they reduce the price? My understanding is that wholesalers and pharmacies negotiate to some degree, which means that I cannot tell precisely -- theory does not allow me to predict precisely what the price reduction would be; I would just expect there to be a sufficient price reduction to allow them to sell the entrants' product. I would then go to the empirical evidence to assess by how much the prices actually fell, whether it was a small amount or a large amount, sir.

THE PRESIDENT: Would they have difficulty selling the entrant product without reducing the price?

DR. MAJUMDAR: To my mind they would have to compete with both parallel imports and Seroxat. So they would have to price to displace parallel importers and, to some degree, Seroxat as well.

THE PRESIDENT: They have to price below Seroxat?

DR. MAJUMDAR: Yes, sir, absolutely.

THE PRESIDENT: But if they are not -- the price at which they are purchasing and their margin compared to -- they have got -- what we are talking about is they have got the greater margin than the parallel imports price would have got. That is on a basis that the margin is calculated back, I think, from assumed retail price; is that right?

DR. MAJUMDAR: The way that the CMA applied the mark-up was it took the wholesale price and then added on a percentage. So if it is 20% and the wholesale price was £10, it would say the price to pharmacy was £12, that is 20% --

THE PRESIDENT: But in reality --
DR. MAJUMDAR: That is how the CMA calculated --
THE PRESIDENT: But in reality I thought the evidence is that the generic agreed or negotiates with the pharmacy on the basis of the list price and they negotiate a discount or margin. Is that not -- certainly Mr. Collier explained it that way.
DR. MAJUMDAR: My understanding, sir, is that that is the situation for the Alpharma scheme, sir. I am not clear -- in fact, I do not understand that to be the case for GUK. I am less clear about IVAX, but it is not clear to me that applies to IVAX either. I confess I am less clear about exactly how the IVAX scheme works.
THE PRESIDENT: Whichever way it works, clearly -- take Alpharma first of all. The list price assumed there is clearly below the Seroxat price.
DR. MAJUMDAR: Yes, sir.
THE PRESIDENT: There is this 20% margin, which is a much better margin than they would get with a parallel import.
DR. MAJUMDAR: Yes, sir.
THE PRESIDENT: That is assuming that the selling price is below Seroxat, so sufficient to take away sales from GSK. What is their commercial incentive to go lower, given the size of the market and inelastic demand?
DR. MAJUMDAR: From their perspective, sir, they would not want to go lower. From their perspective they would want to undercut parallel imports only by a small amount, just enough to sell their product. The flipside is that, from the pharmacies' perspective, the pharmacy would of course want as low a price as it could get and so in a negotiation one would expect the price to be below the price of parallel imports, but how far below would depend on the degree of negotiation and the relative strengths between pharmacies and whoever they are negotiating with, be that a wholesaler or Alpharma in this Alpharma scheme case.
THE PRESIDENT: Yes. Professor Shapiro?
PROFESSOR SHAPIRO: I completely agree with the thrust of your questions, Mr. President. The way the price to the wholesalers is determined is there is a target priced to the pharmacist to match the parallel import price. The wholesaler's standard margin is deducted from that and that is the price that the generic then charges the wholesaler.
THE PRESIDENT: Pausing there. We know that is the case for Alpharma because we have the man telling us and it is unchallenged. Do we know -- what Dr. Majumdar is saying is it is not quite clear for the other two.

PROFESSOR SHAPIRO: I think it is not as clear but I think it is still quite clear in the following -- to the best of my recollection, Mr. President, first, when the deals were negotiated, if you look at GUK and IVAX documents contemporaneously, they evaluated the transferred margin -- excuse me, the allotted quantities of paroxetine using exactly this method. They took the prevailing price at retail, deducted the margin they normally paid to the wholesalers, figured out what they would then be able to sell to the wholesalers at, deducted the 8.45 per pack price they would be paying to GSK and that was their valuation. So that is pretty strong evidence right there, I would say, that they did not expect any movement in the wholesaler margins and also, by the way, they did not expect to have to go to any meaningful degree below the parallel import price to move their product.

There is another piece of evidence -- I am a little less clear where this is in the decision -- to the effect that the GUK and IVAX -- I have to be slightly vague about this -- were expected to price similarly as to Alpharma. There is some parallel. I have to leave it to somebody else to find that but I believe there is something else in the record to that effect.

So, this margin calculated back from assumed retail prices is what was done initially. That was what was expected. It is what economic basic principles would tell us once we assume that the wholesaling level is competitive and these margins are set, like I said, for reasons having to do with ranges of products. Dr. Majumdar has talked about bargaining.

In this circumstance, what do we mean by competitor wholesaler level? It means that the wholesaler cannot get a larger margin just because the supplier, in this case the generic, is making a bunch of money. Of course the generics are making a significant margin here; that was the margin that was transferred from GSK, that was the value transfer. The notion that the wholesalers would be able to pick up part of that, much less they would want to pass it on to pharmacies, I do not think is correct.

This is what competition among wholesalers is about. They have -- they are forced to a standard margin because they compete with each other and there are many wholesalers and it is not disputed that the wholesaling business is competitive.

The other thing, just as a point of clarification and this relates, Mr. Glynn, to some of your questions yesterday, when we talk about -- I would always talk about the generics matching the parallel import price. It is true that some of their sales will displace Seroxat sales, particularly when we have Alpharma in the picture, so there is more generic supplies, so they will be displacing Seroxat. But at what price? They would be matching the brand equalisation component of the Seroxat price, which is the parallel import price, the Seroxat price itself, since it is a blended price, is higher. So when we say they are matching, it is still the parallel import price and we see a decline in Seroxat sales. Just a point of clarification about matching or displacing Seroxat.

MR. GLYNN: Could I just, as it were, get out of the way a slightly related point? You spoke yesterday about needing -- you are comparing prices with products which are not identical to make an adjustment. This is going to be quite important when we come onto the empirical price data. Is there any guidance anywhere in this on the amount of adjustment one should make in comparing the price of a generic with the price of a parallel import? We understood that the generic is in some ways more attractive and in quite important ways more attractive, but is there any idea by how much one should adjust for that difference in quality?

PROFESSOR SHAPIRO: The answer briefly -- and the other experts here may know more in detail about that in terms of actual quantification. All I can say right now is there is a statement by Mr. Reilly to the effect that he expects generics to displace parallel imports at -- let me get this exactly right. A generic could command a very slight premium, if I understand right, because of this difference in the packaging. So if they charge the same price, they will displace the parallel imports. That does not tell us how much the (inaudible) value of the generic import is above. He seems to indicate it is very small but enough to do this displacement. That is all I know on the point.

DR. STILLMAN: Let me jump in. When we think about these quality issues there are two aspects. One is the fact that we have the generics displacing the parallel imports and that is going to be something that, from the point of view of the patients, is a good thing. We also have to some extent displacement of Seroxat with authorised generics and that could cause some negative effects on patient, some disquiet to some on patients.

So when we think about these quality effects and what is happening to the average quality of the product, we have forces going in both directions, with more displacement of the parallel imports than we do of the Seroxat, so more of the -- in terms of volumes -- improvement in quality relative to the reduction in quality on the Seroxat. That is what I can add at this point.

THE PRESIDENT: Is there any evidence of the second point? Is there any evidence on the second point that the displacement of Seroxat with authorised generics causes some concern to patients?

DR. STILLMAN: Did not Mr. Sellick refer in his evidence to a patient being used to seeing the Seroxat labelling with the GSK colours and so forth and then being confronted with the authorised generic --

THE PRESIDENT: We will check, you may well be right.
DR. STILLMAN: So I think it does conceptually go both ways.
PROFESSOR SHAPIRO: I think there is also some evidence to the effect that when a customer -- some customers, when presented with the generic, because it is an open prescription, are not as happy -- are surprised or unhappy about that when they had expected or previously had Seroxat. I think there is other evidence that the brand normally gets some sort of premium. It is a common thing. Now the magnitude I cannot speak to.
MR. MALEK: You are right, Dr. Stillman, that is Mr. Reilly's evidence. He did point out that point you just made.
DR. STILLMAN: Thank you.
MR. GLYNN: You have referred a number of times, Professor Shapiro, to the fixed mark-up convention of the wholesalers. Would you agree that over time that might be changed? Perhaps to put the question in two ways, what is your understanding of the possible reasons why there might be such a significant difference in the mark-up between parallel imported product and other generics? Also, given that we start off with a difference, would you expect it to continue over time or might it be eroded through some competitive process?
PROFESSOR SHAPIRO: Okay, so on the first question my understanding is that since the pound value of a parallel import is higher for a given drug than the generic pound value, a lower percentage is applied by the wholesaler.
In my mind I am thinking the wholesaler costs of distributing do not depend so much on the price; they depend on the physical quantities, the distribution warehousing costs and the like. So a higher percentage applied to a lower-value product makes perfect sense. So that is where I think that convention comes from.
Now --
MR. GLYNN: Forgive me, so that in some sense applying the higher percentage to a higher-value generic, in this case, would be something of a windfall for the wholesaler?
PROFESSOR SHAPIRO: Absolutely. I believe I said that yesterday and, of course, Dr. Majumdar has been keen to emphasise this point. I do not disagree with that. Would competitive forces erode that over time? So I have two things to say about that. Two or three.
First, if it were just one product being distributed, I would expect it be eroded over time. If the price of the product went way up and a percentage had been applied, all of a sudden the wholesalers would be making a lot of money on that product and you would expect

competition to cause the percentage to fall so the dollar value -- the pound value would be again comparable to their costs. We would expect that dynamic to take place over time.

I should say there is some puzzles about that in at least the US real estate markets. Home values have gone way up; realtor fees have not come down as a percentage of the home price. It is a bit of a puzzle and in fact the Justice Department have looked at that repeatedly to see if something funny is going on.

The theory would say we expect it to go down. There are some, in other markets, puzzles but I would expect that to happen if it were one product.

If you have a large portfolio of products we can understand why, for transaction cost reasons, the two parties are not negotiating product by product. So I would have much less of an expectation that that would change over time. I would actually expect it to happen in a slightly different way, which is the wholesaler might look and say, gee, this whole portfolio of products, it is pretty profitable for me, if they look at it together.

One reason it is profitable is they are still giving a high margin on some high -- let us say one high-value product. If it is enough to even register in the overall portfolio that they would be evaluating. So a wholesaler might say, this is looking more profitable, and they might be willing to start to offer some portfolio-level small discounts that would effectively amount to a significant discount if you attribute it just to the product in question. So that dynamic could occur.

I am assuming that the wholesalers in particular would be evaluating profitability based on overall relationship with the generic, that is what they are negotiating, and if we did that evaluation, this dynamic would come into play and you would see it probably over time with possibly very small adjustments to the overall portfolio price, since that was negotiated.

MR. GLYNN: Thank you.

THE PRESIDENT: Can we then move on the question of the effect of this on GSK, which is covered in your joint statement at, I think, point 10 -- it is not point 10, I am sorry.

Give me one moment. (Pause)

It is the point Dr. Majumdar makes on that same page of your report, Dr. Majumdar, which is internal page 12 where we were before, [G/6/13}. On that page it is the last bullet:

> "Finally, the preceding competitive dynamics could induce GSK to lower the PTP of Seroxat to try to stem the loss of share to the entrants' products."

In the joint statement it is point 14 on page [I/1/38}, internal page 38, "Competitive constraints faced by GSK". There Dr. Majumdar, you say:

"The agreements would be expected to put downward pressure on the price of Seroxat relative to the case of no entry."

That was the point that I wanted to explore of whether GSK would feel a pressure on its price of Seroxat that it was charging for Seroxat. Can you expand on why you think one would expect to see that?

DR. MAJUMDAR: Yes, sir.

Prior to the agreements, Seroxat would have been -- let me start again.

Absent the agreements in 2002, Seroxat would have been sold directly to pharmacy and so the only competition at that sale to pharmacy level would have been wholesalers selling parallel imports. Because the entrants' products were priced to displace parallel imports, they would, in my expectation, have been priced below that level.

We discussed it and it is hard to say precisely how much lower but because they would be, in my view, priced below that level, that suggests to me an increase in competition faced by Seroxat, but I cannot tell you how much. To my mind, this is an empirical question, I just expect there to be greater competition faced by GSK because it is competing now with lower priced products relative to the no entry position.

THE PRESIDENT: Dr. Stillman, I am talking about the price of Seroxat, not other constraints.

DR. STILLMAN: As long as there are parallel imports still in the marketplace, GSK can gain business -- retain business, have higher business than it otherwise would have if it lowers its price. Because by doing that it will basically not displace anything from the generics because those supplies are fixed and are going to be sold but it can take -- it will put pressure on the parallel imports and basically be able to retain some of its business.

Theoretically, one would expect there to be downward pressure on the prices of GSK. However, the magnitude of that pressure depends very critically on the elasticity of the supply of the parallel imports and if the supply of parallel imports is highly elastic, then the incentive of GSK to reduce its price will be smaller and one would rather -- in equilibrium one would expect a smaller reduction in GSK's price. Indeed, what we see in the data is that there is not much change in GSK's price.

THE PRESIDENT: Yes. Professor Shapiro?

PROFESSOR SHAPIRO: First, in response to Dr. Majumdar, let me go back to the statement you read from his report. At the top of internal page 7. [G/6/8}. This was the bullet point --

THE PRESIDENT: I was on internal page 12.

PROFESSOR SHAPIRO: I am sorry?

THE PRESIDENT: At the bullet just above paragraph 31. [G/6/13}

PROFESSOR SHAPIRO: Okay, I apologise.

THE PRESIDENT: It may be the same point.

PROFESSOR SHAPIRO: It is the same point.

THE PRESIDENT: It is actually the same sentence; I think it is a cut-and-paste.

PROFESSOR SHAPIRO: Fair enough. Anyhow, the point that Dr. Majumdar is making is that these competitive dynamics could induce GSK to lower the price to pharmacy of Seroxat to -- I want to emphasise this part:

"... to try to stem the loss of share to the entrants' products."

I believe this is an economic error. There is no stemming the loss of share to the entrants' products. They have a fixed quantity at a sufficiently low price that GSK will know that they are going to sell that and that share is going to be lost.

This comes out clearly in the model and I think it is not disputed as between myself and Dr. Stillman on this point, but let me explain it in a different way, not with reference to a model.

Suppose you are GSK and you have an account where you are selling Seroxat, blended price, some closed prescriptions, some contestable and on the contestable you have been matching the parallel imports.

What happens is a generic comes in with part of their fixed quantities and they displace some of your sales that had been on the brand equalisation. So these are the Seroxat sales that were lost, whenever.

So let us think of this from GSK's perspective here. Your customer, this pharmacy chain, let us say, comes to you and says, "We are not buying this much Seroxat, no thank you; we have purchased a bunch of our needs for the open prescriptions from somewhere else".

GSK will know that that is from the generics but in any event ask yourself, do you want to cut the price to try to get back those sales? You could do that, you could offer a lower price and sell more -- at the parallel import, that branch of the blended price, let us say at the parallel import price, which is the same as the generic price, you could do that, a little bit of a discount, let us say, would do it. What good would it do for you? What is going to happen next? It is entirely predictable that the generic then, not having placed the quantity at this pharmacy, will go to another pharmacy to place it.

So now you go to the next pharmacy. All of a sudden you hear from another one of your customers that they have reduced their sales/purchases from you because they have been displaced. Are you going to chase this discount through the whole market? In the end the generic is going to sell a certain amount, you are going to sell the balance, and you have just given away money. So that is the story if, you will, behind the model.

GSK fully understood this, I am quite sure. It does not make sense you cannot "stem the loss of share to the entrants' products". There is no competitor dynamic here, you cede that share, that was what you understood you were doing when you transferred the margin to the fixed quantities to the generics, and you will then continue to match, as you did with the parallel imports, the -- you will offer the same brand equalisation deals, you know you will sell somewhat less Seroxat under those deals. That is what you have sacrificed.

When we talk about value transfer and when the CMA calculated the volume of the value transfer, they recognised that the cost to GSK would be these lost sales that would otherwise be occurring under brand equalisation in part and other lost sales would have been parallel imports as well.

So I totally reject, as a matter of economics, this notion of competitive dynamics stemming the loss of share -- and in a business context GSK would and did understand that.

THE PRESIDENT: Do you want to comment on Dr. Stillman's point about the parallel importers, the continuing potential for parallel import supply depending on the varying elasticity of supply?

PROFESSOR SHAPIRO: I think Dr. Stillman and I are in considerable agreement conceptually, which is that -- I will put two points and obviously if I mischaracterise his views, he is right here.

First, if the supply of parallel imports is very highly elastic, then even a small reduction in price, quality adjusted price, by the generics or by GSK would be sufficient to displace them.

That is, I believe, a factual matter that it is very highly elastic and I believe that is what all of the parties expected to be the case when they entered into these deals. I think Dr. Stillman has a view that it is not as elastic as I think it is, or maybe he is just pointing out that that is something that matters. Anyhow, I think we conceptually -- there is some agreement there.

I would also just say that we know from before these agreements were entered into, GSK made a business decision that it was worth matching the parallel imports at that price, that was they entered into the brand equalisation deals and, from their point of view, if a generic comes in and matches that price and, like I said, they lose a certain amount of sales to the authorised generic now, rather than a parallel import, there is no reason for them to adjust further to that.

So the key thing here is to say, if the generics displaced the parallel imports at prevailing prices, which they would if the parallel import supply elasticity is very high. That is the model I have in my head and I have explained a couple of times.

I do not think your decision in the end should hinge -- suppose you conclude, well, it is not perfectly elastic, the supply of parallel imports, it is very elastic and so we have to have a, let us say, 1% price decrease -- or maybe it is the same price but the generics are slightly preferred because of the packaging, so that is equivalent to a 1% price decrease on those, does that mean that the analysis should change markedly from what I admittedly have in my head, which is perfectly elastic, matching the prevailing prices and that is what you see in the document? I do not think your decision in the end should hinge on that sort of very small difference.

I think the evidence is it is close enough to perfectly elastic generics matching at prevailing prices and that is behind the opinion, the advice I am giving you.

MR. GLYNN: We agreed about the importance of this question about the supply conditions for about parallel importers yesterday, and I very much wanted to come back to it today.

The parallel importers presumably are -- I do not know how many were active in this particular market at this time, but a working assumption or guess would be quite a number of them. So quite a competitive situation at that level. I also would assume that they were getting their supplies from a variety of different sources, different countries, different suppliers under different terms. If they had a margin which they felt they needed to get to bring the product into the UK, that would by comparison be quite a range of different sources of supply. It does not follow from that they have different prices at which they can drive, but it would be consistent with them having quite a range of different costs of bringing stuff into the market. Is there anything in the information that we have before us which will give us information on how elastic the supply curve is for the parallel traders?

PROFESSOR SHAPIRO: Let me respond and I am sure Dr. Stillman has something to say about this.

First off, I would totally agree with the conceptual point: if you see suppliers coming in from a range of different locations with presumably different costs, exchange rates, movements, that would tend to think that they had different margins probably and so you would not have a perfectly elastic supply. That makes sense to me. Dr. Stillman has made this point and I agree with that conceptually.

I am not aware of evidence, at least I cannot remember right now evidence about the -- specific direct evidence about the margins of the parallel importers, but I will tell you two things -- or three -- that I think are very significant.

The key thing I have looked at is the CMA evidence -- I think I mentioned it yesterday, figure 3.1, page 169 -- I have to memorise that -- in the decision shows that as the generics come in, the parallel volume starts to fall down and dramatically -- essentially very small. The parallel import price does not fall. If you had more elastic supply you would basically have to walk down that supply curve before they went away. So that is pretty powerful evidence, in my view.

The other pieces of evidence are more qualitative, which is all the parties expected -- there is, I think, unambiguous contemporaneous evidence that all the parties expected the generics would displace parallel imports at essentially prevailing prices so that would not be consistent with the need to discount to get them out. That is what the parties expected. Along with that there is some additional evidence that the parallel importers could not respond; they just did not have a margin left to do so.

