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

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 18th November- Tuesday 17th 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)

Tuesday, 10 December 2024

(10.30 am)

THE CHAIRMAN: Good morning.

MS TOLANEY: May I call Ms Webster, please.

THE CHAIRMAN: Yes.

MS TOLANEY: Ms Webster has been sworn in already, I think.

THE CHAIRMAN: No, she needs to be sworn in.

MS RACHEL WEBSTER (affirmed)

Examination-in-chief by MS TOLANEY

THE CHAIRMAN: Thank you, Ms Webster. Please sit down.

THE WITNESS: Thank you.

MS TOLANEY: Good morning, Ms Webster. Please could I have up on screen {RC-F/14/1}. This is your first report. If we can go, please, to page 129 {RC-F/14/129}. Is that your signature?

A. It is.

Q. Could we then please go to {RC-M/435/1}. If you can cast your eye over that letter, please, and tell me when you are ready to turn the page. (Pause)

A. Yes, please.

{RC-M/435/2}

Thank you.

Q. So subject to that correction, can you confirm the contents of your first report reflect your expert opinion and belief?

A. I can.
Q. Then if we can please go to {RC-G/12/1}. This is your second report, and if we can go to page 159, please {RC-F/12/159}, is that your signature?
A. It is.
Q. Could we then please go to page 57, paragraph 4.37 {RC-G/12/57}. Can you cast your eye over 4.37 to 4.38. (Pause)
A. Yes.
Q. Over the page {RC-G/12/58}. (Pause)
A. Okay.
Q. I understand that you wanted to update those paragraphs, if you can explain to the Tribunal what you wanted to update.
A. Yes, thank you.
So the update that I wanted to make was in relation to the interpretation that I have made based on the factual evidence that is described at the beginning of paragraph 4.37. I am very aware that the factual evidence in this case is contested and I also understand that it is not for me to make an assessment of that factual evidence, but it is the case that in order to reach my view on the conclusions on economic pass-on, I need to have an interpretation of the available factual evidence and, since writing my reply report, new

factual evidence has become available for that first claimant that is mentioned at the beginning of paragraph 4.37.

Perhaps just to explain. The key importance of the factual evidence to my conclusion is because I take the view, based on economic theory, that the likely extent of pass-on of the MSC will have depended on whether the merchants treated the MSC as a fixed cost or as a variable cost when it comes to their price setting. So I have not reviewed the factual evidence in detail, but I have relied on Mr Harman's assessment of that evidence in order to indicate whether or not the merchant is likely to treat the MSC as fixed or variable for the purposes of price setting.

In terms of how I have interpreted Mr Harman's evidence, where it is clear from the factual evidence that the merchants treat the MSC as COGS, or they categorise it as COGS in an accounting way, I have assumed that that means that they have recognised the variable nature of the cost, and therefore I consider it is appropriate to think that those merchants treated the MSC as variable.

Where the merchants have indicated that they categorise the MSC as an overhead, I think it is much less clear, and it may be that -- sorry, and the reason for that is that overheads contain a mixture of variable and fixed costs.

So what I have done is, in those particular cases, paid particular attention to whether there is the link between the monitoring of a cost bucket that includes the MSC and/or a performance target that is calculated net of MSC costs, so whether there is evidence of that target setting and monitoring, then having a mechanism to feed through to pricing adjustments.

It is clear in relation to the beginning of 4.37 that I rely on a particular piece of evidence in relation to that claimant and my understanding is -- sorry, that was based on my view of the evidence that was available to me when I wrote my reply report. When the reply reports were submitted, that piece of evidence on which I relied has been withdrawn through subsequent witness statements for that claimant, so I wanted to indicate to the Tribunal that that therefore has an effect on my conclusion in relation to that particular merchant, and if the Tribunal reaches the view that there is no link between profit measures or cost monitoring that include the MSC and price setting, then my conclusion that that merchant treated the MSC as a variable cost for price setting would no longer hold.

Perhaps the final thing to say is that it does not affect my broader conclusions in relation to the treatment of MSCs by re-sellers as a category of -- or as a group of merchants, given the weight --

THE CHAIRMAN: You are just saying that your evidence needs be to slightly adjusted in light of the change in the particular merchant's evidence?

