IN THE COMPETITION APPEAL TRIBUNAL Case No: 1435/5/7/22 (T)

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Tuesday 1st October – Tuesday 29th October 2024

Before:

Justin Turner KC
Sir Iain McMillan CBE FRSE DL
Professor Anthony Neuberger

(Sitting as a Tribunal in England and Wales)

BETWEEN:

Claimants

Stellantis Auto SAS & Others

V

Defendants

Autoliv AB & Others

A P P E A R AN C E S

Colin West KC & Sean Butler (Instructed by Hausfeld) On Behalf of the Claimants.

Sarah Ford KC & Prof. David Bailey (Instructed by Macfarlanes) On Behalf of the Sixth to Tenth Defendants.

David Scannell KC & Derek Spitz (Instructed by White & Case) On Behalf of the First to Fifth Defendants.

Tuesday, 15 October 2024

(10.30 am)

THE CHAIRMAN: Some of you are joining us live stream on our website. An official recording is being made and an authorised transcript will be produced, but it is strictly prohibited for anyone else to make an unauthorised recording, whether audio or visual, of the proceedings, and breach of that provision is punishable as a contempt of court.

Good morning.

DR ADRIAN MAJUMDAR & MR MAT HUGHES (continued)

DR MAJUMDAR: Good morning.

THE CHAIRMAN: Just give me a minute so I am organised.

Questions from THE TRIBUNAL (continued)

PROFESSOR NEUBERGER: We ended up mid-question. Rather than giving you the opportunity immediately to continue an answer to a question, I thought it might be helpful for everybody if I summarise where I thought we were on the RFQ issues. I realise that I may be misrepresenting the positions of parties, and of course you will have the opportunity to discuss them, but it gives -- will give Dr Majumdar the opportunity to complete the answer to the question which was interrupted by the break.

I thought that the issue of RFQ dates is very important because the common assumption is that whether a price is a clean price or a dirty price depends on whether the RFQ date falls within or outside the cartel period. The RFQ date is missing in over half the cases. There are two approaches to approximating the RFQ dates that are missing that the experts agree are suitable: what we can call Hughes 1 and method B.

Mr Hughes, on balance, prefers Hughes 1 on the grounds that where the start of production date is far from the estimated RFQ date under method B, it implicitly assumes there was no substantial renegotiation of prices in the interim, but he stresses the difficulty of comparing different ways of guessing things that we do not know.

Dr Majumdar prefers method B because he believes that such evidence as is available does suggest that prices of continuation parts that have no RFQ date follow a continuous trajectory as those parts they replace. He also makes the point that if method B is to be preferred, then it would make sense to rework all the other model variants using RFQ dates determined by method B rather than Hughes 1.

Is that a reasonably fair summary of where we are, Dr Majumdar?

DR MAJUMDAR: It is, sir. Just one other point. My preference for method B was not simply because of the trajectory point, which you captured correctly, it was also because where we have the known dates, they all align on the same spot. It was those black dots lining up. So it's consistent with what we know from the known RFQ dates as well, sir.

PROFESSOR NEUBERGER: Thank you very much.

Mr Hughes, have I correctly represented the position as you see it?

MR HUGHES: Yes, and the -- the nuance of difference perhaps between -- or some element of difference between Dr Majumdar and myself is that where he's identifying parts that he thinks are similar, potentially similar to other parts, that's bound to have false positives associated with it because inherently I would expect the part -- price of parts to be in some way related to the price of preceding parts as per the witness statements we've received and also these part numbers are different and obviously the characteristics of the products are often similar.

PROFESSOR NEUBERGER: Thank you very much.

I mean, in view of the -- Mr Hughes' excellent point about not wasting too much time comparing different ways of guessing what we do not know, I am inclined to leave it at that stage. What I would like to do, though, is to look -- accept that these are two sensible ways of looking at the data, both with shortcomings, and I just want to learn -- to understand what we learn, and I was thinking -- I mean, what is the best way of comparing the numbers between the variants? Which is the table you would like us to look at?

DR MAJUMDAR: In order to do -- to compare Hughes 1 and sensitivity B?

PROFESSOR NEUBERGER: Yes.

DR MAJUMDAR: We could look at -- actually, it's probably easiest if we look at Mr Hughes -- if we're only comparing those two for the minute --

PROFESSOR NEUBERGER: Yes.

DR MAJUMDAR: -- then I suspect it's easiest if we use Mr Hughes' tables at {E1/18/1}, which has -- yes.

PROFESSOR NEUBERGER: Excellent. So we are doing this -- so could you take us through this one, Dr Majumdar?

DR MAJUMDAR: Yes, so I think the exercise then will be to compare the coefficients in the first column, which is Hughes 1. So the -- at the top left, we see 0.295 and three stars. So that's Hughes 1. And then if you go to the column on the right, that is to be compared with 0.269 and three -- three stars. So this is for airbags and that's comparing Hughes 1 and method B.

PROFESSOR NEUBERGER: Before we get then to that, can I just confirm, my understanding is that this is a sensible sensitivity test, it is quite a substantial sensitivity test in the sense that the RFQ dates which are at the centre of the whole analysis are, in some cases, changed by a considerable margin, so it is a pretty robust -- it is a pretty substantial sensitivity test, it is not merely giving the tables a tap, it is giving them a decent kick. Is that a fair way of looking at it?

MR HUGHES: That would be my view. This is -- sorry.

PROFESSOR NEUBERGER: I mean, it is not the only way of doing the sensitivity but it is a substantial sensitivity test.

DR MAJUMDAR: I would agree it's a substantial test because -- and I would agree with the point that you're making that some of the RFQ dates will -- will move by a material amount. I don't know how much they move on average, but they potentially will move by a number of months, so I think that's a fair assessment, sir, yes.

PROFESSOR NEUBERGER: Then, so, the question in my mind, looking at these data, are: is the feeling that the two results are sufficiently close to say that it is reasonably robust or are the results such that you would have serious worries about stability? I think we might go through that one table at a time.

DR MAJUMDAR: So in the case of airbags, I would say that this -- the two coefficients that we're comparing for the early period, 0.295 and 0.269, are sufficiently similar to say -- to say they're consistent in terms of magnitude and statistical significance. I would say the same of the main period dummy, so that's 0.114 three stars, 0.09 two stars, I would say they're sufficiently similar in terms of magnitude and statistical significance.

But I would emphasise the point that you correctly captured, sir, earlier on, which is that this says to me that the sensitivities that we discussed yesterday will probably carry over to this model as well, given the -- given the similarities. So, for example, if we put in a single dummy for the early and the main period instead of distinguishing between them separately, I would also expect that we would see zero estimate -- estimated overcharge. So I think that's just an important point that I would expect those carry over as well, sir.

PROFESSOR NEUBERGER: I understand. This is a single sensitivity and you have done other sensitivities --

DR MAJUMDAR: Yes, sir.

PROFESSOR NEUBERGER: -- and we have discussed those. That point is taken.

So go to the next.

DR MAJUMDAR: So the next one is the seatbelts, and this is table 4.2 {E1/18/2}. I'll just wait for it to come up {E1/18/2}. Thank you very much. And, again, we're looking at the top left and the sort of top right, as it were. So, here, the coefficient in Hughes 1 is 0.163 and three stars, and then over to the far right, 0.221 and three stars, and, again, I would say, in terms of magnitude, they're not very close but they are close enough given the standard deviations that we observe here to be consistent with each other in terms of magnitude and in terms of statistical significance.

PROFESSOR NEUBERGER: Fine. Go on.

DR MAJUMDAR: So then table 4.3 {E1/18/3}. So, as before, comparing the top left and far right. So top left is Hughes 1 and there we see, for steering wheels, 0.3 and three stars, and then we go to the far right, 0.17 and a single star. So I would say that these are not consistent in terms of magnitude or statistical significance. So here we've got, in essence, a 0.3 dropping down to 0.17, which is statistical -- sorry, significant only at the 10% level. We can debate whether that's sufficiently high or not, but conventionally, we normally look at five, so this is outside the conventional range of statistical significance, so many would say not statistically different from zero.

So I would say that this is a material difference between those two coefficients both in terms of magnitude and statistical significance.

If we then look at the RFQ dummy, so the far left, that's 0.252 and three stars, and then when we go to the far right for method B, that's minus 0.447 and three stars, so that's essentially saying that in the main period the cartel was saving consumers 50 -- money, so it's an undercharge, so there's clearly a -- we're moving from a 22% overcharge to a minus 56% overcharge, so clearly there's a -- a material distinction in those coefficients, sir.

PROFESSOR NEUBERGER: Thank you.

Mr Hughes, please, your views on this.

MR HUGHES: I think you described this earlier in terms of my views, which were, you were saying, that this is a substantial sensitivity, you've given a hard shove to the data, you're not shifting this by a few months, you're shifting it in many -- some cases by years, so it's -- it's a very hard shove.

I think this sensitivity still rests on using known RFQ dates to infer what the platform date was. But in relation to steering wheels, we have both fewer new parts, we've got 60 versus 100 or so, and also we've got -- the extent of known RFQs is the lowest amongst all the samples. So I think it's about 37%. So I think -- I think this sensitivity is harder to do accurately in this scenario.

You do get statistically significant results if you just used known RFQs -- marginally statistical significant if you used Dr Majumdar's terms. It's also the case that I think when you're interpreting these results, given the uncertainties, I think it's worth bearing in mind that if you make an error at the RFQ date, as you said at the beginning, that's an important error and I would expect that to bias down the overcharge because of fairly -- because of mixing clean and dirty prices.

PROFESSOR NEUBERGER: Thank you very much.

I can see what the disagreement is. Is there anything more to say?

DR MAJUMDAR: Only that I wouldn't agree that the bias of mismeasurement would necessarily lead to an overstatement of the overcharge. I think we discussed that yesterday. There's -- that requires everything else to be very well specified and I would dispute that.

MR HUGHES: Okay, so if we ignore for a moment everything else being very well specified, just park that a moment and focus on this sensitivity, it is unambiguously the case, if you miss -- as a matter of econometrics, if you mismeasure an independent variable, then there's something in econometrics terms called attenuation bias and that means it's biased towards zero, and in this particular case what we're trying to do is compare, again, dirty prices with clean prices. So I'm going to ignore -- if I take as given all the other sensitivities and kind of park those, but just in terms of this, error in RFQ cases will bias down the overcharge. So I have a strongly different view as a matter of econometrics on that point.

