IN THE COMPETITION APPEAL TRIBUNAL 1517/11/7/22

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 18th November- Friday 20th December 2024

Before:

The Honourable Justice Michael Green
Ben Tidswell
Professor Michael Waterson

Merchant Interchange Fee Umbrella Proceedings

A P P E A R AN C E S

Sonia Tolaney KC, Matthew Cook KC, Owain Draper & Daniel Benedyk on behalf of Mastercard (Instructed by Jones Day and Freshfields Bruckhaus Deringer LLP)

Daniel Jowell KC, Jessica Boyd KC, Isabel Buchanan, Ava Mayer & Aislinn Kelly-Lyth on behalf of Visa (Instructed by Linklaters LLP and Milbank LLP)

Kieron Beal KC, Philip Woolfe KC, Oscar Schonfeld, & Reuben Andrews on behalf of the SSH Claimants (Instructed by Scott + Scott UK LLP and Stephenson Harwood LLP)

Mark Simpson KC, Jack Williams & Alastair Holder Ross on behalf of Walter Merricks CBE (Instructed by Willkie Farr & Gallagher (UK) LLP)

Thursday, 28 November 2024

(10.30 am)

In open court

MR DEREK HOLT (continued)

Cross-examination by MR BEAL (continued)

THE CHAIRMAN: Good morning.

MR BEAL: Good morning.

THE CHAIRMAN: Can we just clarify, before we resume with Mr Holt, in relation to the timetable. Do you -- I think it would make a lot of sense if we can finish with Mr Holt this week. Is that going to be possible?

MR BEAL: Yes.

THE CHAIRMAN: Good.

MR BEAL: I am hoping that we can use tomorrow morning to go into closed session for the confidential material, deal with that in one go, and I am hoping, touch wood, to be sat down by lunchtime tomorrow.

THE CHAIRMAN: By lunchtime.

Then that will give you enough time for cross-examination to finish by close tomorrow, because it would not be good to hold him over the weekend.

MS TOLANEY: Yes.

THE CHAIRMAN: We can start with Mr Coombs, then, on Monday morning.

MR BEAL: Yes.
THE CHAIRMAN: Excellent.
MR BEAL: Thank you.
THE CHAIRMAN: Good morning, Mr Holt.
THE WITNESS: Good morning.
MR BEAL: Good morning, Mr Holt.
A. Good morning.
Q. I am now going to look at the counterfactual analysis, because I understand you are keen to anchor your analysis in the counterfactual. Is that right?
A. That is right.
Q. That helps you, of course, does it not, to try and justify the long-term analysis that you are also keen to advance for your client?
A. I think it is one factor.
Q. Now, please could we look at {RC-G/17/76}, this is your twelfth report, at paragraph 214. Here you say:
"... the counterfactual change in MSCs would likely have been perceived as permanent as opposed to transitory."
In the factual world, we have had a number of non-transitory changes to the MIFs, have we not?
A. Yes, I think that is correct.
Q. So just running through them. In January 2015, for example, the Visa commitments decision came into effect?

A. Yes.
Q. In December 2015, we had the IFR caps that reduced the MIF for consumer cards?
A. Yes.
Q. In April 2019, Visa cut its inter-regional fees in accordance with the commitments it then gave the EU Commission?
A. Yes.
Q. In 2021, following Brexit, Visa then increased its interchange fees for card not present UK EEA transactions from 0.2% for debit cards to 1.15% for debit cards, and from 0.3% for credit cards to 1.5% for credit cards; correct?
A. Yes.
Q. So these are all examples, are they not, of -- relatively significant in relative terms -- increases in the MIF rate or decreases in the MIF rate?
A. Yes, I would agree with that. One brief observation is that in many of those cases, the changes took effect in relation to some but not all types of interchange fees. In some of those cases, and generally I think in all of those cases, there was not an abolition but there was a change in the level of the rate, but I appreciate some of the changes were more significant than others.

I think the other thing to bear in mind, and this is a point made by the European Commission in relation to its post-IFR study, given that that was one of the -- obviously the most significant changes was the reduction in the MIFs due to the IFR, which was that in looking at the effects of that, one had to also recognise that there were some other things moving at the same time, i.e., scheme fees and retailer perceptions about commercial cards fees.

Q. You have posited the idea of a firm reducing prices following a reduction in merchant service charges in your counterfactual analysis. That is correct, is it not?

A. Yes, yes, at the beginning of the claim period is my -- the assessment of the counterfactual in my analysis.

Q. Well, when do you say that reduction would have taken place?

A. I take it as at the beginning of the claim period.

Q. If the claim period for some claimants starts in 2021, are you positing in your counterfactual that it would be 2021 that that change took place?

A. Well, I think that raises a potential complexity that I have not addressed, which is what would be the case if there were significantly differential claim periods, and it would be appropriate to look at on a case-by-case basis and remove the MIFs only for that claimant, or that claimant sector, specific to that claim period?

That is not the way I have approached it. I have approached it as essentially saying broadly the claim period relates to, for most claimants, 2010, and therefore I have taken that as the point at which the MIFs would be reduced.

Q. But if, for example, there are claimants out there who have only been in business since 2010, they would have never known, on your counterfactual, a life with the MIF, would they?

A. That is correct. I do not think it would be important for my analysis because the issue is whether the -- it is a but-for test. So although they would not have had an over time change in that case, for example, they would not have had high MIFs or higher MIFs in 2008 and then had them removed, but my assessment is a but-for test comparing to the 2010 onwards case with and without the MIFs, so that would still be a relevant consideration.

Q. But on your analysis, if you are going simply on claim period, you will end up with a patchwork quilt of points at which the MIF changes had to take place in the counterfactual, because it would depend entirely on the cohort of claimants in question?

A. Again, I have sort of abstracted from the precise situation as to when a claimant comes in, but, for example, let us say that a claimant begins in 2015 because they were not in business prior to that. My assumption is still that the claim period relates to 2010, for example, overall, and that if there is a claimant who only has a claim from, say, 2015 onwards, then that does not matter for my analysis. The market level changes would have already taken place as of 2010 in my analysis.

Q. Now, we know that in the real world some of the decreases in the MIF that I have put to you have in fact taken place, and of course none of the experts has found any evidence of a price decrease as a result, have they?

A. Well, I think to the extent that that is based on an empirical analysis, that is correct, but it goes back to the signal to noise ratio problem. The empirical analysis, in my view, is not capable of distinguishing those effects in the broader variation of prices.

I would disagree, if one looks to a somewhat broader set of evidence, that there has been no change, because there have certainly been public announcements by retailer associations, such as the British Retail Consortium and the Association of Convenience Stores, who have identified that changes in MIFs have had an impact, or certainly they say they would have an impact.

Q. In 2015?
A. No, that is not necessarily specific to 2015.
Q. Right. Well, can we then focus on, instead of a price decrease in 2015, a price increase following Brexit in 2021. Again, there is no evidence in the factual of price increases following that change?
A. Again, I think the signal to noise issue that I think essentially all the experts, at least the ones that were in the hot-tub, recognise was an issue, would apply essentially to all of these potential empirical assessments that you might wish to carry out, so I do not think that is really a route by which one can really get into the evidence as to what has been the retail pricing impact.
Q. Could we look, please, at Mr Murgatroyd's first witness -- expert report {RC-F/6/79}. He, in his model, analysed by regression analysis whether or not the MIF led to -- the MIF reduction in 2015 led to a reduction in premiums charged by Allianz, and we see at paragraph 374 that he found no evidence of that?
A. Yes.
Q. He says:
"I do not find any evidence that the introduction of IFR, at which point the MIF rate felt significantly, led to a statistically significant reduction in premium."

Do you see that?
A. Yes.
Q. If we look, please, at {RC-F/8/87}, in Mr Ramirez's second report, which is his positive case, paragraph 229 at the top of the page:
"In the preceding section [he says], I have presented analysis demonstrating that Primark did not react to the 2015 MSC decreases in the same manner it reacted to VAT decreases. In particular, while Primark's prices were responsive to the December 2008 VAT decrease, [they] were impervious to the 2015 MSC decreases up to four weeks after the decreases."
So that recognises, does it not, that, again, Mr Ramirez has found no empirical evidence in the factual world of the IFR reduction producing any effect?
A. Well, I engaged with what both Mr Murgatroyd and Mr Ramirez said about the analysis regarding the impact of changes in MIFs on prices for Allianz and Primark respectively and, as I explained I think quite extensively in my report, I put no weight on either of those analyses.
In relation to Mr Murgatroyd, he reaches that view having identified a natural experiment of a change in the MIFs, but the change in the MIFs, as I think the experts broadly have accepted, is a very small

percentage of the overall pricing and is therefore subject to the signal to noise ratio problem.

The demonstration that it is severely subject to that problem is identified by the fact that he himself has identified cases for some of his natural experiments of what would be very high, and indeed implausibly high rates of pass-on of several hundred per cent in some cases, or even higher than that, but even those are not found to be statistically significant, and the reason for that is he has a signal to noise ratio problem, the results are meaningless.

Q. Can I just focus in, perhaps with slightly more precision, on a specific example with you. I am not going to mention the name of the company, but there is a company we all know about who has put the MSC charges as a payment cost into a pricing engine; correct?

A. Yes.

Q. You have not been able to detect, have you, any impact of these MIF increases or decreases in that particular company?

A. So I will not name the company. I have looked at analyses which takes a broader set of costs and I have identified a relationship in that regard, but I appreciate that is different than looking at a relationship between the MIFs themselves.

In my view, the MIFs themselves, which even for that company represent a small proportion of the prices that I was looking at, i.e., far less than 1%, would not be capable of demonstrating an effect, even if one sought to empirically investigate that, and I realise that Dr Trento has tried to take a proxy that includes the MSCs but a little bit more. I will not name the -- what the name of the other variable is, perhaps, because it seems like I should not.

Q. We will come back to that tomorrow morning.

A. Fine.

PROFESSOR WATERSON: Can I raise a point in relation to this discussion?

A. Yes.

PROFESSOR WATERSON: Your chosen proxy, because, as you said, and I agree, the signal to noise ratio is a problem, your chosen proxy is COGS, is that right?

A. That is a fair overall description, but the specific proxy varies from case to case. In some cases, and it varies between the different public data and the different claimant data, but essentially what I am looking for is a variable primarily industry-wide cost that meets the signal to noise ratio issue.

PROFESSOR WATERSON: In the case of COGS, do they go down at some point as well as up?

A. I think that is the case. They certainly fluctuate to some extent over time. It is not -- I think there may well be some movement over time that perhaps is upwards over time. In the context of the public data, that is the case, but I have essentially differenced that to the extent that there was a trend. I have basically stripped that out.

In the claimant data, I think there is a bit more volatility, so there are movements up and down.

PROFESSOR WATERSON: Right. You see where I am coming from, that if there is very limited or no downward movement, then you are extrapolating from upward movements to potential downward movements?

A. Yes. I think that is a fair point, and I do sort of engage on the issue of symmetry. I think you are getting at: is there a symmetric response to an upward and a downward, and I have recognised that in some of the literature there has been some evidence that there might be some asymmetry, i.e., that the firms might be quicker to respond to an upward movement than a downward movement.

I engaged on that by demonstrating that while that might be the case as a short-term proposition, it clearly cannot be a long-term proposition, because obviously if you had a fluctuating variable up and down,

up and down, and you only reacted to the upward
movements but not the downward movements, you get an
ever-increasing deviation between prices and costs that
would just be, in my view, artificial due to that rule.
So my view is that even if there might be
a short-term effect, it is unlikely to have a long-term
effect.
MR BEAL: This, in essence, is the rockets and feathers
issue?
A. Yes, that is what we are talking about.
Q. Some of the empirical studies strongly suggest that
firms are more willing to charge you more for a price
increase than they are to give money back for a price
decrease?
A. I think the evidence relates to the timeframe, but
I think the issue of how quick a firm might be to react
to those changes may in some issues be higher, more
quick, in the --
Q. This obviously, as Professor Waterson is pointing out,
causes a problem for your counterfactual where you have
not built that into the factual equation, have you?
A. So my response to that is twofold. Firstly, I have, in
my analysis, essentially all variations, so it is
a combination of upward and downward variation. In my
public data, there is no systematic upward variation

because I have got differencing. Then, secondly, my point is that while I accept that there might be some evidence of a more rapid transmission mechanism in some cases for a higher price movement than for a lower price movement, I have engaged on that in Holt 11 and identified that that cannot be a persistent long-term effect, because you would have ever-increasing margins over time ad infinitum as a result of people responding in such a way, and that just does not seem credible or consistent with the long-term evidence.

Q. Can we look, please, at {RC-G/17/87}, in particular at paragraph 258 and paragraph 259, where you say that Dr Trento has used the wrong counterfactual, you say at 259:

"As he states in the following paragraph [then over the page]:

"'the pass-on question is whether - in a counterfactual where all other costs (including all other overheads) would have been exactly the same as in the factual, but the MIF overcharge component of the MSCs would not have been there - the claimants would have triggered a price review and set prices at a lower level."

You say that is neither the right question nor the right counterfactual?

A. Yes. I think it is because -- so I make this comment because Dr Trento seems to be positing a world where only the MIF would have changed, and therefore the issue of relevance is: would that be sufficient to trigger a potential price adjustment, and I am saying that from a counterfactual --
Q. (Overspeaking) The point Dr Trento is making, surely, is that very small changes in cost may be difficult for a company to identify and be less likely to be acted upon, is it not?
A. That is consistent with what I was saying. So he is saying the only counterfactual changes are the change in the MIFs, and one can therefore disregard any and all other changes that might be going on at the same time.
My point is that that is not what would be happening. All costs would be taken into account. Yes, there would be an incremental change due to the change in the MIFs, but the assessment as to pricing strategy and how firms are engaging would still of course take into account all the other costs, and then the change in the MIFs would be rolled up within that.
So it is essentially dealing with the small cost price adjustment ratio which is where I disagree with Dr Trento.
Q. So you are saying the individual MIF is too small, we

recognise this, but when it is aggregated with other costs in the same bucket, that may trigger a review?

A. No, I am not saying it will trigger a review. What I am saying is, given that there will be a range of variations in costs and other market conditions over time, that the incentives are essentially the same as to whether the size of a cost change is small or large, and that even if a small cost is not sufficient in and of itself to trigger a price change or review, all of the costs would be expected to be taken into account, at least all the costs that are variable and firm wide. Obviously those are the ones that are -- the ones that are most relevant.

Q. Please could we look at {RC-J1.4/53/66}. You just said that is the size -- the absolute size of the cost would not be relevant. Can we see what the RBB report, the 2016 report, has said about this at paragraph 109. This page 66.

We see there at 109 there is a reference to overcoming price adjustment costs, and then in 109 it says:

"Moreover, in order to act on this incentive to adjust prices ... a firm will also need to have recognised that a relevant change in circumstances has occurred, and identified that a change in pricing would be desirable, and what a sensible price change would be. This may not be a trivial requirement when the cost changes at issue are very small, and/or changes in demand conditions are substantial. Hence, pricing may not be as responsive in practice as simple theory alone would predict."

So that is recognising, is it not, that the small size of the cost that is necessarily the focus of your analysis in the counterfactual may well mean that nothing changes?

A. Well, I think this report goes on to say that, if anything, this is likely to be more of an issue in the short term, rather than the long term, and I think several of the experts, including some of the experts such as Mr Murgatroyd, explicitly recognised that the suggestion that the MIF change needs to be a trigger for the price review is a fallacy, at least in the longer run, because all costs would be proportionately taken into account.

That same point is also made by merchants who were surveyed by the European Commission in relation to the IFR study.

Q. I am coming onto --

A. They captured all the costs.

Q. I have promised twice now I am coming onto the --

A. Fine.
Q. Essentially, what you are saying is that the MIF will be wrapped up, the MIF decrease/increase, whatever it may be, presumably your analysis would be the same regardless in the counterfactual?
A. Sorry, the MIF ...
Q. Increase or decrease.
A. Yes.
Q. In the counterfactual you would have to take into account both possibilities?
A. Yes, I think --
Q. In terms of --
A. -- applying a but-for test. So whatever the actual situation was, assuming that the counterfactual is a reduction in the MIFs at a point in time, then the but-for test would compare those two. So, yes, I would be saying it would be a reduction in MIFs and assumed MSCs.
Q. Regardless of whether or not we are adopting the right approach as a matter of law now, which is not a matter for you, I am assuming that you would posit that the counterfactual analysis of a decrease in the price in the MIF would give rise to an analysis that you would say would be appropriate for considering the likelihood of a reaction to a price increase in the actual. That

is your objective?

A. Yes, I think -- yes, I think that is correct. I -- the evidence -- I think this is going back to the symmetry point. I am identifying that if, in the longer term, there would be a relationship between variable industry-wide costs and prices, that that would apply in a similar way to the MIFs as it does for the proxy cost and, at least in the long-run, in a similar way for upward and downward costs.

Q. I appreciate I am paraphrasing, but your analysis is essentially: look, the MIF may be too small, but it goes into a bucket, and the bucket will have significance for the company, therefore the company will change its pricing?

A. Yes, although I would not put it in quite such a restrictive way. What I am really saying is that the outcome of the but-for test represents the outcome of a competitive process. That is a combination of firm-specific considerations, individual pricing decisions, how they operate all of their policies, but it is also the outcome of competitive reactions.

So I am not relying on essentially a conscious specific decision by a firm to say: look, there is a change, I am therefore making the change as a result of MIFs, or even there is a change in this particular

set of costs, I am reacting as a result of that. In part, it could be through customer reaction --
Q. (Overspeaking) Forgive me. If that is the theoretical approach you are taking, there will never be a situation in which any company does not at some point over the long term bear the impact of a very, very small cost?
A. Sorry, I am just wanting to understand the question.
Q. Let me break it down. If they do not need to do anything specifically in response, and if they do not need to know about it specifically in response, and if your point is not that it gets aggregated in a bucket, and the bucket triggers a pricing decision, and you are simply saying: it is there as a cost, it must in the long term be taken into account, and therefore it must, in the long term, be passed on?
A. Sorry, I perhaps was not clear. I was not saying that they do not operate on a basis of looking at broader buckets. I think they do, and that is consistent with the evidence. It is also consistent, again, with the other evidence I reported. I am just saying that even -- that is sort of one route by which the but-for outcome could happen, but there are some other routes as well, i.e., the competitor reaction route, which does not require an explicit observation of a cost change, it requires instead a reaction to a competitor.

Q. Just imagine for a moment we are talking about small costs, bigger bucket, bigger bucket has impact. It would follow that you needed to work out which is the bigger bucket that the firm is looking at that triggers the price review; correct?
A. If you wanted to sort of forensically trace which was the price decision that was made and which bucket changed, and therefore to trace that back to the MSC, then I agree, that is the approach that you would need to adopt, i.e., to understand in which bucket does the MSC sit, yes.
Q. Can we then please look at {RC-G/17/88}, paragraph 260. This is your twelfth report.
A. Paragraph 260, yes.
Q. You say halfway down:
"It is not necessary for the change in the MSC to 'trigger' a particular price change. It suffices for the counterfactual reduction in MSCs to affect a pricing review that would have taken place in any case ... that took place in the actual ..."
A. Yes.
Q. So that seems to be you adopting the bucket approach, is that right?
A. Yes. The additional point is that the approach can be adopted either in a positive way, i.e., a movement was

taken in the same direction of the change in the MIFs, or it can be in the offset way, i.e., a change that might have otherwise happened in the counterfactual was not taken in the actual because the change in the MIFs had an offsetting effect. So it is just saying there are two sort of different directional ways in which the but-for test could be applied.

Q. In the last but -- in fact, I think it is the last sentence there, it is just a long one, it says:

"For example, a counterfactual reduction in operating costs could have limited the need for price increases following the recent surge in inflation ..."

So you are recognising there that the bucket might well be operating costs?

A. Yes, that is one possibility.

Q. Could we then please go to page 62 {RC-G/17/62} and look at paragraph 180, subparagraph (b). You there criticise Mr Ramirez, who was the expert for Primark, for using operating costs as the proxy cost for his analysis.

A. Yes.

Q. But on your analysis, that could well be the bucket that tips the matter over into a new pricing regime?

A. But what I am saying is that even if in the treatment approach it was accounted for as an operating cost, i.e., as an overhead, firstly, one needs to look at the

actual nature of the MIFs, and overheads can of course have a mix of types of approaches, as we discussed extensively in the hot-tub, from fixed, semi-fixed and variable.
Q. I promise you I am going to come on to that as well.
A. Okay, fine. What I am saying is that there are then a number of channels by which the firm's profit-maximising incentives can be put in place, and in the longer term the appropriate proxy, in my view, is one which does reflect the characteristics of the MIFs, and that even if there is -- for example, even if it were agreed that there was a treatment as an operating cost, the other channels would be mechanisms by which the profit-maximising incentives would still be put into place, and that is --
Q. One of the characteristics you have landed on, or factor that you consider relevant, economic factor that you consider relevant, is the so-called industry-wide nature of the MIF; correct?
A. Yes.
Q. You have assumed that all firms in a sector will act in the same way in response to changes in the MIF, is that right?
A. I think that is fair. I have essentially said that there would be an empirical assessment of a change in an

industry-wide cost, which would lead to an estimate of a pass-on rate, and then I apply that at the sectoral level.

I do recognise, of course, that the sectoral assumption is -- is an assumption that all firms in a sector would be expected to have similar demand and supply and competitive intensity conditions. I do not think anyone would realistically say it would apply in that literal sense, but it is, in the context of these proceedings, I think a reasonable starting point, and frankly a necessary assumption, because we do not have firm-specific empirical evidence across the board.

Q. Can I just test the parameters of that assumption. You are not suggesting, I think, that all merchants pay 0.2% on all their sales by way of payments to Visa or Mastercard?

A. No.

Q. You are not suggesting that there are not different rates for debit and credit card transactions?

A. No.

Q. There are also different rates for consumer as opposed to commercial cards; correct?

A. Correct.

Q. There are different rates for different regions depending on whether it is inter-regional or domestic?

A. Correct.
Q. Different rates for card present, card not present?
A. Correct.
Q. There are different costs associated with the acceptance of cards as opposed to the acceptance of cash?
A. Yes, yes, I would agree with that last statement as well. It is not something -- that last statement is not something I have taken into account in this context. I consider that to be more relevant to the exemption case.
Q. When a company in the real world has a category in its Sage accounting software for payment charges, that will encompass not simply the MIF paid by way of the MSC to the merchant acquirer, but also the cost of cash collection, the cost of alternative payment methods, bank charges for using BACS, and so on?
A. I do not have a view on what the Sage accounting software would group together or not.
Q. Happily, we have Mr Economides coming to give evidence in a couple of weeks' time.
A. Fine.
Q. Now, obviously some firms -- as we know, M&S being one -- did not accept credit cards for a while, did it?
A. I am aware of that point having been made, I think by Ms Webster the other day, yes.

Q. If we could now look, please, at Ms Webster's increasingly infamous graph, this is {RC-F/14/124}. In fact, this is the less infamous of the two graphs, because this is the one that deals with acceptance by merchants rather than card usage figures. In fact, I think this has not yet received the cold steel from Mr Simpson KC.

But if we look at this, please, what this does show is the share of outlets accepting card payments of registered businesses in the UK. If we take the point at which the claim period roughly starts, i.e., 2011/2012, picking a date at random in a sense, we see that the figure is about 50% and it rises to about 60% over a ten-year period. Can you see that?

A. I can see that.

Q. That implies, does it not, that at least a substantial chunk of businesses, somewhere between 40 and 50% of all registered UK businesses, do not accept card payments?