A. Yes.

MS TOLANEY: Subject to what you have just said, Ms Webster, can you confirm that your second report, therefore, reflects your true expert opinion?

A. I can. Thank you.

MS TOLANEY: Thank you very much.

Cross-examination by MR WOOLFE

MR WOOLFE: Good morning.

Your two expert reports in nine volumes in total, and about almost 1,000 pages. I am sure you had a lot of fun writing it. No criticism is intended of that length, however, I have only around a day or so to try and cover all of it, so I am going to focus on the essential points, and to the extent I do not explicitly challenge something, it does not mean that the merchant claimants accept it, and you will be well aware that the merchant claimants do disagree with your overall conclusions.

Stepping back from the detail, I just want to check what the basic stages of your methodology are. I am going to use this as the structure of the rest of the cross-examination and I want to make sure we are on the same page.

So the first stage, as I understand it, is you look at economic theory and you construct what you call a base case scenario, in which you say pass-on is likely to be high and some alternative scenarios in which it is likely to be low, that is section 3 of your first report. Is that fair as the first stage?

A. Actually, I would describe it slightly differently. So I have looked at theory as my starting point and what I do there is I do not leap to a base case. I look at a benchmark case based on economic theory with certain assumptions of -- that I take from theory applied to the specifics of the MSC. My base case comes later when I combine the expectations of the benchmark case with empirical evidence.

Q. So you use economic theory to derive a benchmark case. As a second stage, section 4 of your report, you look at some empirical evidence in the round, but you are not using that empirical evidence directly to estimate MSC pass-on. What you are doing is using it to validate your -- I suppose your expectations of your benchmark case, is that broadly fair?

Ms Webster, did you get that question? You are essentially using the empirical data in section 4 of your first report to validate the expectations you form based on theory around your benchmark case, rather than using them directly to estimate MSC costs?

A. So I would not say that I am using empirical evidence to validate my predictions based on theory. What I learn from theory is that it really matters how the MSC was treated in practice by merchants, because that will give different expectations for the likely level of pass-on.

I then turned to the empirical evidence to say: what can I learn? It is accepted that we cannot measure the pass-on of the MSC directly, so I then need to look at empirical evidence that relates to proxy costs, and there I look -- in the ideal, I would have looked at the pass-on rates for both variable costs and for fixed costs. In reality, what one can do with the empirical evidence is largely inform the pass on of variable costs.

Q. I was going to say, there is a stage you are looking at empirical evidence, but you are not directly estimating MSC pass-on with that evidence, are you? You are using it to form your expectations as a whole, broadly speaking?

A. I am using it to understand the likely level of pass-on for proxy costs.

Q. Okay. Then in your third stage, what you do is construct, I think, a base case, as you call it, and then you allocate merchants either to that base case or to an alternative scenario. That is the stage in Webster section 5?

A. Yes.

Q. Webster 1, section 5. Okay. So I am going to broadly divide this into looking at theoretical predictions, then empirical evidence, and then what I am going to call allocation, but you know what it refers to, it is section 5 of your first report.

Before we go through these three stages, can we go to authorities bundle E, tab 6, please {AB-E/6/1}. That is the Commission Guidelines on pass-on, which I imagine you will be familiar with. Then can we go to page 21 within that, please {AB-E/6/21}. If we look at paragraph 84, which is the top part of the page, it says -- we see what it says there, that we may use different types of economic approaches, particularly comparator-based approaches, but also passing on rate or simulation, and then they can build on quantitative data to estimate the passing on effect. May find it useful also to assess qualitative evidence.

THE CHAIRMAN: You need to keep your voice up as well, Mr Woolfe.

MR WOOLFE: Sure.

So we have three things mentioned there: comparator-based methods, pass-on rate approach and simulation. The comparator-based method is described immediately below in paragraphs 85 and following. I imagine you are familiar with these so I will just put the question to you: when it talks about comparator-based approaches, that is comparison based on looking at the same upstream cost that has gone up, and then downstream prices either in a different period or in a different but similar market and doing a comparison. That is broadly what it means by comparator analysis, is it not?

A. Yes.

Q. That is not what you have done, is it not, in your report?

A. No.

Q. You have done some regression analysis but you have not tried to do a comparator analysis on the cost in question of cost like this, have you?