PROFESSOR NEUBERGER: I am inclined to leave that there. Thank you very much. That was all I was going to do on the RFQ dates and indeed on the overcharge, and I was going to turn to pass-on.

There is one detailed matter, it is totally a detail. I asked, yesterday, for standard errors on the regression and I am not sure that my question was properly understood or maybe I have already got the answer in what I am looking for, but maybe the parties could make sure that if the data is available, it could be made available to me or pointed out where I should look for it.

The data I am looking for is the standard error on the regression, that is the standard -- the size of the error term in the Hughes 1 regressions, and that may be in the data, that is fine, let me know.

MR HUGHES: So, very briefly looking at the table -- sorry, just to try and answer the question now --

PROFESSOR NEUBERGER: Okay.

MR HUGHES: -- very briefly at the table, there are standard errors underneath all of these tables which are the standard errors on the errors -- on the overcharges, if that's -- if that's, sir, what you were seeking.

PROFESSOR NEUBERGER: Sorry, can you point that out to me?

MR HUGHES: Sorry. So if I look at table 3, for example --

PROFESSOR NEUBERGER: Table 3?

MR HUGHES: -- underneath -- the 4.3, my apologies.

PROFESSOR NEUBERGER: 4.3, yes.

MR HUGHES: So the table that's on screen at the moment, underneath the overcharge estimates are standard errors for all of those --

PROFESSOR NEUBERGER: Oh, sorry, you are absolutely right, I apologise, thank you. Thank you very much indeed. That is very helpful.

MR HUGHES: Given that the font is about 1mm tall, I think ... I can barely see it on the screen.

THE CHAIRMAN: Just before we move on to pass-on, I just had a couple of questions, mostly for Mr Hughes. Could somebody bring up {J1/234/1}.

Mr Hughes, I do not know if you have seen this before, it was referred to in court. Maybe we can make it a little bit bigger. That is perfect. Thank you very much. We can just leave it there. That is perfect, thank you.

This is an internal Autoliv email and they are discussing the A9 RFQ, which was for Peugeot, and we looked in particular, I think, at the airbags, driver airbag and passenger airbag, which was item 1, and they discuss the latest offer. So it was €43.62 per car, that is the latest offer, and -- I think from Autoliv, and they ask -- presumably the manufacturer -- for €37. Then we can see the proposal for the next round is €40, and then if they go down to €37, then the EBIT drops to minus 1, so it is obviously not viable at that price.

Now, you are considering in your tables an overcharge for airbags of either, in the early period -- this is not the early period, but in the early period, 25%, or in the later period, or the main period, 10.5%. Looking at these particular figures in this example, where is the scope for a 10.5% overcharge, looking at the way these negotiations are proceeding?

MR HUGHES: So if I give a general answer and then come to the specific, if I may.

THE CHAIRMAN: Of course, yes. Yes.

MR HUGHES: So, generally, we economists -- and Dr Majumdar will say whether he agrees or doesn't agree -- we don't like cartels for three reasons. Firstly, because they raise prices above cost, which is called allocative efficiency, so they harm allocative efficiency.

The second reason we don't like them is because -- so -- so you would see that simply in the margin number. You would see that in the margin, so that prices are above so there's a profit margin.

The second reason we don't like them is because they reduce productive efficiency and the incentive to costs minimise.

The third reason -- the third reason we don't like them is because they reduce dynamic incentives and that's incentives to innovate or reduce costs.

What we are discussing in this case is, I think, a long-running period of competitive coordination, which also involved an incumbency principle. I realise that this is disputed, and therefore it is one of the -- so there's two consequences to all of that. The first consequence to all of that is, absent the cartel, I would have expected greater competitive pressure on the suppliers to lower the costs. So in the counterfactual, the costs we might be discussing might be quite different.

I would also expect dynamic competition between firms in the sense the cheapest firm would have won the business, whereas if you have an incumbency mechanism, the foot is somewhat taken off the gas in terms of winning that business. So I -- I would say I would be cautioned about -- cautious about using contemporaneous margins to assess what prices and profitability is.

I also note that this document is dated 2009, which is around the time of the credit crisis, so it's possible there was greater pressure on prices then, but I don't know.

THE CHAIRMAN: So if one -- I mean, if one pulled out every negotiation -- I appreciate this is a single example and, as you point out, it is during the credit crisis and so forth, but if one had an idea of the negotiations that took place for every relevant contract, you are saying you would not necessarily expect to see those 25% or 10% or 15% overcharges in those documents, because you are saying some of the effect, they may become horribly inefficient and actually their costs are too much?

MR HUGHES: Yes, I mean, I know each case turns on its facts, but I -- I would expect the inefficiencies from collusion to be very substantial. I mean, again, Dr Majumdar will speak for himself. I'm as concerned, as an economist, with the inefficiencies associated, particularly where you add the contracts up, there's customer sharing involved and the person who wins the contract isn't necessarily the cheapest now, they were just the cheapest then.

THE CHAIRMAN: Yes. But that could be addressed by examining negotiations in the clean period, and one could see a change in the cost base.

MR HUGHES: You'd have to do quite a lot of profitability analysis, and you would also need to compare -- you'd need to look at the prices of -- of all the firms in the industry and the cost trajectory of all those industries.

THE CHAIRMAN: Right.

MR HUGHES: And it -- so I think that's quite a complicated exercise and I don't have -- I don't have any profitability information that's useable, as discussed in my first report.

THE CHAIRMAN: No.

Dr Majumdar?

DR MAJUMDAR: Thank you, sir.

I mean, just to comment on this efficiency point really. I mean, I won't speak to the facts, as you will know them a lot better than I do, but my understanding at least is that there is a lot of pressure put on OSS suppliers, Autoliv, ZF/TRW, year on year to generate cost efficiencies because they -- they start off with a contract price and then it's negotiated down or expected to decline by X% a year, and so I would understand that that would put a lot of pressure on -- for cost efficiency.

Also, we're talking about OEM-specific collusion here. If there are several OEMs for which there is no coordination, then there's an incentive to be efficient to supply them.

So it's -- I think -- I think Mr Hughes is making quite a lot of assumptions to presume that there are -- there's no incentive to maintain cost reductions in -- in this market.

MR HUGHES: If I might, very briefly, say two things.

THE CHAIRMAN: Of course, yes.

MR HUGHES: Sir John Hicks famously said, "The best of all monopoly profits is a quiet life", and I remember that quote, I'm probably about -- he's somewhat dead now, but I -- perhaps it was -- I was taught it early.

And the second thing is, I have no doubt the OEMs try very hard --

THE CHAIRMAN: It is a good quote.

MR HUGHES: -- to push down prices. I have no doubt on that. But the whole reason why we economists strongly dislike cartels, and there are many things we don't agree on, but I think we generally don't like cartels, is because they really mute those competitive pressures and there's no guarantee in a competitive market that a firm will make any profits at all, they might be loss-making. But that process that you go through forces you to reduce costs and bring costs down. So --

THE CHAIRMAN: So the -- I am sorry, yes, please.

DR MAJUMDAR: Thanks very much.

Again, just to contextualise this, I think it's worth remembering that the commission itself said, as of OSS 1 and OSS 2, that those infringements were not always successful. So OSS 2, I think, many times not successful, OSS 1 I think they used the word "some", so they're not all successful. I think we need to be careful about presuming these are the most pernicious cartels ever.

The second point is what we do as economists is we look at how prices may have gone up relative to the counterfactual. So Mr Hughes has mentioned the incumbency a lot, but if an O -- sorry, if a supplier is in the position, having won a contract, that some two years down the line there's a modification, slight modification of the part, then we know, irrespective of whether there's -- or at least my understanding of the evidence so far is, irrespective of the -- whether or not there's a cartel or not, this incumbent supplier is likely to win because it has already made the investment, it has already made the investments, the R&D to produce the parts so some two years down the line there's some sort of modification, the chances are it will still be the same incumbent supplying that part.

Now, what does that mean in terms of any effect? Well, it means that it was -- if the incumbent was going to win the part anyway, the counterfactual price, i.e. what in any event would have happened, is properly not constrained by competition but probably constrained by the way that prices have evolved. So imagine -- I think we saw some charts yesterday of just prices trending down over time for airbags. Imagine a price has fallen from 100 to 97 to 94 and then there's a modification -- a small modification, it's going to be hard, I suggest, for the incumbent then to increase prices beyond 94, because that -- that price has already been established by the price fall and so competition may not change that very much.

So I just want to sort of -- as I say, I'm not going to tell you what the facts are. I think those are also points to -- to bear in mind; the counterfactual price might not be very different in that scenario when the incumbent is bound to win by having won the platform, as it were.

MR HUGHES: Sorry, I know I'm supposed to be brief but I'm just going to read -- can I just read -- if you don't mind, I just want to read a very short extract from an Autoliv document, just to pick up on the last thing, and this is on {E1/2/33} of my first report and it's paragraph C.

THE CHAIRMAN: Sorry, E ...?

MR HUGHES: Sorry {E1/2/33} from my first report. It's on page 33. The reason I'm highlighting this is because I don't see many documents --

THE CHAIRMAN: Sorry, which paragraph are you ... sorry, (c)?

MR HUGHES: Sorry, it's (c). I don't see many documents of this nature when in cartel cases, but it's a very interesting quote. It's a single quote, so nothing in a single quote should be overinterpreted, but what the Autoliv employee is explaining, and it's from March 2008 and this is just before the credit crisis, from my recollection of dates, he explains that he:

"... 'always ..."

By which he means mostly:

"... respected a sourcing decision' and 'when business was sourced to TRW, I did not attack them on existing programs as I believe that they would fight back where it hurts us.'"

So I think the incumbency principle has two dimensions to it. First is you get a competitive benefit from it and you understand that if you start competing hard for the existing programs of the other ones, they're going to respond by competing for yours and that will drag down prices.

THE CHAIRMAN: Right, so I had a second question which ... So the overcharges are the size that you are describing, particularly in the early period, 25%. Clearly -- there may be a dispute as to degree, but clearly, the car manufacturers are experienced and reasonably sophisticated purchasers of these items. Just from -- you may not be able to comment, but would one not expect a purchaser to be able to notice these sorts of overcharges? If it was 1% or 2%, I would understand why that might sneak beneath the radar, but 25%, at some point, again, are they not going to notice that?