A. Well, I think there are two important remarks. One, there is a -- and both of these were made in the hot-tub context. One, there is a series break, and so, on a consistent basis, there is a change.

I am not sure if one needs to raise the second part of the line up, certainly one would need to do that for consistency with the first part of the line, and that

was a point made by Ms Webster in how to interpret this
graph in --
Q. So assuming that you are right, that would lead to --
A. 60 to 70 --
Q. -- somewhere between 30 and 40% of retail businesses not
accepting cards?
A. Yes. Then I made a further point in relation to that,
which is that this is source APACS, and it is -- the
denominator is essentially all ONS-registered
businesses, including self-employed businesses, so
I would expect that a lot of the non-accepting
registered businesses would be of that type, and that
would be less relevant for the purpose of thinking about
merchant retailing.
Q. Well, at the risk of giving evidence, I do not accept
credit cards, and I do not suppose Mr Jowell does either
for his brief fees.
A. That would be consistent with my point.
Q. But if one is looking at --
PROFESSOR WATERSON: (Inaudible).
MR BEAL: At the moment, yes!
THE CHAIRMAN: (Inaudible) dealing in cash!
MR BEAL: Certainly not; I have never been a cash trader and
I never intend to be cash trader. I think that is my
cross-examination over, I hope!

Could we look, please, at Mr Murgatroyd's opinion evidence on this. This is {RC-F/6/19}, paragraph 86.

He says:

"Figure 1 shows a decrease in the MIF rate paid by [one of the Allianz companies] immediately following the introduction of the IFR. However, from 2018 onwards the MIF rate ..."

I shall not read the rest because some of it is confidential. Can I invite you to read that paragraph for risk of trespassing --

A. 86?

Q. 86, please, yes. (Pause)

A. Yes, I see that.

Q. If we scan down to the next page {RC-F/6/20}, we will see figure 1. Again, it is confidential, so I will just make some very abstract points about it.

That shows, does it not, even with a cohort of businesses under a common umbrella company, they are paying different, to use a neutral expression, rates of MIF over a pretty substantial period?

A. Yes, it does say that, and I think the preceding paragraph gave the explanation as to the one of the three lines, I will not comment on the detail, which is, obviously diverging significantly from the others, is likely to be due to its focus on corporate customers.

I do not --

Q. (Overspeaking) Could we look at page 24 in this report {RC-F/6/24}. There is a figure 2 there, and you will see that the -- I think this is arguably the point you are making, hence taking you to it, rudely cutting across you, is that different businesses have different acceptance rates depending on their business model?

A. So this -- sorry, you made a point about acceptance rates. I think we are now on share of payments which are by card.

Q. But that would imply, would it not, that certain business models have fewer transactions with cards because it is more common for a customer to pay by direct debit or another payment method?

A. I partly agree that if there is a variation in transactions which are paid by card between businesses, then there are a couple of possible explanations. Mr Murgatroyd here is putting a view that there is a very large difference in the share of transaction value that is by card for two business units. I will not go into the confidential detail. I engaged on that point in Holt 12 and explained that this is likely to reflect the different business focus of direct versus aggregate sales for these two, and therefore does not actually imply that customers are making different --

significantly different choices in relation to payment for similar transactions.

The firm -- sorry, the part of the business here with a lower share of transaction values of payment card is almost certainly explained by the fact that it is not primarily a direct business model, but it is sort of using aggregators to sell the policies. So the customers paying a third party, and using their card, in my view, in a broadly similar proportion of occasions as would be the case for a direct sale, it is just that this firm is operating at one layer above that. It is a bit like a wholesaler of the policies to a downstream re-seller.

So my point is that the downstream re-seller will of course be levying fees and charges onto the wholesaler to transmit back part of the premiums that the re-seller is selling policies for, and part of the cost that it will be submitting back or charging back to the wholesale provider will include the payment costs, and my expectation would be that there is no reason why customers would be using payment cards at a very different level on the resold -- the re-seller-based policies as the direct LVIC -- sorry, I should not have said that, the direct line of business sellers.

Q. You touched there on a difference between an agency model of selling and a direct model of selling as well and, from your evidence you have just given, you would recognise that they could produce different levels of MIFs, and a different significance for the MIF, depending on the type of business model that is adopted?

A. What I am explaining is that broadly the MIFs would be similar. The proportion of payments by card would vary, but the reason for that is that in one case you have mainly consumers purchasing, and the other case -- from the company directly. In the other case it is a wholesaler, and the cost of the credit card fees would be built into the fee that the re-seller is providing. So there is no basis on which there would be any expectation of a systemic difference between those two.

Q. In terms of industry-wide as a concept, there is obviously some costs, some overhead costs, which are likely to be industry-wide, are there not? Such as, for example, the need to pay commercial rent on premises, or the need to have public liability insurance. Those are likely to be common costs across an industrial sector?

A. I fully accept that some overhead costs are likely to have a component of an industry-wide nature, but my view is if you compared the two broad potential proxies used by the experts, COGS on the one hand or other variable costs and overheads, that overheads are to a much

greater extent fixed or semi-fixed and --
Q. Just pausing there. Where is your evidence for that?
A. Well, that is what Mr Economides indicates, and it also, I think, stands to reason that COGS is primarily variable, because it directly relates to the sales of the retail products, whereas overheads is obviously a whole mix of more or less everything else, and that could include property costs, labour, all sorts of things, marketing costs, which will generally be a mix of variable, semi-variable and fixed, and Mr Economides generally indicates that overheads include a significant proportion of semi-variable and fixed costs.
Q. Well, let us just clear this up now. As I understand it, if we go, please, to {RC-G/17/28}, which is your twelfth report at paragraph 51, if we can drill into 51, then --
A. Yes.
Q. -- you say:
"To get an idea of the share of overheads of the fixed costs, I have relied on the categorisation of Mr Economides. His categorisation indicates on average 30% of overhead costs are fixed costs and 57% are what he calls semi-fixed costs."
So that is based, you say at footnote 63, on a particular paragraph in his report.

Now, if we go, please, to your report then in this -- this twelfth report at page 113 {RC-G/17/113}, Mr Economides has referred to fixed and semi-fixed -- or semi-variable, depending on how one wants to categorise it, they are binary -- and what you are saying here is:

"As previously discussed ... Mr Economides, the pricing expert --"

THE CHAIRMAN: Which paragraph?

MR BEAL: 329(a):

"... has classified the different categories of overhead costs based on whether they are, in his view ..."

You then say:

"The data presented ... above shows that, when excluding [a particular claimant], the average claimant's [overhead costs] consist of 31% fixed ... 64% semi-mixed ... and 5% variable ..."

Now, what I understand, and then if we look at paragraph -- figure 5.1, which I thought was on the next page but I cannot see it. But the essential point is he has identified a semi-fixed or semi-variable category; correct?

A. Correct.

Q. But he has not actually said what proportion of that category is attributable to fixed or variable, has he?

A. No, I do not believe he has.
Q. So when you infer that he supports the conclusion that a majority of the overall costs will be fixed, that has to be based on an implicit assumption about the breakdown between fixed and variable within a component that is specifically semi-variable?
A. I think that is a fair statement, to the extent that the purely fixed ones are below 50%, and they seem to be, and a lot of the -- there is a fairly large category of semi-fixed. Obviously if they were -- the semi-mixed ones were 99% variable and 1% fixed, you might as well call them variable, but if they are more 50:50 in nature, then that would, in my view, lead to a significant increase in the overall share of the company's cost base that could be treated as fixed and variable.
Q. We will come back to your glamorously named Monte Carlo experiment a bit later on. That was just something I wanted to pick up while you were giving that particular evidence.
Can we come back, please, to what we were dealing with, which was industry-wide costs.
A. Yes.
Q. As I understand it, you accept that there will be a proportion of costs which are common to a given

industrial sector that are properly categorised as overheads?

A. Yes, but my view is that the extent to which overheads are likely to be firm-specific will be greater than is the case both for MSCs, which is obviously the most crucial issue, and indeed by comparison to COGS, and that --

Q. Is that right? What about labour costs which for entertainment or restaurant business are going to be a very high proportion of overheads; correct?

A. In some sectors, I agree that labour could be a significant proportion of costs, yes.

Q. Something like labour is going to be -- there will be a prevailing labour rate, governed not least by the national minimum wage?

A. Yes, I think it is fair to say that there would be a degree of commonality in wages. Obviously there might be variations across firms, but I think there would be a degree of commonality in wages. There might be variation, however, in things like utilisation and, you know, the extent to which the aggregate level of labour expenditure is spread out across the activity of the firm --

Q. (Overspeaking) As I understand it, you have accepted, have you not, that labour costs can well be treated as

a variable cost?
A. I have identified that in some sectors in my public analysis that the labour cost is probably the best representation of a variable cost, an example being beauty salons where obviously, you know, there are a number of staff carrying out the work, and a few other examples --
Q. (Overspeaking) -- any service industry; correct?
A. Yes, you are right. In the retail services sector more generally, I have identified labour as an important variable cost, yes.
Q. Now, can we move on to look at the last of the economic factors I wanted to look at before looking at the variable cost issue, and that is the smallness of the MIF, as I call it.
Your approach to estimating pass-on involves looking at the economic characteristics of the merchant service charge and then trying to find a like proxy. Is that right?
A. Sorry, I was just going to -- forgive me, just taking one step back, just to finalise briefly on the fixed versus industry-wide thing, because I think my point has never been that all overheads are firm-specific and all COGS are necessarily industry-wide. A lot of COGS may well be actually determined by factors such as which

individual supplier you buy from, whether you have managed to agree discounts because you have a lot of buyer power, you know, do you tend to import or, you know, purchase domestically.

There is a range of things that could be somewhat firm-specific, even in relation to COGS, and I accept that that is also the case for MSCs.

My point is that overheads overall, which include a whole range of things, including things like property, the timing of investment as to new facilities, new logistic centres, distribution centres and so on, the variation in that is likely to be much more dictated by firm-specific decisions which can therefore, in my view, be a real concern when using overheads as a proxy for MIFs which are much more industry-wide.

Q. Now, true or false, one of the economic characteristics of a cost is both its absolute and its relative size?

A. True. I think that is true.

Q. Your approach to dealing with a proxy is to assume that the cost treatment of a very small cost can be appropriately approximated by looking at the treatment of a very significant cost?

A. True.

Q. Could we look, please, in the RBB study, this is {RC-J1.4/53/136}, picking it up, please, at paragraph 338.

What we should have there is a reference in the box to a decision of the Appeals Court of Paris in the *Doux* case, and reading at the bottom of the page, in that particular instance in French law, as it stood, the burden was on the claimant to show that there was no overcharge, but:

"Because the market was deemed highly competitive and the overcharge was industry-wide, the court found that Doux did not suffer damages because it could have passed on the overcharges. The Appeals Court ... [however] reversed [that position] and awarded damages to Doux on the basis that determining whether pass-on had occurred was irrelevant to the amount of compensation to be awarded."

Just moving on, please, to the next one:

"The Cour de Cassation [on appeal], however, disagreed and remitted the case back to the Appeals Court of Paris to determine whether Doux had passed on the overcharges.

"The Appeals Court finally ruled on the facts, that the Doux had adequately proved the absence of pass-on. [It] held that Doux had demonstrated that:

"i) Pass-on was not the normal commercial practice in the market because chicken prices respond to a multitude of economic factors.

"ii) Chickens are sold [at] an international and competitive market [price] where prices respond not only to costs but also to demand ... and prices are set by reference to [some] market aimed at ensuring the sale of the product and ... of some margin."

We then see at the bottom of that page:

"Indeed [it says], prices responded to numerous other factors such as consumer expectations, competition with other meat products [etc], such that the movement in lysine prices could not justify a change in chicken prices and Doux was not able to pass on such ... charges to its customers."

That was based, was it not, on the fact that the court, see four sentences up from the bottom of that box:

"The court found that lysine represents only 1% of the costs of chicken production, such that it could not be used as a reason to modify chicken prices."

So that is a court, I accept in a different jurisdiction, recognising that the small relative size of the overcharge in that case to the overall cost of the product was a reason why pass-on had not been demonstrated to have occurred?

A. Yes, I can see what that is saying there.

Q. You are aware in *Trucks* that a similar approach was taken, that what Mr Simpson called the "*Trucks* tiny" nature of the overcharge in that case led the Tribunal, amongst other factors, to consider that pass-on had not been demonstrated?

A. I am aware of that, and make only one brief observation -- well, two brief observations. One, my approach is looking at the best available evidence as to the sectoral estimates to assume across each sector in relation to the MIF. I think in practice that it does, given that I rely on proxies, require the Tribunal to have formed a view as to whether the proxies, even if they are large, can be a mechanism by which the best empirical evidence can be identified, and there is obviously a separate question as to factual and/or legal causation which I am not really opining on.

On *Trucks*, my only other observation is that having -- not being directly aware of it, but I think there were some issues, such as the size of this was an order of magnitude smaller even than the case here, as I understand it.

Q. Let us just pick that up. I think it was 0.02% or --

A. I think something like that for Royal Mail, and then, you know, a materially smaller amount, as I understand it, for --

Q. (Overspeaking) We are dealing here with a debit MIF of 0.2% ad valorem on a consumer card, domestically?
A. Yes.
Q. So that is a magnitude of 10 higher?
A. Yes, that is right.
Q. You are suggesting, as I understand it, as one of the relevant proxies for the public sector analysis at least, VAT, which of course is -- the prevailing rate is 20%?
A. Yes, I agree.
Q. Which is a factor of 100 higher than 0.2%?
A. Yes, it is -- I certainly agree that the proxies I am using, and that also includes in my previous studies, the changes will be larger than the MSCs. In part that is by design to address the signal to noise ratio. It just would not be relevant or get us anywhere to try and look at empirical evidence or studies that relate to the same size as the MSCs because of the obvious signal to noise ratio problem.

So then the question is: from an empirical assessment on the larger cost in terms of the rate of pass-on, is that relevant? My answer to that is it is relevant. The economic principles would indicate that the incentives apply at the same rate, irrespective of the size, and that while I accept there might be issues

around price adjustment costs or the timing of the mechanism by which that same underlying incentive would apply, in the context of these proceedings, given the counterfactual, that is not relevant, because that would be only relevant to a short-term assessment and we are looking at a long-term one.
Q. So to summarise, you recognise that you cannot show the impact of such a small cost as the MIF having a direct impact on price increases or price decreases downstream in the merchants' claims; correct?
A. I think, yes, if one is looking at an empirical analysis due to the signal to noise ratio, and I think all the experts were, bar Mr Murgatroyd, sort of accepting that.
Then there is the question about what do you do about that? Obviously there is some qualitative evidence, and there is a question mark as to how comprehensive the qualitative evidence is and --
Q. (Overspeaking) We will be coming on to that, I promise, again.
A. Then there is other evidence, including what you have already said you will come back to, which is the European Commission study evidence, and evidence that individual organisations have said about what they would -- what their concerns are about MIFs, such as, you know, rising scheme fees driving up consumer prices

which is what the RBC said.

Q. One of your responses is then the one you have just given, which is to pivot to say, well, the smallness of the MIF may mean that in the short term nobody takes it into account but in the long term things will be different?

A. Yes, I think that is one way of putting my broader point, which is that in a but-for test, and assuming, as I do, that in the long term, the underlying incentives of the firms and indeed the whole sector are a reasonable assessment as to what the rate of change would be in a but-for test, that that change is essentially the same whether it is a large or small change in price.

Q. So if I book a Hilton Hotel room for the weekend, am I about to pay a price that is based on a MIF that was set in 2012?

A. My point is not that the explicit pricing strategy will have a ten-year lag, or 12 in that case; it is that if there is a price adjustment cost, then that can be addressed through the cumulative effect of multiple costs that the company might look at. Or alternatively, even if there is no direct channel for the price adjustment, it might take effect through the competitive reaction.

Q. Just using my example of a MIF cost incurred in 2012 by Hilton, when did Hilton price that MIF into its room rates? Which year, from 2012 to 2024?
A. So, firstly, my point is not that it would be looking back to see what were the MIFs in 2012 in order to say, in 2015: let us have a three-year look-back period. What I am saying is that, if there was a permanent change in costs, then those would obviously persist for a period of time, and the nature of the reaction to that can either be quick, i.e., you know, when the cost change happens, it is already encapsulated either directly by the company, indirectly through the --
Q. Is there any evidence of any of the companies incorporating a change directly in that way? If you need to mention a specific name, then we will deal with it tomorrow morning.
A. I think we can deal with that tomorrow morning. My understanding is that two or three of the companies seem to indicate that they take into account MSCs of the small set of the claims that have come forward to provide some evidence.
Q. (Overspeaking) For the rest of them, it would necessarily have to be through a budgetary and accounting process of accounting for all costs in due course; correct?

A. No, that not correct. Those would be alternative mechanisms, but, firstly, I do not think that the mechanisms identified are necessarily exhaustive, and that is what I said in my report, that I have focused on four direct through pricing strategy, two versions of indirect via the company's own processes, whether it be target margin setting or incentives.
Q. These are your implicit channels point?
A. These are the implicit channels and --
Q. (Overspeaking) So your answer to my suggestion that you are talking about budgetary is to say: no, I have four implicit channels; correct? Because there is no point reiterating the implicit channels that we have been through and we are coming back to, if that is what you are about to do, with respect, because we are coming back to it.
A. Ah, okay. Let me sort of try and answer.
The reason I was disagreeing is that the competitor reaction channel is not an explicit target margin setting process, that is all I meant to say.
Q. Can we move on, please, to look out the issue of variable cost. Now, I think it is -- well, it is relatively clear that your position is that the MSC is a variable cost; is that fair?
A. Yes.

Q. Broadly speaking, you would say therefore that COGS in the appropriate proxy; correct?
A. Well, not just because it is variable, but because it is variable and industry-wide and because we have a long-term framework.
Q. Could I ask you, please, to look at Mr Fraser's evidence for Marks & Spencer. That is {RC-H1/10/3}. Some of this is confidential, so I will simply invite you to read it without reading it out.
If we can look, please, at paragraphs 12 to 13 first, you can see what he says there. Please could you read those to yourself.
A. Yes. (Pause)
Yes, I have read 12 and 13.
Q. Thank you. Please could we then go to page 7, paragraphs 31 to 33 {RC-H1/10/7}. (Pause)
A. 31 through 33?
Q. Yes, please. (Pause)
A. Yes.
Q. Can we now please look at Mr Dixon's evidence at {RC-H1/6/2}, paragraph 7. Please would you read that. (Pause)
A. Paragraph 7?
Q. Thank you. Could we now please go to {RC-H1/15/6}, which is Mr Heier's evidence from Wagamama. Please

could you read paragraph 43, which is not confidential. (Pause)

Then please could we go to paragraph 55, which should be on page 7 {RC-H1/15/7}, at the bottom of page 7. That is confidential. (Pause)

Then finally, please, page 8, paragraph 59 {RC-H1/15/8}, which is not confidential. (Pause)

A. Okay.

Q. Just dealing with non-confidential evidence that you have just looked at, that particular company priced essentially by reference to competitor pricing and also gross margin; correct?

A. Yes.

Q. It did not put the merchant service charges into that calculation, they were treated as overheads instead; correct?

A. That is indeed what it says, yes.

Q. With the exception of possibly two of the analysed claimants that we have looked at, it is fair to say, is it not, that there is a general trend that MSCs are treated as part of overhead costs?

A. I think it is fair that a number of the organisations you have taken me through have described that MSCs are often taken into account as part of the overheads, yes.

Q. They will not, therefore, be factored into the COGS

calculation?
A. In those cases I think that may be correct, yes.
Q. Therefore, there will not be a direct way in which MSCs, as a cost, are factored into COGS as a determinant of pricing?
A. Yes. I think, again, with the caveat that it does not seem necessarily to me that the information that has been provided overall, and I am not making a specific comment about an individual claimant or statement, but that in general I find it quite difficult to make absolute statements of the form: they have never taken into account or never would, because the evidence I think that you would in principle need to look at in order to rule something like that in or out would need to be not just the description of the policy but the actual application of the policy over the whole claim period in relation to all potential changes that took place in terms of costs and exactly how those were then factored into account.

That is not the evidence base that we have. Obviously I am happy to engage with the questions on the presumption that we can take -- in some of these cases it perhaps is the case that --
Q. (Overspeaking) Well, let us get to your positive case, which is implicit channels. Please could we go to

{RC-G/17/120}. It is your twelfth report, paragraph 355. I did promise I would come back to it and this is the first promise I am fulfilling.

Looking at the implicit channels in paragraph 355, we see that they are helpfully separated out there. The first one is:

"Direct consideration of costs that include MSCs. Pass-on can occur when the firm sets prices directly based on cost measure ..."

Now, subject to two potential candidates for that that we will come back to tomorrow morning, it is fair to say, is it not, that you have no evidence of that routinely happening in practice for the SSH Claimants?

A. Yes, I think the evidence from the SSH Claimants is obviously limited to what they have provided. In some of the cases, it seems that they say they do not take it into account. In this section, which is section 7 of Holt 12, I have made those assessments; in other words, in some cases I have accepted that according to what they say, they say they do not take it into account. How far you can read into that, given that these are, in my view, non-exhaustive channels, and there might be questions about: even if the policy is put in place, what would have happened in the counterfactual? Or: under what circumstances might, you know, the precise

application of the policy in all cases represent exactly how it is described at a high level? That I cannot be sure about, but I have --
Q. Can we then please look at the employee compensation, which is your second channel, and hopefully deal with this a little more quickly.
A. Okay.
Q. You have speculated about that. We discussed that on Tuesday afternoon, I am not proposing to re-open that particular debate. But it is true, is it not, that there is no differential based on fixed or variable overhead costs which will determine one way or the other how employee compensation is treated as an implicit channel, i.e., if it is a channel, and that is the debate we had on Tuesday afternoon, then there is no differential treatment in your analysis between mixed and variable overheads within that implicit channel?
A. I do not have a sufficient information base to say whether it is or not. It might be that that is the case. It might be that we do not have enough information to make that determination on a case-by-case basis.
Q. The next one, margin targets.
A. Yes.
Q. Again, the same point: if you are relying on, for

example, an EBITDA margin target, there is no distinction within that margin target between fixed and variable overhead costs, is there?

A. I think the same answer applies. I do not think there is enough information with which to make that type of assessment. During -- I think it was perhaps the other day, I cannot remember if it was in the hot-tub or not. My understanding is that there are cases where some of the claimants, again bearing in mind this is a limited disclosure exercise or information exercise from a limited number of people who have come forward, already seems to indicate that there are cases where they treat things differently, even though they are all cast as overheads.

So I do not think that one can make a blanket statement that all overheads are treated the same way for either target margin setting or employee incentives.

Q. Could I then please deal with the fourth one of your four implicit channels, which is competitor pricing. That will only differentiate between fixed and variable overhead costs if the competitor differentiates between those costs itself; correct?

A. Not quite correct. I agree that would be a vehicle through which that would happen, but, as I explain, for the competitor reaction issue to happen, you do not need

the rival to have made a conscious decision or to have the direct pricing strategy mechanism. All you need is that any of the mechanisms would have applied and --
Q. Again, I covered that with you on Tuesday afternoon, so I am not seeking to re-open the merits of the individual implicit channel debate. As far as I am concerned that is over, at least for my part, for this trial.
A. Okay.
Q. Can I just talk to you about why there are some real world reasons why merchants would treat MSCs as an overhead, rather than as a cost of goods sold. Let us see if you agree with these.
Firstly, the merchant does not know what card payment method, or if a card payment method is going to be used in advance of payment, does it?
A. I agree with that at the individual level, but I do not agree that that is a relevant criterion, given that they will have a very good idea, at least within normal bounds of error, as to what the overall proportions of payments will be, based on long-standing practice and their own observation.
Q. So when they are billed monthly by their merchant acquirer, they will no doubt know roughly within any given year what the monthly payments are likely to be, based on past payment. Is that your point?