A. I think it is fairly commonly agreed amongst the experts still in these proceedings that such an analysis of the MSC cost is unlikely to be informative, given the small size of the MSC cost.

Q. Then can we go to page 26 {AB-E/6/26} and look at paragraph 107. This is still part of the section on comparator methods. It says:

"However, techniques based on econometric analyses may entail considerable costs. In such cases the court may find it sufficient to estimate the passing-on by simultaneously assessing quantitative data without the use of regression analysis and by taking into consideration qualitative evidence."

Then:

"... in most cases also find it useful to assess qualitative evidence, such as evidence on passing-on ..."

So this is about a quantitative analysis but not using regression.

I will put this to you: your process of allocating merchants to either a high pass-on or low pass-on scenario in section 5 of your report, it does not supplement a quantitative analysis, does it? You do not otherwise have a quantitative comparator analysis which you're supplementing, but section 5 is your analysis as a whole?

A. So in my report I acknowledge that I cannot do a comparator analysis for the MSC, so I need to choose proxies which are based on my interpretation of the factual evidence, and then I am looking at the pass-on of those proxy costs and making an assumption that they would be informative of the degree of pass-on of the MSC.

Q. Well, you say you are assessing proxy costs, but what you are actually doing is allocating merchants to your benchmark case or not, are you not?

A. I would not say allocating. What I have considered is, on the basis of theory, I think that there are broadly four scenarios that may apply that would provide insight into the level of MSC pass-on, and then what I am thinking about is which of those scenarios is most relevant to the merchant sectors in these proceedings and to the Merricks sectors as well.

Q. But you have not done proxy cost analyses in the same way that Dr Trento has done, for example, have you, where he has here selected a proxy cost for each merchant and produced a regression of that proxy cost and then is trying to infer MSC pass-on rates from that; that is not what you have done, is it?

A. So when looking at the empirical evidence, what I have found is that there are -- there is a large degree of uncertainty in all of the estimates that I have obtained, and therefore I do not think it is relevant to say: for this merchant let us choose this cost, and then the pass-on rate that I estimate for analysis of that proxy cost for that merchant is the pass-on rate. I think the level of uncertainty is too great. So that also supports my idea that there would be four different pass-on scenarios reflected and then looking at pass-on rates associated with each of those scenarios.

Q. Okay. Can we go to page 28 in this document, please {AB-E/6/28} and look at paragraph 123 and -- sorry, page 29, going over the page {AB-E/6/29}, the discussion of the passing-on rate approach, and paragraphs 123 and 124 at the top of the page, if we can zoom in on those.

The court is describing the passing-on rate approach the court would typically endeavour to estimate passing on based on, generally speaking, how the changes in the cost of the effective input have previously been reflected in prices downstream, but 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 cost changes affect downstream prices. So that is substituting a different cost from the cost that has actually been cartelised or raised. So this is broadly the proxy cost approach, is it not?

A. Yes.

Q. That is broadly what Dr Trento has done, is it not?

A. I think that is right, yes.

Q. But this is not what you have done when you have constructed your benchmark case, and in my language, I will say allocated merchant. You have picked for each merchant whether to put it in your benchmark case or not?

A. Yes, I have made an assessment that the empirical evidence is such that I can only take conclusions from that empirical evidence in the round and therefore apply them to these more high level scenarios.

Q. Okay. Then if we go to page 30 {AB-E/6/30} and paragraphs 132 and 133, the simulation approach, that is not what you have done either, is it?

A. No.

Q. No. So your methodology is not one that is set out in the Commission passing on guidelines, is it?

A. I think my approach is consistent with the passing on approach and choosing a proxy cost. The reality is that the empirical evidence to inform the passing on of the proxy cost is uncertain and I think allows for broad conclusions in relation to the actual rate of pass-on.

Q. We are going to turn now to your predictions of economic theory, so this largely going to be within Webster 1, volume 1, section 3. Can we go, please, to {RC-F/14/32}, paragraph 3.3, and zoom in on that, please.

Ms Webster, do you have a copy of your report in front of you?

A. I do.

Q. A lot of this, when I refer to your report, I am going to be within section 3, and from time to time I am going to call up other documents on the screen. It is entirely up to you; you may find it helpful to look at it in paper and on the screen, you can see both your report and what is on the screen at the same time. Just it may help. Thank you.