MR HUGHES: If -- I'll give a generic answer first and then turn to the specifics.

In all the cartel cases I have ever worked on, none of the customers have ever detected a cartel, whatever the ultimate overcharges, so I think it is -- it is quite exceptional for people to detect the prices of individual ... and these are evolving project -- products, and there's a question also what the prices, as Dr Majumdar has said, would have been in the counterfactual. So it may well be that you have arrested declines in prices and things like that rather than actually fully forced down prices.

THE CHAIRMAN: Okay.

Then, sorry, last question -- sorry, Dr Majumdar, did you want to add anything to that? Sorry.

DR MAJUMDAR: Well, I just -- just, maybe it's helpful to put it in perspective. You gave a helpful example just a minute ago about the OEM requiring 37 versus a current price of 43. I appreciate that it was outside the early period, but using that example, 25% would take you to 46, so you would actually go above the existing price, which is something that you might expect an OEM would notice, sir.

THE CHAIRMAN: So, again, sorry to pepper you, Mr Hughes, with questions, it is the last one. I want to assume -- I want you just to assume -- and I know you do not agree with this -- there is no evidence of a cartel against the Claimants coming from the documents in the case or from the OSS decisions -- we cannot extrapolate the OSS decisions -- but nevertheless there is clear evidence of an overcharge from your econometric model. In those circumstances, is it safe to conclude there is a cartel, or is the econometric model insufficient in itself to reach that conclusion?

MR HUGHES: So -- so what I -- consistent with what I've said in my first report, and it's still my view, is what I am observing in the early period for two of the three parts, not the seatbelt, is I am observing that prices are higher and I'm attributing that to a cartel effect, but I think it is also, if there is no such cartel effect, then a logical -- the logical alternative is I think I -- that there are other factors that I may have failed to capture in my model which are explaining the price differences. So I think that would be my view on -- in answer to that question.

THE CHAIRMAN: Thank you.

Dr Majumdar?

DR MAJUMDAR: I think that's right, sir. So if there's -- if I am to assume that there's no evidence from the documents of infringing behaviour, but if the model indicates a positive, significant coefficient on the cartel dummies, then given the absence of the factual support, I would infer that there's something that my model is failing to capture. So I would agree with that.

THE CHAIRMAN: Thank you.

We can move on.

PROFESSOR NEUBERGER: Excellent. Go on to pass-on.

I am very conscious that pass-on is quite a complex topic, legally. I think it would be most helpful for the Tribunal for this hot tub of economic experts to focus on the narrow economic issue of the extent to which any economic harm from an overcharge to the Claimants on their purchases of OSS was mitigated by an increase in the price at which they sold their cars. Whether reduction in economic harm is either necessary or sufficient to constitute pass-on and affect the quantum of damages is not a matter then for this hot tub, though, of course, it is an issue which the Tribunal itself will be bound to consider.

With that having been said, I just -- the joint memorandum is, again, very helpful. That is {E1/13/3}, the summary, where it says:

"Were an overcharge to exist, both experts agree that a key issue is whether higher OSS prices were passed-on into higher net dealer prices. They agree that the available data does not allow this to be measured directly but rather proxied by the pass-on of variable costs in general. However, they disagree on whether the latter is a reliable proxy ... and, if it is, the magnitude of such pass-on ... This is a material issue."

It goes on to say:

"The experts agree that the rate of any relevant pass-on of any overcharges that FCA may have suffered is likely to be similar for PSA and VO. They also agree that were pass-on to arise, offsetting volume effects should be considered ... However, they disagree as to the likely magnitude of such offsetting effects ... This is a material issue."

So the pass-on question obviously only arises in the event of an overcharge, and I do not think we keep on needing to make the caution that if there is an overcharge, that is obviously a separate matter.

I did raise the question earlier on in the trial on whether, in the context of the pass-on debate, we should be thinking of a firm-specific or industry-wide overcharge. It seems to me, in the light of what Mr West said on Day 6 -- I am referring specifically to {Day6/13} of the transcript -- that it makes no sense for us to consider the case of a firm-specific overcharge but rather to think of an overcharge that affected many OEMs, though possibly to different degrees.

So that is the basis on which I propose to continue with the examination of the pass-on issue.

You have both created econometric models to estimate the extent to which variable costs of production are passed through to dealers. I recognise you do not agree on the weight to be placed on these results in assessing pass-on, but I would like to establish, first, what the models actually show and what your disagreements are.

My understanding is that you agree that the degree to which variable costs of production are reflected in dealer prices is capable of being addressed by econometric modelling. You agree about the data and the general approach to modelling. The main disagreement, as I understand it, concerns the handling of unobserved quality changes over time, and this results in a substantial difference in the estimated rate of pass-on between Dr Majumdar's 48% and Mr Hughes' 24-26%. Is that -- that is a fair summary of where we are? Dr Majumdar?

DR MAJUMDAR: I believe so. Yes, the main -- so we agree, as you say, that the correct price is the net dealer price. We agree that -- I think we agree that my model allows us to understand the extent to which variable costs are passed on in the net dealer price. Mr Hughes would dispute whether that variable cost is a good proxy for OSS pass-on.

PROFESSOR NEUBERGER: I understand.

DR MAJUMDAR: So that's one area of dispute.

Then I estimate 48% and, as you rightly say, sir, the second area of dispute is as regards whether or not my model properly captures, if you like, willingness to pay effects, which we can get into.

PROFESSOR NEUBERGER: So Mr Hughes, you agree with that?

MR HUGHES: I think the only -- just the only caveat is -- is that the -- what we can measure with our econometric model is obviously variable -- variable cost pass-through, and if we're thinking about FCA, its variable costs are likely to be -- overall variable costs are likely to be similar to other OEMs, whereas the fact pattern we have here is that we have -- we have cars -- so even if -- even if there are similar effects of different levels across various OEMs from -- from the cartel arrangements, the actual impact of that on individual car products will be quite different because of the long life span of the car. So if you take, for example, steering wheels, because of the 30 months lead-in, or whatever the precise period is, between -- and you -- you move from May 2004 and then you've only got three -- about three and a quarter years of life before the -- what I define as the wind-down period, so you have -- so even if the cartel -- so -- so existing cars will be competing with cars that were not -- existing cars will be competing with cartelised cars, so I would expect all of those things to mean that, even if there's an industry-wide cartel, the impact upon individual models would be very idiosyncratic. That's the only caveat I would attach.

PROFESSOR NEUBERGER: That is very helpful. We will see how relevant that is as we develop, but I note the two points.

So let us just then focus on the two models, and if you could -- I do not imagine we will spend a lot of time on this, but it would be quite helpful to understand what the difference is between 48 and 24-26, apart from the mathematical difference. Actually, Mr Hughes, why do you not speak on this one -- lead on this one.

MR HUGHES: So the first thing to say is that -- in terms of the three approaches, the first thing to say is that Dr Majumdar has -- has about 40,000 fixed effects in his model, which sounds like a large number but we've got lots of data points, which control for various version model, country, time, etc, effects over time, so he's controlled for lots of things. He also has a very important variable in his model, which is called the number of paid options, which is an important variable in his model and he's made a -- a good faith effort to try and capture the extent to which variations in the number of options affect prices. That's really important that that's done well, because if you have a -- anyone who has bought a car knows that you buy a car and you think, "Well, I'd like that option but it costs quite a bit of money", and so on, and those options are things that make a material difference to the price and value of the car. So I have a very basic Fiat Punto on my driveway -- my son's learning to drive -- and it doesn't have air conditioning, and it's not particularly -- okay, it has the consequences you would expect of not having air conditioning. But the fact that it doesn't have air conditioning made a big difference to the price, and therefore one of the problems with variables of counting things -- there are several problems but I just want to be clear about -- is you're going to have what's called an endogeneity problem in the sense that unless you properly control for how options affect prices, because there are two effects, they will affect the appeal of the car and thus its price, but they will also affect its cost. So I think Dr Majumdar's variable suffers from an endogeneity problem, and if you have an endogeneity problem then what that means is ordinary least squares, which is the technique that we are both using, or variants of that technique, ceases to be unbiased because the independent variable that's included in the model is then correlated with the error term. So where you have more options, you have both more costs and higher prices. So that's the core -- that's the core econometrics problem with this approach.

But to be quite clear, he has made a good faith effort to address that issue.

Coming on to what the problem with the option variable is, there's a series of problems, but the first problem is, if -- is that's a very blunt instrument, no offence to the good faith effort, and I don't have a better way of coming up with it, so I have no superior alternative, I have ways of mitigating it. So it's a very blunt instrument, because if you add one option, going back to the Fiat -- Fiat on my driveway, to a cheap car, okay, and you add one option to a Maserati -- both Fiat cars, I don't have a Maserati on my driveway -- when you add those options, you would expect, given the difference in the -- in the price of the cars, those options -- even if they're very similar options, you would expect a different percentage impact which Dr Majumdar assumes in his modelling that every single -- every single option change has precisely the same impact on every single car within the Fiat Chrysler group. That is a strong assumption and I think that raises complexities.

So what I've tried to do, I've got two methods to try and address the issue. The first method I -- I use is to take his dataset but try and make the cars that I'm comparing -- their prices over time -- more comparable. How I do that is I restrict the -- the variation and the number of options to 15%, so I drop years where the variations -- year on year variations, the number of options, is more than 15, okay? And -- and what that -- what that hopefully does is it gives you greater comparability of the numbers.

Now, why 15 would be a fair question and one that Dr Majumdar has posed. There's a trade-off. So if I choose 20%, what I find, instead of a pass-on rate on this -- this method, what I find is the pass-on rate changes, it goes up, it goes up to 35%, okay? So there's a -- if you -- if you add in -- if you make things less comparable, that makes the number go up, and the 26 is for 15. If you reduce the 15 to 10, the number goes up from 26 to 27, and the problem I have with reducing the sample completely by allowing very little variation in the options is I'm going to -- is

I'm concerned that I no longer have a robust base for assessing the -- and it's not a rep -- what I have left is not a representative sample, because typically cars have options for which the count varies, so I don't want to restrict myself to looking at only a subset of cars, and it also -- I start having some statistical issues because of the 40,000 or so fixed effects on this model.