A. No, my point is that even if they do not know whether John Smith will use cash or card, that is not a relevant consideration, because over the course of a reasonable period of time they will have a view that, on average, 10% are using cash, 80% are using debit card and 10% are using credit card, and that is the salient information that they will take into account.

Q. But they do not know, do they, even within the breakdown of a debit card or a credit card, whether it is going to be a consumer or a commercial card, whether it will be an EEA transaction card or not. There are all sorts of factors that they will not know about in advance?

A. Yes, but the same point applies again, that they will have experience, they will -- depending on -- from some sectors -- sorry, in some sector cases it may be that they are more typically having customers who are tourists, and therefore they would expect and see in the data a higher share of inter-regional transactions.

But that is something that they would have data on and could -- you know, it would not be sort of a random mix as to what the transactions are. They would have evidence on that.

Q. You will recall from Trial 1, when we looked at some of the invoices that were submitted by merchant acquirers to merchants, that those monthly invoices would typically be done on a total transaction basis, rather than broken down by individual category of product. Certainly it would not go down to the individual purchase item, would it?

A. Well, I agree with that, but it is also consistent with my prior point, that it is not relevant to look at the individual purposes, it is relevant to look at the totality of your purchases and what broad percentages are going to be made by card versus other things.

Q. For a consumer using a card, that will quite often, in a supermarket, for example, be buying a basket of goods, not an individual product; correct?

A. I agree, and, again, it is not relevant, because I am not saying that each individual MSC change would necessarily have to apply to each individual product, or that all the products would need to be purchased jointly.

If there is a change in the MSC that applies to the basket, then that affects the incentives in terms of the margins earned by the retailer on the entirety of the basket. Does that mean they have to apply the incentive change on the prices of each of the individual goods one-by-one? No, of course not. They can just have a somewhat larger discount on bananas, knowing that the typical customer buys bananas, milk and fruit, and other fruit, and that basically by inducing additional sales of bananas, the basket factor will mean that they apply the right incentive overall at the basket level.

Q. Of course, the MIF is not a cost that the SSH Claimants can negotiate in advance, and they have no control over it, do they?

A. Well, I agree with that, because the MIFs tend to be set at the -- by the schemes on a published basis. There are some factors that determine what the level are for different transaction types, but they are not subject to individual negotiation. My conclusion from that is that that makes it even more a candidate for an industry-wide treatment of a proxy, because things that can be individually negotiated to a great extent from firm to firm would bring in a bit more of a firm-specific component.

Q. But you can therefore see, on the combination of all these factors, why a given merchant will think: well, I have a monthly bill from Barclaycard, it is going to take an awful lot of effort to break it down and attribute it to specific individual products. I am going to put it into the box marked "overhead" and work out how to deal with it in due course?

A. Well, that -- what individual firms might do could -- that could be an explanation, and I can see that maybe some do treat it as an overhead. I would not want to reach a view that because one firm has treated it in that way, that that is a good basis to assume that all its close competitors, or indeed the rest of the sector, would do it that way.

In Holt 12, I -- because that was a point that had been made by Dr Trento on the basis of Mr Economides' evidence, that, you know, he said, well, this qualitative evidence on treatment is representative and therefore we can apply it to the whole sector.

Well, the problem with that is it is not representative, it is brought forward by a small number of self-selected claimants, in my view, that come forward, but also these matters are not really, in my view, subject to extrapolation in the same way that the underlying conditions of market demand -- supply and demand can be extrapolated from one firm to the whole sector. But these are very idiosyncratic decisions made by individuals that could vary over time, vary within the firm, and I cannot see that you could, you know, assume that just because company X treats it one way, company Y must do it that way as well, and a limited review of that suggests --

Q. I am sorry to interrupt, but --

A. Sorry, I will stop there.

Q. That was a very long answer.
A. Yes.
Q. You are packing together a number of different things that I will be coming to, yet again, in due course, and I would like to deal with the extrapolation point, for example, separately, so that we have a logical compartmentalisation of the issues, rather than them all in one answer.
A. Sure.
MR BEAL: I notice the time is probably suitable for a break.
THE CHAIRMAN: Which number of your 14 are we on?
MR BEAL: I am very reluctant to tell you that. It is still quite a low number.
THE CHAIRMAN: All right. We will have a ten-minute break now.
MR BEAL: Thank you.
(11.46 am)
(Short Break)
(11.55 am)
THE CHAIRMAN: Yes, Mr Beal.
MR BEAL: In answer to your question, sir, it is four of 14.
THE CHAIRMAN: Excellent.
MR BEAL: But some of them are shorter than others.
Mr Holt, can we deal with the concept now of

marginal cost versus variable cost.
A. Yes.
Q. So, as I understand it, you acknowledge that in the theory of perfect competition at a microeconomic level, firms will set price equal to short-run marginal cost?
A. Yes.
Q. Changes in marginal cost therefore influence the profit-maximising pricing decisions?
A. Yes.
Q. Marginal costs are different from variable costs; marginal costs are a subset of variable costs?
A. Yes.
Q. To the extent that you have used the two terms synonymously, is it your case that COGS would be a marginal cost?
A. I think while I agree that -- sorry, let me just try and answer you. I am treating COGS as an industry-wide variable cost. I am not saying that COGS would necessarily be marginal costs, and I am not essentially applying a short-run marginal cost framework.
Q. Overheads of course can be fixed or variable. That is common ground, I think, between us?
A. Yes, or semi-fixed, yes.
Q. Yes, of course, the three categories.
A. Yes.

Q. But you would not, I think, treat an overhead typically as being a marginal cost that goes into the marginal cost short-run pricing calculus?
A. No. I think if there were relevant variable costs within the overhead category, then that might be still potentially relevant.
Q. Could we look, please, in {RC-J1.4/19/34}. These are the 2019 Commission Guidelines. Please can we look at paragraphs 158 and 159. You will see here that the Commission is looking at input costs and their effect on pricing decisions?
A. Yes.
Q. It says:
"Whether [or not a firm is] able and willing to pass on the overcharge on their own customers ... depends, among other factors, on the cost structure of the purchasers."
You would accept that?
A. Yes.
Q. We then see:
"... it is important to determine whether the input cost incurred by a purchaser facing an overcharge varies with the input quantity it orders (i.e., variable input cost) or not (i.e., fixed input cost). Indeed, economic theory indicates that the relevant cost category for

short run price formation is variable costs or more precisely, marginal cost ..."

So it is recognising there that in the short-term marginal cost calculus, which is used for microeconomic theory, it is marginal cost, not the wider category of variable costs, that will determine price?

A. Correct, yes, in the theory, yes.

Q. In other words, the economic incentive to continue producing goods will depend upon marginal revenue being -- covering the marginal cost of the next additional unit. That is the classic microeconomic theory?

A. Yes.

Q. Could we then, please, look at {RC-J1.4/53/66}. If we look, please, at paragraph 110 and paragraph 111 in the RBB report. What the authors are there recognising is that in terms of the pricing process, it is the impact of marginal cost that will have the largest determinant factor. Is that correct?

A. That is correct, yes. Again, in the short run and in the sort of theoretical proposition.

Q. If we could then please turn to page 74 {RC-J1.4/53/74}, one sees in paragraph 139:

"The application of economic principles suggests it is generally a firm's marginal costs that will have the decisive influence on its pricing decisions, at least over the short term."

A. Correct.

Q. Which I think you accept?

A. Yes.

Q. Now, a business will of course also know about its fixed costs, such as its rent; correct?

A. It will, sorry, know about? Yes, agreed.

Q. But it does not, in practice, typically price by reference to its fixed costs?

A. I would agree with that. Certainly from a theoretical perspective, it would not be in line with its profit-maximising incentives to price with its fixed costs, at least in the short-term, yes.

Q. Can we then look at -- back on the screen at paragraph 140.

It says:

"... consideration of overcharges affecting fixed costs may also be relevant in specific situations. That is clearly the case over the longer term, when firms must make a decision to renew fixed assets or leave the market. It [may] also be true in some situations with negotiated prices ... It may be the case too where the incremental costs of fulfilling a particular contract, say, include additional fixed costs. Factual evidence may also indicate that fixed costs have an important influence on a firm's pricing decisions in practice."

Therefore, it says:

"Careful assessment of the case-specific pricing context is therefore warranted to confirm the relevance or otherwise of overcharges which affect fixed costs."

So even we are dealing with an overcharge that affects purely a fixed cost, it can still become relevant in a given factual situation?

A. Yes, I think the primary mechanism by which it would be relevant would be where the change in the fixed cost has some impact on the supply and demand conditions, and there is a range of ways where that could happen: exit, entry, more marginal decisions about investment of capacity, and so on.

Q. The whole point of economic theory is to see how the firm treats its costs and use economic theory to explain the pricing behaviour, is that right?

A. Well, the whole point is perhaps going a little bit wide, but I would agree that is a point, yes.

Q. Your contention is that COGS is a reasonable proxy for the marginal cost of goods sold?

A. Yes, as an indicator for the degree of pass-on in the longer run of industry-wide variable costs, yes.

Q. We then see, if we look in your eleventh report, please, at paragraph 82 {RC-F/19/48}, you say there, paragraph 82:

"Fixed costs are costs that do not vary with the level of output. Changes in fixed costs do not affect the trade-off faced by a firm because they are incurred regardless of the level of output."

When you say "trade-off" there, you are talking about the profit-maximising trade-off: increase in cost, increase in revenue, compare the two, work out what you are going do; correct?

A. Correct.

Q. "As a result, changes in fixed costs do not affect the profit-maximising price and will not generally be passed on."

So that is your evidence. But, as I understand it, you are also contending that in the long-run, no costs are fixed and all are variable, and therefore, because of the impact on market entry or exit decisions, they become variable for the purposes of analysing whether there has been pass-on of a cost?

A. There is a slightly more complicated response to that, and I am sort of aware of the need for time and do not want to go ... I will try and be concise.

I agree that in the longer term, costs that are fixed over a shorter period of time can be reappraised.

You know, you might have a new lease on your property coming up. So that is the sense in which what is fixed now might still be subject to a variable consideration in the longer term.

How that is relevant to my framework is that it is not actually particularly relevant to my framework, because that is a comment on what are fixed costs and what might happen to them in the longer term. My framework indicates that the nature of the MIFs are not fixed, so I do not actually put a lot of weight on the treatment of fixed costs. I am merely saying that I recognise that there is a mechanism by which even a fixed cost could lead to a degree of pass-on in the longer run because (a) it is variable and can be re-assessed and, as a result, in reassessing whether it is worthwhile, you know, renewing a lease, for example, that can have a supply and demand impact on the economy -- or, sorry, in the market in question, and that can therefore lead to a pass-on. That all.

Q. Could we look, please in the RBB 2016 report at paragraph 458 {RC-J1.4/53/172}. Paragraph 458, we see in the first bullet:

"Delineation between variable costs and fixed costs is not always clear in practice ... need not correspond to accounting convention ... Importantly, the timeframe over which pricing is considered affects the categories of costs that should be considered."

It then talks about aircraft as an example.

So it is right, is it not, that if you do not have the right analysis of how the particular cost is treated, it can lead to biased estimates of what the consequences are of marginal costs, for example?

A. That is actually almost the opposite of the interpretation I would put on this paragraph. This paragraph is saying: what you really want to know for pass-on is what is the underlying nature of the cost. Is it fixed or is it variable? Now, in some cases, it might be quite obvious. In my view, that is the situation for these proceedings. In other cases, it might not be obvious, it might not be marginal in quite the short-term way that it is in the case of the MIFs.

Therefore, you might then need to carry out quite a lot of work to understand where is it on the fixed to variable spectrum. One route you might go to is accounting information, but I think this paragraph is identifying that that is a potentially risky source of evidence, because what companies treat in their accounts may not actually reflect the nature of the costs.

Q. Now, you have referred on a number of occasions to the EY and Copenhagen economics study for the EU Commission.

I did promise we would go there so I am now fulfilling my second election promise.

This is {RC-J4.2/141/168}. You will see here that it is a section dealing with merchants' pass-through of interchange fee reductions?

A. Yes.

Q. Could I ask you, please, to look at the second paragraph down to the fourth paragraph and just read those to yourself.

A. So from -- yes. Sorry, the second, starting ...

Q. Starting, "Since the pass-through ..."

A. Yes.

Q. Then, "We find that merchants ..."

(Pause)

A. Sorry, and through to the second last paragraph, is that right?

Q. The paragraph that begins, "We find ..." is the last paragraph I am inviting you to read.

A. Yes, I have gone that far.

Q. You will see that the authors have said, in terms, the analysis does not allow to assess whether there was in fact a pass-through of cost savings stemming from the IFR. Do you see that?

A. I think that reflects the issues that we described earlier around the signal to noise ratio, which obviously does apply in this case as well.

Q. If we look, please, at page 170 {RC-J4.2/141/170}, under the heading, "Collection of pass-through data", the authors make the point you have just made, which is:

"Interchange fees constitute very small costs of payment which are very difficult to measure without extensive and granular cost and price data, if at all."

Then it says:

"Following the capping of interchange fees in the past [and they give two examples], the direct assessment of pass-through of cost savings was difficult because the cost changes from capping were very small. Therefore, this chapter seeks to measure the pass-through of cost savings resulting from the IFR indirectly by conducting a meta study."

So the authors of this analysis were not able, were they, to conduct a meaningful regression analysis by reference to the MIF overcharges -- the MIF decrease itself?

A. Agreed. That is consistent with my view that I was taking in relation to these proceedings as well.

Q. If we then, please, look at page 175 {RC-J4.2/141/175}, the authors chose to model instead a proxy cost, much as you have, and what they say is:

"Moreover, the results for the food retail sector ..."

So they have focused solely on the food retail sector and they have dealt with cost increases in the food retail sector and they say:

Cost increases are consistently passed through on a larger scale than cost decreases."

That is the feathers and rockets point; correct?

A. Yes.

Q. Then it says:

"On average cost increases in the Member States of interest are nearly fully passed through to consumers at 90%, whereas only 66% of cost decreases are to pass-through. This is in line with literature."

A. Yes, the question I would have there is: well, what were -- obviously this is a meta-analysis of a series of other studies. Those other studies will have examined a range of types of changes in costs, some upward, some downward, and of various types.

I think the critical issue here is some studies are short-term in nature, they are looking at a very short-term transmission mechanism, given their modelling methodology. Other studies are of a longer-term nature, and to the extent that this shows some difference in upward and downward effects, my view is that that is more likely to be a short-term consideration.

Q. Can we look, please, at the bottom of page 175, the final paragraph there:

"The reported pass-through rates for the five Member States cover direct cost changes in the food retail sector that we used to approximate the pass-through of cost changes resulting from the IFR. The change in interchange fee, however, is an indirect cost change that is the change of cost payment rather than of production. Since the pass-through of indirect cost changes could differ from the pass-through of direct cost changes, the estimated pass-through rate should be applied with caution."

You would recognise that the same statement needs to be made when you are relying on direct cost changes to COGS in your analysis, would you not?

A. I agree that there is a question that we are having a debate on as to whether the proxy is a good representation -- a COGS-based proxy is a good representation for the MSCs. In my view it is, because it shares the characteristics, and in particular because, although I acknowledge there could be some channels and timing considerations that could be potentially relevant in the short-term, those, in my view, would not be relevant to the long-term framework which is appropriate here.

Q. Can we look, please, at page 189 {RC-J4.2/141/189}, and start looking at some of the empirical evidence they were relying upon, and bearing in mind I think in your report you have cited this with enthusiasm as an example of qualitative evidence that you are prepared to take into account, we see what the qualitative evidence consisted of, and it consisted of phone interviews with merchants?
A. Yes.
Q. Ten large merchants in the retail, travel and accommodation sectors with activities in several EU Member States ... interviews conducted over the phone in the period from September to mid-November 2019. They typically participated with two to three pricing managers.
    "All merchants emphasised that pricing was determined as part of an interaction between competition and market factors on the demand side and cost factors on the supply side. The actual distribution of weights given to the two sides differed significantly between markets and sectors and varied over time, both in the short run and the longer run.
    It then says:
    "The majority of merchants operated a price calculation model to help them determine optimal pricing

from the cost side. In most calculation models, payment costs were an explicit variable cost category in line with many other variable costs within a main category, as, for example, store costs, station service costs or store expenses, and under control of the local store. In a single case, it appeared as though payment costs were treated as fixed cost that was not controlled at local store level."

So that is the analysis that is coming back from the ten merchants that they interviewed over that period; correct?

A. Correct.

Q. We then see, please, on the next page {RC-J4.2/141/190}, in the second paragraph down:

"All merchants stressed pricing was often influenced by competition and market factors rather than cost factors, in particular in the short run. Their industry was competitive and [they] were to a large extent a price taker. As such changes in payment costs are not directly influencing the prices, it could create situations where cost increases, as for example the removal of the right to surcharge certain card payments, are taken by the merchant instead of being converted into general price increases. It was often stated that pricing is mostly driven by local competition but there is an interaction as variable costs ... form a floor for pricing that cannot be under-priced ... However, merchants would not do it for longer periods to avoid losing money."

So they would temporarily run below cost but they could not do it long-term.

It then says:

"No merchant could mention an example of a specific price change that was driven explicitly by a change in payment costs."

Pausing there. That payment costs as a whole, is it not, not simply the MIF?

A. Yes.

Q. "The merchants agreed that this is no surprise as changes in payment costs typically are small and would not be sufficiently large to release price adjustment by themselves. This was a feature that was shared we many other cost categories. They all stressed that the key principle was that all cost categories contributed proportionally to a decision to initiate price changes. The price is a sum of many cost components, so payment costs will have an impact - like ... other costs do."

So we there see, do we not, that what the firms are saying in this interview that you have relied upon is exactly similar to the evidence that we have

qualitatively in this case from the analysed claimants?
A. I do not think I agree with that statement. I think what I take from the passage that you read out is, first, that although the interviews were only of ten merchants, many of them had models which took into account payments.
Second, that they seemed to say that payments change did not -- they could not think of an occasion where a payments change was a trigger for a price change, but I am not saying that it necessarily would be; rather I am saying that it would be taken into account across the range of relevant industry-wide variable costs when thinking about pricing and that is what they then go on to accept, that they all stress that key principle is that all cost categories contribute proportionately to the decision and indeed, to the extent of any decision, a price is the sum of many cost components. So that statement is entirely consistent with my framework.
Q. Could we look in your eleventh report, please, at paragraph 81 {RC-F/19/48}. What you posit there, referring to --
A. Which paragraph?
Q. Paragraph 81, sorry.
A. 81, yes.
Q. You say:

"When the variable cost of production increases ... and prices remain unchanged, the profit margin ... decreases. This reduction reduces the profits per ... sale ... This changes the trade-off ... so that the firm has an incentive to increase prices and pass-on an increase in variable costs."

So what you are suggesting effectively is that an impact on the gross margin may lead a business to increase prices to try and recapture the gross margin it had before. Is that what you are saying?

A. I think that is one way of putting it. Essentially, when there is change in the cost, that change -- so prior to the change in cost, you are, in the theory, operating at a particular profit-maximising point where you would not want to either increase or decrease prices. What I am saying is that if there is then a shock to the variable costs or marginal costs, then the trade-off now changes because the loss associated with the price rise would be some lost sales and the margin that you lose, in particular, on those lost sales, but if the variable cost goes up, then that trade-off is different because the negative impact of the lost sales goes down and therefore you are more willing to raise prices and take -- essentially take the margin hit on the lost sales. So that is really what

I am describing.
Q. Well, you have not anywhere analysed the fact that the price increase would lead to reduced demand and therefore lower profits overall in that paragraph?
A. Sorry, in that paragraph, it is explicitly, or perhaps it is implicit -- I would have to re-read whether -- the trade-off is directly as a result of the impact on demand associated with the price increase. So it is not correct to say the trade-off is agnostic of the impact of a price increase on demand. It -- that is of course the only reason why there would be a negative to a price increase is because, due to demand, you might have less sales if you raise prices. So I do not really agree that I am somehow --
Q. In the real world --
A. -- ignoring that.
Q. -- a business might have a very small increase in its cost and decide to absorb it, rather than face risk of reduced demand?
A. Well, that would be inconsistent with its own profit-maximising incentives, to the extent that by raising price and suffering some reduction in demand it would be better off than taking the margin hit in the first place.
Q. Conversely, where there is a cost decrease, for example,

in your counterfactual, it may be that the business would prefer to stick with its existing pricing policy, rather than reduce it, because it may think, well, there will not be a significant impact on demand?

A. Well, it would only do that if it was either in a situation where the underlying pass-on rate is zero, i.e., there is no profit-maximising benefit to reacting to variable costs. That is a very limited set of conditions which empirically, you know, does not really arise in many contexts. So the statement really is inconsistent with the firm's own incentive to react to the change in the industry-wide variable cost.

Q. So the firm has to have visibility, does it not, of the change in variable cost in order for it to hit the trade-off?

A. No. Because although your focus is on -- let us say there is a price reduction -- let us say there is a cost reduction and our current margin is 50%. Well, if there is a variable cost reduction, is that not great, now our margin goes up to 60%, instead of 50? That is great. That that be the best place to be. Let us stick it the same price and now have a 60% margin.

My whole point is that firm would recognise that, because the margins are greater, it is worth having more sales than it previously was trying to get.

Now, the reason it would have more --

Q. That necessarily assumes, does it not, that the firm is aware that its marginal costs have risen by the 10% headroom that you are positing it has?

A. So, yes, in the sense that if it is reacting in a direct way to its own financial -- sorry, profit-maximising incentives, then, yes, it would apply it in that way.

My point though is that profit-maximisation is not something I am saying is applied at each instant individually by the firm, but that there is a range of channels by which than can be achieved, including the competitor reaction one, and that that would be the consistent long-term outcome.

Q. But the implicit channel will not trigger the marginal cost analysis that you are otherwise relying on. They are different processes, are they not? Marginal cost analysis is a direct pricing approach --

A. Yes.

Q. -- and what you are implying through your implicit channels is, well, even if they do not have that direct approach, there are still other ways in which the MIF can be factored in to the overall cost analysis?

A. Correct. Some of them are still triggered by the change in the cost because those changes in cost are taken into account in other information that is monitored. Some of

the other channels, particularly the competitor one, does not require any observation of any cost change or profit change at all. It merely requires an observation of the rival doing something to pricing that you then need to react to in the market.
Q. So I think we are agreed that if the firm in fact does not treat the particular cost as a marginal cost, it is not going to get factored in to the sort of direct marginal cost pricing analysis that we have been discussing?
A. Well, I think that is probably -- I think that might be fair, that if you can describe the pricing strategy comprehensively, in the sense that the information means -- well, if the proposition is a cost can be taken as never relevant to the pricing strategy and, for example, let us say MSCs are just never taken into account in pricing strategy, then I would agree that the direct pricing strategy through a change in the cost taken into account would not be the channel by which it would take effect in that set of circumstances. In that set of circumstances, there may be other channels that would apply.
Q. Can we look, please, in {RC-J1.4/19/35}. This is the Commission Guidelines 2019, recital 161. We see there that the Commission is saying it is important to see

whether firms supply their products or services to purchasers, for instance often some components of the price paid by a purchaser are not dependent on the volume purchased, whether some other components are.