At 3.3, you say you are:

"... bringing to bear the relevant insights from economic theory for any given merchant or sector in the context of MSCs ..."

You say that:

"... requires a factual understanding of how these costs impacted on merchants' pricing decisions."

The reason you give for that is because it:

"... depends on whether MSC costs impacted on these decisions in the manner that economic theory implies for variable costs or the manner that it implies for fixed costs."

That is your main point, as it were?

A. Yes.

Q. Now, before anyone accuses me of cross-examining on matters that are common ground, to be clear, the broad point that the facts are relevant is one which is common ground between the merchant claimants and Mastercard, but there is an important difference between us I am going to explore with you as to exactly what factual understanding is relevant, so to see what you say about economic theory with that in mind.

Now, to summarise your overall conclusions on economic theory, can we go to {RC-F/14/48} within this document, paragraph 3.49(a) at the top of that page. This is towards your conclusions when we look at the substance of how you get there in a moment. Again, you reiterate you would generally expect a high rate of pass-on. Then this language:

"... to the extent MSCs were treated by merchants in the price setting decisions in the manner that economic theory implies for variable costs."

Subparagraph (b), you say it might be different if the costs are treated as ad valorem costs. Subparagraph (c), you say again it could be lower as a binding capacity constraint. Then the next page, which we will come to, is about what happens if it is fixed costs which again you say is lower.

Okay. So to give you a fair understanding of where I am going, I am going to start out with what you mean by variable costs, then we are going to look at some different models of competition, then we will cover your rationale for predicting high pass-on when costs are treated as variable costs, so that is your conclusion in 3.49(a), then deal with fixed costs, and then look at what the MSCs are in fact.

So in terms of what you mean by variable costs, the first topic within economic theory, can we go back to page 35, paragraph 3.13 {RC-F/14/35}. You say there that the:

"The textbook definition of a variable cost is one that is incurred for each additional unit that is supplied, such as the costs of purchasing the raw materials that might be required to manufacture a particular good."

Now, can we leave that on screen and put alongside it another document which is {RC-J2.2/87/1}. So that is the RBB study on the passing on of overcharges. That is a document you are fairly familiar with?

A. I have read parts of it.

Q. It is a large document so I will not expect you to know everything in it. But the context you will be aware of. This was a study done by RBB, economic consultancy for the European Commission, that is what this is.

Now, can we go, please, to page 229 using the Opus numbering {RC-J2.2/87/229}. You can see it is glossary of terms. If we go to page 231 {RC-J2.2/87/231}to start with and look at the definition of "fixed cost". Can you read that? Category of costs that does not change from the level of output, and finishing by saying in the long-run all costs are variable. I know you have a point in response to Mr Holt about that but leave that for the moment.

Then at -- but you would agree with that definition of fixed cost that is here?

A. I do not agree with the final sentence.

Q. Okay. So do you want to briefly say what you agree with about the start of it and say what you disagree with about the end?

A. So the way that I have looked at it is a fixed cost -- sorry, if we think about a price change that then triggers a change in the quantity demanded, the question is, to understand whether that price change is profitable or not, the merchant would need to work out what is the additional margin that they earn on any -- let us say the price goes up, what is the additional margin they earn on any sales return that they retain, and then what is the margin lost on any sales that are lost where that margin on the lost sales is informed by the price that they would have obtained on that set of sales and the costs that are incurred in delivering it. Those costs are variable costs, ones that are incurred when the unit of production is supplied, the unit of the good is supplied, and they are not incurred if those sales are not made.

A fixed cost, as I have described it, and is consistent with what is written here, is one that does not change with that change in the demand for the product, for that -- you know, the volume change that we are talking about.

So I agree that with it is a category of cost that does not change with the level of output, but I would add: in the context of these price setting decisions at the margin.

Q. So would you be happy with a definition saying: a category of costs that does not change with the change to output that you are considering?

A. Yes.

Q. That is broadly --

A. Yes, thank you.

Q. Thank you. Then can we go to "variable costs" at page 235. We see there costs that vary with the level of output. Variable costs increase as the level of output increases and fall as the level of output decreases.