The only other thing -- I am not entirely sure what to make of this, sir, is that I think there is some evidence that the majority or the large -- France was the primary source at this time of the parallel imports and so that may be relevant as you look into this. I cannot give more details on that because I do not know more; Dr. Stillman may.

DR. STILLMAN: I have a number of points but I think I should start by saying Professor Shapiro is right that we are in broad agreement about how to think about this and probably surprising agreement about some of the conclusions that we draw from the data.

On the model certainly, we are both looking at it in the same terms, we think about it as being a dominant firm, model being appropriate, we realise that the key factor is the elasticity of supply of parallel imports and trying to predict how new entry would affect equilibrium prices. We are on the same page on that.

With respect to the elasticity of supply of parallel imports and what we know about it, I certainly share your views, Mr. Glynn, that when one thinks about how parallel import supply ought to be, one thinks in terms that imply an open sloping supply of parallel imports and the fact that GSK in those brand equalisation negotiations always felt they needed to worry about the level of price it charges suggests that it felt that, well, if it did not cut its price enough, it might suffer more loss to parallel importers, and if it cut its price more it might be able to reduce the threat from parallel imports. So that competitive behaviour also implies some upward slope if you will, some elasticity to the parallel imports supply.

On the other hand, as Professor Shapiro noted, it does seem to be the case that as we have new entry coming in, we do not seem to see any kind of significant change in the price of parallel imports and those are data and I do not argue with data. I always want to know -- as Ms. Webster knows, I really want to understand the data, but I do put a lot of weight on what the empirical evidence seems to be saying about, in this case, the elasticity of parallel imports supply.

With respect to this issue of brand equalisation and blended prices that Professor Shapiro mentioned, I think that probably adds confusion to this discussion. I think we can probably think about this usefully if we thought that all the product was was contestable and we thought all the prices that GSK was charging -- I do not really see what we gain from thinking about this issue, from thinking about brand equalisation.

What I would just like to note is that -- and I do not know this is material for the overall analysis but just a fact -- it is not correct to say that GSK on these contestable units actually felt that it had to match the parallel import price. We had Mr. Sellick explain his thinking on that and that -- well, he constructed the match price which, if you will remember, was the price that they -- you take the parallel import price that the pharmacist had available to it or the GSK believed it had available to it and said, okay, now -- let me think about what the brand share is, how much of the volume they would purchase even if they do not no deal from GSK. That price was a higher price and they tried to figure out what the blended price would be which would make the pharmacist in the same position financially. Then GSK said, we do not actually have to go that low, we can try to negotiate a higher price because we do not have to, in effect, match on those parallel import prices. I think that is a secondary issue but I wanted to flag that.

THE PRESIDENT: The other thing, supporting what you are saying, but not only does the data show that, I think all the evidence is that is what the parties when negotiating the deals expected would happen.

DR. STILLMAN: I believe that is correct.

Professor Shapiro raises this question about, in effect, materiality. When we are all done with this and we -- whether it is a 0.5% drop or 1% drop or 3% drop, how much does it all matter? That is going to be a question that you will obviously have to be grappling with, but I do not want to lose sight of something which I assume, Mr. President, we will be returning to later in this discussion, which is regardless of the effects on GSK's prices, how they responded or did not respond, regardless of the effects of how IVAX responded or GUK responded or did not respond -- we do have the supply agreements putting onto the market this additional generic, higher quality product compared with parallel imports and as a consequence we do have a reduction in the average price being paid by the pharmacist that resulted from the supply agreements. There can be discussions about quality adjustments --

THE PRESIDENT: We have not lost --

DR. STILLMAN: I know we will get to that.

THE PRESIDENT: We are going to get to that. We have not lost sight of that.

DR. STILLMAN: I think those are my remarks.

THE PRESIDENT: Quickly and then we will take our break.

PROFESSOR SHAPIRO: I will be quick. Two quick points.

First, while there is considerable agreement, I disagree with Dr. Stillman on the following point: the brand equalisation deals and the fact that GSK entered into them are perfectly consistent, in my view, with a perfectly elastic supply of parallel imports. He, I think, believes they indicate something less than that in terms of elasticity. The way I see it is that at any given point in time there was a price at which parallel imports were available to the retailers. GSK was prepared to meet that for their own commercial reasons.

By meeting it they were going to displace the parallel imports at those accounts where they were offering these deals and that is perfectly consistent with elastic supply. So I disagree with him on that point.

The other point about the different countries -- I think I tend to think about it this way, Mr. Glynn: if there is a country -- let us say France -- from which there is a very elastic supply of parallel imports from one country at one point in time, simply because the parallel importers can purchase a larger volume in France quite easily over the relevant magnitudes we are talking about and ship it into the UK, without any increase in marginal cost as they do that, then that is the arbitrage opportunity, that is the elastic supply.

We may see some sources from some other places, but if you just have that arbitrage opportunity with elastic supply, then you have got a very elastic supply right there and then it is a loose end and I am not quite sure what to make if you are also getting other countries which may also have elastic supply and no margins to share ... to shed.

DR. STILLMAN: Very quickly on that, may I please. That works however for -- works for explaining the prices at the margin, but in order to displace all parallel imports, if you have these basically steps in the supply curve as you are describing, you would have to have a reduction in price. We do not see the reduction in price, so it is a theoretical point. But just in terms of the theory your observation does not really do the job.

MR. MALEK: Dr. Stillman, we do not know what the arbitrage margins are, do we?

DR. STILLMAN: I do not know the numbers. I know it is sufficiently profitable for the parallel imports to be brought in.

MR. MALEK: If there was sufficient margin there, they would have reduced their price but they did not.

DR. STILLMAN: I agree they did not and so again that is why -- I sort of feel embarrassed -- this is the economist in me, I cannot resist because Professor Shapiro said something which isn't right as a matter of theory, but in the end I do not think it is material to your analysis because we in fact did not see any reduction in parallel imports.

MR. MALEK: That is very fair.

MR. GLYNN: I would like to hear from Dr. Majumdar on this.

DR. MAJUMDAR: Let me keep this very short. I agree with your view that in theory you would expect a stepped curve, an upward sloping supply curve for the reasons that you state. But I do not -- I am not aware of any evidence that tells us how steep that curve would be.

PROFESSOR SHAPIRO: The steps that are at higher cost, we do not see those. The relevant arbitrage is where we are seeing the volumes really coming from and there is reasonably -- those are highly elastic because there is nothing to limit the quantities and the margins are therefore very thin because the parallel import activity itself is so competitive.

THE PRESIDENT: I think we will take our 5-minute break. Thank you.

(11.45 am) (A short break)

(11.57 am)

MR. MALEK: I found the discussion over the last couple of days very useful and, for my part, how I see things -- and it may be that you do not agree -- without any concluded view, is on four levels.

I can see that there was no or non-existent competition in price between the generics per se, nor was it intended.

Secondly, I have difficulty in seeing competition in price between GSK and the generics as opposed to a sharing of the cake.

Thirdly, it seems to me that the intention was that the PIs would be replaced and this happened. That happened without the PIs reducing their price or the generics reducing their price significantly in order to reach that, but I do see there is a benefit on the wholesalers on their margins because apparently the margins for them are better when they purchase

from the generics than when they purchase from the PIs. But what is not clear to me is where there is evidence as to whether or not that improvement in margins for the wholesalers because they are buying from the generics -- is that being passed on in fact to the pharmacies? Are we actually seeing the figures going through to show that?
I think it is probably best, Dr. Majumdar, if you can actually answer that and we will see where that goes.
DR. MAJUMDAR: Yes, sir. So the question is, there is benefit -- at the moment you are minded to think there is a benefit to wholesaler, but your question is to what extent was that passed on to --
MR. MALEK: What I understand from the evidence -- and it may be I have misunderstood -- is that the wholesalers get a better margin when they buy from generics than when they buy from parallel imports. There are various reasons for that and we do not need to debate that. If that is right and you see the generics are replacing the parallel importers as everyone intended, are the wholesalers basically sticking -- is the profit sticking with the wholesalers or is that passing through to the pharmacies? I am not really interested in the economic theory; I just want to know, as a matter of fact, did it pass through?
DR. MAJUMDAR: Thank you for clarifying that, sir.
So I calculated that using the CMA's mark-up assumption, so what one can do, one can fairly -- actually, one can pretty reliably estimate the price to wholesaler charged by the entrants. If one then takes the CMA's mark-up to calculate the price to pharmacy, what that indicates -- and I put this in my expert report, sir, at page -- let us have a look, there is a table here. This is on internal page 37. So that is [G/6/38}. I estimated using, as I say, the price to wholesaler for each of the entrants, which I think can be estimated reliably. I then used the CMA mark-up assumptions of 11.25% for IVAX. Apologies, I did not use the CMA mark-up assumption for GUK here; here I assumed 11.25%.
So I said, let us see what happens if GUK's mark-up is the same as the mark-up on IVAX. I then used the CMA assumption of a 20% mark-up for Alpharma and that gave these predicted price reductions relative to the blended price of Seroxat.
I think your question, sir, is not to compare against the price of Seroxat, so we do need to reduce these price as little bit because the price to pharmacy of parallel imports would have been a bit lower than this, so I think probably about 2 percentage points lower. So this suggests to me that the price to pharmacy of the entrants' product, given my mark-up assumptions here, which are the same as the CMA's for IVAX and for Alpharma but lower

for GUK -- so I am departing from the decision there. That would give you about a 7% to 8% price reduction on that basis, sir.

MR. MALEK: One of the problems I see -- and it is problem for the CMA and for all of us -- is that we are looking at all this so many years down the line that we are making assumptions without the actual data. If you have the physical data from the pharmacies and from the wholesalers, you can probably work it out, but it seems everyone is working on assumptions, are they not?

DR. MAJUMDAR: Yes, sir. Just to be clear, the price to wholesaler, I think, can be estimated reliably. The reason is because the entrants primarily sold to wholesalers and because of that we have pretty reliable data because to the extent that one has to make assumptions about the mark-up on top of the wholesaler price to pharmacy, that really does not change things.

So the price to wholesaler can be estimated reliably. The difficulty -- and I agree with you, sir -- is then understanding the extent to which that was passed on because that does rely on making a mark-up assumption and it is an assumption.

There is some evidence on file, but it seems to me that tells us that there is perhaps a range. I acknowledge, sir, that I do not think we can say confidently exactly where it is.

MR. MALEK: Thank you very much for that.

THE PRESIDENT: We talked before about price effect on GSK both from the generic entrants and from parallel importers and what it might be after the agreements. Can we broaden it out to just price effect to what is referred to as "competitive constraints", which is an expression that one finds in your experts' report and in the joint statement.

GSK was giving up volume to the generics and losing market share quite significantly because the volume they got was more than the volume of parallel imports as we saw. As economists, do you regard that reduction in GSK's volume in these circumstances as creating what you describe as a competitive constraint on GSK?

Dr. Stillman.

DR. STILLMAN: I will go first. I realise we have quite different views on this question. I guess the way I look at it is, I am trying -- the way I think about this is I ask: what does the effect of this generic entry do to the demand faced by GSK for its product?

That question could be stated in the absolute but it also may be that a little context is relevant because during the course of this case it has been suggested at times that the generic entry would only displace parallel imports and would have no effect whatsoever on the sales of GSK UK.

So what I have been at pains to demonstrate is that, in a sensible economic model and indeed supported by the data, what one sees is that the entry of the generic supplies, even if they are fixed supplies, would reduce the demand faced by GSK. So that is the framework I have used for thinking about competitive constraints. Then how GSK responds to that reduction in demand is an additional question, to what extent have they simply absorbed the reduction in demand by just having lower quantity versus, to some extent, trying to mitigate the effects of that reduction in demand by reducing price and trying to recover share in this case from parallel importers?

So those are the two aspects of how they might respond. I start off by saying -- I look at the reduction in demand as being an indication that GSK's competitive environment, competitive pressure it is under has changed and it faces a greater -- worse competitive position than it did prior to the generic entry.

THE PRESIDENT: Yes, although this is not the usual situation where the reduction in demand is through wholly independent competitive entry, but here it is the fixed volume, but actually supplied by GSK itself, you think the general analysis of where one starts still applies; is that right?

DR. STILLMAN: Yes, to the general question of what did this entry do to the competitive constraints faced by GSK. I realise, of course, that Professor Shapiro has a different view, and we will hear from him shortly, I am confident, but that is my perspective on this: that we have an entry and it has -- the question I am asking it is: what has it done to GSK UK's competitive position? To me it has caused a reduction in demand which I think of as being a way of operationalising this phrase "competitive constraints".

THE PRESIDENT: Yes. Dr. Majumdar?

DR. MAJUMDAR: Thank you, sir.

The way I see it is that GSK faced lower-priced rivals than absent the supply agreement in the sense that the price to pharmacy of the entrants' products in my view was below the price to pharmacy of parallel imports. That suggests to me that GSK faced greater competitive constraints than absent the supply agreement.

THE PRESIDENT: Professor Shapiro?

PROFESSOR SHAPIRO: Thank you.

So I do disagree strongly with the way in which Dr. Stillman is using the term "competitive constraints". I think he just said the reduction in demand that GSK would face counts as a greater competitive constraint and should be therefore, I think he is saying, credited as some additional form of competition flowing from the supply agreements. So I disagree with that.

Let me start with what I think would be the simplest case. Put aside the parallel imports for a moment; I will come back to them. Suppose I am a supplier and there is a fixed demand for my product, inelastic demand. Let us say I have 1 million units and I allocate you 300,000 units for whatever reason.

The remaining demand for me has definitely gone down, it is only 700,000 units. Okay? You know the story about sharing margins, but take that as given. Does this create any additional competitive constraint? If there is inelastic demand and a certain price that can be charged, I am not going to lower the price to try to gain back some of the 300,000 units that I allocated to you, let us say, for free or at a very low price. I know I am not going to be able to do that. That would make no sense; I have explained that previously.

So I accept that I am only going to sell 700,000 units at the same price that I was selling them before.

So by Dr. Stillman's telling of it, the demand has fallen for my product. That is an additional competitive constraint. I do not think that is not a helpful way to view it as an economist. I have shared the profits with you of the 1 million units. You got 30 per cent of the profits and I am getting 70. There is no additional competition that is resulting from this arrangement.

MR. GLYNN: That is the situation after the agreement have come into effect, is it not?

PROFESSOR SHAPIRO: Yes, although I was telling more of an abstract story.

MR. GLYNN: But in relation to here?

PROFESSOR SHAPIRO: So here, yes, the --

MR. GLYNN: Is the process that led to the agreements coming into place to be viewed as competitive constraints or reflecting some competitive constraint?

PROFESSOR SHAPIRO: Yes in the following sense: GSK did not do this willingly. Obviously they entered into the agreements voluntarily but only under threat of losing the patent case. So the ultimate competitive constraint was the threat of losing the case and therefore independent generic entry. They chose to settle that. They agreed to settle that in each of the cases through this cash payment and also this non-cash component.

So I guess I put it this way Mr. Glynn: the fact that GSK was willing to share its profits and transfer margins was because of the competitive constraint associated with the process by which patents are challenged. The result was not additional competition in the market. So

Dr. Stillman's equating of a reduction in demand to a competitive constraint I disagree with for the reasons explained.

We can now bring back in the parallel imports if you want. I do not know if I need to go through that at this point as we have spent a while on it, but let me just say this: if the generics are matching the parallel imports at prevailing price, then everything else I just said in the simpler example follows unchanged. In other words, it is a sharing of the monopoly profits and it is a reduction in demand that GSK has accepted as part of settling the patent cases, but does not generate any competition that benefits customers, namely, pharmacies.

MR. GLYNN: If you thought that although the parallel imports has disappeared and did not respond in price at the time, that the potential re-entry of parallel trade was a new factor in the post-agreement situation, would you regard that as a competitive constraint that applied after the settlements?

PROFESSOR SHAPIRO: Not associated with the settlements.

MR. GLYNN: Perhaps I will put the point a little bit more fully. If you compare the situation after the settlement to before, then beforehand we had the parallel traders in there presumably supplying up to their capacity. Afterwards, we have them absent but, as it were, in the wings, potentially coming back in. That is clearly an important difference in the situation. Would you regard that as constituting an additional competitive constraint on GSK than if none of this had happened?

PROFESSOR SHAPIRO: It is a competitive -- the parallel imports continued to be a competitive constraint overall and affect the UK market as I would put it.

Let me explain: at any given point in time there is an elastic supply of parallel imports. Prior to the agreements, GSK was matching that for part of the market and they were basically accepting the presence of parallel imports in the other part of the market.

The agreements then displaced those parallel imports with the authorised generic at the same price. The parallel imports are now waiting in the wings, still with their elastic supply, hovering, as arbitragers will do, to see if there is an opportunity.

Let us suppose time goes on, the exchange rates move or something else happens, and the parallel imports are now willing to come into the UK at a lower price. I believe this is the thrust of your question.

MR. GLYNN: Indeed it is.

PROFESSOR SHAPIRO: What is going to happen? Before the agreements are entered into, GSK would have been forced to lower its brand equalisation price to match the now lower parallel import price -- assuming it was still worth doing that, let us say, for a moderate drop. That is the ongoing and perhaps time-varying competitive impact of parallel imports into the UK.

Now that the agreements are in place, the parallel imports have been edged out at the previous price. Time has past, they are willing to come in. So they will indeed, I assume, come back in and offer at the now lower price, by assumption, to the pharmacies. So whether it is exchange rate movements or something else, they come in.

In the presence of the agreements what I would expect to happen is that again the generics and GSK would have to match the parallel import price in the same way that GSK would have had to do so prior to the agreements.

So the competitive constraint of parallel imports is still present, even though they are absent because they have elastic supply and they are hovering as potential entrants, if you will. That is unchanged by the agreements. So again the agreements do not produce any additional competition, but nor do they negate the ever-present threat of parallel imports. In the US we do not allow them, by the way, but they are obviously legal under EU law. So that is going to be a continuing presence. But that is not affected by the agreements.

MR. GLYNN: Thank you.

PROFESSOR SHAPIRO: I wanted to also respond to Dr. Majumdar, if you do not mind, Mr. President; I will be very brief.

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: This was in response to again the question about, what do we mean by competitive constraints, and I responded, I believe, in full to Dr. Stillman.

Dr. Majumdar made a different point. He emphasised lower-priced rivals who then had a lower price to the pharmacy, the generics that is, than the parallel import price. So I would agree if there were a significantly lower price at the pharmacy level, then that is something that is -- that would be additional competition, that would matter.

There is a factual dispute about whether that happened and was material. But my primary disagreement on this is with Dr. Stillman, as I explained earlier.

DR. MAJUMDAR: Thank you, sir.

I think that ultimately gets back to Mr. Malek's question a second ago about the extent to which the evidence permits us to identify the degree to which the benefit was passed onto pharmacies.

One comment on that, which is if the Tribunal were minded to take into account wholesalers and pharmacies as direct customers, and say, well, actually, as long as the benefit is somewhere, whether it is with wholesaler or whether it is with pharmacies, they are both direct customers, so in some senses it does not matter, in that situation, the uncertainty as to what the mark-up was and what the pass-through rate was then becomes immaterial.

MR. MALEK: Dr. Majumdar, to what extent were the parties looking at the pharmacy price as the benchmark? What I am saying is, you have the generics, you have got GSK and you have got the wholesalers; are they looking at what is the price at the pharmacy? If the wholesalers are going to benefit by increased margin instead of parallel importers, they do not have to necessarily pass if on; the intention is just to keep that pharmacy price up if they can.

DR. MAJUMDAR: So the question was: to what extent were the parties looking at the -- or expecting the price to pharmacy not materially to undercut the price of parallel imports, is that ultimately --

MR. MALEK: That may ultimately feed into that, but if whatever one is looking at is the price being paid by the pharmacies and you have got the wholesalers above that and you have got GSK and you have got the generics, and that people are pricing by reference to what the pharmacies are paying, does it follow or does it not necessarily follow that when you are looking at the wholesalers' position, no one really intends the wholesalers to pass on any increased benefit to the pharmacies because everyone is looking at the price being charged to the pharmacies? Whereas, I understood that in your economic model you are saying, well, no, if you have got, in theory, the wholesalers and they have got a greater margin in respect of buying from generics as opposed to parallel importers, you would expect over time that part of that benefit will feed through to the pharmacies.