It then says the timeframe over which pricing -- sorry, it then says:

"... it is important to determine whether the price components affected by the infringement are fixed costs or not from the point of view of the purchaser."

Can you see that?

A. Yes.

Q. Then in 162, it says:

"The time frame over which pricing is considered will affect whether costs are categorised as variable or fixed."

It refers to general economic theory.

Then in the last sentence:

"When assessing the relevant time frame in a specific case, the court may wish to consider information from the party's internal documents, e.g. information on the costs that firms take into account in their own pricing decisions."

A. Yes, I agree. That could be an input in a situation where, as I mentioned before, there is material uncertainty as to the actual true nature of the cost in question. Obviously -- in general cartel overcharge cases, those might apply to a whole range of types of costs and the costs in question might in some cases be variable ones, in some cases fixed, in some cases somewhere in between. In the cases where it is not a clear-cut case, then you might need to look at a whole range of information in order to help determine what is the true nature of those costs. That could include internal information, but, as the -- I think it was the RBB report that we looked at before said, one should hesitate before you attribute too much weight to that accounting information.

Q. Well, let us just deal with it: as a general proposition, COGS is going to be a significant marginal cost for most firms, is that fair?

A. That is fair. It varies from sector to sector, but generally fair.

Q. A general proposition, I am not going to hold you to it for a specific firm. So, as a general proposition, if the COGS is arguably the most important determinant of pricing in the short-term?

A. It may be.

Q. You have chosen COGS as the proxy for these businesses to represent the MIF overcharge in the analysis; correct?

A. Correct.
Q. So you have therefore selected the most important component of the pricing calculus of a direct basis to stand in for an overhead cost used by the firms not to determine their own prices and you say that that is a reasonable proxy?
A. Yes, I do.
Q. You then apply that proxy to your regression analysis, even though you recognise, I think, that there are multiple assumptions that need to be made to conduct a pass-on analysis using regression?
A. Yes, there are indeed assumptions, yes.
Q. So it is an inherently imprecise process, at which you are going to ascertain the correlation between a very significant component of price and the determination of price by a standard firm?
A. Yes, there are uncertainties in most regression analyses or even perhaps all, yes.
Q. I am now going to move on, please, to the issue of the nature of the fixed costs, issue number 5.
Now, in your twelfth report, please {RC-G/17/76}, paragraph 213, you suggested that Dr Trento has, by virtue of his classification of the MSC as an overhead, treated it as a fixed cost. Is that the way you put your point there?

A. Yes. I mean, to the extent that a substantial
proportion of overheads are either fixed or at least
semi-fixed, yes.
Q. Let us see what Dr Trento has in fact done. This is at
{RC-F/2/66}, paragraphs 9.20 to 9.23. By all means cast
an eye over those paragraphs. Where in those paragraphs
does Dr Trento say that he is transforming the MSC into
a fixed cost? (Pause)
A. Well, it does not say that here. This is talking about
COGS.
So, firstly, he says the textbook categorisation of
marginal versus fixed cost is where -- is relevant in
theory and that that might lead -- and there could be
a difference in relation to pass-on between COGS and
overheads.
Q. Well, these are the paragraphs you relied upon --
paragraph 240 of your twelfth report -- to suggest that
Dr Trento had treated or transformed the MSC into
a fixed cost. So these are the paragraphs I am taking
you to try and establish whether he said that.
A. I see. I think perhaps that reference was not the most
helpful reference to Dr Trento's remarks. I think what
he is saying here is the description of the types of
costs that are related to variable costs, which largely
can be COGS and they are taken into account in pricing,

I agree with you, my reference perhaps was somewhat incomplete, in the sense that Dr Trento is not here saying that he uses the treatment of evidence from the claimants to indicate the use of overheads as a proxy. Clearly that is what he is doing and essentially most of but not all of --

Q. His analysis goes as follows, does it not: he says firms in practice are treating this as an overhead cost for the vast majority of cases, therefore an appropriate proxy needs to be found in the overheads bucket of costs and relying on COGS, which is the single most important determinant of pricing, is not going to give you a good parallel?

A. I think that is his perspective and I disagree with it because he is overlooking the inherent nature of the MIFs and he is not recognising in my view -- he has not commented on it one way or the other, as far as I am aware -- as to whether the pass-on rate that we should be looking at is a short-term or long-term one. I am very clear that nature of the counterfactual clearly points to the importance of the long-term framework. He does not seem to comment on it either way, but I think that might be one reason why we have a different perspective on this.

Q. Could we go to your twelfth report, please, paragraph 217 {RC-G/17/77}. What you seem to be suggesting there is that there is insufficient evidence as to whether or not businesses do in fact treat MSCs as an overhead cost. Is that your position?

A. My position is it is not helpful or informative and certainly not proportionate or necessary to adopt this framework of looking to see what is the pricing strategy or the other documents that might relate to all the different channels. So that is my main position on this.

My position, having looked at the evidence, given that it was put forward, is that it is difficult to reach any definitive conclusions for a lot of these cases for a number of reasons and I would be happy to expand on that.

Q. Let us move on to the issue of fixed costs and overheads as fixed costs. Your case, as I understand it, is that a majority of overhead costs will be fixed, or do you not go that far?

A. I would not necessarily go that far. I think that is actually quite likely, that quite a lot of overhead costs will be fixed in nature. I am perfectly happy to accept that it might not be always a strict majority and that it might depend a little bit on exactly how many of the semi-fixed costs are fixed, but, as a broad

proposition, I would say that a material proportion of the overhead costs are likely to be at least some part fixed and that is not the case for COGS and nor is it the case for the MSCs.
Q. Could we consider perhaps some classic examples of overhead costs. Cost of physical premises, that is an overhead?
A. Yes.
Q. Be it rent or purchase; correct?
A. Yes.
Q. But if in a given year, for example, more property has to be taken, if, for example, you are a barristers' chambers and you suddenly acquire ten new tenants, you are going to have to get an annex somewhere, that would be a variable cost, would it not, because it is varying with the output of the chambers?
A. Well, I would suggest that the premises of the chambers are unlikely to be variable, in the sense that they will move in a proportionate way up or down by releasing, in a completely flexible way, rooms within buildings, depending on the precise number of matters that the chambers are dealing with.
Q. So --
A. Yes, in the longer term I would agree that if you double the number of barristers operating at the chambers, you

might need some -- you might need to deal with that in terms of your overall property, but that would be a longer term consideration.
Q. What about electricity bills, that is typically treated as an overhead, is it not?
A. Yes.
Q. It has a standing charge, which no doubt would be treated as a fixed component and has to be paid regardless?
A. Yes.
Q. But it will have a heavy variable element, will it not?
A. Yes, but, again, the important distinction is how variable will the usage of electricity, even for the variable fee part of the electricity, be with respect to the production of the output. If you have a store and you are lighting the store, I agree that you might have some part of the bill that says it is, you know, £1,000 a month and some other part of the bill which is, you know, £1 per megawatt hour -- sorry, per kilowatt hour seems more likely. Now, so there is a fixed and variable part to the charging structure, but that does not mean that there is a variable relationship between the energy bill and how many bananas you are selling.
Q. What about a tanning salon that has sunbeds?
A. Okay, I think I am prepared to accept that one part of

the electricity used by a tanning salon will be linked to the number of people having tans because obviously --
Q. What about a steel smelter --
A. -- but that is partial. That is partial. Obviously there is also the general overhead of having the lights on throughout operation -- the opening hours and so on. It is clearly a mix in that case, where there is some fixed and some variable.
Q. Bank charges. If a company is paying a monthly payment for having an account or a quarterly payment for running a business account, that is going to be fixed, is it not?
A. Yes.
Q. But individual charges on individual transactions will necessarily be variable?
A. Well, it depends on the bank's fee structure. I am not commenting on the precise fee structure that a bank will have. I would accept that there will be some fixed charges and some charges per service. Some of the charges per service will be unrelated to the production output; in other words, again take the supermarket example, you might have a fee structure with a bank which is, you know, £100 to have the account and then, you know, £5 for every bank statement that we produce. That is a variable component per bank statement, but it

is not £5 for every 100 bananas you sell so it is not linked to a variable cost in the way that I consider relevant from the economic principles.
Q. Conversely, labour costs, for example, you have been prepared to treat as variable, but there could be a very fixed component of a labour cost if there is a small number of people performing highly automated functions, using computers?
A. I entirely agree that labour is probably a good example of a semi-fixed cost. In some sectors it might tilt a little bit more towards variable where the -- where in the retail services market, for example, the more consumers are using the service, the more staff specifically you might need, and in other cases it might tilt towards the fixed component. Obviously there will be some staff which are not, in a sense, production-focused and that would be a bigger fixed component.
Q. Well, let us have a look at some cortile evidence, if we may. It is {RC-G/17/95}. The details are confidential so I am simply going to refer to the shop in question as "shop". If we can look at figure 5.2. So this is {RC-G/17/95}, figure 5.2. It should be the breakdown of shop's costs. Can you see that?
A. Yes, I can see it. Yes.

Q. I think 52.15% is attributable to wages and salaries.
Is that fair?
A. Yes.
Q. Those would be semi-fixed costs, would they not?
A. Well, I mentioned that labour is likely to be tilting somewhat more towards variable, where there is a close relationship between the individual purchases made by the consumer and the need for extra staff. That was the case of the tanning salon, the hairdresser and so on, where basically it is a personal service and hence the labour required is, you know, really directly related, I think, to the output happening.
In a retail environment, so Primark, it seems to me it is maybe some part variable but primarily fixed because you have a certain amount of opening stores, you have a certain amount of required staff to manage the store and to maintain the opening hours. I would suggest that much of that relationship would be quite fixed.
Q. So for the purposes of analysing the distinction within a bucket of semi-variable, semi-fixed costs, you are treating labour as fixed in what you have just said. When we look, please, at {RC-F/19/265}, which deals with your public data analysis, you are treating labour costs as entirely variable, are you not?

A. Well, I think this goes back to my previous answer. I am taking it --
Q. You are -- sorry, just let me finish.
A. Okay.
Q. You say:
"I use the Average Weekly Earnings ('AWE') ... [as] the lead monthly measure of average weekly earnings ..."
You are using that as part of the variable stack, are you not?
A. Well, I am, but I have explicitly described the reason for that, which is that in some sectors, mainly retail services which are predominantly personal services given by one person to a customer, it seems that those are most likely the main variable cost to take into account and therefore I have gotten that evidence --
Q. I am sorry, I am just going to pull you up on that, if I may. Admittedly we are here dealing with operation of personal transport, but you are using the average weekly earnings of retail, trade and repairs. So it is retail trade generally that this is a proxy for; correct?
A. What I have tried to do here is to take for the sub-sector the best available variable cost. In this case there is a cost of goods sold component and a variable component because this is a sub-sector that I have determined to have a relevant percentage of

variable costs from the labour side.

It is in the retail services transport segment or, alternatively, in some cases I have identified that for personal transport where, again, you know, taxi drivers and so on are doing things at a pretty personal level of service. So I have tried then to find the best available indicator for average weekly earnings.

That is not the case for my other public data where it is more of a general retailing environment of retailing goods. In those cases I have not used a labour-based measure of variable cost.

Q. Do you recall saying that meaningful analysis of overhead cost is essentially impossible?

A. Sorry, the --

Q. The meaningful analysis of overhead cost is essentially impossible.

A. Yes. Was that something I said during the hot-tub?

Q. Well, let us put it up. It is {RC-G/17/29}, paragraph 53 of your twelfth report.

A. Yes.

Q. The last sentence:

"... this limited data means that a reliable analysis of pass-on of overheads is essentially impossible."

A. Yes.

Q. Now, given that you have had for the analysed claimants the data that they rely on for their pricing decisions, how, if you cannot work out how to deal with the MIF overcharge on the basis of that overheads data, is a management team, which does not have the team expert as they are in regression analysis at your disposal, how are they meant to deal with that particular overhead and treat it as a significant pricing component?
A. I think it is really important to distinguish what I was referring to when I said a meaningful analysis is not capable of being carried out. I was specifically talking about, given some of the experts have identified an overhead proxy and then used the claimant data to measure pass-on of the overhead proxy, that there are a number of problems with that. I described them extensively in the hot-tub context and section 4, is it, I think, or 5 actually, I think, of my Holt 12.
Q. In section 5 you make criticisms of other people's modelling.
A. Yes.
Q. But of course Mr Murgatroyd, Dr Trento, Ms Webster and Mr Coombs have all been able to conduct some econometric analysis using overheads data, have they not?
A. Well, my point stands. I think Ms Webster has recognised that she tried and essentially not much

weight can be put on it because of the mix effects and the aggregation effects.

Q. Well, you did not even try, did you?

A. I did not try because it was quite clear that the evidence that -- of that data, in terms of the failure of the data to indicate what were price changes and what were general changes in overhead spend, which is the aggregate point, the problem associated with the downward mix effect bias when you try to have, as many of the claimants do, disaggregated price data but then try to pair that up with the monthly overhead expenditure, and some of the other problems around the lumpiness and the firm-specific nature of much of those costs, and in some cases there was not really much variation at all until you adopted an artificial allocation mechanism.

Essentially, for all those reasons, I found there was not --

Q. Can I just interject there for a moment. I just want to understand a point of objection that you are taking principle.

A. Okay.

Q. If, for example, a public study had used disaggregated pricing data but aggregated cost data, are you saying that would be intrinsically unreliable?

A. No, because it -- part of what I was --
Q. You are saying it is intrinsically unreliable for Dr Trento but not for a public study?
A. Well, the aggregation issue is entirely different in relation to the public data and the claimant data. As I explained during the hot-tub, the public data does not succumb to the aggregation problems because the price and cost indices are specifically constructed to reflect price changes. That is not the case in the claimant data.
Q. Can I now move on to your Monte Carlo experiment.
A. Yes.
Q. This is in your twelfth report, paragraph 335 {RC-G/17/114}.
A. Mm-hmm.
Q. If we can pick it up, please, at the table at 118, table 6.1. At the top of the table, as I understand it, you are positing a fixed overhead pass-on rate of either 5%, 10% or 20%. Is that right?
A. Yes.
Q. If we were to assume, for example, that the pass-on estimate for total overhead costs was 40%, then, as I understand it, what you are saying is, because the total in that case would be 40% and because the fixed component is at most 20%, whatever figure you produce

for the variable component must be higher than 40%?
A. Correct.
Q. Because you are averaging two figures?
A. Yes. It is a bit more complicated than just taking a straight average because it runs simulations, but I broadly agree.
Q. I mean, the essential thrust of the point that is being made here is that if you are taking a composite figure of two figures and one is below 40% and you do not know what the other one is, but you are aiming for 40%, in order to get the composite figure of 40% you will necessarily have to posit an outcome that is higher than 40%?
A. That is the logic, yes. This, by the way, is, I would say, merely an illustration of the extent of the problem associated with the fact that overhead costs are a mix of fixed and variable costs. That is notwithstanding all of the other principle and data structure problems associated with the ability to measure the overhead pass-on rate in the first place.

So this is just saying: let us leave aside all of those other problems, which in my view rule out the use of this for a meaningful analysis, and just get to one specific issue, which is even if you could measure a property at the aggregate overhead level, what is the

implication of the fact that you have a mix of fixed and variable. That is all this is doing.
Q. Could we look then, please, at page 227 {RC-G/17/227}. As part of your Monte Carlo analysis you have had to consider whether or not fixed or variable costs would vary more in order to understand the deviation. Is that right?
A. Yes, that is right.
Q. Table A5.2 therefore looks at that issue. You will see in the second column there standard deviation is taken to be F equals 10. So the standard deviation is 10; correct?
A. Yes.
Q. You then have a series of scenarios in which the deviation is either above or below that standard figure; correct?
A. Correct.
Q. In only three of those scenarios, as I understand it, do you assume that variable costs vary more than fixed costs. We are looking really for figures that are above 10 and there are only three. Is that fair?
A. I have to admit, I have not sort of looked at this in quite some time. I am prepared to accept that that is the case. Obviously the variation --
Q. Well, row 2 is 15, row 3 is 30 and then row 6 is 20.

Each of those figures is above the standard deviation of 10?
A. Oh, I see. Yes, sure.
Q. So you have assumed, have you not, that variable costs must vary more than fixed costs -- sorry, the other way round.
A. No.
Q. You have assumed that fixed costs vary more than variable costs because you are plotting for simulations that carry that assumption?
A. I entirely agree that the assumptions drive the results in this particular analysis and really all it does is illustrate that if there is a difference in the effective pass-on between fixed and variable overheads and you are measuring them jointly, then once you make some other assumptions to unpick exactly how big of an effect that is, this gives an illustration of that effect.
Now, obviously you then have to select some particular parameters with which to populate the model. I have just selected some here that seemed like would be reasonable and interesting to look at.
Q. Well, in the third row up from the bottom there is a reference to 1. Can you see that?
A. Yes.

Q. What that means is that effectively fixed costs vary ten times more than variable costs on that assumption?
A. Yes, in that case.
Q. It produces a true variance from the weighted average total pass-on that is 0.06%?
A. Yes.
Q. Conversely, if you look at row 3, your standard deviation is 30, which implies that variable costs vary by a factor of 3 more than fixed costs, and that produces a deviation that is only 0.91, so it is much closer to what you would describe as the true result statistically that ought to be obtained?
A. Yes.
Q. Correct?
A. Yes.
Q. So it is necessarily implicit in this assumption -- in this model that you are assuming that fixed costs vary substantially more than variable costs, otherwise it is somewhat meaningless?
A. I think that is fair. I said at the outset this is really just to illustrate how significant the issue of variation in fixed versus variable costs could be if they have different relationships to prices, which I think is reasonable. It is entirely consistent with the economic principles.

Now --

Q. So you generally believe that fixed costs do vary more than variable costs?

A. Well, it depends on the structure of the data. If you are normalising the overheads by something like sales share or some other thing that is not actually necessarily particularly important, then that could be the case. I think normally I have identified in relation to some of the claimant evidence the actual level of variation in the overheads, given that it is on a quite aggregated basis and quite a lot of it is fixed, may not be all that variable and that might be a challenge for an analysis trying to understand the impact of that variation on prices.

Q. You would need to understand variation over time, would you not?

A. Yes. I think all of these assumptions are essentially an assessment of the standard deviation or a measure of variance of these indices over a period of time.

Q. Well, there is no time series variation in your simulation, is there?

A. Well, you can construct from the parameters that you identify a time series through the Monte Carlo simulation than selecting from the distribution that you identify a particular value. So you essentially

construct a simulated time series from the parameters, yes.
Q. You have only done a modelling exercise in levels, not in logs, that is fair?
A. Overall my analysis has focused on logs and levels. I have moved to the focus on logs overall to be consistent with the other experts who have primarily emphasised logs in terms of the pass-on analysis.
Q. Here is levels?
A. Here it may well just be levels. Again -- I am just trying to be frank here -- not a lot rides on this. It is really to illustrate one simple point, which is that if there is an impact -- if the aggregation of the overheads includes both fixed and variable costs, then that can lead to an underestimate, in some cases, of the variable part of the pass-on because you are only measuring the things together. That is all I am really saying. This assumes that all the other problems with the measurement, such as the unit of aggregation bias and the mix effects do not even apply.
Q. Dr Trento has modelled for COGS, has he not, so his primary case is this is the proxy overheads but he has nonetheless conducted modelling for COGS; correct?
A. Yes, I think that is fair.
Q. You have not done the reverse here by modelling for

overheads, notwithstanding your primary case is for COGS?

A. That is correct.

Q. You have also criticised the availability of the datasets. You say they are not sufficiently long in length in terms of time for that to produce reliable results. How do you know about reliability if you have not modelled for them?

A. Because I have examined the analysis of the other experts who have relied on overheads proxies and identified that there are a whole range of issues, including those that I described earlier, and, again, I can go into them in more detail, but I will assume that my point is made already on that, and especially considering that some of the datasets are only of around six years -- some are up to ten, some are as low as two. Some of the analysis is -- I do not think that it is credible to identify pass-on of overheads, which include a large component or a significant component of fixed costs, with a dataset that is that short, but, in general, my main concern is not merely that the dataset was too short and if only it was 12 or 15 years everything would have been fine, the data structure just would not have been capable of doing that meaningfully, even if there was a longer data set.

Q. Now, you have posited a two-year period as a long-run period as a rule of thumb for your empirical analysis of studies; correct, when classifying them? You divided it into short-run, medium-term and long-run?
A. Yes.
Q. I think the lower -- the outer reach of the -- the start of the long-run period was a two-year period?
A. I think that is fair in relation to the existing studies because I wanted to understand what the studies were actually pertaining to, short or long-run, but sometimes they did not sort of use that terminology and I had to make a view. In general, I sort of used all of it, even if it was short-run, which might be conservative.
Q. So on that proxy if we have five -- ten years worth of data, you have five times the length of data, you would need to get to the long-run analysis that you were after?
A. So I agree that if you had ten years of data and you were saying that the pass-on rate would happen over a two-year timeframe, then clearly you would need significantly more than the two years of data in order to look at it. The more, the better. The longer the pass-on mechanism, the more concerning the dataset is because you are using up a lot of the potential data before you even get to the first pass-on. So if it is

two years and you have a ten-year data point -- data structure, then obviously years 1 and 2 do not tell you really anything about the long-run rate and then year 3 it starts in relation to year 1 and so on.

So the impact of the transmission mechanism is to somewhat loosen -- sorry, reduce the effective observations that you have in order to make an assessment.

Q. Now, in your eleventh report, and I am moving on now to deal with qualitative evidence, paragraph 19, {RC-F/19/28}, we see there likely range of pass-on rates is ultimately an empirical one.

A. Yes.

Q. You still accept that?

A. Yes, yes.

Q. But you have not taken into account, have you, to any extent really, how a firm treats its own costs as being a relevant factor?

A. I think that is fair. I have identified that in the longer run I focus more on the economic principles as to what the underlying incentives would be, as well as the facts in relation to the nature of the MIFs, yes.

Q. If we go, please, to {RC-G/17/22}, in your twelfth report, at paragraph 20, you describe how merchants treat their own costs in the real world as being

uninformative. Do you stand by that?
A. For the purpose of the assessment of pass-on related to these proceedings, which requires, in my view, a long-run perspective, yes.
Q. So you think economic theory should prevail over whatever happens in the real world?
A. No. What I am saying is that the economic principles that are, in my view, very clear in relation to the industry-wide and variable nature of the MIFs and that, combined with the fact that we are focusing on the long-term, means that the implications of the small nature of the costs or the precise pricing treatment would, in my view, not be informative as to that long-run assessment because it is perhaps more likely to be relevant in the short-term but unlikely to be relevant in long-term because it would require a persistent deviation of a firm from where it would be if it was trying to maximise its profits and, furthermore, a persistent deviation of the whole sector from where competition would be driving that sector.
Q. Can we look, please, at page 63 of this report, paragraph 181. You there suggest that the subjective treatment of the MSCs by the analysed claimants is not something that other experts should have concerned themselves with. Are you suggesting, for example, that

an economist knows a business's commercial decisions better than the business?

A. No.

MR BEAL: That is probably a convenient moment, sir, to take the bails off, if not pull the stumps off.

THE CHAIRMAN: I think Professor Waterson has a question.

PROFESSOR WATERSON: Yes. We have been talking a lot about proxy costs and you are very firmly on the lines of variable costs as being appropriate.

A. Yes.

PROFESSOR WATERSON: I want to ask you something in connection with this, which relates to something Ms Webster said in the hot-tub. This is in the transcript for Day 5 on page 102 {Day5/102:1}, if we can bring that up, please. So she says:

"If it is the case that the merchants treated the MSC as a variable costs for price setting, then my position is similar to Mr Holt's ..."