This is not my preferred approach, but this is just a way of seeing how changes in the number of options over time affect prices and just to make them more comparable. So that's approach 1, within the constraints of his model.

The second thing I've done is, when you have an endogeneity problem, a standard solution to try and address endogeneity is to replace the variable that's causing you trouble with an instrument, okay? And you want two things for that instrument, okay, to adopt? And the instrument in this case I've decided to use is the base vehicle price. So the two -- the two characteristics you want for -- for an instrument is you want it to be relevant, relevant in the sense that the instrument is correlated with total costs, okay? So you want a high degree of correlation, so you would expect the base vehicle price -- as the base vehicle price to goes up, the costs of the car goes up, so you would expect a strong correlation between those things. That's relevance.

And the second one is validity, and what you're doing with validity is you're allowing the -- what you want is you don't want the variable you include in the model, base vehicle cost, to be correlated with that error term, and because I no longer have paid options in base vehicle costs, they're just not doing it, and how you implement this instrumental variable technique in -- in -- in practice is what you do is you first run a -- you -- you first run a regression that's got base vehicle costs as a function of -- sorry, total costs are a function of base vehicle costs and all the other costs are explanatory variables, so all the years, country, time, dummies, etc, and then what you get from that is you get predicted costs and you put those predicted costs in your price regression, and what you've achieved there is you've -- you've found that you've taken out the variation in the error term that's due to the number of paid options because the number of paid options ain't in there. So that's -- so -- so forgive the fairly long explanation of two techniques.

What is interesting is the 15% number comes up with a similar -- sorry, the 15% cut off number comes up with a similar number for the instrumental variable techniques.

And I just want to make one other point very quickly. Neither of these methods are perfect, but I think they are a way of addressing the -- the real issue -- the real concerns I have with endogeneity bias, which means that when Dr Majumdar refers to a pass-on rate, that will be conflating pass-on due to higher costs with pass-on due to higher -- higher appeal.

PROFESSOR NEUBERGER: I understand. Thank you very much for the full explanation.

Dr Majumdar, I will obviously give you an opportunity to respond. I am also wondering whether we are going to be able to take the debate much further than it has already got on paper.

DR MAJUMDAR: Well, I would certainly like to be able to respond to some of those points, because I don't --

PROFESSOR NEUBERGER: Surely. I understand that.

DR MAJUMDAR: If I may.

I think it's worth taking a step back and thinking about the dataset that we have here. This is very different from the one that we had for overcharge, this is a very nice dataset. We have a granular dataset with vehicle specific information, we have a vehicle base cost price, vehicle option cost price, vehicle variable costs and the option costs, so we have a really granular dataset with all the costs that we want. We also have the number of paid options and the number of unpaid options. So this is what we're using in the model to estimate the relationship between variable costs and price, so it's -- it's already a model that's explaining a lot of things.

Secondly, Mr Hughes said that the model was unable to determine different effects for Fiat versus Maserati; that's not correct, the -- the fixed effects deal with that. So essentially what -- what that means is, we have -- this is a model that, again, that's estimated at a granular level. We have a vehicle model version, so we have Fiat Punto 3, Fiat Panda 2, and if Fiat Punto 3 is typically more expensive than Fiat Panda 2, we pick that up in the model, it's captured.

Right, so what's Mr Hughes' concern? Essentially it's saying that if you imagine going to the car showroom, you have the base model and then you say, "Okay, I'm going to add some -- add a radio and a leather steering wheel" and -- and what have you. Systematically, people that like to take more options have a higher willingness to pay so that you generate higher margins the more options that are taken, and that's -- Mr Hughes' concern is that's not properly captured in the model.

So what I say is, I disagree, because, essentially, what we -- we have a control, which is the number of paid options and the number of unpaid options. So what Mr Hughes is -- and if the mix -- so, yes, of course there will be people with different willingness to pay when they purchase a car, but if that mix stays constant over time, then there's no reason to be worried about it. If it doesn't stay constant over time, then we would expect the annual dummies to be picking this up, because you'd expect it to be a country effect, there's been some advertising that's in the country and you would expect the country dummies to pick it up. So I would query whether this is a big issue in the first place. So I would -- so, theoretically, it's possible, but, actually, in practice, would we expect it, given the granularity of the dataset and the tightness of the controls? I would say, no, we wouldn't expect it.

Turning then to Mr Hughes' two ways of dealing with it. The first one, so, just to explain what happens. Imagine there's a Fiat Punto 3 with 20 options, and then what Mr -- I mean, it would in practice be fewer than that, but just to make the maths easier, imagine there were 20, and what Mr Hughes says, 20, on average, I'll only look at vehicles with 15% of -- of that, so 17 to 23, so I'll only look at vehicles with 17 to 23 options, and so we lose 50% of the data just like that, and also we make the panel have holes in it. So where we have a situation of you've got a nice sort of series of prices depending on the options, we get holes appearing in the panel because we're dropping 50% of the data.

Moreover, what happens is, when you move away from the 50 -- so 15% is almost like the lower bound for pass-on, and when you move away from that and start adding more data back into the -- into the -- into the panel and moving away from 15% to sort of 25/30, you typically get above 42. So -- is my point is that I -- I query this 15% as being a sensible number. So that's the first point. So I challenge the first solution. I just don't think it actually makes sense.

The second one makes sense as a matter of econometrics. The question is, is it a good instrument? So just to explain. So Mr Hughes is concerned that we have an endogeneity issue. So Mr Hughes is concerned I'm not properly picking up the relationship between price and variable cost. My variable cost is base variable cost, so that's the variable cost of the sort of base car before you add the options plus the variable cost of the options when you add on the radio and the leather steering wheel and so on. Mr Hughes says that he's concerned that that's not strictly exogenous and he'll sort of instrument it by using the base variable cost, which is part of the total variable cost. And my -- what I think essentially what happens is, he's just picking up the correlation, so the instrument is already part of what is being instrumented, so I think essentially all he's doing is he's picking up the correlation between base vehicle costs and -- and base vehicle cost, which is part of base plus the total variable costs, and essentially the result he gets is the same as just dropping option variable costs. So therefore I just don't think it's a valid instrument.

Now I appreciate you might -- I appreciate we're getting into a rabbit hole that you didn't want to get into.

PROFESSOR NEUBERGER: Yes.

DR MAJUMDAR: But I do think it's not an appropriate instrument and --

PROFESSOR NEUBERGER: No.

MR HUGHES: Could I have one minute?

PROFESSOR NEUBERGER: Yes, please, have one minute, then I would quite like to move on because I think there are more productive areas -- ways of using the hot tub.

MR HUGHES: So -- so just so we're completely clear, Dr Majumdar has dummy variables for the Fiat Punto and the Maserati, in my example.

PROFESSOR NEUBERGER: Yes.

MR HUGHES: But what he imposes -- and this was my point -- is he imposes that increasing the number of options has mathematically exactly the same effect for the Fiat Punto as it does for the Maserati, so he does do that, and that was my concern.

The second thing -- the second thing he says is, well, he's got country dummies and time dummies, so why is there a problem here? The problem is, is that the number of options varies over time and his model is attributing all of that price variation to -- to -- he's -- he doesn't know whether that price variation is due to the options which add in value or the costs, so his country dummies simply can't address this issue.

In terms of the 15%, the transcript will say what it says. In terms of whether it's a good instrument, what you're looking -- what you're looking for, the first point to make is what you're -- what makes -- the first requirement is relevance, so I definitely want my base vehicle costs to be correlated strongly with my total cost. But I tell you what they're not correlated with, they're not correlated with the number of paid options, which is the problem I'm trying to fix.

PROFESSOR NEUBERGER: Can I leave it there, because I think you've both --

DR MAJUMDAR: We can. I think Mr Hughes is -- is incorrect, but in terms of my option variable, if you look at "Xict" on E1/16/81 [sic] {E1/6/81} -- just for the transcript -- I disagree, but now we can move on.

PROFESSOR NEUBERGER: Let us leave it there because I do not really think we will be able to make much progress in the hot tub on this and it is a matter in your reports.

What I want to go on -- so, let us suppose that, miraculously, you have reached agreement and come to a conclusion which is exactly halfway between the two of you, so you say this number ought to be 36%. Now, I think the important question then is how you interpret that 36% and its relevance in the context of this particular case. In particular, is it fair to say that -- supposing we have established an overcharge of €20 per car. Is it fair to say that an implication of this model is that, in the long run, the price of cars will tend to be €7.20 higher, and clearly this will vary from car to car and bits of the market, but on average, is that a roughly correct statement, or is it not?

Mr Hughes?

MR HUGHES: Yes, sir, I would agree with you.

DR MAJUMDAR: Yes, I agree as well.

PROFESSOR NEUBERGER: So we are perfectly happy about that.

One of the questions that was troubling me was the mechanism. I mean, it seems to me, in principle, obvious that if the price of OSS goes up for everybody, for all OEMs, then the price of cars presumably goes up too in due course, etc, etc. But we have received -- we had a lot of witness evidence, of which you will be aware, which sounded quite -- which I would like to take you to and see how you see this as relating to this pass-through.

I think the best is to go to Mr Couturier's witness statement, which is at {B/16/1}. I choose Mr Couturier not because he says something different from what the others do -- I mean, there may be some small differences between the three Claimants' witnesses on pricing -- but because he's the only one who's got a freestanding -- completely freestanding witness statement; the others referring to their *Bearings* and it makes it more complicated, so it is also simpler.

Can we go to {B/16/4} and read paragraph 12. He is talking about:

"When GM owned OV ... we were setting the prices of new OV vehicles in a way that was the result of a required positioning ..."

It goes on to explain that they compared the list price with other competing vehicles and the traded price, and I think you are familiar with this because both of you refer to this and other witness evidence in the -- in your reports.

I would then go on. I think another useful paragraph in the context of this is paragraph 31 {B/16/9}. Let me give you a chance to read that.

DR MAJUMDAR: Sorry, sir, which paragraph? It was ...

PROFESSOR NEUBERGER: Paragraph 31.

DR MAJUMDAR: Paragraph 31, thank you.

PROFESSOR NEUBERGER: I am conscious that by flitting between paragraphs I may be doing some injustice to the subtleties of the witness statement, but I will come back to the point I want to make and put to the experts.