DR. MAJUMDAR: Yes, sir. So I would expect part of that benefit to feed through, in particular where there is negotiation between pharmacies and wholesalers but I am -- what I cannot tell you is the extent to which in theory -- sorry. Theory does not permit me to tell you the magnitude of that pass-through but I would expect some of that benefit to be passed on.

MR. MALEK: If I go to Professor Shapiro.

PROFESSOR SHAPIRO: In terms of what was expected I think it was clearly the design, if you will and the expectation of GSK and the generics that this would be matching the price of the pharmacy level and then the wholesaler margins were backed out of that.

THE PRESIDENT: Sorry to interrupt you, you said this would be matching the price --

PROFESSOR SHAPIRO: I am sorry. That the generics would match the parallel import price at the pharmacy level and the wholesalers would receive their normal margins and that was how the generics could figure out what their selling price would be and there was no notion that I have seen in the contemporaneous documents that the normal wholesaler margin, because it was unusually large in pound value here, would lead to the wholesalers to a lower pharmacy price. I just do not see that in the contemporaneous documents in terms of that.

Dr. Majumdar says we cannot tell in theory how much, in fact, the larger wholesaler margin would be passed through to pharmacies. So, I guess I would disagree in this following sense: if we have a competitive wholesaling business and they are getting their normal margins, I would not expect it to be passed through at all.

Furthermore, and this relates to our previous discussion, Mr. Glynn, suppose we say well actually this absolute margin on this product was quite high, it was profitable just viewed on its own for the wholesalers, the margin was significantly higher than their costs of distributing this product, so now there are two possibilities. We could say that does not seem that that would -- something should give in that system.

Dr. Majumdar is suggesting the wholesalers would then pass that onto the pharmacies and I do not agree with that. I would think to the extent there is adjustment based on this one drug, again, out of the whole portfolio, I would expect the wholesalers to then compete away that margin by agreeing with the generics, actually, to pay them more over time and less than the standard margin, there is no reason to pass it through to the pharmacies when the wholesalers are competing.

MR. GLYNN: It would depend, would it not, whether their primary focus of competition was to get the product from the generics' firm or to sell it to the pharmacist? If they have a bit of fat, which might be in their interest to allow to be competed away, it could go in either direction depending on where the focus of competition was primarily for them?

PROFESSOR SHAPIRO: I feel like my last statement was not as clear as it might have been and I can see Mr. President you are looking a little puzzled. Let me put it differently. I go back to the underlying economics; there is a fixed quantity that is the generics want to place at the pharmacies, and all they have to do is match let us say the parallel import price to do so. If the wholesalers are earning an unusually high margin; if I am the generic, I am going to say -- if there is another wholesaler, I can take turn to you and say: all right, would you like to compete with the other wholesaler to distribute this product? The pharmacy price I know what it is going to be, as Alpharma does, in the most clear example.

You can compete with the lower margin in this product, if you want to compete product by product like this rather than on a portfolio basis, please tell me you are willing to offer a lower margin on this product to achieve the pharmacy price that I need in order to sell this quantity and I would be happy to receive a higher price from you than the other wholesaler and that would be the competitive dynamic.

There is no reason from my point of view, as a generic, to discount at the pharmacy level and a wholesaler who attempted to do that, I would say, what are you doing, I do not need to do that to sell my volume? I am going to pay you less or go to another wholesaler, you are giving away money for us, this does not make sense.

THE PRESIDENT: Dr. Majumdar?

DR. MAJUMDAR: Thank you, sir. We have got my report up on the screen, I wonder if we might go back to page [G/6/31} please and then the final footnote, number 72. 72 is the final footnote at the bottom of that page. Now, this is evidence from GUK and if we look at the part in bold:

> "While price lists were published by wholesalers, actual prices would have varied depending on the discounts and rebates negotiated between wholesalers and their respective customers ..."

So this was pharmacies in this case. I am not aware as to whether those were product by product negotiations or whether that relates to a wider scheme in which pharmacies would get additional discounts, but either way this would be a mechanism by which there was a pass through of the wholesale benefits to pharmacies.

THE PRESIDENT: I think, Dr. Majumdar, what you said earlier, when pointing also to the inferences or adjustments one makes to your table at page [G/6/37}, in answer to Mr. Malek's question, that there is some evidence on pass through. I think that is what you were saying. That that is the blended Seroxat price, that would be responding to a PI price, so one needs to take some points off to get the actual price from the wholesaler and, therefore, one can see some reductions here?

DR. MAJUMDAR: Yes, sir. Just to be clear, that is what I said but just to be clear that is conditional on your choice of mark-up.

THE PRESIDENT: Yes.

DR. MAJUMDAR: There is an assumption made in coming to those figures but, yes, on the mark-ups that I consider to be reasonable, I see evidence of pass through.

THE PRESIDENT: I think Professor Shapiro, Dr. Majumdar said that if that is right then GSK faced, I think his expression was lower priced rivals, than absent the supply agreements because if one assumes that deduction is right, namely, that there was some pass through from the wholesalers of the margin to the pharmacists, so the pharmacists then got a lower price than they would have got for the PI product, that is what I think follows, and that is what that table 2 shows as interpreted that way.

Would you then agree that that means that GSK is facing lower price rivals than absent the supply agreement?

PROFESSOR SHAPIRO: I am actually really not following this chain. I apologise. If we assume that the generics through the wholesalers priced materially below the parallel import price to move their volume, then, that would be of benefit to the pharmacies to be sure, if they got a lower price. I am not quite following that that is true but if we assume that --

THE PRESIDENT: I think what is said is this, and I will be corrected if I have misunderstood you, the generics, because they are seeking to match the ultimate price of the pharmacy for the PI product, have to offer the wholesalers a lower price than the PI price because the wholesalers traditionally get a larger margin on generic product; that is the benefit or windfall, however one wants to describe it, to the wholesaler.

If the wholesaler passes on part of that additional margin/windfall/benefit to the pharmacist, then the pharmacist will end up with a lower price than it would have had for the PI product from that wholesaler, so the pharmacist gets a lower price.

PROFESSOR SHAPIRO: Okay.

THE PRESIDENT: That, I think, it was said in Dr. Majumdar's words mean that GSK faced lower priced rivals than absent the supply agreements.

PROFESSOR SHAPIRO: Okay, now I am following.

THE PRESIDENT: That was the point I want to put to you, does that conclusion then follow? Would you regard them as rivals in that sense? This goes back to the competitive constraint point because that is the context in which Dr. Majumdar made that observation.

PROFESSOR SHAPIRO: I get it, okay. So, first, I would not in any way dispute that the lower price that we are assuming here would be of benefit to the pharmacists.

Now you are asking does this indicate competitive rivalry as well? So I would tend to say, no, in the same way -- so let me put it this way, the generics themselves -- the quantities that were allocated to them was at a transfer price of £8.45. One could call them lower price rivals to GSK because they had £8.45 certainly lower than the parallel importers' costs of purchasing the product elsewhere and bringing it into the UK. So, in plain language usage, they are rivals in the sense they are going to make sales to your customers and they have a lower cost. But they are not rivals in the economic sense because the quantity is fixed, as we have talked about that a number of times.

So in the sense that GSK has acceded market share to them, absolutely, that is not in dispute. Would this be a rivalry of the sort that would then trigger a competitive reaction, which I think is the context we are now talking about, a competitive reaction by GSK, the answer to that is no because the quantity is fixed.

THE PRESIDENT: Dr. Stillman?

DR. STILLMAN: It would not trigger a competitive response from GSK if one also assumes that the supply of parallel imports is highly elastic. If instead there was an upward sloping supply of parallel imports, then, with the reduced demand that GSK faces, it would have an incentive to respond by lowering the price in order to recover some of the volumes from parallel imports. It cannot recover the volumes of the authorised generics because those volumes are fixed. That is what the theory implies. But that then takes us back to the question we have been talking about, namely, how elastic is that supply of parallel imports and how much of a response to that type could we expect?

There I can see that the data indicate that there was not much of a response by GSK, but that is really just to complete Professor Shapiro's answer.

MR. MALEK: Dr. Majumdar can I just go back to this. If when you have the discussions between the generics and the wholesalers as to the price and what they are both looking at is the benchmark being the price to the pharmacies, I have got difficulty in understanding why they would want or even the wholesalers would want to be reducing their price which would then lower things further.

Let us say the pharmacy price is 100p and that from the generics they will get 20% and from the parallel importers they will get 10, why would they want to start supplying at a lower price to pharmacies which will then feed on to the future?

DR. MAJUMDAR: Sir, I agree from their perspective they would ideally keep as much of the margin for themselves. I think the issue is, from the pharmacy perspective, they would like to obtain some of it. Provided that there is some negotiation or some predetermined wholesaler discount scheme that permits pharmacies to gain an additional amount, then there will be some pass through.

I agree that from a wholesaler perspective they would prefer to keep as much of the margin as they could, but because there is an opposing force in the pharmacy that would be the factor that pulls some of that benefit down to the pharmacy level, sir.

PROFESSOR SHAPIRO: That is exactly where I would disagree. From the wholesaler point of view, if a pharmacy comes to me and said: I see you have got this nice margin, I would like a lower price; if I am the wholesaler I would say: I bet you would like a lower price, you always like a lower price, but I only have a fixed amount of this to sell, why should I give it at a lower price to you? If you will not take it at the standard price, which is basically the parallel import price, I have plenty of other pharmacies to sell it to.

There is really no reason for the wholesaler, any more than there would be for the generic, to give ground at that point. It is only a fixed quantity. That is the key to so much of this economics, is the fixed quantity.

MR. MALEK: I can see that if you are looking at it purely from the incentives point of view, the incentive is on the GSK, the generics and the wholesalers to keep the price up. I understand that. But what Dr. Majumdar's point is, no, there is another force in all of this and it is the pharmacies. He is saying if the pharmacies realise that there is a greater margin for the generics, as opposed to parallel importers for wholesalers, they will put pressure on the wholesalers to reduce their price. I think that is what he is saying.

PROFESSOR SHAPIRO: Okay. Yes, sir. So I would answer in two stages. First, just for a moment take the wholesalers out of the picture and imagine the generic just going directly to the pharmacy. There is some of that with Alpharma.

MR. MALEK: Of course. I have seen that.

PROFESSOR SHAPIRO: Then they are like: look, pharmacy, I understand you want a lower price, maybe you even know I have a certainty quantity that I am getting very cheaply. But I see no reason to give any significant discount to you, below the parallel import price, because I have a lot of other customers.

Of course the pharmacy might try. The economic theory here I think is pretty clear, given the fixed quantity, there will -- that is just the matching, matching the parallel import price. You bring in the wholesalers as an intermediary here, it really does not change the underlying economics. It is true if I am the generic and I sell to the wholesaler at a certain standard margin, you might then try to bargain with them to get some of the wholesaler's margin, but ultimately I am going to be figuring what I sell to the wholesaler is to match the pharmacy price and if I have got the wholesaler who is giving you a better deal, that is not the wholesaler I want to use because there is less total margin to be had, I am going to go to another wholesaler. I made that point earlier.

The other force, as you put it, the pharmacist, is not a powerful force when you have a fixed quantity. The suppliers here, the generic and the wholesaler, either the generic alone or with the wholesaler, just say: no, I am not prepared to deal in this case, I have other customers, I am making it worth your while, slightly better than parallel imports, but beyond that no thanks I will go somewhere else. That is very strong.

MR. MALEK: I can see you stress the importance there is a limited product, there is a limited quantity of product and what I was trying to look at it was from was from the position of incentives and where everyone would really want it to be and the fly in the ointment is this whole question of the pharmacy's power, according to Dr. Majumdar, to exploit the fact that the wholesalers are now getting a greater margin overall and so they would try and get a better deal on that.

PROFESSOR SHAPIRO: I totally know about incentives, that is what my trade specialises in. Of course the pharmacists would like to get some of that margin, they would like to and I am saying with the fixed quantity they are not going to.

DR. STILLMAN: May I respond just in part briefly? It is actually merging in some of the facts into this discussion. I think what Professor Shapiro's analysis does not deal with, at least about how I think about it, is what we observe in the negotiations between pharmacies and the supplier I know best, GSK. It is GSK, it is not the generic, it is not the fixed supplies, but I think it still applies because what we have in Professor Shapiro's example is a construct where Alpharma, GUK, IVAX is negotiating with the pharmacist and basically says: I am not going to give you anything lower than the parallel import price because I do not have to. You know what, if you do not like it, see you later, I can go some place else. That is not unlike the situation that GSK faced when it is negotiating with the various pharmacists and they have a volume of sales where basically the pharmacist is saying: I can get parallel import price, you better give me at least a parallel import price on this contestable portion.

What GSK says in its negotiations -- it varies by the pharmacist, depending on the pharmacist's situation -- says: I do not actually have to do that. There is an element of bargaining that goes on. It depends on how strong that pharmacy really is that determines what the actual price is.

I think Professor Shapiro is kind of writing bargaining completely out of the equation at the pharmacy level and that does not seem right to me based on what I know about the industry.

MR. MALEK: But we do not have the actual underlying data that shows it, do we? We can make all these assumptions and all that.

DR. STILLMAN: In the case of the GSK data, we actually could do some analysis.

MR. MALEK: GSK, yes, but as between the wholesalers and the pharmacies --

DR. STILLMAN: There we have what Dr. Majumdar has pointed to, namely, the estimates of price to pharmacists implied by the CMA's analysis and how those stack up relative to the parallel import prices. That is what we have.

MR. MALEK: I understand that, I have seen that.

THE PRESIDENT: Can I move on to, this arose in the context of competitive constraints on GSK and the sharp difference in view between Dr. Stillman and how he looks at competitive constraints and Professor Shapiro.

If when we look at the GSK prices of Seroxat to pharmacies, we find, in fact -- and I think that is confirmed in our next session -- there is no material change in price and that is graphically illustrated in the CMA skeleton. If we can bring that up, which I think is bundle [S/6/105}.

There is some discussion between Dr. Stillman and Ms. Webster, there may be a very small climb. One has to not look at prices before January 2002 because of the difficulty about that, but certainly from mid-2002 onwards, covering the GUK and Alpharma entry, the Seroxat price, and I take it this is 20mg of Seroxat, does not appear significantly to decline and I think that is agreed in the next joint statement.

DR. STILLMAN: It is probably agreed there and I certainly agree with the statement. The chart speaks for itself.

THE PRESIDENT: Yes. Is that then inconsistent with there being pressure from the wholesalers or the new entrants on GSK?

DR. STILLMAN: This is the chart that I looked at, and I looked at this data in different forms and I think these data indicate that whatever the theory implies about the impact of generic entry on GSK's pricing and how the theory would tend to apply downward pressure, we certainly do not see that in these data, which then demands that one reconciles the theory with the data and the simplest reconciliation is that it implies a very highly elastic supply of parallel imports.

PROFESSOR SHAPIRO: That is exactly where I come out. That is one of the pieces of the puzzle that I see fitting together very nicely. If one believes there is a very elastic supply of parallel imports, then I think Dr. Stillman has agreed that, in the dominant firm competitive fringe model, given the inelastic demand overall for paroxetine, which is not disputed, we would get no competitive effect on prices of the supply agreements.

THE PRESIDENT: No competitive effect on GSK prices?

PROFESSOR SHAPIRO: Well, on any prices. That is to say the GSK prices of Seroxat would be unchanged because the closed prescription part does not change. The open prescription part is still at the same level, matching parallel imports, and the generics price is at the same level at parallel imports, so we do not see any change there. Any changes we would see would just be having to do with mix issues and slight differences in quality. But in the model, where we are talking about quality adjusted prices, we would see no change in total quantity, no change in price. We would simply see a shift of share from GSK, in part, to the generics and from parallel imports entirely, giving ground to generics. That is exactly what we see.

So the model with the perfectly elastic supply of parallel imports exactly matches the data that is in front of us right now.

MR. GLYNN: Other data on this chart, the average price, including the branded and the mashing, as a result of the --

THE PRESIDENT: It is the blended. I think it is the average.

PROFESSOR SHAPIRO: That is my belief, could you confirm?

DR. STILLMAN: Let us park to one side the 2001 data. The 2002 data are certainly the blended price. The 2001 are also blended price, there is just a debate over --

THE PRESIDENT: Whether it is right.

MR. GLYNN: So even the average or blended price did not come down when we had the change when the generics replaced GSK's own product?

DR. STILLMAN: That is correct.

THE PRESIDENT: Do you want to comment?

DR. MAJUMDAR: Briefly, sir, just to reemphasise that the dominant firm model that is being spoken about here does not have the richness of the wholesale sector and does not have the richness of bargaining that we had discussed before and I think that is an important point in terms of relying too much on that model versus what we see in practice, sir.

THE PRESIDENT: Yes, but whatever the model may tell one, this is the actual data?

DR. MAJUMDAR: Yes, sir.

THE PRESIDENT: What I was exploring is whether that is consistent with a competitive pressure on GSK from the new entrants or as a result of the new entry.

DR. MAJUMDAR: Yes, sir. I mean, it is agreed that the price of Seroxat, if it fell, was in the range of 0% to 1.5% decline which is small and therefore that suggests that any competitive pressure faced by GSK was small, sir.

THE PRESIDENT: Yes.

MR. GLYNN: To repeat that is the blended price or the average price?

DR. MAJUMDAR: There is some dispute as to which is the right price to look at, but my understanding is that most of the analyses have focused on the blended price of Seroxat, sir.

MR. GLYNN: In this chart. Can you remind me when the generics started to replace --

THE PRESIDENT: Hang on. (Pause).

PROFESSOR SHAPIRO: The IVAX entry date, is that what you are asking about? Are we still looking at the same thing here? That would be in late 2001.

MR. GLYNN: What I was wanting to remind myself of was at what point in time did the cumulative supply, that is of the generic entrants, start to replace Seroxat rather than --

DR. STILLMAN: From the start it replaced Seroxat and parallel imports, but what you see in the data is -- I believe it is August 2002, which is also when the demand begins to decline, but that is also the first time when the PI share drops below 5%. The PI share starts at about 30% and then declines with the IVAX entry, with the GUK additional supply, as does the Seroxat share remember because -- the numbers are 70/30 and then by August of 2002 it is 70 has gone down to 60 and the 30 has gone down to under 5, with the balance being generics.

THE PRESIDENT: It looks like July maybe.

DR. STILLMAN: I do not have Dr. Majumdar's chart in front of me.

THE PRESIDENT: I was just looking at that but it is July/August.

We have been looking at the competitive effect on GSK. Can we now move on to look at the competitive effect generally of the supply agreements.

If we go to your joint statement at internal page 35 [I/1/37}, paragraph 12, which is page 37 in the bundle.

It is under the heading:

> "Implications for the analysis of the expected competitive effects of the supply agreements."

There is a rather long proposition there which I am trying to break down, but just to understand what has being said here. When you refer there to -- and this is your joint wording -- to "expectation that continued litigation would be sufficiently likely to give rise to a degree of competition and a reduction in the prices"; by continued litigation, do I understand you to mean the likely outcome of the litigation as opposed to simply the effect of the pending proceedings in themselves?

Continued litigation would be sufficiently likely to give rise to a degree of competition of reduction in the prices?

DR. STILLMAN: Yes.

THE PRESIDENT: That is what you mean, the likely outcome of the litigation. Thank you.

Professor Shapiro, in the first sentence of your comment:

> "There was no such expectation", I take it you are referring to the first of the two expectations in the long proposition? The one at the top:

"If there is an expectation the agreements would increase competition relative to the no entry scenarios".

Is that right?

PROFESSOR SHAPIRO: That is correct.