Then, further down, if we go to the next bit of the -- sorry, I am having a bit of difficulty finding --

A. I sort of remember what she was saying. She moved on to what if it is not treated as a variable cost by the business, would the small size of it be relevant in that context if it is fixed? Is that right? Is that what you are getting at?

PROFESSOR WATERSON: Let me see if I can find it myself in the transcript. I did make a note of it. Apologies.
(Pause)
Yes, she says, line 10 {Day5/102:10}:
"I would add one thing to the criteria that Mr Holt set out, which is I think it would be important that the cost that is used as a proxy is sufficiently big such that a change in that cost -- the effect that that would then have on prices can actually be measured econometrically, and I do not think that is an issue of taking the measurement of the pass-on of a big cost in its variable cost world and then applying it to the MSC, because economic theory would tell me that I would expect a small variable cost change to be passed on in just the same way as I would for a larger variable cost change."
A. Yes. I agree entirely with that.
PROFESSOR WATERSON: You agree with that?
A. Yes.
PROFESSOR WATERSON: So she is focusing there on economic theory as telling her that.
A. Yes.
PROFESSOR WATERSON: Is it definite from empirical evidence that that would be the case, or is it just coming from economic theory, that assumption?

A. That a difficult one to answer. I think what is clear is that where empirical evidence examines industry-wide variable costs, then the evidence suggests that it is often a high rate of pass-on but that there is some variation and it can vary from sector to sector.

Now, all of those studies, you might say, look at a range of different costs and the size of them might vary and, yet, there is not any evidence, as far as I am aware, that the size of the costs has had an impact on the rate at which the pass-on of the study has identified the analysis. In other words, within the set of empirical analysis that has been capable of identifying an effect, size does not have any clear impact on the rate of pass-on, which is consistent with the economic principles.

I would accept, though, that there is a signal to noise issue, which is that the empirical evidence, in a sense, by definition, cannot make observations from an empirical standpoint on cost size changes that fall below the signal to noise ratio requirement to get a sensible study done.

So you could say that, well, for all of the range of costs sizes that have been assessed in the literature that already does suggest no real effect because although there are some variation and that could reflect the different sectors, but basically it is showing fairly high pass-on of industry-wide variable costs under a wide range of contexts, including the size of the effect being looked at, but I would accept that the small cost aspect, along the whole spectrum of size, the evidence cannot tell you empirically that because of the problem with the variability.

PROFESSOR WATERSON: Did you try using proxies of different sizes in your analysis?

A. Well, the proxies are of different sizes in all of my analysis because each of the public domain analyses of subsectors relates on a price to a cost index and each of those has a different varying proportion of the overall price. So there is variation in that context.

Similarly, for the claimant data, when you look across the claimants, the relevant measures of COGS would account for higher or lower percentages of the cost, i.e., the gross margin, for the different claimant. So, yes, there is variation in that regard as well. But that is all cross-sectional variation to be fair; that is not saying the analysis of the same claimant with different sizes of variable cost can show that it is necessarily the same or different levels of pass-on.

The main problem in that respect is that, after

COGS, some of the potential other proxies that I might have been interested in looking at -- for example, I mentioned for one of the organisations customer acquisition costs or customer commissions to third parties who had referred the customer -- might well have shared a number of the relevant characteristics with the MIFs and I would have been interested in those, but the problem was either they did not have a sufficient size to meet the signal to noise ratio or in many cases for the claimants the data structure did not enable it. So those costs were captured in the overall overhead, rather than separately split out.
PROFESSOR WATERSON: Thank you.
A. Thank you.
THE CHAIRMAN: I think we had better give you a full hour so we will resume at 2.05.
THE WITNESS: Thank you.
(1.08 pm)
(The luncheon adjournment)
(2.08 pm)
THE CHAIRMAN: Good afternoon.
MR BEAL: Mr Holt, we are dealing with qualitative evidence and the role it plays.
A. Yes.
Q. You would accept, for example, would you not, that

qualitatively, the evidence may show that management might not take into account a very small cost?
A. I think that is fair. I think some of the evidence suggests that might be how they react, yes, in some cases.
Q. From an economic perspective, that may be an entirely rational strategy, because the cost of chasing down every penny might be disproportionate to the benefit to be obtained?
A. That is fair.
Q. You are familiar with the expression "penny wise, pound foolish", which probably encapsulates that?
A. Perhaps, yes. I am not quite sure I understand the term quite well enough to comment.
Q. Can we look, please, at {RC-J1.4/19/29}. This is, again, in the Commission Guidelines.
THE CHAIRMAN: I do not know whether the transcript has stopped? Oh, okay.
MR BEAL: That is the right page. Thank you. 123, starting right at the top of the page.
If we look, please, in recital 123. The European Commission Guidelines recognise that it may not always be possible to estimate the passing on of a specific charge. Therefore, if such information is not available, the court may look at the development of

other components of the purchaser's marginal cost and analyse how they have -- how those changes affect downstream prices. So that is reflecting the proxy standard, is it not?

A. It is.

Q. Could you then please read 124 through to 127. (Pause)

A. Yes.

Q. So the European Commission is recognising, see 126, that especially in the context of where the component in question, the charge that you are interested in is very small and the proxy is much bigger, then actually it is advisable to take into account the qualitative evidence as to how the firm deals with the smaller cost in question. Can you see that?

A. Yes, and I can see that above it says that might be a factor in relation to the level of pass-on at least in the short-term; in other words -- or particularly in the short-term. That seems to be a particularly relevant factor in the short-term. In my view, it is less important in the context of these proceedings in a longer term assessment.

Q. Now, you have repeatedly referred to, indeed you have referred to them today as a small self-selected sample, being the SSH Claimants who are the analysed claimants in this case. But you would accept, I think, would you not, that those claimants -- the selection process involves selecting the largest volume of the claim and the largest number of claimants in a manageable group?

A. Sorry, the selection process involves selecting the largest ...

Q. I am not going to take up time going through the procedural history of the --

A. (Overspeaking) Okay, yes.

Q. -- matter for you as an expert. I am simply asking you to agree in principle that the way that the selection process worked was that in fact, in terms of the SSH Claimants, the ones that ended up being selected were derived from: do they have the largest claims --

A. Yes.

Q. -- in value terms, and: do they represent a majority of the claimant entities?

A. Those may well have been factors. Obviously they also, I think, needed to be willing to put forward evidence, whether it be data or, alternatively, qualitative evidence, yes.

Q. Yes. So there were two stages: selection on that basis, and then do they have decent data? If they did not have decent data, then you went to the next substitute; correct?

A. That is broadly correct, that is right.

Q. So you would accept, would you not, that at the very least the analysed claimants are representative of the SSH claim?
A. No, I do not quite accept that. Because, again, if the first stage was the carrying forward of those who were willing to provide evidence, and that was a consideration, thinking about data and qualitative evidence, then the second stage is applied on a subset of the SSH and not necessarily representative.
Q. The way it worked was Mr Moser went away and said: here are the ten largest claimant groups by claim value, and that is the list he came back with and gave to the Tribunal in January this year; correct?
A. I cannot recall. That may well be correct.
Q. Now, in your second report -- sorry, your twelfth report, paragraph 207 {RC-G/17/72}, you imply that Hilton will not be representative of the hotel sector.
A. I think -- yes.
Q. You did not imply that, or you did imply that?
A. I am not implying it in relation to whether Hilton data, given that we only have information for one hotel, is any better or worse than data to measure pass-on for any other hotel. What I am implying in this paragraph is that to the extent that it is further indicated that the Hilton qualitative evidence and treatment of MSCs can be

taken as relevant to and essentially equal to that for
all other hotels, then I did not agree with that.
Because there was a range of circumstances amongst the
hotel or the broader accommodation sector, and it seems
to me that, given the idiosyncratic nature of some of
these pricing and budgeting decisions, that those
factors could be quite different across different
segments of the hotel group.
Q. Yet when we come to look at the question of surcharging
in due course, you have alighted upon the
claimant-specific data, have you not, as being
representative of the surcharging proxy?
A. No, I do not think that is correct. I think I have
accepted that the surcharging evidence is
a claimant-specific issue, and that it would be unwise
to assume that, simply because we have evidence that one
firm has surcharged, that it necessarily means that
everybody has surcharged.
What I have explicitly said, rather, is that the
evidence on surcharging needs to come from the
claimants, because that is a particular version of the
pass-on element, and the general pass-on for the
sectoral analysis is essentially applying to all
non-surcharged MIFs.
Q. Please could we look at page 19 of this report, this

twelfth report, paragraph 9 {RC-G/17/19}. I think what you are saying there is that the evidence from the analysed claimants could not necessarily be extrapolated to other claimants. Is that right?
A. Paragraph 9?
Q. Yes. It says:
"The evidence is unlikely to be informative for a long-term assessment of pass-on and, even if it was relevant, could not be extrapolated to the other claimants."
A. Oh, yes, that is right, yes.
Q. Is there any reason why a very large business in a sub-sector would not treat costs in a similar way to any other business in the same sub-sector?
A. In my view, the issues that the qualitative evidence addresses, which are pricing treatment and approaches to other aspects of how the business operates, are (a) somewhat difficult to interpret, given the incomplete nature of the evidence. But, even if that were not the case, it is not something that I could see as being readily applicable from one firm to another in a sector, because a lot of these policy issues, or precise way in which things are dealt with, seem to be idiosyncratic and subject to the particular views of the management of the day, and may even vary over time within a firm, let

alone across firms.

Q. Please could we then look at page 95 in this report {RC-G/17/95} and footnote 439 at the bottom of the page. I will not mention the name, but you have plotted data results from a particular shop.

A. Yes.

Q. Because they are the claimant with the largest outstanding claim value:

"[You] have reviewed the data for the other claimants and in [your] view the split for [shop] is reasonably representative for claimants that include wages and overheads."

A. Yes, but I think this demonstrates my point. Just as I said it is reasonable to extrapolate from firms within a sector in terms of the empirical assessment of the pass-on rate to the rest of the sector, because that is based on objective underlying criteria around supply and demand conditions, I also think it is reasonable to form a view as to the broad structure of what sort of costs, in terms of fixed and variable costs, there might be across firms; although I would not take that too far, I think there would probably be some discrepancy in that regard.

But, again, these figures which you have taken me to are, to some extent, objective cost figures for a firm.

By objective, I mean they are based on actual expenditures. The thing that I am disagreeing with is that one can, in the same way, extrapolate from one firm to a sector based on the subjective description of different approaches that are adopted by firms. That is the distinction.

Q. So in terms of extrapolation bad, it is subjectivity; and extrapolation fine, it is objectivity?

A. I think that actually is a fair way of encapsulating it. I can see the case for extrapolating something where it is representing some objective underlying characteristics which are likely to be similar across firms within a sector, but I see less case for extrapolation where the issue being extrapolated is much more subjective and idiosyncratic in nature.

Q. So if, for example, there is objective evidence as to the adoption of a particular pricing strategy in a particular sub-sector of industry, then you would have no particular problem with extrapolation on that basis?

A. No, I think the objective evidence relates to a subjective process and that is the issue.

Q. Now --

A. The -- sorry.

Q. Could we look in your eleventh report, please, at paragraph 150 {RC-F/19/66}.

A. Sorry, which paragraph, please?
Q. 150.
A. 150, yes.
Q. You say here:
"I can see why the categorisation of costs may be relevant in some circumstances if one were interested in claimant-specific short-term pass-on rates."
You then give an example.
A. Yes.
Q. In that example, you say in those circumstances, changes in the MSCs could not affect prices and pass-on would be zero; correct?
A. Yes.
Q. So you are recognising that it is at least possible to have a situation where, if certain parameters are met, pass-on would be zero, on your evidence?
A. Yes. I think my test is not certainty, i.e., 0% chance versus 100% chance. My assessment is what is the most likely empirically valid rate of pass-on to take for a sector, given the evidence.
Q. Let us look at some of those criteria that you then use. The first is the firm in question is engaging in cost-plus pricing by reference to wholesale fuel costs only, i.e., they have a specific pricing strategy which necessarily excludes any inclusion of the MSC in the

price?
A. Correct.
Q. So if, for example, one were to look at some of the evidence in this case, and a particular firm had, say, a pricing strategy where it had a mark-up by reference to a third party's licensing fees, that would fall within that criterion, would it not?
A. Yes, yes, I think so. I mean, these are cumulative conditions, yes, sure.
Q. Coming on to the second one now. The second one is you say that the firm in question always followed through with that strategy independently of competitors' prices.
A. Yes.
Q. Now, that is essentially a criterion you set in order to reflect your implicit channel of pass-on through -- following competitors' prices; correct?
A. Correct.
Q. Now, if that implicit channel either is not a reliable way of estimating pass-on -- well, let us deal with this in stages. If that implicit channel is not a sensible way of saying a price is passed on -- a cost is passed on to price, then that criterion falls away, does it not? That is the first stage?
A. I think you are saying ...
Q. If it is not a good point --

A. If it is not good point, then I guess it falls away.
I mean, yes, that must follow, I guess.
Q. In terms of whether it is a good point, can you think of any business in the modern real world who will not look at a competitor's prices at some point?
A. I think it is likely that most do, and that is part of my point as to why, in the long run, the incentives will hold.
Q. Coming back to the merits of whether or not it is a good point. Imagine, for example, that M&S studies prices for the sale of caterpillar cakes at Aldi.
A. Yes.
Q. In your world, M&S would have passed on the 0.2% charge for debit card transactions on caterpillar cakes if it looked at Aldi's prices; is that correct?
A. I think that is a somewhat oversimplification. What I am saying is that if Aldi, in this case, had reacted, either consciously through a direct channel or through an indirect channel, and made a price change that reflected the change in its incentives, such as having -- say there is a reduction in MSCs -- having more discounts on some products in order to bring more people into the store, and in that case if M&S had reacted, had sort of monitored Aldi's prices and reacted to that, then that would be a mechanism by which the

underlying incentives facing M&S would be put into practice through the route of competitor reactions.

Q. When I say to you: where is the evidence that Aldi passed on its own 0.2% debit card charge for its caterpillar cake, you would say: well, it must be monitoring M&S prices for those cakes?

A. No, I do not rely on that. Essentially the logic holds, irrespective of the channel that Aldi was adopting to monitor these costs and how it put its own price effect -- sorry, its prices into effect. So either it was through the direct channel, i.e., it, unlike M&S, did take into account MSCs, over a certain period of time at least, alongside other costs in its pricing strategy, or it did so indirectly because of the gross margin target update, or your proposition could hold as well, that it was monitoring other prices as well, but maybe one of the other firms might have changed prices.

Q. If the logic holds good regardless of whether or not a particular firm is following another particular firm's prices, then you do not need this criterion at all, do you?

A. No, I do, because in the -- the contrast is that in my example, Aldi does not need to be adopting this particular competitive reaction strategy in order to have acted on its incentives. My framework is addressing in this example M&S, who, under the proposition being put, does not take it into account in its pricing strategy, and what I am saying is --

Q. Sorry to interrupt, but why can you not just say M&S is acting on its own incentives, just likes Aldi is, and that is the end of it?

A. Well, M&S would be acting on its incentives if you captured the need to price competitively in the market, I would agree with that, and that is one of the reasons why I say firms acting on their incentives will lead to those underlying incentives being replicated, i.e., if there is an incentive for a price reduction then that will take place. Now, the exact timeframe may be subject to some discussion, but in the longer term that is what I would expect to happen. There are a number of channels through which it might happen.

Q. The third criterion is that they treat MSCs as an overhead cost. Do you see that?

A. Yes. The third and the fourth are together, so, yes.

Q. Well, let us just deal with this one by one. You must therefore recognise that it is relevant to consider whether merchants treat the MSC as an overhead cost?

A. What I am identifying here is the set of cumulative conditions which would have to hold for the underlying incentives to fail. Essentially, conditions 1, 2, 3 and

4 would all have to hold essentially at the same time in order for the mechanisms that I have identified to reflect the underlying incentives to not have the scope to do that.

Q. Could we dip, please, briefly, into your twelfth report {RC-G/17/91}, page 274, subparagraph (a). You say here:

"One approach might be to analyse the relationship between prices and the absolute level of overheads. This sort of analysis measures the pass-on of an increase in aggregate overheads ... For example, this approach is taken by Ms Webster in her analysis of Allianz and by Dr Trento in his analysis of 'non-normalised' overheads. This approach is unsatisfactory because aggregate spend on overcharge -- overheads -- can change for reasons would not be expected to lead to price changes."

You then say -- so you are giving an example of a situation where a change in overheads or an aggregate spent on overheads will not lead to a change in prices. You say:

"For example, if a business is growing, then certain costs recovered in overhead will tend to increase ..."

You then give us two examples. Firstly, the retailer may need to employ more staff or, secondly, incur more card costs?

A. Yes.
Q. So you are recognising there, are you not, that that incurrence of greater card cost as a result of growth would not necessarily lead through to -- it would be a change in the overhead, but it would not necessarily be expected to lead to price changes?
A. Well, I agree, because obviously the pre-condition here is that the business is growing, so the very same -- let us say the MIF -- let us say the MSC was 1%. If it was 1% and you doubled your sales, then obviously your absolute amount of card payments would go up by a factor of 2. But would that put any upward pressure on your pricing? My answer is no, because the per unit price for all the sales is still the 1%.
Q. Coming back, please, to the fourth criterion in your eleventh report, which is going to be {RC-F/19/66}, paragraph 150, the fourth Roman numeral.
A. Yes.
Q. You say that they must never adjust the target margin.
A. Yes.
Q. But surely the issue must be whether they -- not whether they adjust the target margin, but whether they adjust the target margin by reasons of the presence or absence of the MIF?
A. That they never -- I would broadly agree with the

exception that adjusted target margin to take into account changes in a cost set that includes the MSCs.

Q. Imagine for the sake of argument all of your first three criteria are met.

A. Yes.

Q. The only reason for changing an EBITDA target margin was because of the government's mini budget in September 2022 leading to inflationary pressures on the economy. That has an extreme impact on investor confidence, and firms then build in that investor confidence issue as a reason to change its target? That would be entirely unconnected with the MSC, but you are saying, on that basis alone, you could not satisfy this fourth criterion?

A. I think you are correct, actually. I think maybe a slightly more accurate way of describing this condition would be that it would not adjust the target margin element of the pricing formula in relation to any changes in the underlying profitability benchmarks that it would apply. In other words, you are absolutely correct, if it selectively adjusted the target margins only because it saw some reasons for changing the -- sorry, if it saw some changes in the underlying profitability, but only made an adjustment for a subset of the changes and not all of it, and the bit that it made the change was not the MSC, and the bit that it did not reflect was the MSC, then I think counsel's position is correct.

That was perhaps a confusing statement.

I think just to try, then, and have another go at helping the Tribunal understand what I meant. If the target margin is being adjusted due to changes in profitability, my proposition is that the firm cares about profitability overall and all the drivers of profitability. It does not care more about £1 if there is a cost increase due to a National Insurance change but not care about £1 if it is due to an MSC change. There is no particular reason why a firm would look at the totality of the reasons for the change in profitability but then say: oh, actually, let us adjust in relation to those ones but not those ones.

Q. Can I just ask you about my specific point. A firm is not going to care any more about £1 that is a cost that is attributable to an industry-wide cost as opposed to a firm-specific cost either, is it?

A. Well, I disagree with that, because -- sorry, let me answer in two parts.

I agree that a pound is a pound and it will care to an equivalent amount about the pound, but I disagree that it will not react in a different way, because in one case there is a sensible reaction to deal with that, i.e., if it is an industry-wide one, then you take into account that any price change you make will be consistent with what the underlying market conditions are. Whereas if it is firm-specific worsening of your profitability by the same £1, it will be, I fully appreciate, equally annoying, and you would rather not have it, but the point I am making is that you are sort of stuck with that and you cannot really do much about it, whereas you can do something about it with the industry-wide cost, because the underlying trade-off will reflect what is happening also to other firms.

Q. Your final sentence at paragraph 150 is worded in a way that I have already broached with you as seeming, at face value, to change -- to seek to change the burden of proof.

So what you are saying here is that changes in the MSCs could not, on this analysis, then affect prices and pass-on would be zero. So what you say is:

"... a pricing strategy that seems highly unlikely even in the short term as it is not aligned with the pricing strategies employed by any of the willing claimants - then changes in MSCs could not affect prices ..."

So are you somehow suggesting that the onus is on the claimants to show that MSCs could not affect prices?

A. No. What I am saying here is that given the great difficulty in interpreting the qualitative evidence of this nature, in part because of the limited scope of it, and in part because, even if you had a lot of it, it would still be very difficult to disassemble and to rule out or to even have a view on exactly what the precise mechanisms were regarding the competitive reaction part of it, because you will not have their information at the very least. So given all that, my -- and, furthermore, given that items (i) through (iv), which need to be cumulative for there to be no pass-on, and to not act on the incentives, seems highly unlikely that they all apply at the same time.

Therefore, this is consistent with my perspective, which is one must instead look at the underlying nature of the costs and, particularly in the context of the long-term framework, recognise that if there are incentives due to industry-wide variable costs going up or down, that even if there are some short-term treatment or cost size factors, that that would not affect the long-term outcomes because of the combination of the incentives and the competition in the market.

So I am actually saying, for all these reasons, the approach of trying to investigate the limited amount of qualitative evidence that we have does not really get you to where you need to be as to what is the most relevant long-term proxy.

Q. Can I look, please, at the seventh of my 14 points, which is partly pricing strategy and partly channels, but I feel we have been up hill and down dale on implicit channels and I do not need to revisit that; I would like to look briefly at the pricing policies.

Could you look, please, at {RC-F/4/32}. This is part of the LEK/Mr Economides' sector report. You will see here that he has identified characteristics of the analysed sectors.

A. Yes.

Q. None of those adopt a cost-plus pricing model, do they?

A. Cost-plus in the sense that they set a price that equals cost plus a pre-determined amount?

Q. Yes.

A. I do not know if any -- sorry, are you saying that no sectors adopt that pricing policy? I cannot answer that. I do not know.

Q. (Overspeaking) -- looking at pricing strategy in the second to last column.

A. Pricing strategy? Oh, okay, sorry. If you are saying: on this table, is cost-plus pricing listed? Then let me just read it, it may not be. Yes, I can see some are competition based, capacity based. These are, I might say, extremely broad descriptions of how pricing operates in a sector which I am not sure can really be encapsulated in two words.

Q. Could we look, please, in {RC-F/19/71}, which is your eleventh report, paragraph 161(b).

A. Yes.

Q. Let me just check that this is not a confidential element. (Pause)

You appear to imply here that some of the confidential names that we see marked there adopt a cost-plus pricing basis; is that what you are trying to suggest?

A. I think that is a fair reading of the sentence. I say:

"... cost-plus pricing where the cost basis excludes the MSC --"

Q. Of the second of the three that are identified, is it your case that that particular entity does in fact adopt a cost-plus pricing model?