(Pause).

So it is not a complete contradiction, but I would just like to understand. You have got Mr Couturier saying that when he is trying to sell cars -- I am misrepresenting him, no doubt, slightly -- that he is -- he sets his prices according to what the market allows, that if it he has a cost increase, he does not change his -- he does not in general -- I am putting words into his mouth -- does not in general change his prices, and for various reasons which seem plausible. Is there a contradiction between this and the notion of variable costs being passed through into prices? Maybe we should start with Mr Hughes.

MR HUGHES: So I think the previous discussion was about looking about the relationship between FCA's total variable costs, sir, and car prices, and those variable costs will be -- are likely to be similar to other OEMs' variable costs, because if they buy OSS a bit more expensive, they'll buy something else a bit cheaper, so -- and the costs of steel and so on and so on will be common across OEMs and so on and so forth.

So I think what you can measure with an industry-wide -- with the sort of industry-wide -- likely industry-wide cost data is you're likely to measure the pass-through of general industry-wide factors, that's -- that's what you can measure with that.

I think where this evidence I think is very interesting is -- deals with the prior question, and the prior question is: if there was an OSS overcharge, how would that affect -- or if there was something that didn't affect all OEMs because of the long life cycle of cars and so on, it would only affect some, how would that affect price-setting? What I take from these statements are that -- are that the primary drivers of the price of a Fiat Punto are other comparable cars, not the cost of the car. So if profits are sufficient, that's the end of the matter. If profits are not sufficient, then I think the body of witness statements said they would look at the question of what can be done if profits are not sufficient, but I think -- I think the OSS overcharge wouldn't change the needle on that question. If profits are not sufficient, they're going to not be sufficient not because of the overcharge but for other reasons. And I think you're then left with the question of -- and then there are lots of other factors that would affect price setting in those circumstances.

So I think this sort of evidence is informative of the nexus between the -- the higher -- higher costs that we're looking at and how -- how they might be passed on in the first place, or at all, in terms of higher industry -- you know, in terms of what's going on in terms of overall industry prices and so on and so forth.

PROFESSOR NEUBERGER: Dr Majumdar.

DR MAJUMDAR: Thank you, sir. So I think there are -- I mean, a few points.

Firstly, I guess, costs can affect prices in two ways. Firstly, when the price is being chosen at the launch, the higher the costs, all else equal, I would expect that to lead to a higher price.

And then, secondly, there's the question of, given the price has -- sorry, the car has already been launched, is the net dealer price updated either by a change in price or by a reduction in discounts? Because remember -- just to go back, the price of interest for pass-on is the net dealer price, that's the list price less the dealer margin less the campaign discounts, the various discounts that are applied quarter on quarter. So there are three ways the price can vary: the list price, the dealer margin or the campaign discounts.

So there are -- as I say, there are two areas of pass-on, one, when the car is launched, how is the price chosen, does it relate to costs? Two, given the price -- sorry, given the car is launched, to what extent does the net dealer price vary over time either as the list price changes or as discounts change?

PROFESSOR NEUBERGER: I find -- I mean, if we get away from specifics of OSS --

DR MAJUMDAR: Yes.

PROFESSOR NEUBERGER: -- I am finding some trouble in understanding, if prices -- if the prices companies set are effectively determined by the market, I remain with the problem of how is it that costs get fed through to prices. It seems to me one is -- that if people are pricing competitively, then the only route through which costs can be fed through to prices is because -- at the decision to produce or invest rather than the decision about pricing.

DR MAJUMDAR: So the first -- the first mechanism that I mentioned, sir?

PROFESSOR NEUBERGER: No. I mean, it was the -- I mean, if we look at paragraph 31 -- if we look at paragraph 21 of Couturier, which is {B/16/6}, I mean, Mr Couturier is involved in selling, he is not involved in decisions to -- whether to -- at least -- he is talking about costs at the point where a decision is being made to launch a model or not launch a model, and he clearly sees a role for costs at that stage. I was just wondering what the mechanism would then be for --

DR MAJUMDAR: Understood.

PROFESSOR NEUBERGER: -- an increase in costs to be fed through into prices.

DR MAJUMDAR: Understood. May I finish my answer to your first question and then come back to 21?

PROFESSOR NEUBERGER: Yes.

DR MAJUMDAR: Would that be all right? Thank you, sir. Because I think your question was: is there a contradiction between what we see with the FCA data? My understanding is that Mr Couturier is not speaking for FCA and my understanding that Ms Biancheri did speak for FCA and my understanding of the transcript was that she described a mechanism that was somewhat different that was about taking volumes, multiplying by margins, updating price annually, the net dealer price annually and also varying the discounts on a quarterly basis, which sounds somewhat different to -- to this paragraph 21. So the explanation of your contradiction could be that Ms Biancheri, speaking for FCA, is speaking about a different model compared to Mr Couturier, which is why, for FCA data, we do see this material degree of pass-on in the data. So that is one possible explanation for your -- your contradiction, sir.

My other point would be to -- on this -- on this benchmarking, I guess -- I mean, the facts will say what the facts will say, but I guess, as an economist, one imagines that, yes, you -- you look at the price, you look at your benchmark competitor set, so let's say there are four other models in the competitor set that you're comparing against, you look at the price and then you make a call: if I go a little bit higher, I get a higher margin, but I might sell fewer, I might sell fewer volumes; if I go a little bit lower, I'll sell more, but of course I'll get a lower margin. So you would take into account costs then, sir.

The process of benchmarking, unless that's purely price, without considering margin at all, one would imagine that costs and profit considerations fit into that. So -- so that's the first point.

The second point -- and maybe we'll come back to this when we talk about industry versus firm-specific -- is that if the competitor set is quite small, i.e. only four other models, then a shock just to one, i.e. FCA, is going to be a large part of the competitor set. It might be a small part of the market, but it's still going to be a large part of the competitor set. So perhaps we'll come back to that.

PROFESSOR NEUBERGER: Yes. Can I make the case -- the issue as a more general case. Supposing you have a perfectly competitive industry with OEMs being -- producing essentially identical cars. So they -- and they cannot afford to charge a different price from their competitors because otherwise they will get no business. In that world where everybody is setting prices according to the -- matching their competitors, how is it that an increase in price -- what is the mechanism by which an increase in price feeds through to -- an increase in costs feeds through to prices?

DR MAJUMDAR: So with perfect competition, as you know, sir, we have identical firms, atomistic, i.e. each firm is tiny relative to the market, and you would not have a firm-specific cost pass-on because the firm would be a price taker so therefore couldn't pass on costs. So the way that cost pass-on occurs is via industry -- industry costs shifts which then shift the supply curve which then shift the intersection of demand and supply and that's how the price changes.

So with perfect competition, which this is not, you wouldn't have firm-specific cost pass-on, the cost -- the price is determined by interaction of supply and demand and cost impacts to the supply curve.

PROFESSOR NEUBERGER: You say "shift in the supply curve", what does that mean?

DR MAJUMDAR: So if -- imagine there's an industry cost shock that just increases the cost of production for everyone by the given amount, then that will shift the -- if the cost goes up, the supply curve will shift inwards, if it goes down, it will --

PROFESSOR NEUBERGER: What does that mean in terms of what the OEM does, shift in the ...?

DR MAJUMDAR: Well, the OEM will -- will increase its price in that world, because -- I fear we're getting into technical ... because if the OEM's margin cost changes then its profit-maximising position will change and therefore it will change its output, and if it reduces output overall output will go down, because all firms are the same, and therefore price will go up.

PROFESSOR NEUBERGER: Okay.

I just want to ask one more question and then we can go. If margins decline, what happens to investment in the car industry? Mr Hughes?

MR HUGHES: Sorry, if -- if margins decline, investment in the car industry is going to go down, and I -- I find -- sorry, I think when we're discussing all of these things, there are things that economics textbooks tell you about the relationship between prices and volumes and then there are descriptions of how real business-people make decisions.

PROFESSOR NEUBERGER: Sure.

MR HUGHES: And I would attach quite a lot of weight to how real business people make decisions in working out what is going on with these sorts of topics.

So I think what we do -- what we do observe, following up from your question, is that what Fiat Chrysler specifically did is -- over the period of time, this is in the -- a financing witness statement, is there was a -- the business was fundamentally not profitable, it was failing to make an investment, they had a very large cost-cutting exercise and they gradually turned the business round and -- and used that money to start paying dividends and invest in cars. So, fundamentally, I would expect there to be an output reduction in the sense that, if you can't profitably launch a new car or come up with an appealing one, you won't do it. And one of the problems that Fiat Chrysler was having at the beginning of this -- around 2004, when Marchionne -- forgive my pronunciation -- came in, he completely turned the business round to focus on those sorts of things.

So I think the evidence -- the factual evidence is that poor margins was reducing volumes and compromising the viability of the business and its ability to invest.

PROFESSOR NEUBERGER: I think we will leave it there and break. Thank you very much.

(11.45 am)

(A short break)

(11.56 am)

PROFESSOR NEUBERGER: Let us resume on the overcharge. We are assuming an average overcharge of €20 per car, and we said that, over the long run, that will tend to lead -- be associated with a rise in price of cars of, say, €7.20.

The question I wanted to address now is, that assumes a uniform overcharge. If we assume that the overcharge is very widespread, and let us assume we are looking at one sector of the car market, to avoid complications, and that some of the competitors in that segment have an overcharge of, say, €30 per car, and some have an overcharge of €10 per car, how should I think about the net damage from the overcharge for those different OEMs?

Mr Hughes, is that a question you can answer?

MR HUGHES: So, yes -- yes, I can, sir. I think there might be another scenario of €0 per car because some of those cars might have been procured before the cartel started.

PROFESSOR NEUBERGER: Sure.

MR HUGHES: Yes. Yes, sir, that's a very sensible thing.

It's -- in the scenario you've just described, the common -- the common cost increase is €10, it's not €30, so I think -- I think the scenario of the industry-wide effect would be at that lower level. So you would -- you would expect partial -- you would expect -- you would expect there to be an elasticity. The elasticities would be higher in that sort of scenario and you would lose more volumes if you were to increase prices, and therefore you would expect that to mitigate the pass-through of higher cost increases.