THE PRESIDENT: If one finds, whether or not it should be described as a competitive constraint, which is what we have been discussing, on GSK, which we have explored, but the likely outcome of the agreements, both anticipated and indeed established, was a shift in the mix of product on the market, with the GSK volumes being significantly reduced below the share that they had before with parallel imports, in other words, the point Dr. Stillman has emphasised, that the volumes here did more than displace the parallel imports and indeed quite significantly more after a short while, and therefore the blended price to the pharmacies, by which I mean the price across the board that they pay, the total average price that they pay, including in that the weighted average price, I should say, not blended, thereby building in the GSK Seroxat price and the generic price, falls by 3% to 4%, how much it falls is something that may be explored in the next session, but let us assume it is about 3% to 4%; what I wanted to ask is whether that means we should regard these agreements as bringing a pro-competitive benefit and, if so, is that something to be considered when assessing whether we should apply the pay for delay inference?

So that is a rather important question. What I suggest is just reflect on how you deal with it. We will come back at 1.55 pm. I can tell you that is the last substantive area I think that we wish to --

MR. GLYNN: I have one much less important --

THE PRESIDENT: We have a few things left but just as guidance for everyone. We will rise now. We will come back at 1.55 pm.

MR. GLYNN: Could I identify it briefly and then I think it will speed up the answer.

THE PRESIDENT: Sure.

MR. GLYNN: It is when we come to the facts of what happened, how useful would it be, and to what extent have you compared the outcome for the 30mg and the 20mg? Because the 20mg is the product that is affected by the agreements, the 30mg seems not to be and to what extent can we expect you to deduce things from differences in the developments of the 30 and the 20mg. That is a small methodological point, if you like.

THE PRESIDENT: We will come back at 1.55 pm. Depending on how much the experts say on this and respond to each other, we will then open it up to cross-examination by counsel. I would hope we are then on target to complete this part of the exercise this afternoon, which we must do.

(12.58 pm) (The short adjournment)

(1.55 pm)

THE PRESIDENT: I gave you a question before lunch, not on the basis that you would therefore use your lunch to write a long speech, but on the theory, which I suspect has not been economically modelled, that if you have more time you will write a shorter letter.

Who would like to go first? Dr. Stillman -- let us work along, shall we -- you will recall we were saying assume the overall weighted price falls by 3% to 4%, what is the significance for that in our overall assessment? Does that mean we have a competitive benefit and how does that affect any evaluation of any pay for delay inference?

DR. STILLMAN: Thank you.

I think the expectation of a decline in the average price paid by pharmacists is a consequence of the supply agreements and therefore needs to be taken into account when analysing the overall consequences of the settlements.

The way we got into this discussion, via the pay for delay inference, was to say if we have a situation where there is a settlement that involves a payment but then in addition there is a supply agreement that one needs to be considering the effects of that supply agreement on the marketplace and on, in particular from the CMA's, perspective the prices paid by pharmacists.

I think it is relevant to the analysis and I think that what you are led to, if you are choosing to focus on the prices paid by pharmacists, as opposed to the NHS, is to be then considering that benefit with certainty, which is a consequence of the supply agreements against what the possibilities might have been of the prices paid by pharmacists under a continued litigation counterfactual, which then takes us into questions of what the scenario would have been, what patent strength seems to be, and so forth.

THE PRESIDENT: Thank you.

That is extremely clear and short. Thank you very much.

Dr. Majumdar.

DR. MAJUMDAR: Thank you, sir. I will give a similar answer and hopefully just as short.

I agree -- in fact, sir, when I put four steps -- when you asked us yesterday to set out the factual matters the tribunal might consider, I set out four steps. Let me give an answer in relation to those four steps.

The first step was: is there a material increment relative to the no-entry benchmark? Here the exam question is that is 3% to 4%. I would say that should include wholesalers as well, that would bring it up from 3% to 7%, but let us leave it at 3% to 4% now.

I would then say, let us look at the probability of the entrant getting in, when the entrant would get in, and what the prize would be in terms of the price fall if the entrant got in.

Just to put into perspective 3%, which may sound like a small number, actually can still be a material number.

Suppose the GSK thought the patent was strong and that there was only a 20% chance of the entrant winning -- moreover, suppose that the timing of the process of litigation meant that the entrant would only come in in the final year of a three-year period. So it would only be present for a third of the period and finally suppose the price war was large at 50%.

In that situation if you compare a 3% price fall across the entire period, you are comparing it against an expected price fall of 20% times one-third times 50% which is about 3%.

So my point there is even though 3% sounds like a small number, once you take into account the other steps, it could be a material number, sir.

THE PRESIDENT: Yes. Professor Shapiro?

PROFESSOR SHAPIRO: Thank you. I apologise but could I clarify this: you are asking about -- you are talking about a 3% to 4% decline in the weighted price at the pharmacy level that was expected or that based on observed and maybe not expected?

THE PRESIDENT: I said expected and observed was the assumption. Quite what was observed is a little bit in debate, but nobody I think is suggesting it is more than 4%. There was some discussion that you were not involved with, Ms. Webster is, as to quite what it was.

That being what it was, let us say it was expected and I would have thought that, given the significant shift in volume, which obviously was expected, as you have emphasised throughout, that is not out of line with what one might have expected as the declining price. I think one can take them together unless you say that is inappropriate.

PROFESSOR SHAPIRO: No, I do not. I just wanted to be clear. I think it was my lack of precise memory about what you had asked before the lunch break, that is all.

I should caveat this by saying that in terms of the details of the ex post observation, that is definitely Ms. Webster's area.

THE PRESIDENT: I say we are assuming that is what it shows.

PROFESSOR SHAPIRO: So there are nuances on that and I am not here to testify about that.

So I do notice though that in the joint expert statement in which Ms. Webster participated, on page 4 it is agreed apparently that this change in the weighted average is due primarily to a change in the mix of products sold and in particular the shift away from more expensive Seroxat to the generic products.

THE PRESIDENT: Yes. That is absolutely the basis of the assumption. {I/2/4}

PROFESSOR SHAPIRO: So my first reaction then is one would want to do quality adjustments since the primary reason of the change in the weighted average is a shift to a slightly lesser quality product, as perceived by the customers, some portion of this price observed of the weighted average price fall is only -- is not a real price drop in quality adjusted terms and so one would not have put in some smaller number, perhaps zero, I do not know, for the quality adjusted price change.

By the way, this is somewhat of a side point, but I hope it will be helpful to the Tribunal. It occurred to me in hearing something that Dr. Stillman said that one way to get at the Seroxat premium, this difference, the quality adjustment between Seroxat and parallel imports, would be how much Mr. Sellick felt he could get as a premium in his brand equalisation deals rather than matching the parallel import price exactly on the contestable sales. He could get a little bit more, that might not -- so that would be a data point to look at, it occurred to me.

Anyhow, there is a difference there. So we correct for that and from the 3% to 4% number you gave me, we would have some smaller number after the quality adjustment.

So now I think you are asking what does that all then imply for the overall assessment and the pay for delay inference?

So, first, whatever we do here we have got significant cash payments that were part of this agreement that was not adjusted or explained based on the value transfer. We are just focusing on the non-cash value transfer here. So we have still got an anti-competitive cash payment out there. But now we are evaluating the non-cash components and specifically the supply agreements, setting separately aside the cash part which is not justified.

So now I would say if there is indeed a remaining price reduction of significance after the quality adjustment, that would certainly count as a benefit to the pharmacy customers. The question now I think that we come to is: how do we evaluate overall the supply agreements under our now assumption that there is this benefit to the customers where I would choose to measure it -- and I have said I would encourage you to do so -- namely at the pharmacy level.

The question I think then would be what is our counterfactual and we are comparing to that. We still might have a counterfactual that would be an alternative agreement that would be more competitive. We can come back to that. Both of the other experts here have been using the counterfactual of ongoing litigation, so I will address that one.

So now of course we are back to the apparent conundrum that we might want to know something about strength of the patent or the probability of who would win and lose, and we are back in that soup, if you will, or appear to be.

But I would say we are not. We are still not there in this case. In other cases we might be a bit stuck or have to do some other analysis but here we have the key additional piece of evidence that the total demand for paroxetine was completely inelastic with respect to price in this market at this time.

So that is the point at which we can then refer to the joint expert statement that I participated in on page 16 and the statement that Dr. Stillman made there, with which I agree, that when the total welfare pie is fixed, if the parties to the agreement gain, others in the supply chain must lose. {I/1/18}. So here this in comparison with the counterfactual of ongoing litigation.

So here we would still have this argument -- and I have flagged this previously before we went into this whole discussion about dominant firm, competitive fringe model -- that since the underlying total demand for paroxetine is fixed, we still would have the inference, as acknowledged by Dr. Stillman in that statement, that if the parties gain, others in the supply chain would lose and that would be the whole -- everybody from GSK and the generics, everybody downstream of them altogether must lose.

That tells us then that we are now under the assumption that the pharmacist has a small gain.

THE PRESIDENT: Somebody else must lose? Why do they altogether have to lose?

PROFESSOR SHAPIRO: Because the total pie is fixed and the parties to the agreement gain, so everybody else collectively must lose because the total adds up to the same total pie.

MR. GLYNN: The ones who would lose includes the parallel importers?

PROFESSOR SHAPIRO: That is correct. To be clear it would be all the other participants -- the parallel importers, the wholesalers, the pharmacists and the NHS actually -- together would all be the rest of the pie, if you will.

Thank you for asking that question because the parallel importers, under my view at least that they have a perfectly elastic supply, there is nothing for them to lose and they are basically coming in at a very, very thin margin anyhow. Since it is highly competitive there is no profits to be extracted from them, if you will.

Likewise I would think of the wholesalers the same way, although we have this institutional detail of the fixed margins ... But anyhow, the parallel importers, I would say, have very little to lose because they are competitive, elastically supplied so the remaining entities, which are all the downstream entities -- now I mean the wholesalers, pharmacists and the NHS -- are harmed, so the direct customers and indirect customers altogether.

How can that be? What does this mean? Under our now working assumption that there was a benefit to the pharmacists, this 3% to 4%, as a result of the supply agreements, in comparison with the status quo before the generics had entered. What does it mean that they lose overall?

Well, we are comparing it to a counterfactual. The counterfactual would be -- two things could happen. GSK could win, in which case the pre-existing state of affairs would persist without this 3% gain, or GSK could lose in which case generic entry would become this full force and we know from considerable evidence here in the decision that would lead very quickly to price falls, something like 60% or 70% price drops; I cannot remember the precise number.

So what this is tell us is that since the all the other customers down the chain lose, the probability that GSK would lose the litigation was -- must have been high enough, as perceived at the time by the parties, so that that drop in price attendant to independent generic competition would have led to greater benefits to the customers than the 3% immediately and with certainty, let us say, under this working assumption that of course the other side -- that the other experts here have emphasised.

Because of the inelastic demand for paroxetine combined with the elastic supply of the parallel importers, we get this inference and we do not need to separately explore the patent's strength through other evidence on that. This is again an inference though, just to make clear then. The inference is drawn from the fact that the parties found this agreement more profitable than the ongoing litigation.

THE PRESIDENT: Would that mean that even if the price drop was 20%, your analysis would be the same? If the parties had found it profitable to reach an agreement, others must lose, the value of the immediate and certain drop in price becomes irrelevant, does it not?

PROFESSOR SHAPIRO: That is correct. Let me say a little more about that. That might seem a little stark. So let us ask ourselves this: suppose the parties' to this agreement knew full well that once they agree to this, the price at the pharmacy level would fall 20%, quite dramatic. Why would they do it?

So it is true, it sounds like, wow, that is quite impressive benefits, would you not given some weight to that, would that not be very compelling? But I am still telling you to ask: how would that be profitable?

That was something, by your assumption, that was designed and planned and expected by the parties to the agreement.

So why would they find it profitable to enter into an agreement that would have that impact? I would not expect them to do so, sir. Okay? But if you did see that, the inference by this logic would be, wow, it must have been -- after all, independent generic entry would lead to a price drop of let us say 60% to 70%. If that was avoided with a 50% probability and there was no better way from their point of view to solve this problem without suffering this unfortunate 20% drop, I could see them doing that.

I would actually expect -- particularly if you set aside competition policy issues -- the business people involved to find a better way to do it, just transfer cash for example.

THE PRESIDENT: Yes.

PROFESSOR SHAPIRO: So my answer is, yes, by this logic. I have never seen such a deal like that and I think the reason is -- but it would give an inference nonetheless.

MR. MALEK: As I understand it, what you are really saying is that the assumption being made does not really make much sense.

PROFESSOR SHAPIRO: The 20%.

MR. MALEK: No, the -- yes, the 20%, the assumption that the parties expected at the time of the agreement the prices would fall 20% because it makes the agreement seem rather nonsensical because it is just reducing the size of the cake for everyone.

PROFESSOR SHAPIRO: I am saying that, but if you did see that, I am not quite saying nonsensical because this was Mr. President's question.

THE PRESIDENT: It is an assumption, a working assumption.

MR. MALEK: We have to have a working assumption that fits in with point 12 on this list of issues.

PROFESSOR SHAPIRO: What I am saying is, if you just follow the logic and if we saw the 20% and the companies thought that was going to happen, you would naturally think, wow, why would you do that, how could that possibly be in your commercial interest? You would quickly realise GSK hates this, they want to just be left alone and not have anybody enter the market. The imperative must be the threat of independent generic entry and it must be significant enough in probability to make this 20% worth tolerating. So that would be the logic -- unless there is some other legitimate competitive benefit that is arising out of this so the total welfare pie would not be fixed.

MR. GLYNN: Within this framework of the total welfare pie being fixed, to go back to the President's question, it should not matter to the Tribunal whether the answer was 3% or 4% or 7% or 8% or 1% or 2%, it would make no difference at all to your logic?

PROFESSOR SHAPIRO: I am accepting that. Yes, that is correct.

MR. MALEK: Assume the two assumptions. What you are saying is the fear of losing the litigation must be so, so high that they are willing to foresee a 20% fall in price in order to avoid, let us say, the 50% fall if you have independent generic entry, and then that tells you something about the parties' perception of the patent strength, which is shorthand for whether or not GSK would win the litigation?

PROFESSOR SHAPIRO: Precisely.

THE PRESIDENT: Dr. Stillman and Dr. Majumdar.

DR. STILLMAN: Professor Shapiro has made a number of points and I want to respond, if I can, to each one of them, but I promise you that I will get back to this last point about the fixed pie being the author of that statement. I think it is my responsibility to respond and explain how I see that.

Let me take Professor Shapiro's points one by one, if I can. I think his first point was that in considering the price drop of say 3% to 4%, it would be appropriate to make some kind of adjustment for quality because we have, as part of that price drop, a shift in mix away from Seroxat to the authorised generic.

As I mentioned in the morning session, we also have a shift from the parallel imports to the authorised generics, which is a quality shift in the opposite direction. So if you are thinking about quality effects, you need to think about both and where the volumes affected by the change from parallel import to authorised generic are greater.

Related to that is a point that I think I mentioned in passing yesterday, that when you think about this from the point of view of the pharmacy, the amount they are getting reimbursed is really the same whether they are supplying the Seroxat pursuant to an open prescription or the PI or the authorised generics. From a financial perspective, at least vis-a-vis the gross margin on filling -- supplying the drugs, they are made better off by paying less for the product.

The second point that I wanted to respond to was Professor Shapiro's invitation that we somehow separate the analysis of the effect on the prices to pharmacists from the fact that the agreements have a cash payment. That somehow there should be -- if you look at the cash payment, that in and of itself sort of puts you over in the anti-competitive department and then separately we should be considering the supply agreements.

I think that is not correct. I think what we are trying to do, it is suggested, is that the metric for measuring the effect of the agreements is the effect on the prices paid to pharmacists. The pay for delay inference in this situation would be, hmm, if there is a large payment, then it seems likely that the prices being paid by the pharmacist -- more precisely the selling prices being realised by GSK are going to be higher under the settlement scenario than they would be under a continued litigation alternative.

It is not as though we have two analyses running; we have one analysis running and that is about the implication of the prices paid by the pharmacist. If we are in this world where we have supply agreements that lead to a reduction in the prices paid by pharmacists, then we need to consider -- engage in a kind of balancing exercise that we have been discussing, namely how that 3% to 4% reduction with certainty compares to the possibility of possibly lower prices or possibly higher prices depending on what we think of the patent's strength and so forth.

Another point that Professor Shapiro mentioned in passing was that in this discussion Dr. Majumdar and I have tended to refer to the continued litigation alternative, the counterfactual, and that that skips over the possibility of an alternative form of settlement. I think that also is something that I will not object to. Because if it can be shown that the supply agreement is better than continued litigation and it is accepted that continued litigation would raise no competition problems, then I think you have established that the settlement agreements have a pro-competitive consequence.

So I do not see the need to constantly be saying, you know, there might have been an even better possibility with an alternative settlement. If you can show that the agreements dominate continued litigation, I think that is sufficient.

I think we now come to the fixed pie argument, which again, just to put it in context, I would like to go back to what I wrote on page 16 because the particular point that I was making in that sentence was that even if you were to take -- view the pay for delay inference in this sort of generalised way that I express it in the statement on internal page 16, which is external page 18 of it, and you accept that a settlement, as one would expect, leaves the parties better off than they would be under litigation, why would you settle otherwise. What you then have is an implication that everybody else in the chain, including parallel importers, are going to be worse off, but that does not imply that every level of the chain is worse off, in particular given the regulatory environment that was relevant to this case, it does not imply that the NHS is worse off. So that was the context in which I made the fixed pie argument.

Professor Shapiro has embraced this framework and ridden it some distance to try to draw other implications about it. I guess I am sympathetic to the approach. It is the way I, as an economist, am used to thinking about things. But I think the kind of questions you have been asking highlight the reasons to be somewhat -- a little humility might be in order here.

Because what you do have as a result of going down that approach is an implication that not only does patent strength not matter but also the size of the price drop does not matter and that everything can be sort of wrapped up and resolved by a simple comparison of the size of the payment relative to avoided litigation costs.

That is an approach. It is an approach that I understand the economic foundation for but it is still, I think, a fairly aggressive approach, I should say, and one that I think, especially since what we have here is a proposition that has been laid out in a joint statement and really has not been explored and tested fully, I think caution is in order before one takes this fixed pie approach and views it as answering all questions.

THE PRESIDENT: Do you want to come back?

PROFESSOR SHAPIRO: Yes, please.

On the first point about the treatment of the cash and the non-cash and the back and forth between myself and Dr. Stillman on that, let me just say this: suppose you had an agreement where there was a large cash payment alone and an agreement by the generic not to enter at all. I think we achieved agreement among the experts that would be anti-competitive.

Suppose you now enter that agreement, that the patent holder provides a small quantity of product to the generic as well, a non-cash portion, would you completely change your analysis of that agreement? I hope not.

Furthermore, this is a situation where alternative settlement is worth discussing. Then, if you are taking the view -- if one is taking the view that the transfer of the quantities, fixed quantities creates a pro-competitive effect and there is cash along with it, there is a very obvious an alternative settlement, more quantities less cash. I do not understand why that would not be possible.

So why is that not considered? That would evidently be more competitive under the assumption that the quantities have such an impact.

So I do not think that one could just -- one has to -- well, I go back to what I said. The cash alone I do not see as justified by the presence of this other supply agreement.

Then on the question about the welfare pie being fixed and humility. Let me put it -- first off, I agree with Dr. Stillman that the logic here does not imply that every party in the chain all the way down is worse off, just collectively they are.

If you had a situation where you sold to direct customers and then they had customers below them, you would basically -- the direct customers, they are going to be harmed.

Dr. Stillman was claiming there was some benefit further down, in which case the direct customers would be harmed by it even more and I think that actually is what happened here, to my understanding. To the extent the NHS reimbursements went down to the pharmacists and the pharmacists paid higher prices, they were doubly harmed. But I do agree with him that it is a statement about all the customers collectively down the chain not at every level individually.

Then under humility, let me say I have a great deal of respect for Dr. Stillman, and that is good advice.

I would put it this way: if one were to conclude to see this assumed benefit to the pharmacists and say, okay, this looks like it has the markers of a pro-competitive agreement, there is a benefit I see here, what this total welfare pie analysis is asking you to then dig a little deeper and ask, what are the efficiency benefits that are flowing from this agreement? In the way that we would normally in an anti-trust look for pre-competitive justifications, lower costs, increased distribution, higher quality product, increased output. Those sort of actual measures that lead to greater total welfare, the whole pie has been increased in some way.