A. No, no, I was not -- I think the sentence perhaps should not have suggested that ... What I meant to say is that pricing that -- which relates to some extent to cost but no doubt will include other factors, because I would say essentially all pricing must account for not only cost but also demand and other relevant demand factors. But

the key point is even if it excludes the MSC, then there are these other issues that need to be investigated. That is all I am saying.
Q. One of the channels that we have not really covered yet -- I am not sure whether it survives into your twelfth report or not -- is value based pricing, which you say remains a form of competitor based pricing.
A. Yes.
Q. Is that right? I mean, value based pricing surely works out what you think you can get away with charging a customer, does it not?
A. I think value based pricing, which is not something that I am sort of relying on as a two-word, or three-word, I guess, characterisation of any particular claimant, is simply acknowledging that a range of factors can be relevant to pricing. Value and the perceived impact on consumers might well be one.
    Essentially, I do not see that as particularly relevant, ultimately, in the sense that even if you have some other factors that are relevant to pricing, changes in industry-wide variable costs would also be relevant. So I am not saying that this is the only thing, I am just saying that that is an important consideration.
Q. You would not, would you, be able to show that because there is an uplift, because of what you think you can

get away with charging a customer, that that would be
causally connected with a MIF overcharge?
A. I think the only way I would describe that is even if you are charging a premium, because you think you have a high amount of value, you still have the underlying demand and margin trade-off, which is at the heart of the entire debate that we are having, and so that would apply, irrespective of the specific pricing adoption strategy that you adopt. If the variable industry-wide costs go up, even if you are a value pricer, there is still a change in the trade-off.
Q. I am going to move on to eighth of my 14 points, which is your reliance on the long-run. I do not think I need to put to you that you are relying on the long-run?
A. I think I have said it probably a few times. I would not ...
Q. As I understand it, the time span is anything up to 13 years but could be shorter. Is that a fair summary?
A. I have tried to -- well, I have not put a number on what the long-run means. I have described what it means in words. What it means in words is a sufficient period of time to allow for short term adjustment factors in the market to work out. That is all.
Q. Could we look, please, at {RC-F/19/103}. This is your eleventh report, paragraph 270.

A. Yes.
Q. You say there that there is no common definition of short or long-run in the economic literature.
A. Yes.
Q. You said you had not put a ring on it. But in fact you have, have you not, because you give your own definition then of six months to two years is medium and anything over two years is long-run?
A. This was specifically for the purpose of trying to characterise the existing studies as to whether the studies that they had put forward were short-run or medium and longer run. Obviously, in order to make that characterisation, I had to come up with some threshold. My view is that there is not a clear-cut threshold that would be universally applicable but that the definition I gave before is the more appropriate way to think about the long-run. This was really just to try and understand, you know, what were these studies actually trying to measure, and in the end I actually used the estimates of whether they were short-run or long-run in any event.
Q. Please could we look in your twelfth report at paragraph 53 {RC-G/17/29}. Here you are talking about:
"The [analysed] claimants have provided at most ten years of usable data, but generally less, and the

median [is] six years."

You say:

"At best, this would be a short period to analyse pass-on ..."

A. Yes, that is not -- sorry, just to be precise, the years of data is not the same thing as the definition of a long-run exercise. As a general proposition, to work out the rate of pass-on associated with a given duration, let us say pass-on that might happen within, let us say, two years, you can say, well, let us say two years is the expected transmission timing. Obviously you might not know that but you can test for whether that is, you know, picking up much of the pass-on.

The data period is a different issue which is, given your data structure, is there a robust way to identify pass-on of a long-term nature, given the data. If the data is not, in my view, substantially longer than the pass-on transmission mechanism, then there is no way to identify the pass-on in question. So --

Q. Can we look, please, at page 39 of this report, paragraph 94. Here you say you need decades of data? {RC-G/17/39}

A. Yes.

Q. Now, take somebody, for example, who only started business in 2021, and we have some claimants to whom that applies, who then bring a claim in 2023, and we have some claimants to whom that applies, we are not going to be there for another 15 years, are we, before you can get the data you need?

A. As a first observation, I think my use of the term:

"... it would be necessary to have datasets spanning multiple decades."

Is a bit of an overstatement. I think, on reflection, that puts it at too high a bar, that you necessarily must have data spanning multiple decades. Of course it is potentially the case, if there is enough variation, and the nature of the data is sufficiently good quality, that you might be able to look at long-run pass-on with a shorter dataset. So I think that would be a clarification or a correction that I would offer in relation to that sentence.

The key point, though, is you would need to have a substantial multiple of the data period to -- by contrast to the transmission, long-run transmission period, otherwise you are just not going to have enough data with which to assess the impact, given the noise in the model.

PROFESSOR WATERSON: Can I just come in here. Is it clear -- I know economists do not define the long-run,

I am not criticising -- I am not coming back to you on that at all. But can I be clear that the long-run relates to the nature of the business, so, for example, in electricity where, in wholesale electricity markets, prices vary for every half hour of the day, the long-run might be quite a short period of calendar time, whereas in another market, where prices move -- or any commodity market, not just electricity.
A. Yes.
PROFESSOR WATERSON: In other markets, things might move rather more slowly, but it need not be a period of calendar time?
A. Yes.
PROFESSOR WATERSON: That is the relevant thing?
A. I think that is at least partly -- I would agree with it partly, in the sense that the length of time over which you might expect the transmission to happen could vary from sector to sector, and it would likely happen more quickly in relation to sectors that are of a higher frequency of capturing the information.

The reason I said only partly agree is that it also depends on the nature of the change in costs in question. So even in the energy market, for example, an energy policy that says, you know, we need to get to net zero by point X, or some firms are making investments --

planning on making investments and there are some changes in fixed costs, well, I would not necessarily that all those changes in fixed costs would be instantaneously captured in the half hourly market, because the half hourly market is still, essentially speaking, a short-run marginal cost-driven market.

So although there is frequency, and that would allow more scope for the adjustment to happen quickly, it still depends on the nature of the cost, in my view.

MR BEAL: So that comparison between short-run variable costs and fixed costs, your case, as I understand it, is that all costs over the long-run become variable?

A. That is not my case. If I were -- if I were looking at a fixed cost change while, as I do -- sorry, if, as I do not, I was looking at a fixed cost change, but, as I do, I consider that a long-run pass-on was the relevant consideration, then I would recognise that there are some factors to take into account. One, there is no immediate profit incentive to take the fixed costs into account, but two, there may be some long-run factors, such as changes in market structure, and, you know, investment decisions that could lead to a long-run change.

It might not lead to complete pass-on, it might be less than a variable cost change, but it is not my

perspective that the pass-on estimates that I have estimated are the ones because there is a long-run sense in which all the fixed costs are recouped. That is not my --
Q. Let us drill into that nuance for a moment. You accept that certain overhead costs are going to be fixed costs?
A. Yes.
Q. Ignoring the: all fixed costs become variable if you survive long enough. Ignoring that for a moment, you are still saying, however, that it is appropriate to recognise that those overhead costs are going to factor into pricing at some point?
A. If -- I think if one were focused on fixed costs, then my perspective would be it is unlikely there is material pass-on in the short-run, but there may be pass-on to some extent in the long run through changes in market structure and investment decisions.
Q. Could we look --
A. It would be harder to measure that, but that would be my view in the long-run for that type of cost. That is not the type of cost we are dealing with here, though.
Q. That is bringing fixed overhead costs into a marginal cost analysis, though, is it not, through the proxy of a long-run perspective?
A. No, no, not at all, because the key distinction I

highlighted was that the reason why there might be a long-run effect is through changes in market structure, supply and demand balance and changes to investment levels. Those are the sorts of things that in the long-run could potentially be affected by a change in fixed costs. In contrast, what I am talking about are changes in industry-wide variable costs, which do not require all those market structure changes to have an impact. They have their own impact on the profit maximising incentives even in the shorter run, so there is an important distinction.

Q. I have asked you a question about fixed overheads, and you have said that your answer is: I am dealing with an industry-wide variable cost.

Can we just stick with the theory of a fixed overhead and how that factors in. If it helps, let us go to your twelfth report, paragraph 242 {RC-G/17/83}. Bearing in mind my question has been largely formulated by your own words, what you say here, at 242, if we can bring that up, is:

"A change in gross target margin [halfway down the paragraph] is, from an economic perspective, equivalent to a change in the trade-off between increased profit per sale and the volume of sales that underlies the profit-maximising incentives related to marginal costs.

Consequently, any such costs should be considered to be a variable cost, at least over the long-term."

A. Yes.

Q. So, again, going back to the point, to the extent that there is this concept of an overhead cost that is semi-fixed, semi-variable, depending on whether you say "potayto" or "potarto", ultimately you are going to say that over the long term, the short-term trade-off is going to apply to that?

A. I think there is a further nuance that perhaps I need to highlight here, which is that I am still focusing on the inherent characteristics of the MIFs in the context where, even if they are characterised as overheads, those same underlying profit maximisation incentives could be adopted through amendments in the gross target margin. In my view, the same incentive-driven potential changes would not take place for a change in fixed costs. Those would likely take longer and be subject to the changes in the demand and supply conditions.

So I think the distinction, then, is that even within overheads, the inherent economic incentives might vary as between those which are variable and those which are fixed.

Q. Could we look, please, at {RC-J1.4/53/86}. This is the RBB 2016 report. This, at paragraph 185 to 187, looks at the effects of fixed costs on pricing. You will see that there, they are not mentioning trade-off at all, are they, only entry or exit or investment decisions?

A. Yes, that is indeed consistent with what I just said. The fixed overheads could lead to long-run pass-on due to changes in entry and exit, and I would say also other investment decisions. Changes in variable industry-wide overheads would operate through changes in the profit maximisation level that the firm, and indeed the rest of the sector, would be facing. So there are entirely different channels or factors that drive the case of pass-on.

In my view, in the industry-wide variable case, it would be operating through a broader set of channels, whereas the fixed overhead case would be limited to the structural change.

Q. At the moment, I am failing to understand the bright-line distinction between short-term marginal pricing which you recognise would be based on marginal costs?

A. Yes.

Q. You are not suggesting that the MSC, as I understand it, is a classic marginal cost in that sense?

A. Well, I think I am actually. It varies with respect to the sales of the business in the immediate term, and the only possible distinction is that it does not apply on a transaction by transaction basis, because it is contingent on whether the payment card is used, but that is not a relevant distinction.

Q. Why are you even bothering with long-run if that is your case? Why do we --

A. I am actually responding to the case of the other experts. This, I agree, is not relevant to my case at all. I do not -- the only relevance is that to the extent that the underlying incentives I have just described cannot be said to have necessarily been acted on in the short-run, because there is some price adjustment cost or pricing treatment reason, then, in my view, the incentives would operate in the longer run because --

Q. Is it your case that there is somehow a bright-line distinction between how those incentives operate on what economically you would call a fixed cost and what economically you would call a variable cost, even if the business treats a particular cost as an overhead and does not distinguish between variable and fixed at all?

A. I think that is what I am saying, is that, at least in terms of the but-for case where there are outcomes that you would expect as a result of cost changes, that the nature of the cost change will be relevant in the long-run, as comparing an industry-wide variable cost on the one hand and a fixed cost on the other, and that that would hold in the long-run, if not the short-run, even if some identified firm says: I do not take into account MSCs in my pricing strategy because of the alternative channels.

Q. But if --

THE CHAIRMAN: Sorry, can I just ask: when you are talking about a fixed cost in the long-run, are you saying that it remains fixed in that long-run and does not become variable over time? Because I thought it was part of your position that all fixed costs becomes variable.

A. So fixed costs, let us say you are in a ten-year lease, that is clearly a fixed cost for ten years.

THE CHAIRMAN: Yes.

A. The sense in which it might be variable cost in the long-run is that, in year 10, you can either renew it or not renew it. So there are some decisions that can be made, even in relation to fixed costs, that mean in the long-run there could be some impact of the size of the fixed cost on outcomes in the market.

So in that case, you either say: look, we are paying such a huge amount that we just cannot sustain that production facility, we cannot pay another ten-year lease at that rate, we are going to close it down. The impact of that would be through a change in the supply and demand balance in the market, i.e., a reduction of your own output, and that would lead to a bit of a price increase. That is a long-run reaction through a market change to a cost which is fixed in the short to medium-term.

That is not the -- I have sort of explained all this in my report as, in a sense, a discussion about economic theory, but its relevance is limited in the sense that I am not of the view that the ten-year lease on your production facility is a relevant proxy for MIFs that change on a per transaction basis, i.e., those are variable and indeed industry-wide.

So all of this discussion about the long-term fixed cost is a little bit of a side discussion that I have engaged in to sort of explain my views on the economic theory, but which are not actually relevant to my assessment as to what is the appropriate proxy.

I am not saying that COGS are the right proxy because, in the long-run, fixed costs become variable; I am saying that COGS are the relevant proxy in the long-run, because (a) the long-run is the appropriate timeframe, given the counterfactual of a long claim period and a permanent change in MIFs, but that, moreover, they are the right proxy because they share the inherent relevant characteristics of the MIFs and -- which is the industry-wide variable nature.

So it is not due to any discussion about fixed costs that I choose COGS as being a proxy; it is explicitly because --

THE CHAIRMAN: You are responding to the other side's case?

A. I am responding to the other side's case, saying let us suppose that MIFs are treated as an overhead, and we all know that overheads have a share of variable and fixed costs.

Now, there are two possibilities. One, in all cases the firm then treats the overheads in a common way and does not refer to the underlying economic incentives, and, moreover, all firms do that, and so there is no competitive reaction. In that case, you would say: okay, maybe they have treated it as if it is a fixed cost, and therefore, in the long-run, it is only the fixed cost pass-on that would be relevant, and this debate on, well, in the fixed costs there could be some pass-on because of the impact on the, you know, supply and demand balance due to investment decisions, so there could be some pass-on, even in that world.

I disagree that that is the alternative that we should be focusing on because, basically, it is inconsistent with economic principles and would require persistent non-operation of those incentives amongst firms across the whole sector, and, moreover, because it does not seem correct to say that necessarily all firms treat all overheads in exactly the same way. That is not my understanding.

MR BEAL: Please could we look at {RC-J1.4/19/35}. This is part of the Commission Guidelines, recital 162.

Now, what it says there is:

"The time frame over which pricing is considered will affect whether costs are categorised as variable or fixed. Generally, economic theory suggests that the longer the relevant time frame, the greater the proportion of total costs that should be considered as variable. In other words, a certain cost category which is viewed as fixed in the short run might be regarded as variable by the firm when considering a longer time frame. When assessing the relevant time frame in a specific case, the court may wish to consider information from the party's internal documents, e.g. information on the costs that the firms take into account in their own pricing decisions."

So it is right, is it not, that when looking at this issue, you have to look at how the merchant treats its own costs in the short and long-term?

A. That is not my interpretation of what this is saying.

I think this is saying that if there is a case where the cost is clearly marginal, then it can be treated as variable, and that would be the case in the short-run as well as in the long-run. If the cost is fixed, then it may not be appropriate to treat it as variable in the short-run, but there may be some circumstances under which it can re-assess those fixed costs.

So, for example, it would be sort of interesting to know in that context: is the lease period ten years or can they renew it every month? Because it might be a fixed overhead in the sense that it is not linked to output in the short-run, but it might be something that you can still change either on a, you know, short or medium period or only on a very long period.

Q. What about a firm that simply does not make a conscious decision as to whether a particular overhead is fixed or variable at all? It would simply treat it as an overhead cost and deal with it as an overhead cost?

A. Well, I think my answer to that is I am essentially adopting an approach which would either -- so even in that case, in my view, there are other channels that would adopt, because I am not relying on the conscious treatment of the overhead cost as a variable cost, I am relying on the fact that for an industry-wide variable cost in a but-for world over time, you would -- the industry would trend towards that impact.

So it is not a matter of conscious awareness; it is about whether the competitive pressures would go in that direction or not.

Q. If the firm in question is not really committing to anything other than: this is an overhead and we will treat it as an overhead, and given that we know that overheads have a fixed and a variable component, the logical answer to the proxy would surely be Mr Coombs' total cost proxy, would it not, because that would encompass everything?

A. Well, the reason I cannot agree to that is because it is so focused on what an individual firm's perspective is, and most of the markets in the retail environment are not monopolies. In fact, I do not think any of them are. They are all markets in which firms are competing against each other. So even if firm A adopts the sort of light touch approach to dealing with its own information in saying: we do not really care or investigate or understand what is going on with our costs, we would say they are all overheads and we do not know anything more than that, that still would lead in the long-run, assuming that any other firms in the sector do care about their incentives, or at least, even if not consciously, have reacted to the pressures of the change in the margins, then it would still lead to a long-run outcome that is consistent with the underlying incentives. So it does not rely on the conscious treatment or awareness of what are the costs.

Q. If, of course, the total costs proxy is used, you would say that builds in a downward bias or a downward skew against pass-on, would you not?

A. Yes, because --

Q. So when Mr Coombs comes up with pass-on rates, you would say logically those ought to be significantly lower than yours to reflect that downward bias?

A. Well, I would if, in practice, it had a material effect on the results, but my view is that it, in fact, does not have a great impact on his results, because --

Q. (Overspeaking) So if he reaches the right result for the wrong reasons, you do not care?

A. I have been quite clear, I think, in my Holt 12 report that I disagree with aspects of his approach. First, whether total cost is the correct sort of proxy, and I will not go over all the reasons for that, because they -- total costs include fixed costs, and I do not think they are the relevant proxy, and have also offered some critiques as to some particular implementation aspects as to how he has implemented the total cost, i.e., through allocation of the fixed costs, or the overheads at least, to the COGS.

Now, I think in the end the way he has done that means that the actual distinction in practice between what we have done respectively is rather less than the description of a focus on total costs actually implies, because his total costs sort of vary largely with respect to the same COGS variable that I focus on.

Q. Please could we look in your twelfth report, paragraph 182(c) {RC-G/17/64}.

A. 182(c), yes.

Q. 182(c), halfway down the page-ish.

You then say a reason for, in a sense, not liking the overheads approach is:

"... it is not possible accurately to estimate pass-on of overheads over the course of the claim period due to data limitations."

That is pretty much the equivalent, is it not, of saying you are going to deliberately give the wrong answer to the right question on an essay because you know more about the topic that you are writing about, is it not?

A. I mean, I disagree with that, because I cannot see A and B or indeed the prior section. But I think by this point, and I have probably said it a number of times, I do not consider overheads to be the right proxy. That is my primary argument.

If we are in the alternative where somebody else is trying to measure overheads, in my view wrongly, what I am then saying is that, well, unfortunately, you are unable to really do that with the claimant datasets because of all the limitations of the aggregation and the time period of the data provided.

So it is an alternative point that says: look, even if I was wrong on the appropriate proxy and it were right to get overheads, you are not going to get the pass-on of overheads from the approaches that the other experts have adopted.

Q. So assuming you are wrong on the selection of proxy, and assuming against you that the overheads approach is the right one, because it reflects the real world analysis, you would not be able to give an answer as to what pass-on rate was, would you?

A. Not from the claimant overhead data, no. I think my answer to that would be I would invite the Tribunal to look at the evidence from the public data and the existing studies where at least some of those have referred to costs that are often characterised as overheads.

Q. But you have not relied upon those studies because you say they inappropriately do not choose a variable cost?

A. I am referring to studies I have relied on, in the sense that even though they are potentially being characterised as overhead costs, I still treat them as relevant because of the consistency with the economic principles, i.e., that they are, at least in some part, variable, and that is the case for the, you know, the retail services and restaurants market where staff is at least in some part a variable cost.
Q. You would recognise, would you not, that if one looks at the long-run, the scope for confounding factors increases in terms of any analysis?
A. That seems plausible. On the other hand, in the long-run, the impact of noise becomes less and less. So the short-run analysis might be subject to more impact of noise, whereas the long-run analysis, some of that might average out.
Q. If that were right, we would be able to come up with an explanation as to whether or not prices have changed as a result of the cap on interchange fees in the IFR in 2015; correct? Because that 2015 to 2024 period must fit even your definition of long-run.
A. Well, you have the signal to noise ratio. So I disagree that you can look at the MIF change in 2015 in an empirical way, given the noise in the overall pricing of these retail operations, and say therefore you can

measure it with a ten-year horizon. The problem is
not -- the ten-year horizon is not better than
a two-year horizon, it clearly would be, but you would
still suffer from the fact that the variation in the
MIFs is low by reference to the variation in the prices,
and that makes it hard for a model to distinguish, in
effect, even if the effect exists.
Q. You are assuming, are you not, that if one is adopting
the longer term approach to a cost becoming variable,
the pass-on rate is going to be the same as would apply
in a short-term immediate marginal cost pricing sense in
terms of pass-on?
A. I think that is close to my position but not quite. So
my position is that in the long-run, the pass-on rate
for an industry-wide variable cost would be similar to
what might apply in a short-run for a marginal cost.
I am not saying that all costs in the long-run would be
passed on at that same rate. So my qualification is
that it only applies under certain conditions, but the
conditions do happen to apply in this case.
Q. Could we look, please, at {RC-F/19/99}. There is
a reference there to the Goodwin and Holt paper.
A. That is not me, sorry. I probably should have clarified
in the footnote. If it is not already done, then that
not me.

Q. I can tell it is not you because of what is says:
"This paper does not provide a pass-on estimate but rather focuses on the delay in pass-on. It finds that responses to market shocks are generally complete after 12 weeks."
A. Yes. So I think what that is saying is depending on the type of costs, then transition mechanisms can happen more quickly in certain markets than in others. This is obviously specific to one individual sector, the US beef sector, and they are finding that pass-on happens to operate fairly quickly. I do not necessarily disagree with that.
MR BEAL: I am about to move on to factor number 9 or point number 9 and perhaps it is time to give the transcriber a well-deserved break.
THE CHAIRMAN: We will take a ten-minute break.
(3.14 pm)
(Short Break)
(3.25 pm)
MR BEAL: Mr Holt, we are now going to look at the specific choice of the proxy that you have landed upon. As I understand it, you posited three separate proxies: one was COGS, two was VAT and three was labour costs?
A. Are you referring to any particular segment of my analysis, so, for example, the previous studies in

particular?
Q. In your eleventh report at paragraph 29, {RC-F/19/33}, that seems to be what your evidence is.
A. Okay. I agree that all three of those I take as at least potentially relevant in some circumstances, yes.
Q. VAT of course is an ad valorem tax?
A. Yes.
Q. So it is not treated as a cost by anyone, is it?
A. The importance of an ad valorem tax is that it creates a wedge between essentially the price paid by the consumer and the price paid by the -- sorry, by the -- the price received by the retailer, and the considerations as to how much of the VAT to pass on are subject to essentially very similar conditions as the -- as the pass-on of a tax. There are -- there is one additional element that because it is ad valorem, that can have a further effect, but basically it is a useful proxy, in my view.
Q. The ad valorem approach -- I think you accept as a matter of principle the incentive to pass on an ad valorem charge is lower?
A. I do agree, in principle, the economic theory is consistent with that, albeit the degree to which that is the case depends on the margin. So it is mainly where there is a very high margin or a high margin where the

distinction is somewhat more important.
Q. You do not find VAT being attributed as a cost in the profit and loss account, do you?
A. No, but that is not a consideration that I attach any weight to, because it is not consistent with the underlying drivers of what determines prices in a market --
Q. VAT is a classic case where a supplier will typically add on VAT to the price that they have already set by way of sending an invoice to the customer?
A. Well, that is obviously true in the sense that if VAT is 20%, by definition the price of the customer has to be 20% more than the price received, but that is not the relevant consideration. Again, it is the sort of but-for world: what would the end-user consumer price have been with and without the VAT, and in that world it is not necessarily a 20% difference. It might be that the retailer sets a somewhat lower price than that because they are concerned that, with the 20% added on fully, that might divert some sales and they might lose too much margin as a result.
Q. But plenty of retailers offer VAT-free pricing to business customers, do they not, like Amazon?
A. I mean, to the extent that they do, it is really just a particular version of a pricing discount. Obviously

you can call it VAT-free pricing to customers. So, for
me --
Q. They are advertising prices that do not have the VAT on
them because it is assumed that anyone buying for
a business will be able to recover the VAT as input
tax --
A. Yes, okay, that might be relevant in the context where
if the VAT -- so either they can -- either they are VAT
registered, in which case even if they paid the VAT they
could then reclaim it, or they are not VAT registered,
in which case, if they pay the VAT, they are in a sense
lumped with it, because they do not have anything to
offset it against.
Q. Quite a chunky section of the claimants here -- well, at
least until Allianz settled out -- related to
a financial services industry that was not going to
charge VAT in the first place, because it benefits from
an exemption. There is an exemption for insurance
transactions, is there not?
A. Well, that might be a good reason why looking at VAT
studies for the financial services sector might not be
as useful a source of evidence, because maybe VAT is
less relevant, but the VAT studies in general are on
sectors where the VAT is relevant.
Q. Could we look, please, at Mr Ramirez's positive case,

his second report, paragraph 217 {RC-F/8/81}. What he is comparing and contrasting here, in the left-hand column, is a reaction to the VAT decrease in December 2008 to the other events where there were changes in the Visa CAR concession and then the IFR implementation. I will not call out the figures, but it is fair to say, is it not, that the impact of the VAT decrease was much more significant than any detected change in prices following the MIF changes?
A. I agree with that. That is sort of a specific version of the general point about signal to noise ratio and the need for a proxy to be something that is measurable.
Q. All of the proxies you have selected involve a much more significant and materially important cost than the MIF for your typical trader?
A. Well, that true for the same reason, otherwise you would not be able to obtain any empirical estimate.
Q. You would accept, would you not, that MIFs have been pretty much set on an ad valorem basis since 2015?
A. Yes.
Q. Certainly with increasing predominance, IC++ pricing has been the norm for large businesses over the same period, since 2015?
A. I cannot speak to an absolute level of predominance, but I am aware that it has become more popular over time.