DR MAJUMDAR: May I just -- I just want to be sure I'm answering the right question. So I think you're saying imagine a scenario where some OEMs had an overcharge of

30, some 10.
PROFESSOR NEUBERGER: Yes, for example.
DR MAJUMDAR: What do we do -- what do we presume for pass-on; is that right?
PROFESSOR NEUBERGER: Yes, exactly. What do we assume for the price of cars?
DR MAJUMDAR: I mean, I think we would just take the estimated pass-on rate. I don't think one could say that the 30 is passed on more or less than the 10, I think we would just take the pass-on rate that we've got aggregated. I mean, the -- that would be the obvious thing to do. I don't think one can say, well, the 30 would be passed on more or less than the 10. There's no -- there's no basis for presuming that.
PROFESSOR NEUBERGER: Mr Hughes?
MR HUGHES: I think the difference of view I would say there is -- is the pass-on rate of firm-specific cost increases will be different from the pass-on rate of industry-wide. So if you -- if your scenario had been everyone was facing €30, then -- i.e. there was a general increase in the cost of steel or whatever, then over time, there might be a -- from an economic principles perspective -- ignore all the witness evidence for a moment, from an economics principles

perspective, you might expect that to be -- some percentage of that €30 to be passed on in line with the overall number that Dr Majumdar and I have agreed on. But where some -- some firms are facing a €10 increase and some are €30, the ability of the firm facing the €30 increase to pass that on will be different from the -- you know, they're going to be faced with a challenge, a competitive challenge, from the firm who is only facing a €10 increase.

PROFESSOR NEUBERGER: I do not know whether there is a danger from going from this kind of highly stylised world to the real world, but if you are thinking of a world where you have got competing OEMs with somewhat different supply chains and they all have slightly different costs and this is just one more slightly different cost, would your answer still hold?

MR HUGHES: So I think -- I think what I'm trying to draw a distinction between is -- is where an individual firm faces a cost increase, I would expect its ability to pass on -- its ability incentives to pass on that cost -- cost increase to be reduced. So -- so that's -- whereas if all the firms face a cost increase, I would effect that -- I would expect that, their ability to pass that on to be greater. And -- and the reason -- the reason why I'm having a challenge giving -- given --

giving an answer here, or giving a more precise answer is your starting point is you've assumed that Dr Majumdar and I have agreed on 30% or whatever the precise number of pass-on. That number that's come from the econometric modelling is based on how FCA passes on cost increases, which are likely to be fairly industry-wide, given the nature of the -- i.e. it will average all out, sort of thing, whereas the scenario that you're envisaging here is a level below, saying, well, you've had an industry -- you know something about the industry and then you're envisaging a particular scenario where the cost increase is 30:10, and I'm saying perhaps zero, but I don't think -- I don't think the firms will be able to pass on some fraction of 30, 30% of 30, and some fraction of 30% of 10, because the firm who's facing a 30 -- €30 cost increase is competing with a firm that's only facing a €10 cost increase, and its -- its ability to raise prices by €30 will be compromised, whereas it might be able to increase prices by €10.

PROFESSOR NEUBERGER: Then let me change the question slightly. If the level of car prices, as a result of these higher costs, goes up by, to keep to the same figure, say €7.20 a car, does everybody benefit by the €7.20 a car price increase?

DR MAJUMDAR: Does anybody benefit?
PROFESSOR NEUBERGER: Does everybody benefit --
DR MAJUMDAR: Oh.
PROFESSOR NEUBERGER: -- by this €7.20 price increase?
DR MAJUMDAR: No, I mean, normally, no, you would expect any firm that faces an increase in cost, you would typically expect them to suffer a reduction in --
PROFESSOR NEUBERGER: I was not meaning the net benefit, because clearly they suffer the increased costs.
DR MAJUMDAR: Yes.
PROFESSOR NEUBERGER: I am saying, you have got these firms which have faced different cost increases.
DR MAJUMDAR: Mm-hm.
PROFESSOR NEUBERGER: As a result of those cost increases, prices have increased.
DR MAJUMDAR: Mm-hm.
PROFESSOR NEUBERGER: That has offset their losses. Now I am saying, is the offset of equal benefit to all companies, or does it benefit some companies more than others?
DR MAJUMDAR: Oh, I see. Okay, so that will very much depend on -- I mean, one would actually have to get into quite a complex model. So that would very much depend on the cost shocks that each firm was subject to, and then the degree to which, i.e. how closely they

competed, so switching patterns within the market. So I think that's quite a complex question. So, I mean, in simple terms, going back to your 30:10 example, that's an industry-wide cost shock in the sense that everyone's costs have gone up; in equilibrium, you might expect those that have experienced a greater cost shock, all else equal, to lose a bit of market share to those that have had the lower cost shock all else equal, so in that sense you might expect, relatively speaking, the ones with the lower costs shock to have gained, albeit overall everyone's profits will have gone down. Does that answer the question?

PROFESSOR NEUBERGER: Not really. If you have got a world where competitors are benchmarking their prices against others.

DR MAJUMDAR: Yes.

PROFESSOR NEUBERGER: I mean, on the face of it, if prices go up by €7.20, then all prices go up by €7.20 and all competitors gain equally from that price increase even if they have been hit differently by the cost increase. I am asking if that is broadly right or if that is broadly wrong.

DR MAJUMDAR: Right, I see. Okay, so in that scenario, in essence, what we are saying is that everyone's prices change by the same amount, everyone's relative positions to each other don't change, so the only thing -- so their market shares will stay the same, the only thing that could happen is there's a tiny increase in price so there would be a tiny reduction in output. But all -- so, in essence, not much happens.

PROFESSOR NEUBERGER: So, Mr Hughes, how do you feel about this scenario of closely competing car companies faced with a differential cost increase of a small nature, and we are not talking about massive cost changes, and how are they -- and do they all benefit equally from the price increase or do some benefit more from the price increase than others? They obviously are harmed differentially by the cost increase because the cost is different for each of them.

MR HUGHES: I think, sir, what's complicated with your question is, if -- if Fiat faces a cost increase of a small amount and someone else faces a cost increase of a small amount, then I think the question is: how does that actually affect their price-setting decisions? Because if we're in a land where they benchmark against others, unless they see that benchmark as changing, I think their ability to pass on that different cost increase will be limited. So you need to have the benchmark moved to pass on anything or pass on very much.

So I think -- I think the -- so I think there's an initial question as to how the costs change actually affects someone's pricing decision in an environment where they're benchmarking, is my answer.

PROFESSOR NEUBERGER: I mean, to summarise where we seem to be, it's that if you get a cost increase, a small cost increase which is different across different OEMs, then you are likely to get some pass-through, but exactly how much is not entirely clear because it depends somewhat on the -- well, I think Dr Majumdar says it is reasonably clear, it would be the 36% or whatever, and Mr Hughes said it would not, it would depend on the distribution --

MR HUGHES: It will be a lower -- it will be a lower level in fact.

PROFESSOR NEUBERGER: It will be a lower level.

MR HUGHES: Exactly, sir.

PROFESSOR NEUBERGER: Then, in terms of trying to work out the net benefit -- sorry, the net cost after taking account of pass-through, I think you are both saying it is all very complicated and depends on industry dynamics and I do not want to come -- I do not want to give a simple answer, but I may be putting words into your mouth.

DR MAJUMDAR: Well, I'd certainly love to give a simple answer, but I'm not sure I can to that -- that question. Yeah, I won't repeat what I've already said.

PROFESSOR NEUBERGER: But the end point of this --

DR MAJUMDAR: Yeah.

PROFESSOR NEUBERGER: -- is that if we find that there is an overcharge to the Claimants, then if there was, it is part of a widespread overcharge --

DR MAJUMDAR: Yeah.

PROFESSOR NEUBERGER: -- we believe there will be some pass-through --

DR MAJUMDAR: Yes.

PROFESSOR NEUBERGER: -- but the net effect on the Claimants is very hard to calculate because it all depends on the industry dynamics and the distribution --

DR MAJUMDAR: Right.

PROFESSOR NEUBERGER: -- of costs and so on; is that right?

DR MAJUMDAR: It's hard. Okay, there are ways we can -- I apologise, I -- I -- I hadn't properly understood your question. Thank you, sir, for clarifying it.

Yes, so I would expect there to be pass-on, and what I'm saying is, the best number that I have is what comes out of the econometrics, and let's split the difference for the sake of this discussion, so we'll call it, what are we at --

PROFESSOR NEUBERGER: 36%.

DR MAJUMDAR: -- 36, thank you. Then it is -- yes, it's very complex to work out the extent to which there is a so-called volume effect that would offset that. There are ways that we can do it. Mr Hughes, very helpfully, put forward a scenario in his reply report, and in terms of that scenario, or rather, what shall we call it, a mechanism for calculating the volume effect, I think we agree to the principle of it, we just disagree about three parameters. So in terms of advancing us forward in this case, I think, yes, it's complex, but we do have a way that we agree on, with the exception of how it is implemented in terms of just three parameters, sir. Hopefully that's a clearer answer.

PROFESSOR NEUBERGER: But it still means that the task of computing how much pass-on there is is going to be quite complicated because it will depend on the distribution of overcharges across competitors and the dynamics of the industry.

DR MAJUMDAR: I think -- I mean, okay, I suppose this -- this is -- the fundamental question then is: what does the -- what does the variable cost econometrics regression measure? And I think -- so what -- what it's picking up is a combination of all of the shocks to variable cost that FCA's had over that period of time, some of which will be industry-wide, some of which will

be firm-specific, so it's picking up a mix.
The question then is, are we more likely to expect the model to be picking up firm-specific, which means it might be a little bit on the low side given your starting point that we want to understand industry-wide, or is it picking up more industry specific -- sorry, industry-wide. And I think I would -- we don't know, because we can't distinguish each shock and say that's firm-specific and that one's industry-wide, but we do have cost controls which -- sorry, we do have demand controls in the model which will likely strip out and control for the industry-wide effects. So we have -- if you look at my first check in -- in the annex, I control for producer price inflation, labour cost inflation, consumer price inflation and exchange rates. These are exactly the sorts of controls that should strip out the industry-wide effects, not all of them, but a lot of them, and leave us with a firm-specific estimate, which, if we're looking for an industry-wide estimate, will be on the low side.

So just to be clear on what we're -- we're estimating with -- with my model. But --

PROFESSOR NEUBERGER: Yes.