I would say, let us look where those are. If this is going to be a pro-competitive agreement, we should find those in some significant measure. The total welfare pie argument is saying that if there is no increase in quantity here, we are really not seeing how that is going to happen.

Let me go a little further than I have already, which is there are some places to look there, okay, and while, as Dr. Stillman mentioned, the total for welfare pie being fixed, I do not want to do more with his statement than he meant. Okay? So, here are some possible increased changes in the welfare pie, even though the total quantity is fixed.

So we do have the displacement of parallel imports with generic supplies. To the extent that the generics are preferred to customers of parallel imports, that is an increase in the total pie. It seems to be very small but I am not claiming things are completely fixed.

I would think that change is a very thin reed on which to stand the whole thing, but I just wanted to point that out to help the court. I do not see any other sources of any increase in total welfare, if you will, that I am aware of.

MR. GLYNN: With the reduction of risk, we could talk a long time about different components of risk and so on, but there are some parts of risk which might be, say, the risks of an erratic judgment, something beyond the litigation costs. Would the elimination of that in principle be an increase in the total welfare pie?

PROFESSOR SHAPIRO: I think in principle it could. I would agree with that.

As you know, I do not think of the elimination of the risk of competition breaking out as a legitimate justification, but we are in a slightly different analysis so, yes, I think risk factors could come in. Given all the other evidence and so forth I do not think those come close to tipping the scales but, yes, in principle, I would accept that.

DR. MAJUMDAR: Sir, may I --

THE PRESIDENT: Yes.

DR. MAJUMDAR: Thank you, sir.

I think we have covered the points so let me just give my response quickly. Just to reiterate, I would not draw the pay for delay inference and, as I said yesterday, I would conduct that balancing act of weighing the gain with certainty versus the expected gain using the factors that I discussed.

The second point is, I agree with Dr. Stillman, on the quality point, namely that to the extent that the entrants' products were lower quality than Seroxat, they were better quality than parallel imports, so I do not think that point is one we need to worry about.

The third point -- I agree with Mr. Glynn's point here, which is there are some confounding factors and external factors which to my mind means the fixed quantity point does not necessarily hold.

So the first one would be where the -- where GSK, the originator, is very risk averse because -- in that situation, let us suppose it has a 20% chance of losing 1,000, so its expected loss is 200, but it values certainty so highly it pays 400, then in terms of the stack, it is actually giving up some of the pie because it values certainty so much. So I very much agree with your point sir.

The second point is that the value transfer may also be taking into account factors outside of this fixed pie, for example knock-on effects in other countries or somewhere else. Just to highlight those points sir.

THE PRESIDENT: Can we then just turn to the question of the 30mg Seroxat. We have been talking throughout about price effects on the 20mg Seroxat. I think there is no reason, is there, to think that these agreements could have any effect on the price of 30mg Seroxat, is there?

DR. STILLMAN: That is correct. That is the way I see it.

THE PRESIDENT: Dr. Majumdar, you agree? Do you agree?

DR. MAJUMDAR: I have not studied the 30mg situation carefully but to my understanding is that is correct, sir.

THE PRESIDENT: Professor Shapiro?

PROFESSOR SHAPIRO: I do not know; I would defer to Ms. Webster on that.

THE PRESIDENT: Right.

The 20mg was the better selling product but the 30mg was not insignificant. If we go to the decision, which is at page 218 {V/1/218}, we have a chart there.

If you look at the left-hand column, you have GSK sales in millions. Ignore the 2001 figures. The 2002 figure for 30mg, which is stated at 27.4 may be overstated. It may be the correct number is 23.6, that has not been bottomed out yet, but there may be a mistake. Assume it is 23.6. That is £1 million of 30mg as opposed to 39.8 of 20mg.

Then in 2003 those figures are correct, £22.6 million of 30mg and £25.9 million of 20mg.

DR. STILLMAN: Mr. President, can I point out that we are comparing here GSK sales only of 20mg versus the GSK's sales of 30mg? Of course, beginning in 2002 we have the authorised generic as well. So if we are trying to get a sense of importance in the overall marketplace, you cannot really do it by looking at the GSK sales alone. I agree the 30mg are non-trivial but these figures do not give fully a good sense of the market proportions.

THE PRESIDENT: That is a fair point; the 20mg is not the total market.

DR. STILLMAN: Correct.

THE PRESIDENT: The 30mg -- I do not from memory recall the parallel import position --

DR. STILLMAN: I do. There were no parallel imports, sir, in this period.

THE PRESIDENT: There were not? So the 30mg is the market.

DR. STILLMAN: Correct.

THE PRESIDENT: So the market for 20mg, as you pointed out, is larger but would it be fair to say that the sales of 30mg, even bearing that point in mind, are not insignificant?

DR. STILLMAN: I agree with that and that is why, when I did my analysis, looking at the NHS, and considered the benefits to the NHS from having the reduction in the drug tariff that took place following the supply agreements and then I thought about, what is the alternative world, I always thought about it in the context of bargaining over an early entry agreement that would contemplate entry into both 20mg and 30mg, so I had both 20mg and 30mg in all those analysis.

THE PRESIDENT: Would it follow also, if we are doing and ought to do the sort of comparison that Dr. Majumdar was looking at and suggesting, we would need to bring in also the effect on the 30mg because, of course, the patent is the same and if the patent is set aside, it would open up the 30mg market to unrestricted generic entries. Is that the right way of thinking about it, Dr. Majumdar?

DR. MAJUMDAR: I am not fully familiar with the impact of the agreements on the 30mg but, yes, if it was the case that there was a restriction of entry there, then I would take that into account as well, sir.

MR. GLYNN: If I may, I think the idea behind -- in my mind at the moment is that if there were no effects from the agreements on the 30mg, but the effect of taking the patent away would have had an effect on the 30mg as well as the 20mg, then if we were doing your sort of cost-benefit study of the two situations, we would need to take into account the loss of the patent protection of the 30mg as well as the 20mg?

DR. MAJUMDAR: Yes, sir.

THE PRESIDENT: That is right. Do you want to add anything?

PROFESSOR SHAPIRO: I think I agree with what has been said.

MR. GLYNN: My question is whether, when one comes to the analysis of what actually happened, to what extent did you -- or is there a reason why you did not, if you did not -- compare what happened to the 30mg and the 20mg, considering that one was affected by the agreements and the other was not?

DR. STILLMAN: I looked at those data and, to be fair, I think actually the first person to really flag this was Dr. Haydock in her first report.

I have been working on this for a long time so I am sure --

MR. GLYNN: I was not trying to take credit for it!

DR. STILLMAN: No, I am just saying I looked at a lot of data and I am pretty sure I looked at the 30mg data before Dr Haydock because I have done this for a long time. But when I think about it in terms of the reports and the back and forth of the analyses, there was an initial analysis done by Dr. Haydock on the 30mg. Just to show you what the data looked like, if you tune to --

MR. GLYNN: I do not want to go into it now; I just wanted to know if you consider it to be a valid basis for comparison.

DR. STILLMAN: I have and what you see is no change in the 30mg prices during 2002. You have the usual problem going from 2001 to 2002 because of the changes in the system, but one might think you could do what economists call a difference in difference analysis. Suppose it were the case that we see no change -- we know we see no appreciable change in the 20mg prices, what if we looked at the 30mg and we saw actually around these days there was an increase in the 30mg price, so no change in the 20mg was a decrease relative to what else was going on in the marketplace? We do not see that. When we look at the 30mg prices they were flat over the 2002/2003 period also.

MR. GLYNN: In broad terms, you have looked at it and you do not see any difference in the development of the 30mg from the 20mg?

DR. STILLMAN: Correct. Again, always with the huge footnote of trying it make a comparison between 2001 and 2002 is a nightmare because of the changes in the data systems I hope we do not have to spend too much time on during the cross-examination, but we may.

MR. GLYNN: I would like to know whether Dr. Majumdar agrees with that.

DR. MAJUMDAR: Forgive, me sir. I have forgotten the original question. Apologies.

MR. GLYNN: What I am trying to ask is whether or not we should be looking at differences between the developments on the 30mg and the 20mg in order to reach a view on what effect the agreements, which applied to the 20 but not to the 30, might have had.

DR. MAJUMDAR: I see sir. Yes, I see. So in principle, I think, as Dr. Stillman has said, if you are confident that the conditions were informative of an -- absent a supply agreement case, if you like, then, and the supply was to similar types of customers and demand conditions were similar, then you could do a difference in difference approach in theory --

MR. GLYNN: You have not spent --

DR. MAJUMDAR: I must confess, sir, I have not thought about that point.

THE PRESIDENT: Do you want to add anything?

PROFESSOR SHAPIRO: I would say I have not independently studied this, but I think the point Dr. Stillman just made, that the 20mg and the 30mg Seroxat prices were flat throughout, would give further confidence to the finding that there was no effect of the agreements on that price.

MR. GLYNN: But if the agreement applied only to the 20mg and the prices of the 20mg and the 30mg were to follow just exactly the same kind of pie --

PROFESSOR SHAPIRO: That is my point.

MR. GLYNN: -- that would suggest that the agreements did not have any affect on your --

PROFESSOR SHAPIRO: That is my point.

MR. GLYNN: That is your point? Thank you.
THE PRESIDENT: On that constructive note of agreement, we have no more questions for concurrent evidence and we will hand over to counsel.
If we say that the appellants will have an hour, the CMA, because there are two witnesses, will have about 40 minutes, if that seems reasonable, we will have a little bit of spillover time in there. Who wants to start? Mr. Kon. Questions by MR. KON
MR. KON: Forgive me if I sit down.
THE PRESIDENT: Please do. All counsel can do that.
MR. KON: Good afternoon.
PROFESSOR SHAPIRO: Good afternoon.
MR. KON: Professor Shapiro, we have been hearing a great deal today and yesterday about wholesaler margins and I represent GUK and therefore it is a subject of some interest to us. Is it correct that you have not undertaken any separate study of wholesaler margins yourself?
PROFESSOR SHAPIRO: That is correct.
MR. KON: Therefore, everything we have heard from you in relation to wholesaler margins are essentially based on working assumptions rather than on any empirical evidence?
PROFESSOR SHAPIRO: No, that is false.
MR. KON: Could you explain?
PROFESSOR SHAPIRO: Certainly. There is quite a bit of evidence in the decision and in the reports, particularly of Dr. Majumdar, regarding margins and so while I have not independently studied them, there is considerable evidence that I am relying on in forming my opinion.
MR. KON: Perhaps we could go to Dr. Majumdar's evidence on that and you may recall earlier on today we looked at two particular footnotes in Dr. Majumdar's report. In there, evidence was given -- some quite clear evidence -- from IVAX and then also from GUK concerning rebates and discounts to wholesalers -- sorry, from wholesalers to retail pharmacists. Do you remember those footnotes or would you like to go back and have a look at them?
PROFESSOR SHAPIRO: I remember them in general terms. If you have specific questions --
MR. KON: The questions are of a general nature.
That evidence was given pursuant to what are called Section 26 notices. As you most probably know, it would be a statutory offence for inaccurate or misleading information to be given in that regard. Therefore, I just would like to explore with you the basis upon

which you took issue with some of the detail in those two footnotes in the Section 26 notices. In particular, I would refer you to the GUK evidence. Would you like me to take you to that?

PROFESSOR SHAPIRO: I think since you are getting into the detail, it would be helpful, yes.

MR. KON: If one could go to footnote 67, page 30 of the Majumdar report, which is at {G/6/31}.

PROFESSOR SHAPIRO: Footnote 67, I think you said.

MR. KON: Forgive me, footnote 67 was the IVAX -- there you can see quite clearly that the evidence given pursuant to the Section 26 notice by GUK in their response of 17th October 2012 was that actual price to pharmacists would vary depending on discounts and rebates negotiated between wholesalers and their respective customers.

I think in your evidence today you have taken issue with that I think by -- have you taken issue with that or are you taking issue with that?

PROFESSOR SHAPIRO: No. If I left that impression, I did not intend to. I think the discussion here was at least my attempt to assist the court by giving an interpretation at the time. It may be in the previous --- my interpretation of the other footnote actually was a mistake and I acknowledged that after I learned a little more.

MR. KON: I think you fairly acknowledged that.

PROFESSOR SHAPIRO: So, no, I am not at all taking issue. I am not claiming there was any inaccuracy in the information provided by your client. I should say maybe my interpretation was incorrect here --

MR. KON: Forgive me, when you say "your interpretation" --

PROFESSOR SHAPIRO: I thought you said I could finish --

MR. KON: When you say "your interpretation", you are saying the fact that you seem to be taking issue with what Dr. Majumdar was saying, relying upon this particular Section 26 response?

MR. TURNER: Sir, I hesitate to interrupt, but shall we call the document up itself rather than the footnote?

THE PRESIDENT: Which is?

MR. TURNER: {A2/21/1}.

PROFESSOR SHAPIRO: While you are doing that, look, I would be happy to say this is not at all important to my opinion. If -- I do not dispute what your client has said here, subject to the statute you refer to and I am happy to be corrected on interpretation if necessary. I have no problem with any of that.

MR. KON: My point is a very simple point and I do not think we need to take it any further: it is quite simply that this is not a matter of interpretation, it is simply a factual statement on the part of GUK in response to a Section 26 notice.
PROFESSOR SHAPIRO: I have no dispute at all with any factual statements made by GUK here.
MR. KON: Thank you.
PROFESSOR SHAPIRO: To the extent I was offering anything, it was economic implications not the facts.
MR. KON: Thank you.
On a similar theme, I think it fair to say it has become increasingly apparent that quite an important question in these proceedings, which is partly the reason for the question earlier, is the extent to which wholesalers passed on the benefits they obtained, which I think is common ground now, that certainly in terms of margin there was a benefit obtained by wholesalers in dealing with, in particular, generics compared to parallel imports. But I think there is an active debate between experts as regards the benefits passed on to pharmacists as a result of that; would you agree with that?
PROFESSOR SHAPIRO: That that is an active debate?
MR. KON: Yes.
PROFESSOR SHAPIRO: Yes, I think so. I think this is primarily Ms. Webster's territory.
MR. KON: It is something which I think has been debated somewhat during the course of this morning in response to questions raised by the Tribunal.
PROFESSOR SHAPIRO: What I am saying is the details of the ex post data is Ms. Webster's area. In response to questions from the court I was discussing the implications of certain assumptions about what had happened ex post, particularly if they were expected.
MR. KON: I certainly do not want to go into the detail as such, but I would like to ask you one question which is: would you agree that the best way of testing that empirically would be to look at the actual prices that were charged by wholesalers to pharmacies at the relevant time?
PROFESSOR SHAPIRO: The way of testing pass through?
MR. KON: Yes.
PROFESSOR SHAPIRO: In terms of what actually happened, certainly the data would be where you would want to go. In terms of what was expected or what economics would predict, that is a bit different.

MR. KON: Well, no, I think I am just simply asking what would be the best way of testing it, not to consider as such theoretically, but really if one wants to address the question of what the level of pass-through is, that it would be quite a -- it would have been quite a good idea to have actually obtained that data and to test it empirically.

PROFESSOR SHAPIRO: Are you saying testing the actual rate of pass-through, then of course you would -- the best thing would be to look at the data? I think it is obvious.

MR. KON: Exactly. Do you believe it is a material omission on the part of the CMA not to have obtained that evidence of those prices from wholesalers at the time of its investigation?

PROFESSOR SHAPIRO: Well, I do not feel any ambiguity in my conclusions or opinions due to the imperfections of the data that is available. A material omission sounds a bit more like a legal term but as an economist I am not feeling there is a gap that needs to be filled. I see the pieces of the puzzle fitting together quite well.

MR. KON: The pieces of the puzzle not depending on the data itself in any way?

PROFESSOR SHAPIRO: Well, primarily we are trying to evaluate on an expected basis and what would be reasonably predicted at the time and that would, as I have explained, have very little -- that would be matching prices at the pharmacy which people were talking about.

Your question, as I understand it, relates to a specific institutional detail which is, given the actually larger margins that the wholesalers routinely charge for generics, would they -- did they pass through that and I would stand by my view that -- of the expected analysis, both from an economist's point of view and based on the contemporary evidence, that I am confident with that without knowing this piece of the data.

MR. KON: So you are confident from the point of view of your inference but empirically the answer may be different if the data were looked at; would you agree with that?

PROFESSOR SHAPIRO: Well, certainly -- yes, there are theories that predict things with different degrees of confidence and, of course, you never know for sure until you check the data.

MR. KON: Agreed, thank you.

A further question in relation to the wholesaler piece of this case. You have said -- I think you fairly acknowledged in your evidence today and yesterday that wholesalers deal with a portfolio of products; correct?

PROFESSOR SHAPIRO: Yes, sir.

MR. KON: When looking at negotiations between wholesalers and pharmacists, therefore is it not right that one could expect pharmacies to negotiate a cost portfolio of product when bargaining with wholesalers and, of course, a portfolio of products would have included, at the relevant time, paroxetine?

PROFESSOR SHAPIRO: That is my understanding that in this business the negotiations do take place at the portfolio level.

MR. KON: I think it follows, but perhaps I am incorrect on this, that because the pharmacists were taking paroxetine at the relevant time, they would have leveraged therefore with wholesalers and obtained some share of the benefit of that paroxetine and that would give the pharmacists themselves some leverage with wholesalers in a manner that we were discussing earlier on today?

PROFESSOR SHAPIRO: No, I do not follow your logic there. I think I have explained why the pharmacists -- I think in particular in response to a question from Mr. Malek -- that the pharmacists would not have leverage over the fixed quantities of paroxetine that were available to the generics.

MR. KON: Perhaps you would remind me of your explanation on that; why would they not have leverage?

PROFESSOR SHAPIRO: Because the generic would seek to place the fixed quantity at the best price it could get and if one pharmacy would not pay the price -- essentially the parallel import price, they would go to another pharmacy.

MR. KON: I understand that if one is bargaining in relation to an individual product basis. But my whole point is that when you are bargaining on a portfolio basis, the leverage of the pharmacy is to be able to say, we will not take the portfolio from you, wholesaler, we will go elsewhere, and therefore does that not give them some additional leverage specifically in relation to a product such as paroxetine?

PROFESSOR SHAPIRO: I am not familiar in detail with the nature of these -- for other products, these portfolio negotiations. I would think -- my analysis of paroxetine had to do -- definitely relied on the fixed quantity available and so would not apply to other products for which that is not true.

So I would certainly take -- not be surprised to learn that pharmacies had bargaining leverage of some sort with wholesalers for other products, particularly since the wholesaling business is so competitive. That does not give them bargaining leverage vis-a-vis paroxetine specifically given the fixed quantities.

MR. KON: But it would continue towards some bargaining leverage in relation to the portfolio, is that not correct?

PROFESSOR SHAPIRO: That is not correct.

MR. KON: That is not correct?

PROFESSOR SHAPIRO: That is what I said.

MR. KON: Is that based on your thinking that wholesalers only cover their costs and no more?

PROFESSOR SHAPIRO: No, it is based on the logic of the fixed quantity of paroxetine available.

MR. KON: Does that remain your thinking though, that wholesalers covered their costs and no more?

PROFESSOR SHAPIRO: When I have said the wholesaling activity is competitive, that has built into it the concept that they cover their cost with a reasonable rate of return but not an excess return; any excess would be driven down by the forces of competition.

MR. KON: Forgive me, my recollection -- I am afraid we do not have the reference here but no doubt we will look at it -- was you thought this was a state of perfect competition of wholesalers and all they did was cover their costs. It seems now you are saying they make a reasonable return. Is that your evidence?

PROFESSOR SHAPIRO: The notion of perfect competition in economics includes a competitive rate of return on capital. Economists often say that is just covering their costs, including the costs of capital.

MR. KON: That is how you see the position of wholesalers in this market?

PROFESSOR SHAPIRO: Let us be clear, when I see the market is competitive, I think that is the reasonable way to analyse this whole matter, that the wholesaling activity is competitive. I think GSK has said it is very competitive. To me, that in general implies they are covering their costs, including the cost of capital with a reasonable return. That is not the same -- I am not saying I have gone and looked at wholesalers' financial statements in detail, but it is based on the competitive nature of the wholesaling business.