Q. I think you acknowledge, do you not, that there is an endogeneity issue with ad valorems as a proxy?
A. Yes, I think that is a potential reason why you might not want to use some of the smaller proxies that some of the claimant evidence includes, and that is one reason why I have not used those.
Q. So there is a risk of a reverse causality being inferred from a correlation?
A. Yes, if in those cases -- well, sorry, the issue here is that if you use the MSC as a proxy, for example, and the MSC is an ad valorem approach, then if the price is -- if there is an inherent link between the two, then you will find that link. There are a couple of cases where there is a similar type of proxy -- I will not name which claimant, but where there is a similar type of relationship where it is a share of the revenue and so in that case the data sort of tends to follow.
I think the general VAT evidence, though, is nonetheless interesting, because what it shows is that there can be a reaction by setting the pre-sort of -- you know, the residual price that the firm gets, and that can react, and there can be less than perfect pass-on, and that is, I think, an interesting finding.
Q. Now, the suitable variable proxy for an MSC would have the following characteristics, would it not, in

a perfect world: firstly, it would be a small cost, so
it reflected the small cost of the MIF as a proportion
of the MSC which is itself a small cost?
A. Well, I disagree with that, because the ideal proxy
needs to be something that is empirically measurable.
So if it was the same size as the MIF --
Q. Well, imagine an ideal world where you can measure
a small charge, as Mr Murgatroyd said he could with the
MIF, but putting that to one side. Imagine this is
a perfect world, that would be -- you would look for
a proxy that was roughly the same size as the cost that
you were interested in; correct?
A. You might do, but the evidence, including that of
Mr Murgatroyd, demonstrates that even if that were
ideal, it is just not feasible. The MIF evidence that
he has looked at and the other similar small proxies
give nonsensical results.
Q. In a perfect world it would be an overhead, because that
is how the merchants treat the relevant cost?
A. I disagree in the context where we are looking at the
long-run impact of a change in an industry-wide variable
cost. If there were, however, sufficiently relevant
industry-wide variable costs that happened to be treated
as overheads and met the signal to noise ratio issue,
then I would agree that that would be a potentially

relevant proxy.
Q. So if it was technically variable, treated as an overhead, sufficiently small that it was like-for-like with the MSC itself, that would be the ideal proxy?
A. Well, that would share -- well, in some cases -- I mean, again, I put less weight on the treatment as a relevant factor for the longer term, and also because there is uncertainty in variation as to how that actually operates, but aside from that, I think as long as you have an industry-wide and a variable cost, and it is measurable, then that is the key consideration for me.
Q. But I think we are agreed, are we not, that that, on the facts of this case, is essentially a pink unicorn; you are never going to find it?
A. In my view, we have found the things that I determined in my consideration of the relevant facts and principles that are good proxies, and that is the industry-wide variable cost.
Q. That is the whole point, there is a choice. Because you cannot find the pink unicorn, you have to find something that is going to be imperfect, so you have a choice between imperfections; correct?
A. I think I would agree with that, that the most perfect approach here would be that we would be measuring directly the impact of the MIFs. I think we are

therefore, in a sense, automatically in the imperfect world whereby any alternative needs, by definition, to be something other than a MIF, it needs to be proxy.
Q. So the options are either to pick a measure of overhead costs which is workable, because that reflects how the merchants treat the cost in practice, or to find a purely variable cost which nonetheless is not going to be comparable to the MSC because it is treated as a COGS rather than an overhead?
A. I think essentially what you are leading to is there is a potential trade-off, and one has to determine which of those trade-offs or aspects is the more salient in the context of the proceedings. My view is that the inherent characteristics are more salient than the treatment. Obviously I am aware that some experts have reached the opposite view. I think they are wrong, mainly because they have not considered the long-term implications of that, that it must mean that there will be a systematic deviation of an entire sector from the underlying profit-maximising position of all the individual firms, and I just do not think that is a relevant long-term approach to take.
Q. Your choice in that trade-off has landed on probably the most significant variable cost component that firms use in their pricing analysis as a proxy for a very small

cost that in fact is treated as an overhead?
A. I think it is fair to say that the COGS is often the most significant variable cost. I think it might be that I have used a range of other proxies, for example labour costs in certain situations, but I would agree that I am choosing industry-wide, as far as they can be described that way, and variable, and, again, insofar as they can be described that way, and larger costs to get across the proxy signal to noise ratio problem.
Q. In contrast, the overheads approach cannot focus on the specific overhead in question because it is too small, so it has looked at total overheads which is necessarily going to overstate the significance or materiality of the MSC as a component of total overheads, is it not?
A. That would be true if the size of the change were a relevant indicator of the long-run pass-on rate, which I disagree with, and which is inconsistent with economic principle.
Q. Now, you have suggested that overheads include variable costs, semi-fixed costs and so on, and you say that gives rise to an aggregation issue. But you have then included the average weekly earning in your estimation of pass-on using public data, have you not?
A. There is quite a lot in that question. Firstly, the overhead -- the aggregation issue is only in part due to

the combination of variable, semi-fixed and fixed costs.
I agree that that is an aggregation problem, but it is not the main or only aggregation problem. The other aggregation problem is that you do not have the per unit prices. So you have all sorts of potential changes in aggregate overhead expenditure which would be unrelated to any upward pressure on prices, so that when you measure the effect, you get a bias towards zero. That is my main concern. This fixed, semi-fixed and variable consideration is, I agree, a further important concern.
The next part of the question is, I use ...
Q. AWE.
A. AWE, yes. Well, that is not subject to the aggregation problem because it is the indexed wage rate in terms of percentage increases in the average wage expenditure for an employee. So, in other words, it is explicitly avoiding the aggregation issue by focusing on a period-on-period change in the wage rate, so that is a unit price.
Q. Now, I am going to move on to why your proxy selection leads to unrealistic pass-on levels. Can we look, please, in the RBB 2016 report, paragraph 152 {RC-J1.4/53/78}. It is only really in the unrealistic conditions of perfect competition that you would expect 100% pass-on; correct?

A. No, that is incorrect. It is true that under perfectly competitive conditions you can have a pass-on rate of 100%, but that is not -- you used the word "only". It is also consistent, as the hot-tub I think indicated across the board, i.e., all experts agreed that there are other conditions, even under imperfect competition, where you can have either 100 or above 100 as well.

PROFESSOR WATERSON: Or below?

A. Or below, yes, sorry, I did not mean to imply that it had to be above 100, but there is a range of outcomes that would be possible, yes.

MR BEAL: Can we look out the top of page 79 on the next page, please. There is a reference to a case that was brought against Microsoft there, and the claimants' expert is having drawn on tax instance theory to argue that overcharge had been passed on to end-users.

"... [he] found 100% pass-on 'likely' because of ... the intense competition in the distribution of Microsoft products ..."

The contrary view was that Microsoft's view was that:

"... the intermediate levels of the distribution chain were far from perfectly competitive ..."

The court dismissed class certification holding that the plaintiffs' expert had not 'bridged the gap between economic theory and reality of economic damages' and found the tax incidence theory to be [subjective] in that case."

A. Yes.

Q. We then see in 154:

"The extent of passing-on of industry-wide overcharges can be less than 100% in competitive situations because prices are determined by the level of marginal costs, and pass-on of the overcharge will cause output to contract (assuming demand is not perfectly inelastic) ..."

So that recognises, does it not, that the perfect or theoretical construct is not going to help us determine whether or not pass-on is at 100% or less?

A. Can I make three brief points. Firstly, about the case you referred me to. I am not particularly surprised that the court ruled as it did in that case, because it seems to be a solely economic theory-based basis on which that expert found that there should be 100% pass-on as being likely; in other words, it was due only to intense competition and lack of substitutability.

In contrast, I am not relying on economic theory to say anything about the actual level of the pass-on rate. I am, in contrast to that expert, saying there are some useful indications and factors that are relevant that we need to take into account for the proxy, but really it is down to the empirical evidence, so let us go and look at a wide range of empirical evidence and reach a view on that basis. That does not seem to be what that expert did.

Q. One of the studies you looked at for some of the empirical backing you advance in support of your case is Benedek et al, which is 2020. That is {RC-J6/29/2}. We see that this is looking at the impact of VAT on pass-on.

A. Yes.

Q. We will see that in the abstract right at the top, there is an almost universal assumption that VAT will be passed on in full. Is that correct?

A. Well, that is what it says -- sorry, it has gone now. Yes.

Q. "... usual presumption of full pass through is broadly confirmed for changes in the standard rate [the abstract says] but pass through for reduced rates appears to be generally noticeably lower."

So these particular authors started with a theoretical approach that suggested that there would be full pass-on, and then looked at the empirical analysis to see whether there was undershifting or overshifting as a result of the VAT changes. Is that fair?

A. Yes, that seems to be fair.

Q. Could we then, please, look at page 12 of this article {RC-J6/29/2}. In the paragraph that begins, "Two aspects of these results stand out", the authors said:

"First, the total pass through is statistically different from unity (and from zero) at 99% confidence. The null of full pass through - the standard presumption in policy work - is firmly rejected, with the point estimates implying that only around one-quarter of a VAT change is passed forward to consumer prices. Simply assuming full pass through of all VAT reforms is ... a significant mistake. Second, only contemporaneous effects in the month of implementation matter: effects before or after the reform are negligible and insignificant."

So there are two things emerging from that, are there not? One, empirics show that less than full pass-on can be experienced in practice, and secondly, the effects of the change are felt in the immediate or short-term?

A. Yes. Sorry, I am just reminding myself of this paragraph.

So I think, firstly, it is saying that one needs to look at the empirical evidence and not rely simply on what a theory is telling you, and that is what I have done, I have looked at a range of VAT pass-on studies and looked at what they said as an empirical finding, as opposed to any theoretical finding, so I agree with that.

I also agree that in many of the cases, pass-on was less than perfect. This one indicates a quarter; in other cases, higher rates were found. It might depend on a number of considerations, such as how much input substitution can happen and whether the VAT change was likely to be perceived as a permanent one or a temporary one, because sometimes they are put in place for a temporary period of time.

Q. That was dealing with the full rate of VAT. If we move, please, to page 14 {RC-J6/29/14}, you will see that different analysis is yielded for reduced rates of VAT.

Halfway down the page, it says:

"Changes in reduced VAT rates show a very different pattern of pass through. For these, the cumulative point estimate for all price responses prior to the VAT change is negative (but insignificant) ... The contemporaneous price effect is 46% and highly significant."

So when you are dealing with a reduced rate of VAT, which is, certainly in the UK, typically 5%, you have much lower rates of pass-on?

A. Well, two comments here. The first point is about the negative but insignificant 0.26. That is the pre-reaction. So the cumulative point estimate for all price responses prior to the change is negative. So what that is saying is that maybe if there is a pre-announcement of a change, then there is some anticipation in the market going on and there might be some reactions. Well, that might be the case, but also, after the fact, then there might be contemporaneous reactions, i.e., when you put it on there might be an immediate effect, and the sentence here says that effect is 46% and highly significant.

Of course that is contemporaneous. Some of the effect might also not be contemporaneous, it might be with a lag. So you would expect the 46% in that scenario to potentially go up --

Q. It then says:

"Overall, the cumulative pass through in the long-run is estimated at only 28% ..."

A. Okay, that would be the estimate that this study is identifying based on their dataset. As a general proposition, I have carried forward estimates, irrespective of what they are, that, you know, I have identified in the literature; some are lower and some

are higher.
Q. A change in the reduced rate of VAT is going to be one ad valorem tax change; correct?
A. Yes.
Q. It is going to be industry-wide, indeed economy-wide?
A. It depends on -- generally, yes, I think, yes.
Q. It is going to be highly visible?
A. Most likely.
Q. It is something that a business is likely to be alive to, because they have to account for VAT to the Revenue?
A. I would agree with that too.
Q. The percentage ad valorem rate that we are talking about is going to be significantly higher than 0.2 or 0.3% that applies to consumer debit or credit card MIFs?
A. Well, that is -- yes, that also true.
Q. So, in a sense, this is -- it is not quite a pink unicorn, but it is a much better proxy, is it not, in terms of what could be said to be an ad valorem industry-wide charge, and we are seeing here that the empirical evidence in the long-run is that the pass-on rate is as low as 28%?
A. Yes, from this study. My approach has not been to sort of select specific studies and rely on one study from the broader literature, I have tried to identify a broad range of evidence, covering as many sectors as I could,

in order to --

Q. What I have not detected in your analysis of studies is any suggestion that this gave you pause for thought.

A. No, I do not think there is any reason for it to give me pause for thought. This is one article, looking at one particular dataset, which, you know, to the extent that it passes the reliability and other criteria I have identified, I take forward, but I also do that for a number of other studies, and then I give essentially broadly equal weight to the studies. So I do not see any reason why I would disproportionately weight this one over any of the others.

Q. Point number 11 that I am moving on to now is sectorisation extrapolation.

A. Yes.

Q. You have adopted Visa's internal classification for the sectors, have you not?

A. Yes.

Q. That is not something that is adopted by the claimants, or indeed merchants generally, for commercial reasons. It is fixed by Visa, is it not?

A. Yes.

Q. It is not an official classification index, like the SIC?

A. No, that is correct, it is not the SIC.

Q. You have recognised, I think, that the SIC is the standard and granular way of categorising different sectors?
A. Yes. I would add, though, that there is a very large number of SIC categorisations, and one then has to identify a pragmatic way to identify a reasonable number of sectors that the experts could really deal with from a practical measurement perspective.
Q. Did you land upon Visa's internal classification or was it suggested to you?
A. I suggested it because I was aware that it would be something that had data, in other words, we could understand the shares of the different transactions that applied, and that for the most part, the sectors seemed in a sense ready made for allocation to the sectors that had been identified, and that while I recognised that in some of the sectors there may well be too much sub-sectoral variation, I tried to highlight those subsectors as being cause for a separate analysis.
Q. You have landed on 14 industry group sectors.
A. Yes.
Q. Does Visa only have 14 sectors or is that just the ones you have selected?
A. No, it has 14 sectors at that level, but then each of those sectors is divided into a number of subsectors,

effectively.
Q. I think my point was a more basic one, which is are there non-industry group sectors that you simply have not taken into account because they are not part of the sectorisation for this particular claim?
A. No, I think --
Q. That is it?
A. Yes, I think that should capture the entire, at least, part of the economy where payment cards are relevant, yes. The 14 should cover all of that.
Q. Where payment cards are relevant?
A. Yes, well, all merchants who accept payment cards will fall within one of the 14 categories.
Q. So obviously it necessarily does not cover merchants who do not take payment cards?
A. It would only not cover it if the entire sector did not accept cards.
Q. Now, the merchants themselves do not choose which sector they are assigned to, do they?
A. No.
Q. We do not have any evidence from Visa explaining what the underlying basis for the grouping is?
A. No, I do not think so.
Q. It certainly was not done, was it, to group together merchants who are likely to pass on the MIF overcharge

at the same rate?
A. No, it was not done for that purpose, I agree.
Q. You can clearly end up with highly aggregated results, can you not?
A. Well, by definition, the level of aggregation goes down to 14 segments of the economy, albeit I also identify a few cases where you can disaggregate more and focus on the sub-sector level. So I have 18. But that is the level of aggregation effectively that I have, 14 or 18, if you allow for the subsectors.
Q. Now, we saw earlier that two Allianz entities were in the same sector, even though they had very different card usage rates. We saw that; correct?
A. Yes. Sorry, just to -- sorry, I think I explained the relevance of the distinction in the card acceptance rates because one mainly operated through re-sellers, and one was doing the payments directly with its customers, but I agree otherwise with the proposition.
Q. Your analysis ends up with, for example, in the entertainment sector, Sony being teamed up, not directly, with the Royal Opera House?
A. Yes. I am sure that for any given sector you can select some claimants that you might say, hmm, are those necessarily likely to be subject to the same pass-on rate? I would accept that. I think that would broadly

be the case for any way of aggregating up to, you know, a level of 14.

One solution to that is to say, no, we really need the next layer, and that would be 80, for example, categories, but the problem -- there are two problems with that: (i) it would have massively increased the amount of analysis required, but, (ii), and perhaps suggesting maybe it would not have had that big of an impact on the analysis, you would have gaps all over the place in terms of where is the evidence that would actually fill the 80 subsectors. We already have gaps, even when we are trying to cover -- you know, all the experts have broadly in the 10 to 14 range, and there are significant gaps even at that level.

Q. So when Mr Economides elected to go with 67 subsectors, that is obviously preferable to 14 on your analysis?

A. Well, I would disagree because it is completely unimplementable. The only way in which it is implementable is if you say, well, let us really focus on 67, but since we only have evidence on nine, we are going to use extrapolation to say that the nine somehow must fit the rest of the, whatever, 58 --

Q. The difference is your Visa system uses extrapolation, it is just you have no visibility about the basis upon which that extrapolation takes place?

A. I agree to the extent that it is implicit in any sectoral approach that once you identify the full set of evidence for the sector, and if you are using it as a default for the sector, it is a bit like extrapolating the result to the rest of the sector, I agree. But in my view that it is very different, when there is a sector, to do the extrapolation from the evidence for the sector to other firms within it, compared to the situation of Mr Economides, who is taking nine sectors and then saying let us apply them to the other 58.
Q. But Mr Economides has explained his approach, and explained the pricing strategies and other factors that have driven the extrapolation process.
A. Yes, I --
Q. (Overspeaking) -- with you, is simply on the diktat of what Visa chooses to put them into?
A. Well, my problem with Mr Economides' approach, with respect, is that he has adopted a whole range of criteria, only one of which is consistent with underlying economic principles, which is the one which relates to the nature of the cost as being linked to output, i.e., the variable cost characteristic. In my view, none of the other ones are recognised as being underlying sector level demand and supply or competition-based factors that could easily be

extrapolated.

PROFESSOR WATERSON: Could I ask, just as a matter of interest, what happens with a company like, say, Marks & Spencer, who has both a clothing side and a food side?

A. Yes. Well, it would depend on whether you -- what you could do, of course, is at a claimant level basis say: look, it looks like there are two sectors that are relevant and they are 60/40. Let us use 60% of that sector and 40% of that sector and say that broadly it averages out in that way.

PROFESSOR WATERSON: Right.

THE CHAIRMAN: Can I just ask about this internal document or categorisation for Visa. Was that prepared for the purposes of these proceedings, or was it something they used for their own internal business purposes?

A. I think that a long-standing method of characterising the different sectors and subsectors. I think the level of disaggregation continues to get further broken down. So there are 14 sectors, I think something on the order of 80 at the next layer, but then I think even those can be broken down into something like ... it might be 600, very refined levels of descriptions of categories of merchants as well.

So there are different layers or different degrees of aggregation, but it is for their own actual business purpose, not for the proceedings.

MR BEAL: On your extrapolation process, we end up, for example, with a retailer like Marks & Spencer being lumped together with pharmacies selling drugs under a regulated NHS system, do we not?

A. Again, there may be some individual cases where you might say really how similar are those conditions. I think that is somewhat inevitable, given that all of the experts are trying to balance the trade-off of having a practical number of sectors against the available evidence, at the same time as trying to come up with something that broadly would not be having a similar pass-on rate within the sector.

Obviously the main problem is that the main factors that would distinguish a pass-on rate across sectors, according to the general economic principles, would be the things that we have talked about in the hot-tub: demand shape, supply shape, competitive intensity and so on. Those factors are generally unobservable, so it is not really possible for -- to point to any of the experts, myself included, and say: aha, they are the ones who have properly captured the underlying economic principles in the sectoral approach.

All of us have had to take a pragmatic decision, and

I am not actually critiquing particularly heavily the pragmatic decisions that some of the other experts have made, which perhaps made sense in the context of their proceedings. For example, Mr Coombs had public evidence across I think it was about 12 sectors, so he used that. You know, I am not sort of disputing that that is an alternative, but I would not suggest that any of the experts, including Dr Trento and Mr Economides, have identified a principles-based approach that would give a preferable approach to sectorisation.

Q. Your pot is not blacker than my kettle on that basis, is it?

A. A little bit. I think this is just a recognition that we have as much evidence as we do. I am trying to use, I would argue, the broader set of evidence compared to some of other sectors, and even I am unable to point to evidence from any of the three sources for even the 14 categories. I am missing two.

So if you start to then say, well, let us have 80 or 60, you are just going to have gaps all over the place.

Q. But you have objected, I think, to the suggestion that the analysed claimants are not representative of merchants within a given sector?

A. I think it is really important to distinguish what I mean by that. Again, I am not saying that if you pick

Primark, and get a credible pass-on rate from Primark, that it is inappropriate to take that as a useful input to a pass-on rate for the fashion retail sector. I am using it myself. My point is that the extrapolation and assumed representativeness that some of the experts are adopting goes far beyond that and says: well, let us now look at what Primark says it does in terms of setting policies and budgets and management incentives and, you know, how it categorises costs in the accounts, and let us assume that Primark now represents the entire fashion retail market in those respects.

I do not think that it is the same thing at all. One is saying, well, this is as best an estimate as we have from a claimant for an empirical assessment of a relevant proxy, in my case COGS. That is a good input for a sectoral analysis.

Q. Could we look, please, at {RC-F/19/297}. This is your eleventh report. It should be paragraph A99. You will see here that you are using, are you not, the data of one company in order to derive a calculation figure of converting pass-on elasticities to pass-on rates?

A. In that case because, in order to convert a pass-on elasticity to a pass-on rate, in some of the evidence in need to identify an external data source. In other evidence I do not need to do that, because the pass-on rate is already given or the data is already in the same source. That applies for the claimants.

In this case, the study I had did not give a pass-on rate, so I had to estimate it with a gross margin, and there was only one UK firm in the relevant sector with a gross margin. I appreciate I would rather have more. What I also did was look at whether it was sensitive in general, in terms of gross margins within S&P, to look at beyond UK, and generally it was not sensitive to that.