DR MAJUMDAR: Yes, okay.

PROFESSOR NEUBERGER: I am with you there.

DR MAJUMDAR: Good.

PROFESSOR NEUBERGER: What I am still left with is that --

DR MAJUMDAR: Yes.

PROFESSOR NEUBERGER: -- if we find there was an overcharge to the Claimants and it was of such and such a size, and that we are left with the plausible hypothesis -- I do not quite know how one would put it -- that other OEMs might have also faced overcharges of a size which we have absolutely no evidence of --

DR MAJUMDAR: Yes.

PROFESSOR NEUBERGER: -- and we are armed with the information that 36% of variable costs, on the whole, gets passed through to customers, we are still left with an inability to quantify the pass-through effect.

DR MAJUMDAR: Well, one might -- so I accept -- I accept, of course, that there is uncertainty in that situation, but one might say that in the scenario you have just described, at least you know that the cost shocks are industry-wide, because that is --

PROFESSOR NEUBERGER: Yes.

DR MAJUMDAR: -- by assumption, and therefore --

PROFESSOR NEUBERGER: Well, yes, industry-wide, but not the same for all.

DR MAJUMDAR: But not the same, agreed. And the model that

I have measured, so the estimate that I have, is presumably conducted in a world where there are shocks that impact firms in different ways, and so there's -- it might -- it might actually be a reasonable reflection of the real world.

PROFESSOR NEUBERGER: Mr Hughes, do you want to contribute to this?

MR HUGHES: Sir, can I just make sure I -- if -- if I make -- if I ask -- make sure I ask -- say your question first and make sure I've properly understood it. We've got a number from the econometric model, 36, or whatever number we come up with.

PROFESSOR NEUBERGER: Yes.

MR HUGHES: And we say, well, where's this? And then we want to think about how to apply that to whatever we think the overcharge was.

PROFESSOR NEUBERGER: Yes.

MR HUGHES: And I think I'm going to agree with Dr Majumdar on one point and disagree with one. The key question at the beginning is: what does the -- 36% of what? What are we passing on? I think the costs that we're going to be passing on for -- for Fiat Chrysler will be very similar to other people's costs in the sense that the core raw materials to make a car, which is what's in that model, will be very similar across OEMs. So

I think you're going to be fundamentally capturing a primarily industry-wide pass-through rate on those things, not an idiosyncratic, because I would expect things to average out, particularly to average out over time.

So I think what -- what -- you've got a 36% number, and then you have a what did this do to Occupancy Safety Systems? And if that's more firm-specific and less industry-wide, either because the cartel was not fully industry-wide or the effects varied or because of my point about the age of cars, then you've got a disconnect between these two sets of numbers. You've got a firm-specific question and then you've got an industry-wide number. So I think what you would expect to find is -- you'd expect to find the actual degree of pass-through of these things to be less than the industry-wide number that comes from the FCA, and Dr Majumdar and I might then disagree about whether the FCA number is more likely to be an industry-wide number than it is a firm-specific number. But my point is that it's -- on average, I would expect the cost trends to be similar for Fiat as they are for other people.

PROFESSOR NEUBERGER: I think we can leave it there.

I have got one more question on pass-through which

I do not know if we can make any progress on. It sounds a bit like an exam question. Supposing you have three similar OEMs, they are each facing an increased cost of €20 a car, and they obviously are aware of their costs in general, but supposing they are not specifically aware of this increase; I mean, they will see their invoice go up or whatever, but there is nothing special about it. Supposing, at the time, company A's policy is to -- they make identical cars competing against each other.

Company A decides that it wants to maintain its margins and passes on costs in full, so it increases its prices of cars by €20. I am assuming that there is kind of -- with this industry-wide €20 increase, prices have gone up by -- the average price of cars has gone up by €7.20, so B follows the market and puts up his prices by €7.20, and C decides that, actually, this is a good opportunity to gain market share and does not do anything to his prices. So they are all facing the same demand, they were all originally setting car prices exactly where they wanted them to be to meet their goals and all that differs between the three companies is the way they decide to respond to this small increase in costs.

I am conscious that this is a very artificial example in the sense that pricing decisions are taken in the light of costs generally, or maybe not costs generally, or in the market generally, and there is a kind of slight absurdity in relating -- or artificiality in relating the pricing decision to a very specific cost increase and that might throw out the question, but take it at face value.

My question is this: is the net economic cost of the overcharge to those three companies different or the same?

Do you want to go first, Dr Majumdar?

DR MAJUMDAR: I'll have a go.

PROFESSOR NEUBERGER: Have a go at this question.

DR MAJUMDAR: So is the net economic cost of the overcharge different or the same to each of OEM -- so OEM A increased price by 20 to full on -- sorry, to pass on costs in full, OEM B increased the price by 7.20 only passing on 36% of the cost increase, OEM C left prices unchanged.

So I'm just going to think it out loud, step by step, so bear with me. I would imagine, all else being equal, because OEM A's price has gone up more than the others there will be some shift in demand from A to B and from A to C, so there will be some switching from B to C because, compared to the previous position, they have lower-priced products. So A will gain a higher margin on all of its retained volumes, but will lose a margin on those that switch; B will capture some of A's lost customers, but will lose some to C; and C will capture customers from A and B. So C will gain greater volumes, but of course suffer a shrink in its margin; B, hard to say, call it net even, but it will have a -- suffer a loss in its margin; A passes on, so its margin doesn't go down, but it loses volumes.

I think, in that scenario, it's actually quite difficult to say who comes off better or worst, not least because if -- presumably they've chosen their decisions rationally --

PROFESSOR NEUBERGER: Yes, their previous decisions and their reaction to the change.

DR MAJUMDAR: Yeah, so -- so there will be a different effect -- so there will be the switching patterns that I mentioned, but I think it's hard to actually -- without putting more structure on the model, i.e. the switching patterns and modelling them precisely, I think it's hard to say, sir, who -- who ends up better off.

PROFESSOR NEUBERGER: Mr Hughes?

MR HUGHES: So I think the -- the answer -- the answer to this question is what happens to volumes, because you can have a guess at what happens to margins: the firm that raises -- firm A, that raises prices by the full amount of costs, its profit margin remains exactly the same, but the second firm, its profit margin will go down by €20 minus 7.20, and the third -- the third firm, his profit margin will go down by €20. So what the difference is, what changes across these three firms is the volume effects.

PROFESSOR NEUBERGER: Sure.

MR HUGHES: And those volume effects will be -- will be appreciably different, because these three firms will find that their relative market prices will be slightly different and that relative market price will affect their volumes.

PROFESSOR NEUBERGER: But if they were at optimal levels before and they make a small change to their pricing policy, why should that make a difference between them?

MR HUGHES: Because the -- although the pricing change might be quite small, if we believe that consumers' choices are price-sensitive, or sensitive to some degree, there will be shifting and it will be proportionately small to the~...

And what they will lose, though -- what's important is when -- when we discuss €20, which is a small sum of money, and we think about increasing prices, the problem is, when you lose sales, you don't lose 20 -- you don't lose €20 of profit margin, you lose the entirety of the profit margin on the car. So if a car's €20,000, you lose 35.5% of €20,000, not -- not €20.

PROFESSOR NEUBERGER: I understand. I mean that, at the beginning, before the cost increase, let us assume that each of the car manufacturers is at its optimal and it knows that if it raises prices it will increase margins but reduce volume, and it's indifferent, and they're all in that position. Now, all I'm asking is, is there any -- clearly, if there is a cost increase affecting them and there is a much smaller price increase, then, clearly, they will all be worse off. I am saying, is the degree to which they are worse off significantly different because one has decided to respond in one minor change -- marginal change to their pricing policy, putting their price up by the full amount, keeping their margin the same, one keeps their margin -- one reduces their margin and maintains share and the other reduces their margin and increases share? Is there any reason to suppose A, B and C will have borne a different cost from the overcharge?

DR MAJUMDAR: Materially, no. I think -- I think, essentially, what we're saying here is: look, they were profit-maximising before, they're still profit-maximising. Fine, they've decided to do different things, but is this materially going to impact their profit relative to each other? Probably -- probably not, I think, in that scenario.

PROFESSOR NEUBERGER: Mr Hughes, would you agree with that?

MR HUGHES: I think the exam question, as posed, sir, is difficult to answer completely, because the first firm will suffer volume losses, and what -- what I don't know in advance is the scale of the volume losses it's going to suffer and the extent to which firm C benefits from greater -- greater volumes, because they will be selling more cars. So the overall effect on profits is -- is difficult to know unless you know -- unless you know something about the scale of the volume losses. I think that's the bit that I can't properly answer as a maths problem.

PROFESSOR NEUBERGER: I will tell you what I am wondering now and would put to you. We have talked about a number of uncertainties concerning the pass-on. One is what the impact of a particular price increase is -- sorry, we know there is a difference in the parameters of the model, but there is some difference between the experts on the impact on prices of an overcharge which varies across companies, across OEMs. There are also uncertainties about how, in this world, companies would react in various different ways, which makes it quite difficult to answer.

I think we are coming close to concluding that the precise pricing response of the individual company is -- sounds like being a second-order issue, and that, if you are worried about overcharge -- sorry, I do not want to put words into your mouth, but is it the case that the pricing policy of the individual OEM in response to a specific price change, a small price change, is not a first-order concern in considering the degree to which they have been damaged by the overcharge? Is that a statement which is correct or not?

DR MAJUMDAR: I think so, sir. Just to be clear, I think what we're saying is -- and apologies if I get this wrong -- is that conditional on pass-on -- whether OEMs A, B and C react to that in different ways doesn't matter, because if they're all profit-maximising, they all had the opportunity to do what the other one did, so the fact that they do something different is probably second order in terms of impact on profit. So that I would agree with. I hope that's the question.

PROFESSOR NEUBERGER: Yes, that was the question.

DR MAJUMDAR: Right.

PROFESSOR NEUBERGER: I mean, the question was whether it is worth spending a lot of time trying to speculate about what a particular company would have done in response to a particular price increase.

DR MAJUMDAR: Yes.

PROFESSOR NEUBERGER: I am not sure if you agree?

MR HUGHES: No, I agree with that, because I think the exam question that you pose is a very difficult question to answer in the abstract without a lot of information which I don't think we're going to have in any real world scenario. So I agree with -- I agree with the proposition you put forward.