MR. KON: Thank you.

THE PRESIDENT: So it is what you have deduced from the fact that GSK have said and others have said that the wholesale market is very competitive?

PROFESSOR SHAPIRO: That is correct.

MR. KON: Finally, I do not think it is in dispute, but I think it is common ground, that the supply of generic paroxetine to wholesalers following the settlement did confer some benefits on wholesalers. I think you have acknowledged that in evidence both yesterday and today. (Pause). That is a question.

PROFESSOR SHAPIRO: It is a question? Yes, that is right.

MR. KON: Could we just go to your first report and paragraph 63, which is at {H/1/16}, internal page 13.

PROFESSOR SHAPIRO: Okay.

MR. KON: At paragraph 63 --

PROFESSOR SHAPIRO: Sorry, something is wrong with my copy here. What paragraph is it anyhow?

MR. KON: Page 16. We seem to be on page 13. That is internal page 16.

MS. DEMETRIOU: Magnum page 16.

PROFESSOR SHAPIRO: I think the paragraph numbers will be unambiguous --

MR. KON: I seem to have a bad reference there. {H/1/16}.

Could we go over the page, please, to {H/1/17}?

THE PRESIDENT: If you tell us, Mr. Kon, the point you are looking for?

MR. KON: Yes, it is a reference to genuine competition. If you go to the end of that paragraph, which is why it was confusing -- I am sorry I should have given you the internal page as 14 {H/1/14} . It starts with the words:

> "In the former case, the deal is one where value is transferred to restrict competition, even though this is done in the form of a supply agreement. This can be economically equivalent to a pure cash transfer. In the latter case, one would expect to see competition from the generic entrant leading to sales of the drug to customers at lower prices than had previously prevailed."

My question to you is: is that not exactly what happened in this particular case, that lower prices than had previously prevailed were passed through the chain? I would like to understand exactly how your evidence in here in relation to the lower prices that prevailed on the facts of this particular case?

PROFESSOR SHAPIRO: So we are talking about prices at the pharmacy level, to be clear?

MR. KON: Yes.

PROFESSOR SHAPIRO: Okay. So --

MR. KON: If I could just be clear, that of course, you are focusing here on the generic entrant leading sales to customers at lower prices. Of course, the generic customers were wholesalers, so at the wholesale level prices were lower than previously prevailed.

PROFESSOR SHAPIRO: We talked about the reason for that, that the generics had a higher cost of distribution than the parallel imports because of the standard margins. That is why I think it is very important here to focus on the pharmacists because that is the locus of competition. Any time you have a horizontal agreement, you want to look for effects at the level where the firms actually end up competing and in this case that is at the pharmacy level. You are now asking about that level; is that correct?

MR. KON: Yes.

PROFESSOR SHAPIRO: So this paragraph here, this is a general discussion about non-cash value transfers and I would say that it is my view in this case that the quantities transferred were equivalent to cash in the previous sentence. I would say as well that to the extent we see price reductions at the pharmacy level, then we want to find out really whether that represents force of competition at work or some other factor such as a changing mix of products for example.

So I think we have had that discussion at some length with the Tribunal just previous to -- today anyhow. That is my answer.

MR. KON: I would just like to then take you to the first joint expert statement which is page 4 of bundle I, tab 2. I would like to take you to internal page 2 of that. {I/2/2}.

THE PRESIDENT: This is tab {I/1/4}.

MR. KON: It is tab 2 of the general --

THE PRESIDENT: It is bundle page 4.

MR. KON: I apologise.

THE PRESIDENT: It is very confusing, Mr. Kon, all these numbers for the same page. I think we have it now.

MR. KON: It is question 5 and it starts:

> "I agree with this statement. See my first report at 99 to 104. Looking at the impact on direct customers is the most straightforward and reliable way to assess competitive effects. As a conceptual matter, requiring that one look in some or all of the markets further downstream to assess whether a horizontal agreement harms competition is both unnecessary and unhelpful."

My question to you is quite simply picking up on the previous question we have: the direct customers of course of GUK and the other generic entrants were the wholesalers, so would you take from that perhaps the most helpful way of assessing the competitive effects of these agreements is in fact by looking at the impact on wholesalers, something which the decision fails to do?

PROFESSOR SHAPIRO: Absolutely not. No. It is quite misleading to look there --

MR. KON: Because notwithstanding what you say in this response --

PROFESSOR SHAPIRO: Right so let me explain as I can see the question.

In the response here I give an example in which the suppliers of batteries for mobile phones collude to raise battery prices --

MR. KON: I understand your example --

PROFESSOR SHAPIRO: I would like to finish.

THE PRESIDENT: You have asked the question and you have pointed out what was said; let Professor Shapiro answer the question.

PROFESSOR SHAPIRO: Thank you.

To raise battery prices. I point out that the direct customers will be the companies that make phones, like Apple and Samsung, and we would look at the price there. Looking further downstream would just make it harder to detect what is going on. So that is the notion of the direct customers, it is where the parties to the agreement are selling directly.

We have a complication here in the current case because GSK is selling to the pharmacies and the generics are selling through the wholesalers. So what are we supposed to do?

When I use the word "direct customers" here, this was in the standard case, such as the mobile phones. The key thing in terms of economics is to look at what I call the locus of competition, where the firms end up competing.

Let me give one other example to illustrate. Suppose you had crude oil producers who sell their oil to refineries, who make refined products such as gasoline and that is the competition but they sell it through logistics firms who take the oil, put it on tankers, negotiate arrangements, and sell to the refineries. They have an intermediary.

Suppose the crude oil producers all get together, form a cartel, and they raise the price.

Suppose I told you that the logistics firms, by standard industry practice, they charge 1% of the delivered price of the crude oil as their fee for what they do.

The crude oil price now doubles, the logistics firms, they have a 1% fee. So they are getting 1% on double the price. Let us suppose their costs do not change at all; they are still doing the same with the tankers and whatever, the people trading. They are delighted. The refineries are obviously the ones who are going to pay the price, the doubled crude oil price.

To look at the effect on the logistics firm and say, they made more money, would be a very poor way to evaluate the effects of the cartel, even though technically, assuming they are taking title to the oil, they would be the direct customers.

The point is the oil companies, the way they compete is to sell to the refineries, and that is where you want to look, not at some intermediary. The intermediary who gets a fixed cut of the price, they have a common interest with the cartel in the price being higher. So while they are direct customers, it would make no sense to look at them in that case.

When I use the term "direct customers" here, it is in the standard case where those are the customers of the beneficiaries of the competition. In this case that is the pharmacists.

MR. KON: This is my last question. You accept, Professor Shapiro, that the direct customers of the generic entrants, and specifically GUK, were the wholesale customers?

PROFESSOR SHAPIRO: Of course.

MR. KON: Secondly, that obviously GUK and the other generic companies had no influence at all on the prices that wholesalers charged on to pharmacists?

PROFESSOR SHAPIRO: I thought Alpharma did have influence on that.

MR. KON: Let us limit the question to GUK then.

PROFESSOR SHAPIRO: I do not know whether or not they had have influence on the price --

MR. KON: I can assure you they did not because otherwise it would have been unlawful as a matter of resale price maintenance, which is the relevant law here, for them to have done so and I do not think there is any suggestion of that.

PROFESSOR SHAPIRO: I was not suggesting that.

MR. KON: Thank you, I have no further questions. Thank you.

THE PRESIDENT: Yes, Mr. Flynn.

MR. FLYNN: I am only wondering whether --

THE PRESIDENT: We should have a break now?

MR. FLYNN: Not for my own purposes but for others.

THE PRESIDENT: How long will you be?

MR. FLYNN: Certainly not as long as Mr. Kon. A quarter of an hour.

THE PRESIDENT: We will take just a five-minute break now.

(3.15 pm) (A short break)

(3.23 pm) Questions by MR. FLYNN

THE PRESIDENT: Yes, Mr. Flynn.

MR. FLYNN: Thank you.

Professor Shapiro just a few points to take up. On the volumes that GSK agreed to supply to each of the generics, we went through some numbers yesterday which -- yes, I think it was yesterday.

THE PRESIDENT: Just one moment. There is a problem with the microphone, I think.

MR. FLYNN: That is now on.

Professor Shapiro, we were just talking about the volumes.

THE PRESIDENT: Just pause a moment.

MR. FLYNN: The total volumes that GSK agreed to supply is just over 2 million packs of 20mg paroxetine; do you remember those numbers?

PROFESSOR SHAPIRO: Yes, I do.

MR. FLYNN: 770 IVAX, 750 GUK, 500 Alpharma in the first year?

PROFESSOR SHAPIRO: Yes.

MR. FLYNN: GSK's total volumes were 3.4 million in 2001?

PROFESSOR SHAPIRO: Okay, that sounds very close.

MR. FLYNN: I think you use a figure of 3.32; there are various data sources. We will use your figure.

On the numbers that we use -- these are in the decision -- it is the total supplied by the generics, the total allocated to the generics under these agreements was 59% of the amount that GSK supplied to the market in 2001. That is a number I gave in opening.

If you add in the parallel imports, if you say that, it is still 42% of all the 20mg paroxetine in 2001.

The PI volumes -- I think you used a figure of 1.38 yesterday, for 2001.

PROFESSOR SHAPIRO: Okay.

MR. FLYNN: The question is a simple one: those are significant volumes, are they not, that GSK agreed to supply to the generic companies?

PROFESSOR SHAPIRO: Yes.

MR. FLYNN: Significantly in excess of the PI numbers?

PROFESSOR SHAPIRO: At the time of the Alpharma agreement that is true because the first two agreements were very close to the PI level and the Alpharma agreement added significantly to that.

MR. FLYNN: By the time of the Alpharma agreement, the PIs had been largely displaced, had they not?

PROFESSOR SHAPIRO: Yes.

MR. FLYNN: About 4% of the market.

If you remember that coloured graph of Dr. Majumdar's that we were looking at the other day, the PI slice by then is pretty thin, is it not?

PROFESSOR SHAPIRO: I think that is right, yes.

MR. FLYNN: On any view, it was clear, was it not, that the volumes supplied by the generics was going to do more than displace the parallel imports?

PROFESSOR SHAPIRO: When you include all these deals together I think that is correct, yes.

MR. FLYNN: As they were at year from year.
These are significant volumes, are they not? Whether you say they are fixed or not, those are large volumes of paroxetine by reference to the total market?
PROFESSOR SHAPIRO: Yes -- and they are fixed.
MR. FLYNN: They are contractual quantities. You would not expect GSK, upfront, to agree to supply unlimited volumes, would you?
PROFESSOR SHAPIRO: It all depends on the price I should think.
MR. FLYNN: If they allowed the generics any quantity they wanted, that would be just turning GSK into a contract manufacturer.
PROFESSOR SHAPIRO: It all depends on the price and if there are other conditions attached to the agreement.
MR. FLYNN: It would just be like a full royalty deal.
PROFESSOR SHAPIRO: I am sorry?
MR. FLYNN: That would be like a royalty deal in effect.
PROFESSOR SHAPIRO: It could be if there were unlimited quantities. It could be like -- a royalty deal with a supply agreement attached to it could be economically equivalent, yes.
MR. FLYNN: The GUK volumes, I think you said repeatedly today, would be expected to be sold. There was no question but that they would be sold. All these volumes would be sold, I think you said.
PROFESSOR SHAPIRO: Absolutely yes.
MR. FLYNN: GSK could not chase them all through the market, they would all be sold.
PROFESSOR SHAPIRO: It would not make any sense to try to discount to chase them out because they would be sold, yes.
MR. FLYNN: Yesterday, when you were commenting on Dr. Majumdar's account of GUK's strong incentives to sell their volume allowances by going below the PI prices, you said that those incentives would be blunted by a clause in the contract requiring -- that would prevent -- I think the words you used were:
"... prevent GUK unloading its product to below prevailing prices."
Do you remember a discussion along those lines?
PROFESSOR SHAPIRO: I do.
MR. FLYNN: Can we just have a look at the clause? It is in {L/4/2}, clause 1.4, which is on the second page. Clause 1.4 has a definition of:
"GUK's average selling price ..."
You will see (a), (b), (c), the standard elements of the price:

"If GUK should effect a sale of products to a customer other than on normal commercial terms or as part of a package of products and services, GUK's average selling price of those products shall be deemed to be the fair market value ... namely the value that would have been derived by GUK had the said products been sold to a similar customer on normal terms."

Professor Shapiro, I know you are an economist and not a lawyer, but you are not suggesting, are you, that this clause would prevent GUK from pricing sufficiently keenly to secure a sale in place of a parallel importer, are you?

PROFESSOR SHAPIRO: No, I think normal commercial terms would be what -- all parties would expect that GUK would have to offer good enough terms to a pharmacy to displace the parallel import.

MR. FLYNN: So it would not blunt the incentives that Dr. Majumdar was talking about in practice?

PROFESSOR SHAPIRO: At that point I believe he was talking about a substantial discount, more than would be needed simply to make the sale, and saying that because of the profit guarantee clause, GUK might do that, for example, to sell the product quickly, and I was saying that this clause would prevent that.

MR. FLYNN: But it would not prevent a sale-on sufficiently keen to secure the sale and displace a parallel importer on a particular account?

PROFESSOR SHAPIRO: No, that is what everybody could expect GUK to do, perhaps through the wholesalers, to price low enough to displace the parallel import. I am saying that would be essentially at the same price or very slightly below it.

MR. FLYNN: As a matter of fact, we know that the profit guarantee was called on, do not we?

PROFESSOR SHAPIRO: We do.

MR. FLYNN: Two years running?

PROFESSOR SHAPIRO: Yes, sir.

MR. FLYNN: To the extent that the entrants' product displaced the parallel imports, which effectively it did, during the course of these agreements as well as displacing Seroxat as we know, but to the extent they displaced parallel imports, that was an overall improvement in quality, was it not? The market on the whole was overall served by better quality product?

PROFESSOR SHAPIRO: So I think that is right. We have -- I think it is not disputed that from the value/quality adjustment point of view, Seroxat would be somewhat preferred to the -- the generics would be somewhat preferred to parallel imports.

What we have here is a displacement of Seroxat and parallel imports by generics. That is a quality improvement vis-a-vis the parallel import part and a quality loss vis-a-vis the Seroxat displacement.

As Dr. Stillman has pointed out, I think we have twice as much of the parallel imports displacement as the Seroxat in data, so we have both of those operating together.

MR. FLYNN: As far as the PI replacement goes, we have a better product for pharmacists and a better product for patients?

PROFESSOR SHAPIRO: Yes, a better product -- I am not really distinguishing those two, but I think that is probably right. I tend to think of the pharmacists as representing the interests of the patients in this respect but, yes, I think that is right.

MR. FLYNN: The pharmacists are just intermediaries, are they not, in the chain between prescription and patient?

PROFESSOR SHAPIRO: Sure. All I meant was that a pharmacist may know that its customers preferred Seroxat, for example. The pharmacists know what their customers want so they want to please their customers. Likewise, if a customers might not like a parallel import because of the packaging, they would prefer to give the customer a generic or there might be some cost to the pharmacist of having to explain this to the customer and so forth, so all of that would be factored into this quality adjustment we have been talking about.

MR. FLYNN: Having an authorised generic in a UK pack saying "Monday, Tuesday, Wednesday" and not a Greek equivalent written on the pack would be a whole load better for those patients, would it not?

PROFESSOR SHAPIRO: I do not know the magnitudes but I am agreeing. I think that the record shows that there is a perceived quality preference for generics over the parallel imports and likewise Seroxat over generics.

MR. FLYNN: I think it is right that you do not know the magnitudes and all of this happened at overall lower weighted average prices. This improvement in quality was achieved with lower average prices over the period.

PROFESSOR SHAPIRO: I thought that the entire -- I think the understanding is that the bulk, if not all, of the change in the weighted average price is because of a change of mix of the products.

MR. FLYNN: The overall change in quality is nevertheless over a period where there is a marked decline in the weighted average prices and that is agreed.

PROFESSOR SHAPIRO: Well, the quality adjustment -- I do not know which direction it goes. We have on the one hand about twice as much from the parallel import substitutions, but then it also depends on the magnitudes of the gaps between Seroxat and generics on the one hand and generics and parallel imports on the other hand.

MR. FLYNN: Which is not an issue you have examined I think it would be fair to say.

PROFESSOR SHAPIRO: I say again I do not know the magnitudes of that, that is correct.

MR. FLYNN: Overall this improvement in quality also costs the NHS a great deal less?

PROFESSOR SHAPIRO: The reason I am struggling a little bit is because I do not know there is a improvement in quality. It could be a degradation in quality depending on these magnitudes. So you are assuming something that I do not know, so I do not know if that is the case.

MR. FLYNN: I think you said the principle of the authorised generic is a preferred product compared with the PI and that is what they replaced to a large extent.

PROFESSOR SHAPIRO: Two-thirds about. Again, we know the numbers. Two-thirds of that and one-third of the other and, like I said, we need to do a weighted average with those quality differentials.

You are mentioning in your question, and I am not disputing, that there is this quality improvement from parallel imports to generics and I do not think anybody really is disputing that we have another quality degradation from Seroxat to generics and that is -- if one wanted to talk about overall quality, you would need to weight those.

MR. FLYNN: You are not disputing either that all of this was at a greatly reduced cost to the NHS?

PROFESSOR SHAPIRO: I have not looked specifically at the NHS reimbursement amounts.

MR. FLYNN: Thank you, Professor Shapiro. Questions by MR. O'DONOGHUE

THE PRESIDENT: Yes, Mr. O'Donoghue.

MR. O'DONOGHUE: Sir, I will be very quick; I am conscious of the time.

Professor Shapiro it has been a long week and I think, subject to any questions from the Tribunal, these are the last questions you will have in this courtroom, so I will be as quick as I can.

PROFESSOR SHAPIRO: This week!

MR. O'DONOGHUE: And maybe next week.

Can I ask you, Professor Shapiro, to turn up -- you see it on the screen -- bundle {G3/58/11}. This is an article you wrote with, I think, Mark Lemley about probabilistic patents.

MR. MALEK: Which year is this article?

MR. O'DONOGHUE: It is 2005.

PROFESSOR SHAPIRO: This is not any one of the articles we have been previously talking about anyway.

MR. O'DONOGHUE: I thought I would spice it up a little.

So the point you make here is:

> "The grounds for invalidating patents vary by industry, but objections related to prior art -- obviousness, novelty and statutory bars -- are the most common ground (Allison and Lemley, 1998). The meaning of patent claim terms -- called 'claim construction' -- is hotly debated in virtually every patent case and courts have found ambiguity even in such innocuous terms as 'a', 'or', 'to' and 'when'. Even once the meaning of the patent claims has been determined, the 'doctrine of equivalents' can sometimes permit the patentee to expand its rights beyond the literal protection of the patent (Gallini, 2002). A final source of uncertainty is the doctrine of 'inequitable conduct' ..."

We know in this case Professor Shapiro, in the Apotex litigation, that the process patent was found invalid and not infringed at first instance. Then, on appeal, it was found to be valid but not infringed by the Court of Appeal.

The point you are making here, I think, is essentially that patent litigation is hard and uncertain. So my question to you is, when one sees the settlements in this case, are you saying that the settlement value is an objective economic fact or is it a subjective view of the originator? Which is it?

PROFESSOR SHAPIRO: Well, first I should clarify that the article you referred to is with my co-author, who is actually quite a good patent attorney as well as an anti-trust attorney, is about the US system which is -- may have a lot of problems, perhaps your system is much better, I do not know.

To answer your question, I am not sure what "objective" would mean here; okay? I will answer as best I can. But my sense, having worked on these cases, seen patent litigation, is if you have a patent litigation, each party has a view about their prospects based on counsel and whatever other, evidence and their sense of prior art, whatever it is.

If "objective" means it is the same as when we roll a die, we know there is a 1/6 chance the number 1 will come up. I do not think it is like that.

So I think the nature of it is unknown but people have their best estimates.