Q. You have not looked at how the Visa sectors compare and map with Mastercard sectors, have you?

A. No. I am instructed by Visa. I have focused on what I think to be a representative set of sectors. I fully appreciate that there may be a need for some consistency assessment as to the sectors that Ms Webster has identified based on Mastercard's approach, and how we then treat individual claimants as falling within one or the other, but I do not think that is necessarily going to be that difficult a thing. I think there is quite significant overlap for many of the sectors between us.

Q. Now, you must accept, I think, that Dr Trento and Mr Economides have produced at least one analysed proxy in the -- for every SSH claimant, and there are SSH Claimants in each of Visa's 14 sectors?

A. I do not think they have got claimant analysed proxies for all 14 sectors --
Q. No, they have produced a figure for every SSH claimant, and in fact all of the Visa 14 sectors are covered, either by an additional sector extrapolation or by analysed claimant.
A. Oh, okay. Well, yes, obviously if you rely on the extrapolation from the sectors where you have evidence and say that they apply to the other 14, then you can fill in gaps that way. Indeed, I have done that myself by saying two of the gap sectors I have can be approximated by a UK economy-wide one.
By the way, I would disagree that they have credible evidence in relation to all of the willing claimants. There are four of the nine -- sorry, 13, rather, four of the 13, where in my view there is no -- the data structure is such that no one can rely on the data, and I think -- perhaps it is your point.
Q. You are saying no one can rely on it. People have relied upon it, it is just that you do not agree with their results.
A. Yes, I think that is fair. I have very strong reasons to explain why I say one should not, as a matter of principle, agree on -- sorry, put weight on this. For example, pass-on of overheads by one of the companies

over an 18-month period, which is the data for period used, is, in my view, an inappropriate data structure with which to try and estimate this. Some of the others have very little variation, and the results are therefore extremely sensitive to that problem. The overhead information is subject to various biases due to aggregation and mixed effects and the fixed cost effect, and the datasets are too short.

So basically they have tried to come up with estimates for all the sectors but I disagree that one can rely on them.

Q. Point 12: previous studies. Now, your approach to previous empirical studies reaches a conclusion, does it not, that the results are uneven across Visa's sectors?

A. Uneven in the sense that they are not uniform, agreed.

Q. Well, you do not have any effective coverage of the UK or Irish hotel sectors, have you?

A. Oh, sorry, do you mean the coverage is uneven, i.e., it is not complete across all the sectors, as opposed to the level of pass-on estimates?

Q. You have given a pass-on estimate where you can, but there are certain sectors where you cannot on the basis of public studies?

A. That is right. So in some sectors I have not found existing studies that cover the sector. That applies to five of the 18 subsectors. There are 14 sectors but I disaggregate a few of them. So I have 18, and of the 18 I have 13 where I have identified, in my view, relevant previous --

Q. None of the studies deals with the MSC overcharge, does it, the MIF overcharge into the MSC?

A. Well, the reason for that is that it would -- if they had tried it, they probably would not have got too far because of signal to noise ratio.

Q. You have landed on an overall conclusion of 89% as a result of these studies, is that right?

A. I actually updated that to 88% on the basis of the further studies that Ms Webster and Mr Coombs identify that I felt were sort of helpful contributions as well. So it is 88.

Q. That then feeds in as one of the three weighted average percentages for the overall overcharge figure per sector?

A. The 88 is an average across sectors for the previous studies. I actually adopt the approach of looking sector by sector across the three evidence sources in order to get the relevant sectoral estimate, and then I use a weighting to get the overall economy-wide estimate. So it is not quite the case that I use the 88 to derive the economy-wide estimate. I do it on a sector by sector basis.

Q. Can we look, please, in your eleventh report, paragraph 294, subparagraph (d) {RC-F/19/113}.

A. Yes.

Q. At 294(d), you alight upon a figure for the retail goods sector, saying:

"... exhibits a pass-on rate of 59%, though this is based on a single study."

As I understand it, you disclaim it on that basis, is that right? You then do not rely upon that because it is only a single study?

A. I do not think that is correct, no. I am just saying that is the -- I am describing how I have tried to take estimates from a range of studies on a sector by sector basis. I am saying that obviously if there is a plural or multiple number of estimates, then you can either discuss what weighting to apply, or whether you prefer an average or a median, and I am providing the information in that regard.

For the retail goods sector, if I have only found one pass-on rate, one study, then obviously that means the study is the average, is the median. That is all I am saying.

Q. But did you calculate the 59% from this one study and then use that as an average across that sector using

your trilogy of results?
A. I think so, yes, subject to ... Essentially, that is the methodology I have adopted, yes.
Q. Could we look, please, at page 122 {RC-F/19/122}, paragraph 324. For the home improvement and supply sector, you identified one peer-reviewed estimate as well which you considered to be relevant?
A. Yes.
Q. So that is one study as well?
A. Yes.
Q. At page 235 of this document, please, we see a list of the papers that you have taken into account. Is that right?
A. Well, this I describe as the list of potentially relevant studies. So this was sort of the long list against which I applied some criteria.
Q. You accept that many of them look at the policy implications for, for example, tax and excise duty on alcohol and tobacco products?
A. Some of them do, yes.
Q. Can we then, please, look at page 115, paragraph 301. You said earlier that you had been looking in the course of this exercise at papers covering overhead costs as well. In fact what we see, do we not, at paragraph 301, is that you have been deliberately focusing mostly on

studies that look at variable costs?
A. I think it is fair to say that I have primarily looked at studies that could be described as covering variable costs, and the reason for that is my proxy definition is industry-wide variable costs that meet a sufficient size to be measurable.
Q. You have included labour costs in that analysis as a variable cost industry-wide basis, etc?
A. I have used a degree of judgment to identify that in some sectors, labour costs is likely to be more variable than in other sectors, and therefore the pass-on rate over labour costs could be of interest for a long-term estimate of, at least in part, a variable cost.
Q. One of the studies that you have, I think, placed reliance on in this context is the minimum wage study from the Renkin paper {RC-J6/186/1}. If we can look at page 1 to see the abstract and the title. Are you familiar with this one?
A. Yes.
Q. It deals with pass-on of minimum wages in the US into retail prices from supermarket scanner data?
A. Yes.
Q. At page 2, please {RC-J6/186/2}, right-hand column, there is a paragraph that begins:
"Most closely related to our work ..."

It then refers to some other contemporaneous papers that have looked at similar issues concerning the pass through of minimum wage changes into prices, and we see that very different outcomes have been seen on the basis of the analysis; correct?
A. Yes, some of those referred to different levels.
Q. Could we then please look at page 13 {RC-J6/186/13}. We see that in relation to the announcement of some of the minimum wage legislation, this led to some firms jumping the gun. Is that a fair analysis?
A. Well --
THE CHAIRMAN: What paragraph are you looking at?
MR BEAL: It is "Firms' Forward-Looking Pricing Decisions":
"One striking result from our baseline regressions [left-hand column] is that grocery stores appear to anticipate future cost increases by increasing their prices as soon as the ... wage hike is announced (i.e., [pre-implementation])."
Can you see that?
A. I see that, yes.
Q. So that obviously is not likely to be the case with a MIF, is it, or a variable cost in the COGS?
A. I agree that if -- well, I mean, obviously it is possible in the -- I am not speaking from a position of describing actual evidence, but it is obviously possible

that if there is an announcement about any change in costs, including, say, the IFR, then firms could start to take that into account obviously from any point when the policy is announced to any point after the actual implementation of the policy.

I do not think it is that important for the long-run because even if you sort of pre-act, where you are going to end up will still, in my view, be over time consistent with economic incentive. So the timing of whether they pre-jump the gun, or do so with a lag, is not of primary importance to my analysis.

Q. Page 16, please {RC-J6/186/16}. On the right-hand side, we see that the results of some of the analysis are taken into account -- sorry, if we start at the bottom left-hand column, "Implied Cost Pass-Through Rates":

"Our estimate for pass-through based on our baseline specification ... amounts to 2.026. This number may seem large, but given the large standard errors on the insignificant elasticity estimate at implementation, we cannot reject the hypothesis that pass-through is equal to 1 - the p value on this test is 0.485."

A. Yes.

Q. So what you end up with is the pass through ratios based on estimates including division time are closer to and also not significantly different from this one. So what seems to have the happened is they got an initial answer of 2.026, but they thought that was probably subject to standard errors, and therefore they landed on a pass through equal to 1. So they have halved the pass-on analysis, have they not, to reflect the reality of situation as they perceived it?

A. No. No, no. I am sorry, I do not think that is the right interpretation here.

So they have identified an elasticity, and that is the 2.026, and they are saying that might seem large, but obviously it depends on what is the base of which you would have to convert it into something that actually relevant for a pass-on estimate. What they are then doing, without actually saying what the pass-on rate is, I think, is saying, well, the 0.026 when converted leads to an answer which is positive but not sufficiently close to 1 that if you were to test whether it was statistically different from 1, you would not reject the null that it is different from 1.

That is just saying that the estimate that they came up with is less than 100%, or at least -- yes, I mean, it could also be higher, in theory, but let us assume it is less, and that the size of the gap, given the standard errors they have, is sufficient to say, well, we cannot rule out that it is not 100%. It could still be 100%. They are not saying it is impossible for it to be 100%, there is still quite a lot of standard error there which leads you to some uncertainty, but they cannot be confident that it is necessarily 100%.

They then go on to say there are some other pass-on ratios which are closer to and also not significantly different from 1. So they are saying that here are some other pass-on estimates from the study and those ones are sufficiently close to 1 that the previous comment would not apply. These ones are close to 1, even taking into account the standard errors.

Q. If we then look at the top of page 17, please{RC-J6/186/17}, under the row headed B, if we can drill in on that. Under the table, table 5, section B of table 5 at the top of page 17. Thank you.

A. Table 5.

Q. Table 5, yes, top of that page. There is an implied cost pass through, can you see that?

A. Yes.

Q. We see a figure for the baseline, under B, of 0.968. Can you see that?

A. Yes, I do.

Q. Then when they take into account chain-time fixed effects, that gets reduced to 0.516?

A. Implied cost through for chain-time fixed effects, yes.

Yes, I see that point, that they have obviously come up with some different sensitivities to the analysis.
Q. They have re-specified the analysis and it has led to a halving of the predicted pass-on rate, has it not?
A. Yes, that is correct on that particular example, yes.
Q. Now, the studies do not all speak with one voice either, do they?
A. No. Some of them measure different products.
Q. Even within the simple exercise of looking at the impact of changes in excise duty on prices for beer, Bergman and Lynggard - this is {RC-J6/33/1} -- found that excise duty increases led to overshifting for prices for beer but undershifting for spirits. It is in the abstract.
A. Yes.
Q. In contrast, the abstract is on page 2 {RC-J6/33/2}, so we can familiarise ourselves with it. This is obviously not a key part of my case so I am not going to dwell on it.
If we then please look at Ally et al {RC-J6/10/1}. They found the exact opposite, undershifting for beer and overshifting for liquor, as they call it?
A. Yes.
Q. So even within the same sector looking at the same tax, you can get very different results?
A. I would agree with that. I think that is inevitable,

given the different datasets or methodologies that different researchers will have access to. What I have done is to say: look, all of these studies are attempts to understand the rate of pass-on in a sector, looking at each one individually, with an independent estimate based on a particular data and methodology combination.

I am not -- other than applying some relevance and quality criteria around, you know, the peer review process, and some criteria around the use of a recognised econometric tool, and a number of other relevant criteria, I am not then saying: well, you know, this author is right and that author is wrong; I am just saying: look, here are some independent estimates of what we are looking for, which is, for the food and beverage sector, different approaches to this which, if you take them all in the round, provide an average of however much it is.

Q. Please can we go to {RC-J6/91/1}. I hope we all bring up a study by ... that is obviously not the right one. No, that is not the right one either.

Sorry, I think that should be {RC-J1.6/91/1}. That is the one. Or is it? I am looking for the ...

THE CHAIRMAN: That is at tab 91, yes.

MR BEAL: That the one, tab 91. This is a paper by Ioannidis et al, 2017. You see in the abstract at the top, if we can magnify that, please, they are investigating some dimensions of the credibility of empirical economics research, together with statistical power and bias. They are concerned that empirical economics literature produces results that are exaggerated typically by a factor of 2 and with one-third inflated by a factor or 4 or more.

If we could then please go to page 6 {RC-J1.6/91/6}, they identify publication and reporting biases. Can you see that?

A. Yes.

Q. At page 18 {RC-J1.6/91/18}, the conclusion that they reach is that the survey of 159 meta analyses of economics reveals empirical economics research is often greatly underpowered.

"Regardless of how 'true' effect is estimated, typical statistical power is no more than 18% ..."

Et cetera.

It then says that the bias that results is that there is a culture of academic articles leading to effectively inaccurate statistical conclusions. Is that fair?

A. Yes. Obviously that is their conclusion. I do not know what base of articles they have looked at. I have not tried to make any adjustment for the so-called possibility of publication bias within the estimates I have looked at. I am not aware of any study that claims to have identified publication bias in the field of economic literature focusing on pass-on rates.

Although I do not think I have specific evidence to suggest this, I offer a couple of observations. I think publication bias is often described as something where an article may not have a chance of getting published unless they show a significantly -- sorry, a statistically significant result, and if they do not, then no one is going to be interested.

In my view, that is not particularly pertinent to the pass-on literature because -- for a number of reasons. One, I am really focusing on the empirical evidence, and I am not trying to focus on whether there is a statistical relationship that meets the different from zero test, I am looking at the average empirical level that is found. In that regard, it does not seem to me, given that the economic theory suggests quite a wide plausible range, that there would be any reason for a journal to reject a study that had a pass-on rate of any level compared to any other level, and indeed I do have a range of levels within my studies.

So there is obviously no sort of bias in the sense that, well, you must show a statistically significant

estimate of at least 80% otherwise it is not going to be published, there are lots of the studies I have used that are below.
Q. You have produced studies that have a range of outcomes, and then you have aggregated them by treating them all as equally valid, have you not?
A. I have taken a simple average for the studies within each sector.
Q. You have counted each study as a separate element in the calculation of the average, whereas for the analysed claimants you have taken only one estimate for each of them?
A. So I have done that in one approach, and in the other approach I have taken the average across the full set of studies as a single estimate, and therefore attached equal weight to the claimant evidence and the entirety of the existing study evidence as a whole.
So, to be clear, I have looked at two different weighting approaches. One does put more weight on individual estimates from existing studies, if there are multiple existing studies. The other does not.
Q. Can I move on to public data analysis.
A. Sorry, can I just briefly comment. That difference in approach does not actually have much material impact, the reason being that whether I put more weight on the

individual studies, or group them together and attach only a single weight to them, the results are sufficiently clustered as a group within a general range of between 60 and 100 that even at the sectoral rate, that difference in averaging does not have very significant effects. So I do not think it is a big factor, in my analysis.
Q. Now, the second of the three sources you use is public data analysis, and you recognise there is a high degree of imprecision from your analysis of public data; correct?
A. Yes.
Q. Now --
A. At least in -- yes, generally I make that comment. The degree of imprecision obviously varies from the individual cases to case.
Q. Now, could we look, please, at your second -- volume 2 of your twelfth report {RC-G/18/96}, paragraph 307. We have to be careful here because there is some confidential material.
A. Understood.
Q. But you have identified a criticism of relying upon this shop's data by reference to what you say is a limited number of observation periods. Is that a fair summary of what you are saying there?

A. Yes.
Q. Limited number of data points. But if we can look, please, at {RC-F/19/274}, which should be your eleventh report, table A4.9, obviously in this section of your report you go through a number of different sectors. But if we look at that table, about six or seven lines down in terms of text there is a reference to "Observations", can you see that?
A. Yes.
Q. Those observations vary between 42 and 57?
A. Yes.
Q. If we could then go, please, within this document, to page 283 {RC-F/19/283}, table A4.17, again "Observations" there?
A. Yes.
Q. Ranging from 37 to 48?
A. Yes. Can I comment on that?
Q. Well, there seems to be an inconsistency between your critique of a limited number of data points for the shop and your approach to the public studies -- public data analysis.
A. Okay. I agree that the number was higher in the first case, and I will not say what the number was or who it was for, but it is not a comparable number. You cannot compare the number of observations for aggregate monthly

overheads as a sufficient basis to identify the relevant pass-on of overheads to the 48, for example, overhead -- sorry, the 48 observations relating to my public data. The reason for that is the public data hones in on quarter on quarter differences in price and cost, and then I control for demand.

The overhead data, as I have explained on a number of occasions, is a monthly average of all expenditure or, sorry, a monthly total of all expenditure, according to some categories, and therefore it is suffering from lumpiness, a mix effect when you compare it against disaggregated prices. It suffers from the fact that you have a unit aggregation bias, which, just to remind the Tribunal, is the fact that it is a total expenditure, and you do not know whether it is going for scale, going up because they have made some decisions to invest in some new technology that going to save costs, or is it actually what we care about, which is upward pressure on the unit prices. So in my view, the -- and the fact that much of the overheads are of course fixed, where you have a much more difficult --

Q. Just pausing --

A. -- time to look at it.

Q. -- there. When you say "much", what is your empirical basis for saying "much of the overheads"?

A. It goes back to what we talked about before, the --
Q. So you are not making an empirical point, it is just within the semi-fixed/semi-variable category --
A. Yes.
Q. -- there will be a mix, unpredictable mix of --
A. We can see that together the fixed and the semi-fixed are in general anywhere -- I cannot remember the precise numbers, but let us say that they are high. I think your point is that quite a bit of it is semi-fixed and therefore it is not entirely fixed, and I agree, but even semi-fixed variables lead to an aggregate unit bias, because when you divide a semi-fixed variable by a unit of output, at least part of the variation is due to the artificial variation of splitting the fixed cost, which is not relevant to upward pressure on pricing.
Q. At face value, quarterly figures are going to be more aggregated than monthly figures, but I assume your response to that is, well, the data is different? Because you have said your public data is aggregated on a quarterly basis, so at face value ...
A. That is not really an aggregation, that just saying -- unless you want to say it is the average price change from one-quarter to the other, I -- the critical aggregation issue is aggregation across products or types of products and things like that. That is the

type of aggregation issue that you have in the claimant data. The public data already addresses that by constructing by design a price change controlling for mix effects. So you do not have any of these aggregation problems.

The use of quarterly versus monthly data is not a big deal. Mr Coombs uses monthly data, I use quarterly data. It obviously captures the same information with a slight degree of within quarter variation for the monthly stuff, which I do not think is particularly interesting because I am not really saying that pass-on is likely to happen more in month three than month four. I am just saying that, you know, you have to look up to a year, and the quarterly data gives you scope to do that.

PROFESSOR WATERSON: Could I just ask about this table -- sorry, I am interested in this table. I appreciate time, but ...

So these are three alternative specifications for the same dataset, is that right?

A. Yes, yes, that is right. That is right -- well, sorry, there is a slight -- yes, that is true, because the slight -- there is a slight variation.

So my sensitivities to the public data in general are -- and it depends on whether it is a differenced case, i.e., the first difference is quarter 2 minus quarter 1, which is most of them. Because the baseline includes the Covid period for the reasons I described in the hot tub, I then do a sensitivity where I take the Covid period out.

Then I also have as a baseline: focus on the claimant, period. But then I have a sensitivity in some cases, if there is earlier data, what that would do.

My third sensitivity in general is to say, well, I have got what I think is the most appropriate way to control for demand, but there is an alternative, for example, household expenditure, what happens if you use that instead? I have a good reason why I do not think that is an equally good alternative, I think it is a materially worse alternative, but I look at it in any event.

PROFESSOR WATERSON: But just to focus on the table. If we look at the first column, let us say --

A. Sorry, could I just have the full page so that I can see the whole thing? What page are we on, please?

MR BEAL: It was 283.

THE CHAIRMAN: Let us start on 282.

{RC-F/19/282}

A. Thank you. I cannot really comment without looking to see the top table.

Okay, so this is for legal and accounting services.

PROFESSOR WATERSON: Yes.

A. The top of the page shows the key variable cost index that I used, which is AWE Professional, Scientific and Technical Activities. So that essentially my COGS proxy. But this being a professional services-type approach, I am saying that the people costs are a relevant variable.

PROFESSOR WATERSON: I appreciate that.

A. Then I have lags. Your question, I guess, is what is happening in the three columns? Well, the three columns --

PROFESSOR WATERSON: No, my question was not that actually.

A. Sorry.

PROFESSOR WATERSON: It was if we take the first column, for example, presumably when there are no asterisks, that means the figure is not significantly different from zero?

A. Yes.

PROFESSOR WATERSON: So it is not significantly different for the first variable, AWE?

A. Yes.

PROFESSOR WATERSON: Nor for lag 1?

A. Yes.

PROFESSOR WATERSON: If we carry on to the next page.

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A. Nor for lag 3.

PROFESSOR WATERSON: Nor for lag 2 and nor for lag 3?

A. Correct.

PROFESSOR WATERSON: But yet there is an overall reasonable fit of -- an R-squared of 0.45?

A. Yes. Sorry, that is the pass-on -- sorry, you are right. The R-squared happens to be 0.45 and the pass-on elasticity is also 0.45.

PROFESSOR WATERSON: No, I am not querying that either.

So the pass-on elasticity, is it the sum of those three numbers?

A. Yes, and just to be clear, as I have explained in my report, I have not put weight on the individual statistical significance of the individual lagged parameters, because I consider that they are likely subject to a degree of correlation; in other words, there is not enough information, I would suggest, in a 48 observation model, to accurately really hone in on which of the quarters is really the driver of the pass-on, and therefore I grouped them together and I carried out a joint significance test against the total.

PROFESSOR WATERSON: So the pass-on elasticity is therefore subject to significant error, but you do not actually report the error -- the 95% confidence interval?

A. I report the pass-on rate standard error, that is 35, so that is comparable to the pass-on rate. So, in short, the confidence involved could be 93 plus and minus two times 35, approximately.

PROFESSOR WATERSON: Right, okay, yes. But then the price-cost ratio presumably is also potentially subject to error, is it?

A. Yes, yes. As I have acknowledged, in the cases where I have had to estimate a pass-on elasticity you then need a conversion rate, and I have explained what I have used, it is the S&P, although in this case, because it is a labour index, I used the ONS input/output tables to derive the appropriate price-cost ratio.

PROFESSOR WATERSON: Yes, thank you. I am just trying to understand what is going on here.

I am sorry if I --

MR BEAL: You foreshadowed some of my questions that I am probably sensibly going to leave to tomorrow morning when they will make more sense to me than they do at the moment.

THE CHAIRMAN: You are not going to finish this topic tonight?

MR BEAL: No. In terms of how we are doing, I have made reasonable progress today. With a fair wind, I will finish tomorrow lunchtime. I may need to go very shortly into the afternoon, but it will be very short, still within -- under allocation.

THE CHAIRMAN: We do have to finish with Mr Holt tomorrow afternoon.

MR BEAL: I will prune overnight.

THE CHAIRMAN: Do we want to start earlier tomorrow to ensure that that happens?

MR BEAL: Well, that would ensure it happens, so I would be very grateful if you would not mind starting at 10 o'clock.

THE CHAIRMAN: We will start 10 o'clock.

MR BEAL: I will get the scissors out at my end.

THE CHAIRMAN: I am sure you would prefer to be finished before the weekend.

THE WITNESS: I think that is fair.

PROFESSOR WATERSON: That a good short answer.

THE CHAIRMAN: 10 o'clock tomorrow then.

(4.40 pm)

(The hearing adjourned until 10.00 am on Friday, 29 November 2024)