PROFESSOR NEUBERGER: Excellent. I think that concludes everything I wanted to do in the hot tub.

THE CHAIRMAN: I have a couple of questions. First of all, you have talked about the industry-wide impacts of costs. Just to be clear, if it is only -- and I am not talking about abstract, I am talking about this case --

DR MAJUMDAR: Yes.

THE CHAIRMAN: -- if it is a single manufacturer impacted by a cartel only, as I understand, there would not be an expectation then that it was going to pass on those costs to the consumer, because it is obviously going to be potentially less competitive. That is your common position; is that right?

DR MAJUMDAR: Okay, so let me explain that, sir.

A firm-specific cost, I would be -- expect to be passed on less than an industry-wide shock. So I would expect some degree of pass-on, however, I wouldn't expect it to be as great as if all other OEMs are impacted by a cost shock as well.

And so the way -- so, for example, in a world where, let's say, you have one firm, FCA, benchmarking against two, or whatever, three or four other close competitor brands, this is not perfect competition, FCA is not a tiny portion of the market, it still is a material share of its competitor set. So imagine there are four firms it benchmarks against, that it's, for the sake of argument, 25% of its reference market, and so it will face a cost shock, but it will still be a material cost shock relative to that market. So it's -- the pass-on will be not as great as if all of the benchmark firms had a cost shock, but it would still be something that I would expect to arise.

THE CHAIRMAN: But would it not have already maximised its yield, i.e. set its price to maximise its revenue, in terms of price sales, and why would it then pass costs on? It is because if it passes costs on, it is going to sell fewer cars, yes?

DR MAJUMDAR: You're absolutely right, sir, that if it passes on costs, that implies that at some point down the line it will sell fewer volumes; at the same time, if it doesn't pass on costs, it will suffer a -- a lower margin. So what -- what one would expect is that the firm balances those two forces by passing on some degree and then balancing the increase in margin versus the loss in -- in volumes, and in a firm-specific cost shock, you'd be more conscious of losing margins and so you would not increase prices by as much, whereas in an industry-wide scenario you'd be a bit more confident increasing prices. So I would expect pass-on less with the firm-specific effect, more with an industry-wide effect.

THE CHAIRMAN: Mr Hughes?

MR HUGHES: For the reasons that Dr Majumdar has given, economic theory suggests that firm-specific pass-on will be less than industry-wide, so I agree with that.

I think all I would say on the facts of this case, I'd also be very interested in what the witness evidence says about how they respond to cost changes and how those affect those pricing decisions, and in particular the role of benchmarking, setting prices.

THE CHAIRMAN: Mr Hughes, just give me a ballpark figure for the overcharge per car, assuming the car has been -- in your main period, not in your early period, assume the car has got a -- all cars have a --

MR HUGHES: Okay --
THE CHAIRMAN: -- steering wheel and --
MR HUGHES: Can I --
THE CHAIRMAN: -- an airbag --
MR HUGHES: Can I give you a very precise answer, okay? 0.4%. So the price --
THE CHAIRMAN: Just give me a figure in euros, rather than ...
MR HUGHES: €20.
THE CHAIRMAN: €20.
MR HUGHES: Yeah.
THE CHAIRMAN: So, Dr Majumdar, is there any evidence in this case -- economic theory aside, is there any evidence in the case that an increase in costs of €20 will be directly passed through to the consumer, and if so, could you explain what the evidence is?
DR MAJUMDAR: The -- the evidence that I am aware of would be more indirect in the sense that, although 20 doesn't sound like a big number, when you're selling millions of cars, it is a big number, and my understanding -- and here I'm base -- basing this from what I read on the transcript of Ms Biancheri's evidence when she was describing how FCA -- and we're talking about FCA data here -- think about how they set the net dealer price, and my understanding was that she said that they

consider volumes times margin, and if costs go up the margin is -- shrinks, and then every year they would reassess the price, and on a quarterly basis they flex the other components of the net dealer price, which would be in particular the campaign discounts. So that would be the mechanism by which this pass-on could arise. I can't point you to a specific example where it has arisen, but that would be the mechanism by which it would arise.

THE CHAIRMAN: Okay, and that is just FCA. What about the other manufacturing groups?

DR MAJUMDAR: The other manufacturing groups -- again, this is really only based on what I read on the transcripts and from the witness statements. So my understanding was it was Mr -- I think it's Mr Gautier spoke to PS -- PSA --

THE CHAIRMAN: It does not matter.

DR MAJUMDAR: My understanding was that he seemed to be saying that it's the launch price where the costs feed in, so one takes into account costs and that impacts the launch price.

On VO, Mr Couturier seemed to be -- seemed to be saying, if I read it correctly, that he was very much focused on benchmarking.

So I won't opine on the facts, but my reading was there was some sort of slightly different nuances to how each OEM was setting price, sir.

THE CHAIRMAN: Right, and the fact that these are relatively small amounts compared to the cost of a car, and I do not know how cars are priced, I am not sure if they end with €20 and not to the nearest €500 or something, but how does that factor into what we have to decide?

DR MAJUMDAR: Well -- well, there's two points. I mean, firstly, the price you're talking about there is probably the list price, but actually the price I'm interested in is of course the -- the net dealer price.

THE CHAIRMAN: I do not recall ever being offered €20 off a car by a dealer, but that may be my personal experience and not typical.

DR MAJUMDAR: No, understood. But the -- but the point is that, as I say, if you're selling lots of cars, then €20 on a car is -- is a cost that you, as a -- as an OEM, may -- may wish to recover.

Now, it may be that what happens is that every quarter or every year the OEM says, "Well, look, this isn't -- this is how costs have changed, so this is not just an OSS cost change but this is how costs have changed in general, let's revisit the position where we should be on price, where we should be on campaign discounts", and so there won't necessarily be a, "Look, seatbelts are now €20 more expensive, let's increase price -- price by €7.20", it may be a sort of more reflective, "Right, okay, let's take stock of where we are every quarter or every year; this is what our cost position is; what should we do with price; what should we do with campaign discounts"?

THE CHAIRMAN: So you say it gets thrown in with the common lot of other costs. So if one hypothesises that other costs are either going down or staying pretty level, in those circumstances, a €20 increase in costs in the OSS components, are you saying that that would be added on quarterly, or added on at the end of the ... how would it work? I appreciate, if they are reviewing costs generally, if that happens, but ...

DR MAJUMDAR: Well, it would work in -- I mean, I think it would work in -- by -- by the mechanism that I just explained. So --

THE CHAIRMAN: Yes, assuming other costs are not changing. So you just --

DR MAJUMDAR: Right, so the only cost change was --

THE CHAIRMAN: Was the OSS.

DR MAJUMDAR: -- €20?

THE CHAIRMAN: Yes.

DR MAJUMDAR: Well, then, sir, I -- I think that's a factual point. I don't know whether, from an OEM perspective, responding to a €20 change in cost is something that they would worry about. As I say, €20 times a lot of vehicles is a large amount --

THE CHAIRMAN: It maybe is, but that is a different --

DR MAJUMDAR: -- so it might do, but --

THE CHAIRMAN: That is a different question.

DR MAJUMDAR: -- on the factual basis, something that granular I couldn't answer, sir.

THE CHAIRMAN: No, okay.

Housekeeping

Right, I think we are finished with the hot tub.

So I think the plan is to go into some cross-examination tomorrow. We had indicated sort of half a day, let us say two hours for each side. I do not know if you have any comments on that, or how it is going to be approached, who is going first? We do not anticipate having to revisit everything that has obviously been discussed in the hot tub.

MR WEST: I was assuming Mr Hughes would go first, as my witness. I will obviously carefully consider to what extent it is necessary to cross-examine the witnesses, because, if I may say so, this has been an extremely useful exercise in clarifying both the experts' positions and the differences between them.

THE CHAIRMAN: Yes.

So who is going first then? Looking at the --

MS FORD: Sir, it sounds like it will be me cross-examining on overcharge Mr Hughes, and then Mr Scannell is dealing with pass-on.

THE CHAIRMAN: Yes.

MS FORD: We will obviously have a word about how that develops between us in the light of how things have come out.

THE CHAIRMAN: Okay. Well, you know, two hours is a limit, not a target, so ...

MR SCANNELL: Yes, at least for my own part, I do not anticipate that I will need two hours. I do want to put down a marker however --

THE CHAIRMAN: That is two hours between you, to be clear.

MR SCANNELL: That is fine also.

THE CHAIRMAN: Yes.

MR SCANNELL: I do not anticipate that that will be a problem. I do want to put down a marker, however, that I will not just be cross-examining on pass-on, I will also be cross-examining on financing losses. Now, I appreciate that that is not something that has been hot-tubbed, but there are just a few questions that I want to ask in relation to that.

THE CHAIRMAN: Yes, of course.

MR SCANNELL: I hope that that will assist the Tribunal also in bringing forward to your attention some of the factual evidence which has come out in that regard.

THE CHAIRMAN: Of course, and of course there is no obligation to cross-examine at all. You may feel you have got what you need --

MR SCANNELL: We absolutely understand that.

THE CHAIRMAN: -- either of you, I do not know, so ...

MR SCANNELL: Yes, I am expecting to be quite short on pass-on.

THE CHAIRMAN: Very good. Okay.

MS FORD: May I seek a clarification as to whether the experts are still in purdah pending the cross-examination or can they come out?

THE CHAIRMAN: No, they can come out of purdah and -- unless -- I think that is the appropriate way to do it, because you may need to take some instructions on how to go forward. So I am not -- we have not done so many hot tubs, I am not aware there is a precedent to the contrary, so I think that would be the preferred course so you can obviously take instructions. Obviously you should not be discussing with the witness the evidence they have given with a view to them answering differently.

MS FORD: Yes, absolutely.

THE CHAIRMAN: So, I mean it does create some problems, but you may need to take instructions on -- if the witness you are -- the expert you are cross-examining has given some answers that you do not understand or you feel are wrong and want to address them, then ... but you will all need to be vigilant in not expressing any concerns about any evidence that has been given, not that there would be any reason for doing so, but I think we will proceed on that basis.

Good, thank you very much. Just give me a second.

(12.40 pm)

(The Court adjourned until 10.30 am on Wednesday,

16 October 2024)