MR. O'DONOGHUE: If it is unknown, why does your work lead to the conclusion that the originator's views of that unknown give rise to a presumptive, if not a decisive, finding of illegality. It is unknowable; that is what you are saying.

PROFESSOR SHAPIRO: This could get metaphysical here pretty quickly!

MR. O'DONOGHUE: That is my problem.

PROFESSOR SHAPIRO: Okay.

I can only tell you what I know as an economist with a decent amount of training and mathematics and no formal training in philosophy. That is that when I say "unknown", it is there is no party that you could go to as an authority and say, what is the probability the patent holder will win this case, and they would say, open the envelope, and know the number. That is what I mean by it is unknown; it is not a known number.

I would think this is always true for probably almost any type of litigation for that matter, not just patent litigation.

MR. O'DONOGHUE: Indeed.

PROFESSOR SHAPIRO: Then you asked about the inference. As an economist, the way this has been developed by me in my writings, by others, and I daresay adopted by the US Supreme Court anyhow, is inferences based on the commercial interests of the patent holder and the parties collectively to the agreement.

That necessarily is based on their beliefs of -- their beliefs regarding the situation in which they find themselves and I am making no claim that that is some type of objective truth because I do not think that really makes logical sense in settings of commercial uncertainty.

MR. O'DONOGHUE: What if they genuinely do not know the prospects and they say, it is a hard case, we might win, we might lose, this is unknowable?

PROFESSOR SHAPIRO: I would think that is normal. In normal commercial practice businesses face uncertainties all the time and that is the norm, that we do not know whether somebody would enter the market, we do not know whether our product might be found defective. There are all sorts of business risks, this is exactly normal.

MR. O'DONOGHUE: But the problem, if I may say so, is your theory treats the originator's subjective appreciation of that unknown as being decisive.

PROFESSOR SHAPIRO: No, I do not think this is right. All I am doing is following what I would say is -- and I lay this out in my 2003 article because it was new at that time, I am linking this to what we normally do, economists in anti-trust analysis, which is that we do not second-guess the business judgments of the business people who made them at the time unless we have some superior information that they lack.

In a merger case for example, if a company's documents say, we think it is very hard to enter this market, somebody is trying, but they probably will not be able to, so when we acquire the other company who is in this market, it will give us market power, we will put weight on that. Even though it is not objective fact whether entry will occur or not and possibly provide additional competition, but that is completely standard.

MR. O'DONOGHUE: If an entity said to a competition authority, my subjective view is that my agreement is pro consumer, that would not be accepted at face value; correct?

PROFESSOR SHAPIRO: The whole point is that actions speak louder than words. Simply saying that --

MR. O'DONOGHUE: My whole point is the actions may be based on entirely unknown non-objective factors; you agreed with me on that.

PROFESSOR SHAPIRO: I think in general what businesses do to compete and what always comes up in anti-trust analysis is -- standard practice for anti-trust economists is to assume firms are acting in their own interests given the information available to them and their assessment of the risks of the market conditions, which invariably involves uncertainty that is not objectively determined.

There is absolutely nothing different about this situation than in any other such situation.

MR. O'DONOGHUE: There is in the sense that those views of the originator, under your work, are treated as a potentially decisive proxy because of their welfare effects. That is a difference.

PROFESSOR SHAPIRO: No, what they are treated as is highly informative regarding the assessment made at that time by the originator or the patent holder, just as we would in any case look at a company's decisions, and see -- if they made a decision to build a new facility that cost a substantial amount of money, we would infer that they thought that was profitable and the market would sustain the demand to suitably fill that facility or if they decided to -- take the pharmaceutical industry. These companies are great risk takers. If a company spends a substantial amount of money to develop a new drug, I would infer that they believe that there are good enough prospects that they will succeed and the market would be large enough.

MR. O'DONOGHUE: Yes.

PROFESSOR SHAPIRO: I am relying on that company's judgment at that point in time because they are the ones making the decision.

MR. O'DONOGHUE: Your evidence to the Tribunal would be that even where the inference is based on something which is unknown and unknowable, that would be a reliable basis for legal liability; that is your evidence?

PROFESSOR SHAPIRO: The unknown and unknowable I think applies -- as you are using the term and as I understand it, would apply to virtually any business judgment. I do not regard as unknown and unknowable, with that definition, something that means it should be dismissed. It is just the nature of business.

MR. O'DONOGHUE: I do not mean dismissed; you are saying it is decisive or potentially so.

PROFESSOR SHAPIRO: Decisive ... It is highly informative regarding that company's interests and we would, in the normal way would do in anti-trust analysis, factor that into the overall evaluation.

MR. O'DONOGHUE: But you are saying it is potentially decisive. That is your pay for delay inference?

PROFESSOR SHAPIRO: Well --

MR. O'DONOGHUE: Barring any other factors, this is decisive.

PROFESSOR SHAPIRO: Let us take the straight case that I think the experts agreed on, a large cash payment and an agreement by the entrant to stay out until the expiration of the patent. That is it, flat. Well, then that would be decisive, I think. I suppose one could listen to possible rationales, so maybe it is not completely irrebuttable but, yes, that would be very powerful to me as an indication that the competitive process was disrupted, the prospect of independent generic entry had been extinguished and it was anti-competitive, yes.

MR. O'DONOGHUE: I have no further questions sir.

THE PRESIDENT: Thank you very much.

Ms. Ford, do you have any questions?

MS. FORD: No, thank you.

THE PRESIDENT: Mr. Turner, technically you have a right to re-examine, but I do not know if --

MR. TURNER: I shall not be exercising that right.

THE PRESIDENT: So then you may ask questions -- or is it Ms. Demetriou -- of Dr. Majumdar and Dr. Stillman.

MR. TURNER: That would be me. Questions by MR. TURNER

MR. TURNER: A few questions for Dr. Stillman first, if that is all right.

Dr. Stillman, having heard the discussion this morning in particular, you agree that there is no evidence of a competitive dynamic between the generics when they have entered under the supply agreements after the displacement of the parallel imports?

DR. STILLMAN: Correct.

MR. TURNER: The next question is whether GSK is under pressure to reduce its own prices and I think you agreed that that depends on elasticity of supply for the parallel imports.

DR. STILLMAN: That is correct.

MR. TURNER: Were you shown by GSK's lawyers any of the contemporaneous evidence which suggests why the parallel importers might have simply exited without reducing their prices further?

DR. STILLMAN: I have seen lots of documents. I think you would have to show me particular documents so I can determine whether I have seen it before.

MR. TURNER: Of course. Let us get on the screen {Z/629/2}. You will see, and the Tribunal will see, that this is information that was provided by a party at Waymade, the parallel importer Waymade, when asked by the CMA to answer certain questions and you will see question 1. Have you seen this before Dr. Stillman or not?

DR. STILLMAN: I cannot recall. I have certainly seen emails between people at Waymade and the OFT. I am not sure -- I cannot recall whether I have seen this one.

MR. TURNER: So at paragraph 1 he was asked, the Waymade representative:

> "Please explain the reasons for the decline and then cessation, of Waymade's sales of parallel imported branded paroxetine in mid to late 2002 ..."

He said:

> "When a generic version of a branded product becomes available in the market, it is usually priced at a discount to both the brand and to parallel imported branded product. This makes it unviable to continue importing the product. On this occasion it looks as though the market price of the generic stayed high for a number of months after its launch, but this is not usually the case and importers would be wary of importing stock in case the market price fell below their cost and left them facing losses."

So this appears to say, Dr. Stillman that the parallel importers view the onset of generic entry, when it first happens, as likely to precede dramatic price falls which will then --

DR. STILLMAN: I do not see that. It says "usually priced at a discount".

MR. TURNER: Then goes on, you are quite right:

> "This makes it unviable to continue importing the product."

Even there, even the pricing at the discount will make it unviable -- thank you for that correction -- to continue importing the product. Pausing there, does that sound right to you?

DR. STILLMAN: I read this as saying that Waymade is observing, with respect to parallel importers, that when typically you have a generic version of the branded product -- I am not sure whether the context here is independent generic entry or whether we are talking about limited supply. It is a little unclear to me from the question; maybe if you put it the in the context.

MR. TURNER: I would suggest the natural inference is that they are talking about ordinary independent generic entry.

DR. STILLMAN: Yes.

MR. TURNER: On this occasion they are drawing a difference between what happened here, where the market price stayed high, with what typically occurs. Would you agree, this is not usually the case?

DR. STILLMAN: That is a fair reading of this. In other words, what the -- a reading of this, is that the author -- I am a little confused by the chain. I guess the red is coming back from Waymade?

MR. TURNER: That is right.

DR. STILLMAN: The person from Waymade, Mr. McEwan, is responding to Mr. Moore from the OFT's points and is saying, in effect, as I read this, that typically when you have independent generic entry, well, prices fall a lot and as a consequence parallel imports tend to dry up.

MR. TURNER: Yes, and the particular points he makes is the importers are wary of importing stock in case it is stranded, the market price falls below the cost, and it leaves them facing losses.

DR. STILLMAN: That makes perfect sense. If you are a parallel importer and you are buying from wholesalers of another country a branded product and you are thinking of bringing that into say the UK and you think there is a prospect that independent generic competition may begin in the UK, then as a parallel importer you would be worried about having paid a high priCe for what proves to be a price well above what you could sell it for in the post independent generic entry competition in the UK.

MR. TURNER: My modest suggestion is this helps us understand why the parallel importers do not use price in competition when they see the generic entry but exit at that price because this helps explain part of their rationale?

DR. STILLMAN: I do not really think if gives us that much help. I mean, it does not answer the question -- we are not faced with generic competition in this case, but what we are faced with in the supply agreements is limited supplies from IVAX initially and the question is really why does not GSK respond to the reduction in demand by trying to lower its price? The answer would be what do they gain by it and perhaps not much.

MR. TURNER: I am just asking about the parallel importers' motivation. Here you would see it was a specific question to Waymade about why they behaved the way they did, with this product at this time.

DR. STILLMAN: Let me read the context.

MR. TURNER: That is the question. It is specific to this case and it is a very modest suggestion I am asking you to accept.

DR. STILLMAN: Right, so we know the parallel imports, as is stated, Mr. Moore's first point, basically dried up by mid to late 2002. He is asking why and the answer is that they worried about the ongoing profitability of trying to continue with parallel imports.

THE PRESIDENT: Do you think it would make a difference whether the parallel importers knew about the volume limits that the generics were being given or did not know? They would see the generics selling on the market but I think these agreements -- the details were confidential.

DR. STILLMAN: Yes. (Pause). I think what is happening is that there is some downward pressure on pricing in the sense that the generic product is being made available on terms that are basically the same or maybe a little bit lower than the parallel import. Then what the parallel importers are seeing then is that the pharmacists are naturally saying, great, and they are buying the authorised generic and less from the parallel imports.

Then the question is, well why isn't there a response in the marketplace, why do not the parallel importers respond by trying to fight back and if not fight back -- they do not know the situation with the authorised generics, but maybe they can still recover some share by trying to cut the price.

If it is the case that actually their margins are really thin and they have got other opportunities, whether they take it to the UK, they might take it some place else or they may not buy as much from France, the way I have been thinking about it is the data seems to suggest that under the circumstances they said we are going to back off, we are going to back off. We are not going to try to fight on price, we are going to back off on trying to continue importing into the UK. That is the way I have been thinking about it.

MR. TURNER: Good. We will look at one more document on this and then move forward.

If we go to {A5/77/15}. Go to the first page so we can first see what this is, please. This is a witness statement from Mr. Saynor of GUK in the patent litigation back in October 2001 {A5/77/1}.

If we can now go back to page 15. At paragraph 47 you will see that, towards the end of that last sentence, he refers to the fact that:

> " ... many of our customers [this is before the product launch that was intended] will not have built up stocks of Seroxat from parallel imports [he must be talking about pharmacies] in recent months in the expectation that GUK will launch its paroxetine product."

There again, Dr. Stillman, this document does help us in helping to understand why the parallel imports exit when they do, that when the prospect of a generic appears, the pharmacies as well tend to run down their stocks of parallel imports in the expectation that they will move to the domestic product.

DR. STILLMAN: I suspect the customers here, since we are talking about GUK, are probably the wholesalers; that is the first point to make. Let us stick with that. I think wholesalers is the right interpretation.

MR. TURNER: Fine.

DR. STILLMAN: So the suggestion from Mr. Saynor is that when it is anticipated that new stuff from GUK is going to be coming on the market and it is going to be available on good terms, maybe better terms than was available from the parallel importers, the wholesalers say, well, I think maybe I will wait and I will -- rather than building up large inventories of parallel imports, I will wait and get my supplies from GUK.

MR. TURNER: It is consistent in showing us that parallel imports were fairly easily displaced by the generics at or around the same price?

DR. STILLMAN: I do not think there is too much of a controversy about this because we know that the parallel imports did decline. We know that the parallel imports price did not change to the naked eye. I think there may be some changes, some drop, but nothing dramatic but I think that is the story.

MR. TURNER: That is the story. You mentioned earlier GSK's response. If we just flash up on the screen {S/6/105}, which we looked at this morning, I believe.

We know, and I think we agree, that GSK did not appreciably reduce the prices that it was charging under its brand equalisation deals because of the supply agreements as each under one of them came on stream.

DR. STILLMAN: Right, again I will always circle IVAX and say, let us not focus on that because of the usual problems with the 2001 data. But focusing on GUK and Alpharma, that is absolutely correct.

MR. TURNER: This is therefore consistent, drawing the strands together, with an arrangement whereby these supply agreements can have been expected to maintain price stability in the marketplace?

DR. STILLMAN: Expected -- if you ask me what I would have predicted in October 2001, I would have thought that the supply elasticity for parallel imports was not perfectly elastic and it would have been upward sloping for the reasons Mr. Glynn was describing and so I would have predicted there would have been some decline in GSK's prices upon the entry and I would have been wrong.

MR. TURNER: Were you shown the documents showing the business people's expectation of maintaining stability in the marketplace as a result of the supply agreements?

DR. STILLMAN: I have seen various business documents, yes, and what I have seen is various business documents talking about expectations of relative prices but those do not really go -- maybe you have some other ones in mind, but the various ones I have looked at which talk about where we expect generics to come in relative to PI and relative to Seroxat did not really speak to what we thought the levels of price were going to be. Maybe there are others.

MR. TURNER: Without turning up specific documents now in the interests of time on that, can we leave it on the basis that, as a matter of economic opinion, now that you have seen these various strands of data, that this is consistent with an arrangement of the type I have described which was intended and expected -- could have been expected to maintain price stability in the market for paroxetine?

DR. STILLMAN: Again, I repeat what I said before: I would have predicted a price decline, certainly nothing like what you would have with independent generic entry, but some price decline -- but that is dependent on what my view would have been in October 2001 about the elasticity of supply of parallel imports.

As I say, I am quick to admit the data show that evidently the easiest way to reconcile what happened with the theory is to say, hmm, it seems to suggest that the supply of parallel imports was more elastic than I thought it was.

MR. TURNER: Only one more question.

You said this morning that the reduction in demand of GSK's Seroxat, which results from transferring the product to the generics, operationalises the competitive constraints on

GSK. If I have got the quotation right, the reduction in demand shows that GSK faced a worse competitive position than it did prior to the generic entry.

DR. STILLMAN: If you have the transcript, then that is what I said; I recognise those words.

MR. TURNER: If one imagines that you have a monopolist in this country and it makes a market-sharing agreement with a new entrant. It then has a reduction in the demand for its product and it has reduced volumes and it has reduced profits but there is then no pressure on the monopolist's prices or on its competitive behaviour. In that situation it is rather odd to say it is subject to competitive constraints from the loss of volume, is it not?

DR. STILLMAN: Yes, I would agree with that particular formulation. I do not think that is the formulation I would have in mind for this case, but I agree with your hypothetical.

MR. TURNER: I have some questions for Dr. Majumdar; no more questions for Dr. Stillman.
Dr. Majumdar, on the question concerning whether pharmacies could be expected to receive lower prices with the benefit of the generic products, once they emerge, and not the parallel imports, through a process of passing through of any lower price paroxetine that they receive, did you look at the contemporaneous evidence of the parties' expectations or plans when you gave your opinion?

DR. MAJUMDAR: I would have looked at what is in the decision. I do not remember specific documents as such.

MR. TURNER: We will go to then just a small number. If we go to {A2/151/1}. Is this a document you have seen before? This is one that has been discussed in this case. You can see from the bottom of the page we are looking at internal Alpharma emails and at the bottom of the page, that is one from a Mr. Torben Laursen. Have you seen this before?

DR. MAJUMDAR: I have certainly seen a reference to it in Mr. Collier's witness statement. Give me ten seconds to read it quickly.

MR. TURNER: Of course, can we go to the next page so you can start there {A2/151/2}? What you will see and read for yourself is an offer from GSK being discussed. You will see halfway down:

"The settlement they will offer has the following elements."

Do you see that?

DR. MAJUMDAR: Yes.

MR. TURNER: Take your time.

DR. MAJUMDAR: Thank you. (Pause)
I have got as far as "next steps"; did you want me to read further?

MR. TURNER: No, that is fine, that is the part.

Under:

"The settlement they will offer has the following elements ..."

If you go down three lines, Alpharma say:

"They [GSK] will be ready to offer 500,000 packs of the 20mg packs at a transfer price of 8.45 per pack. They claim generic selling price is around £13.15. Andrew, we have to look into this Monday morning."

This appears to suggest that GSK was suggesting that Alpharma should use the prevailing price to help value the settlement deal and that there is no suggestion in this email that anyone thought supplying the extra volumes to Alpharma was going to have a impact on that price. Do you see that?

DR. MAJUMDAR: It does not talk about impact at all. It just says:

"They claim that selling price is 13.15."

I do not think it says there will be or there will not be.

MR. TURNER: Let us go back to the first page {A2/151/1}. That is the response. Here you have the reply from Mr. Andrew Collier to Mr. Torben Laursen. There you see him confirming in paragraph 1 that £13.15 is an accurate reflection of the current retail prices. Then you can see the calculation of the average selling prices for Alpharma.

We do not see again any mention of an expectation that the additional volumes being given to Alpharma are going to depress the price. These seem to be, in other words, the ways in which the valuation of the supply is being approached by the business people at the time and concerns about price pressures do not seem to feature; do you see that?

DR. MAJUMDAR: I can see they do not mention an expectation of price is falling.

MR. TURNER: Let us turn to two others. If we go to {A9/184/133}. Again, this is referred to in the decision but you may not have seen it in its raw form. Have you seen this one before?

DR. MAJUMDAR: I do not think so, no.

MR. TURNER: "Summary of discussions". It shows Alpharma's deliberations about whether to renew the agreement with GSK. If you just take a moment to look at that.

DR. MAJUMDAR: Sure. I am a slow reader. Which part?

MR. TURNER: That is fine. Read down to -- you may as well read the entire thing.

DR. MAJUMDAR: Thank you.

MR. TURNER: It is really so you can appreciate the entire document.

DR. MAJUMDAR: Nearly there. (Pause). Okay.

MR. TURNER: You will see under "Summary of financials", just above that, "Summary of terms."

GSK is going to supply 500,000 packs for the renewal and under the summary of the financials, expected profit from sales of £1 million. Again, no suggestion of any price impact, just a straight calculation as though they are aware of the likely stable selling price as well as the buying price.

DR. MAJUMDAR: Sorry, I am being slow here on how they got to the 1 million. Is it obvious from this?

MR. TURNER: We can approach the mathematics of it, but what one does not see is a discussion of the concern that in valuing this deal there may be price pressures which will affect the price that they can realise.

DR. MAJUMDAR: Then I think I would need to know how they got to the expected profit of £1 million before I could make that inference because if they had expected a price fall, it could be baked into that --

MR. TURNER: I see.

DR. MAJUMDAR: -- expected profit.

MR. TURNER: I understand. It is a fair point.

Let us go to the final document, {B3/99/1}. Have you seen this one before? This is one that has been referred to a couple of occasions. This is December 2001, as you can see from the top.

DR. MAJUMDAR: Yes.

MR. TURNER: This is now the other company. This is GUK, your client.

DR. MAJUMDAR: Yes.

MR. TURNER: December 2001. What they are doing is they are looking forward:

> "Here is a summary of what is on offer over three years."

So now we have a three-year horizon and over that three-year horizon, please read it to yourself, one does not see any uncertainty about what their realised price is going to be; it looks very much like a straightforward calculation with the same assumptions simply rolled forward year on year.

DR. MAJUMDAR: But if I understand correctly, they are talking here about 520,000 packs at 8.85.

MR. TURNER: That is year one.

DR. MAJUMDAR: They have ended up with 750,000 at £8.45, which suggests to me that when they saw this they wanted a greater amount of volume, so they may have been concerned --

MR. TURNER: At this point, Dr. Majumdar, what one sees is that the person valuing this -- leave aside the subsequent change -- is looking at it in stable terms over a three-year horizon.

I am merely asking you to agree that these contemporaneous pieces of evidence are at least suggestive that the parties expected the prevailing prices to pharmacies under the deals to remain stable over time.

DR. MAJUMDAR: In terms of, does this document say prices are expected to fall, no, it does not. But, as I said before -- I mean this was not the final -- they ended up pushing for lower prices and a substantially greater amount of volume, so I am not sure how much I can read into this. This is not the final document on which they valued the deal ultimately.

MR. TURNER: It is not the final document but I think we can agree that at least at this time, for the reasons you have given, that seems to be the way it is being approached.

DR. MAJUMDAR: As I say, I agree that there is no suggestion of a price fall in this document.

MR. TURNER: Let us turn to just a few questions about the views you expressed yesterday on how GSK's supply agreements unleashed a process of competition to supply wholesalers. You find that the wholesalers obtained paroxetine from the generics at a price which was 14% to 16% lower than they had been getting from the parallel importers.

I think you told the Tribunal yesterday that your explanation for this observation was that by skilled negotiation or bluffing the wholesalers got the generics to come down by up to 16% from the prices which the wholesalers had been paying for the parallel imported paroxetine. That was your opinion expressed twice.

DR. MAJUMDAR: I know I used the word "negotiation". I then explained the price fall by reference to the mark-ups. Yes, I explained that negotiations could certainly be a reason for that price reduction, yes.

MR. TURNER: Look at one of the places -- if we could put on the screen {TR/8/81}, the transcript of yesterday. I may have a false reference. Can we go back to page {TR/8/78}. Let me just see if I have the right reference there.

In the middle at 21 you talk about GUK's price falling by 14% and then the President corrects that to "They charged 14%". Sorry, I will need the correct reference on bluffing but we know the point.

Is it still your opinion that that is the dynamic that occurred?

DR. MAJUMDAR: I think my reference to bluffing was when I was speaking about the profit guarantee clause.

MR. TURNER: It was not. But we will -- I will need to get the reference, I am sorry.

DR. MAJUMDAR: I would be grateful to see the reference because I do not remember saying it - - I do remember talking about bluffing but I remember using that in an example using the profit guarantee clause so I would be grateful to see the transcript on this point.

MR. TURNER: Then I think we should. (Pause)

{TR/8/80}. At the bottom of the page the President asked you, there it is:

"THE PRESIDENT: GSK was selling direct to pharmacy by this point. So is it effectively, by skilled negotiating and bluffing, that they are able to get GUK to come down 10%, 16%, whatever it is?

"DR. MAJUMDAR: That is what the data seemed to suggest, sir."

Yes?

DR. MAJUMDAR: Yes, I said that.

MR. TURNER: Is that still your opinion?

DR. MAJUMDAR: It is certainly my opinion that the data do suggest a substantial decline in the price to the wholesaler relative to the price of parallel imports. This morning, having reflected on it last night, I said that I thought the negotiation story applied more to GUK and IVAX and probably less to Alpharma.

MR. TURNER: So that qualification needs to be made?

DR. MAJUMDAR: Yes.

MR. TURNER: Thank you.

Let us follow it through. Would you accept in general that the evidence shows that the margins that the wholesalers make on selling generic medicines as a percentage of the pharmacy price are typically higher than the margins they make on the sale of branded or parallel imported products, again as a percentage of pharmacy price, ordinarily?

DR. MAJUMDAR: Yes. Let me just check the question again. (Pause)

Yes. Looking at the numbers in the CMA's decision, the margins on generics in the CMA decision ranging from 11.25% up to 20%, which is greater than than the 3% to 5% on parallel imports and, whatever it was, 3.3% on Seroxat. So they do get higher margins on that basis.

MR. TURNER: Did you read or hear the evidence of Mr. Sellick, who came to the court, about the customary wholesaler mark-ups for GSK's branded medicines?

DR. MAJUMDAR: I was there for Tuesday morning if that is when he mentioned it.

MR. TURNER: It was. I hope my reference is right. {TR/7/7} please. At lines 12 to 18, do you there see he was asked -- he said:

"Answer: So the medicines were sold to wholesalers at 12.5% discount basically.

"Question: Off list? You start with the list price and then you work backwards from that?"

And so forth. 10% was the sell-on price, the 10% discount.

You can see the wholesaler margin can be derived that. These discounts in the wholesaler mark-ups are not product specific. This would appear to be, Dr. Majumdar, part of a general industry convention for approaching the pricing of branded medicines and their distribution, would it not?
DR. MAJUMDAR: For the branded products, I understand that to be right, yes.
MR. TURNER: Then Mr. Collier of Alpharma, as you know, he gave witness evidence for these proceedings and if we go to {F/1/7}, please. If you look at paragraph 18, you will see that he expresses himself in general terms, not referring only to his company. He is referring to the way that the industry operates more generally. Unfortunately, he has not been asked to come to court so we must take it that this is his evidence. He says at 18:

> "I recall that there were differences between the wholesale distribution fees for branded and generic products. For instance, for branded products (such as GSK's Seroxat), the wholesaler would usually receive a 12.5% discount from the branded manufacturer's price. Then normally at least 10% of this discount was passed on to pharmacies that primarily used large full-line wholesalers. I recall that it was an established trading practice that these discounts were applied to all branded products."

Then the last sentence:

> "By contrast, for generic products (such as Alpharma's products including paroxetine), the wholesaler could other than a wholesaler distribution fee of around 20% ..."

He is referring there first to working backwards from the pharmacy price and he is giving evidence of a situation that is not only relating to Alpharma --
THE PRESIDENT: I think it is fair that Dr. Majumdar is able to read paragraph 20.
MR. TURNER: Paragraph 20. Go ahead.
DR. MAJUMDAR: Thank you, sir. Thank you for raising that, sir. This paragraph 20 is the one that I mentioned earlier this morning. So this is where, as I read it, Mr. Collier says that he was unaware of the GUK position but GUK does not have a scheme in place, therefore its prices to wholesalers may have been individually negotiated.
MR. TURNER: Shall we turn the page just to complete paragraph 20 {F/1/8}:

> "It is likely to have varied from customer to customer."

He is talking about customer variations; do you see that?
DR. MAJUMDAR: Yes, which is consistent with individual customer by customer negotiation. I would expect customer by customer prices to differ when you negotiate with each individual customer.

MR. TURNER: Yes. You said that your understanding of there being a general mark-up convention for the wholesalers and the purchasing of generic products was not the case in relation to GUK. You said:

"My understanding is that this was not the case for GUK."

You then sought to distinguish Mr. Collier's evidence. I am just wondering based on what specific evidence you made that assertion that that was not your understanding.

DR. MAJUMDAR: Firstly, Mr. Collier here distinguishes GUK from Alpharma. He puts Alpharma and Alpharma's scheme -- a 20% margin for that scheme. He then distinguishes GUK from that. I also mentioned evidence from GUK itself, which was a footnote on page 30 of my report, which said that GUK mark-ups -- was unaware of its mark-ups but they varied. Let me find the reference and I will double check what I said.

MR. TURNER: This is your footnote 71.

DR. MAJUMDAR: Thank you yes.

MR. TURNER: Just to short-circuit this, Dr. Majumdar, my point is this: you would not say that you have a basis for thinking that there was individual product by product negotiation in the case of GUK?

DR. MAJUMDAR: Okay, so I think -- for IVAX I think there is and then for GUK I do not have explicit reference to -- there was definitely product by product negotiation for paroxetine. I acknowledge I do not have that.

MR. TURNER: Let us then finally just move to parallel imports. Have you seen any of the evidence about the conventional mark-ups that were applied to parallel imports?

DR. MAJUMDAR: So I think this is probably footnote 611 of the decision where they say mark-ups are in the 3% to 5% range and they have evidence from Waymade and evidence from an association of parallel importers, if I remember correctly.

MR. TURNER: It is partly to help the Tribunal as well as you, but if we go to {H2/16/1}. Here we see communications between the then Office of Fair Trading and an organisation which was the British Association of European Pharmaceutical Distributors. If we go to page {H2/16/2}. At the top, first bullet, we see there the source of the information that was used, that the association talks about the industry practice, the general industry practice at the time first for branded products and then, in the second bullet, you will see the reference to the parallel importers' position and the final sentence there was that the mark-up applied by the wholesalers in parallel import product would have been 3% to 5%.

Again, Dr. Majumdar, I do not think this is controversial, but we see from this category of product, parallel imports, a general industry practice being applied.

DR. MAJUMDAR: I do not dispute there was a low mark-up on parallel imports of 3% to 5%.

MR. TURNER: If I can then draw this together briefly. If we do have a market practice here where the generics are subject to a higher percentage mark-up by wholesalers typically, by virtue of being sellers of generic medicines, and the parallel importers are subject to a lower percentage mark up, 3% to 5% as stated in that document, then it can be seen that the generics and the parallel imports that are positioned on the price at the pharmacy level are identical inevitably will be priced differently at the wholesale level of trade. It is just a matter of logic.

DR. MAJUMDAR: It is a matter of maths. If they have the same price as the price at the pharmacy then there will be a lower price at the price to wholesaler level, that is correct.

MR. TURNER: If that is the position, please take the assumption, you would agree that these differences in the mark-ups in the wholesaler level bear no necessary relationship to the degree of rivalry between the entrants and GSK and the parallel importers in selling paroxetine?

DR. MAJUMDAR: I disagree with that. So I thought it was agreed amongst the experts that there is competition between the entrants and parallel importers and the way that the entrants displace parallel importers was they had to get into the supply chain. Getting into the supply chain meant selling to wholesalers and that meant, to the extent that there were predetermined terms, that meant meeting those terms and giving wholesalers a lower price. To the extent there was negotiations it meant getting in through negotiation. So I disagree with your statement because you said that there was no competition between parallel importers and the entrants.

MR. TURNER: In selling paroxetine, Dr. Majumdar.

DR. MAJUMDAR: In selling paroxetine?

MR. TURNER: Let me put it another way round. If this is the standard entry fee, the standard mark-up that must be applied for generic medicines to be sold through wholesalers, then the wholesalers have not used skilful negotiation or bluff to get keen paroxetine prices from the generic suppliers. That is not what has happened.

DR. MAJUMDAR: Where they negotiate then they will have, so if we are talking about -- so my understanding from the IVAX statement, as I read out, I think, 67 of my report, my understanding there was there was a paroxetine specific mark-up which led me to believe that there were paroxetine specific negotiations on that particular product.

I acknowledge that the GUK -- I am less sure whether there was a deal across many products or whether it was paroxetine specific, but either way, if there was some prior negotiation that enabled wholesalers to get good standard terms for whatever they were, then, it seems to me that what we have is, in the competition between the entrants and parallel importers to access the supply chain, the entrants had to offer a benefit to wholesalers.

Wholesalers are the direct customers of the entrants. Therefore increased competition led to a gain to direct customers. It seems to me competition going up and delivering a benefit to wholesalers.

MR. TURNER: Finally, Dr. Majumdar, we take my assumption that what is happening is that the wholesalers are requiring their standard discount or standard mark-up for distributing generic medicines here with no change.

On that assumption imagine that GSK had continued selling using that model, through wholesalers, and that it made settlement agreements with these entrants in much the same way as it did in the real world, but with one difference: imagine that it has colluded with the generics to divide up the market between them and fix the generic price to the pharmacies at the prevailing parallel import price. Imagine there was an express agreement to that effect. Even in that situation you would still observe the same differences in the prices being paid by the wholesalers because of this standard industry practice, would you not?

DR. MAJUMDAR: Can I just read this question on the transcript?

MR. TURNER: Of course you can.

DR. MAJUMDAR: (Pause). So I have to hypothesise collusion between GSK and the entrants?

MR. TURNER: Over the prices that they will charge.

DR. MAJUMDAR: Over the prices that they will charge to?

MR. TURNER: This is at the pharmacy level.

DR. MAJUMDAR: Okay so there is some kind of RPM going on, so they collude over the price that the pharmacies will be charged even though they sell to wholesalers?

MR. TURNER: There is an unlawful agreement, yes, that they are colluding to fix the price to the pharmacies. This is agreed at the prevailing level.

What I am suggesting is that if this is the situation, if that is the case, and there are standard industry practices for the wholesale mark-up, in this situation there is no rivalry at all in the supply of paroxetine at any level and all we have all the way through is plain and simple collusion?

DR. MAJUMDAR: I mean the hypothetical almost by assumption just removes the wholesaler level because the collusion is on the price below them, this collusion is RPM, so I am not sure that in fact that hypothetical works.

MR. TURNER: If there is an understanding as to the price that will be charged at the pharmacy level and were it to be similar to the facts of this case that at the wholesaler level there is not a skilful negotiation and bluff that you referred to in your evidence but merely an application of a standard practice then the analogy becomes apt?

DR. MAJUMDAR: I do not think it works. You see with a perfect cartel all of the profit stays upstream and when there are competitive impacts there will be some leakages out and some gain would go to customers.

Here there is a gain to direct customers, namely wholesalers as direct customers of the entrants. So I do not see that that is a perfect cartel.

MR. TURNER: Let us say it is imperfect in the way that it operates in practice, Dr. Majumdar, but all I am asking you again, as a modest suggestion, is that this is not a competitive arrangement if I am right.

DR. MAJUMDAR: I am sorry I do not -- I feel I am going to repeat myself and say to my mind there is -- we have competition between the entrants and the parallel importers, which I am not sure is answering your question. I do not see this as a cartel where there is sort of an implicit agreement over the downstream price because the generics sold to the wholesalers and competed with parallel importers to supply those wholesalers and then the wholesalers outside of the Alpharma scheme. The wholesaler had to determine whatever the price they charged to pharmacies, as I understand it, in negotiation with pharmacies. I am not sure I see your analogy go through here.

MR. TURNER: Right.

I think it has been a long day. Subject to any questions from the Tribunal, I think I should leave it there.

THE PRESIDENT: Thank you. Just a moment. (Pause)

Thank you all very much. It has not only been a long day, it has been quite a long week. Professor Shapiro, you will indeed have to answer some more questions but not, I think, until either Wednesday or Thursday -- not before Wednesday afternoon. That is on a wholly different topic, which is market definition dominance, and so I think it is appropriate that you should be what we call released, which means you are free to talk to the team.

Dr. Stillman, Dr. Majumdar, we embark on Monday with Ms. Webster on part 2 of the joint statement. There is quite a bit of overlap on some of the questions. We think it is appropriate therefore that you should not please discuss the case with lawyers over the weekend and we think, in fairness, that the same approach should apply to Ms. Webster and she also should not be discussing the case with the CMA lawyers or anyone else.

Can I say that we have read the rather longer joint statement part 2, which is more than a statement of agreed and disagreed, it is almost a report in itself.

Some of the issues there which are obviously complex, but on questions such as whether a fall in price was 1.35% or 3.5% or 3%, which are difficult to determine in any event, as presently advised we do not see that it is going to affect the outcome of this case.

Obviously, we have not heard submissions on this from anyone, but insofar as there is a general view that it may not make a difference, you can exercise restraint or indeed self denial in exploring that in cross-examination because it can take up a lot of time as these are detailed numbers involving a lot of assumptions, but they are not going change the outcome so I throw that out and we will discuss this amongst ourselves obviously as guidance to all of you and on that basis -- Mr. Flynn, you wanted to raise one matter?

MR. FLYNN: Two things sir. One was, by parity of reasoning, as it were, we do not intend to spoil Dr. Stillman's weekend, but if there were anything on market definition that I might want to ask him about, would that be acceptable?

THE PRESIDENT: Yes, I am sure we can rely on you to confine it to that.

MR. FLYNN: I say it to the Tribunal and to Dr. Stillman, but it is not something I anticipate --

THE PRESIDENT: I think that is fair.

MR. FLYNN: He seems grateful.

THE PRESIDENT: I think that should be you and your co-counsel only.

MR. FLYNN: Indeed.

Sir, the other point is, in accordance with the Tribunal's indication last night, we did write on the timing for the now two days for the --

THE PRESIDENT: Yes.

MR. FLYNN: May I ask whether the Tribunal has taken a view on it because it does seem to us that if we have two days then it really should be pretty strictly half each -- half for the CMA on Monday and half for us on the Tuesday -- because otherwise what is effectively being said is, yes, we can do what was down for two and a half days in two days, so long as the appellants give up quite a bit of time. So I do suggest that it should be even-stevens as it were.

THE PRESIDENT: Yes, just one moment. (Pause)

Yes, Mr. Turner.

MR. TURNER: My only concern about this, I hope, is only a theoretical concern because I fully expect to get this done in a day. However, I have two witnesses to cover, who may be slower than one witness and they have one witness to cover on the same ground in an equal time. So I do not think it is appropriate to impose a strict confinement on the CMA that we should under all circumstances be limited to one day and that is it.

THE PRESIDENT: Well, let us see --

MR. TURNER: I do not expect it to happen.

THE PRESIDENT: Let us see how we get on. If there is a very small overspill I imagine we can live with that, but clearly you must not eat into the time of the appellants. Equally, there are a lot of appellants, each of whom are entitled to put a question or two.

MR. TURNER: Understood.

THE PRESIDENT: Although I imagine it will be shared out, as it has been very sensibly, in the cross-examination here.

MR. FLYNN: I think it will be shared out and I think broadly it will be between Mr. Kon and our team and possibly, I think, a couple of questions from others but not -- that will not be substantial. We have to cover the waterfront as well.

THE PRESIDENT: We will work on the basis that you should have all of Tuesday and we will try and accommodate any difficulties that should arise.

MR. FLYNN: Thank you.

THE PRESIDENT: The only other thing to mention is that we will, on Wednesday and Thursday, be dealing with the Chapter II abuse of dominance. Could we ask you, by the end of Monday, please, to give us an agreed timetable for how that is going to be divided. How much opening, how much for the experts and, in particular, what you envisage in terms of the short openings on that.

MR. FLYNN: Indeed, sir. Of course, as I understand it for the experts, that is a hot tub, to use the jargon, so obviously the length of that will be in your hands.

THE PRESIDENT: I appreciate that but I just want to know what length of opening you are hoping and wishing to give.

MR. FLYNN: We had been, I think, all proceeding on the assumption, but I may be wrong, that it would be -- one day would be the legal submissions and the second day would be the economics and we would have therefore half a day -- the morning with GSK and the afternoon with CMA. But that has always been my --

THE PRESIDENT: That seems quite long for opening on that, I have to say.

MR. FLYNN: There is plenty to discuss.

MS. DEMETRIOU: For my part, I think that seems quite long. I was thinking more in terms of up to 2 hours each in opening.

THE PRESIDENT: Yes. We will re-read your -- the document that you call the skeleton argument, which is quite full, Mr. Flynn, in setting out your case on that.
I think we might want more than a day because bear in mind that is also to include any questioning from you. We appreciate that we are then down to concurrent evidence from two experts, we are on a diminishing train here, so that of course is little shorter but still there are important issues to cover. We can revisit that on Monday or Tuesday.
MR. FLYNN: Yes. As I have already indicated I might not be spoiling Dr. Stillman's weekend, but I have plans for my own and I will revisit the document and my own skeleton.
THE PRESIDENT: I would have thought a full half day for openings is rather unnecessary on that given the amount of written submissions we have.
Very well, 10.30 am on Monday.