But then can we look at the definition of "marginal cost" on page 232 {RC-J2.2/87/232}, please. We have here:

"Marginal cost: The additional cost associated with supplying an additional unit of output. In the short-run, fixed costs do not contribute to marginal costs because fixed costs do not change ..."

What I am going to suggest to you is that when you define -- the textbook definition of a variable cost actually matches what -- how RBB define a marginal cost. That is right, is it not?

A. It does, as it is written here. I think, in my interpretation, I have not sought to draw a distinction between marginal and variable costs. What really matters to me is what are the set of costs that affect the profit-maximising algebra, as we have talked about it in these proceedings. So whether it is marginal or variable, what I am thinking about is what are the costs that are variable over the units of output that we are talking about that would change as a result of the price change?

Q. But in -- we will come to perfect competition, for example, but in the context of trying to work out what a firm profit-maximising price is or what a market equilibrium is, there is an important difference

between, on the one hand, marginal cost and, on the other hand, average variable cost, is there not?
A. I would not see it in that way. When a firm is setting its prices, it will be thinking about what are the costs that vary with the price change that it seeks to make.
Q. So in that sense, you say it will be looking at its marginal costs?
A. Marginal or variable. I think what really matters -- it does not matter the label we place on it, as such. What matters is what is the set of costs that would vary.
Q. So you are looking at a set of costs that would vary with the price change --
A. Yes.
Q. -- change in output?
A. Yes.
Q. But there will be other costs that may be classified as variable in a broad accounting sense, but they would not change with that price change, and those in your definition would not be the relevant variable costs, they would be fixed costs for your definition, would they not?
A. Yes. I am not quite sure that I follow the description that there are --
Q. Well it is important -- that you do, so I want to -- you say variable costs means one that is incurred for each

additional unit that is supplied, but then you have been zeroing in on what is the relevant increment of output with respect to the pricing decision, have you not? So when you say variable costs, do you simply mean costs that vary with the scale of the business generally, that is one possibility, or do you mean specifically the incremental cost change associated with the specific price change under consideration? Those are two different things. Which of those do you mean?
A. I mean the latter.
Q. The latter.
A. So it is the set of costs that change as a result of the price change.
Q. That matches what RBB refer to the marginal cost; correct?
A. In how they have written it, yes.
THE CHAIRMAN: Is there another category of variable cost that is not a marginal cost?
A. I have not thought of one that is relevant for this consideration.
THE CHAIRMAN: So you are using the term interchangeably?
A. Yes, yes.
MR WOOLFE: Actually can we go to -- back to the Commission passing on guidelines, authorities bundle E, tab 6 {AB-E/6/40}. You can see there the definitions of fixed

costs, marginal costs and variable costs. They are in alphabetical order. You can see again that they also draw a distinction between marginal and variable costs, do they not?

A. Yes.

Q. To be fair, I am not making a semantic criticism of your use of the word "variable". I just want to be really clear about what we mean because I think it matters when we track through.

Can we go back to the -- actually, within the Commission Guidelines, if we go back to paragraph 159. I am afraid I have lost my reference for where that is. Actually, I think we can -- sorry, page 34 {AB-E/6/34}. Paragraph 159, above the box.

It says:

"To identify passing on effects, it is important to determine whether the input cost incurred by the purchaser facing overcharge varies with the input quantity it orders (ie variable input costs) or not (ie fixed input cost)."

This is a bit confusing. It is talking about varying based on what you order. Almost everything will vary based on what you order.

"Indeed economic theory indicates that the relevant cost category for short run price formation is variable costs or more precisely, marginal cost, i.e. the cost increment incurred when purchasing one additional input (see Box 13 below)."

So that sense of the cost increment associated with the short-run price formation, that is what you are focusing on; yes?

A. Well, actually I think I am taking a slightly broader view. So I have set this out in my first report. What I have said is that the timeframe over which the pricing decision is relevant would have a bearing on the set of costs that are variable. So I agree with what is written here; if it is very much in the short-term, it is more likely to be these marginal costs. But it could be that if a merchant is setting prices for the year ahead, and let us say it is a price increase, and let us say they need fewer staff because they expect demand to have dropped, then it might be over that period of the year that it is possible for the merchant to release some of the staff that it has.

Now, those would not necessarily be variable in the very short-term, because they may be locked in to contracts, but they become variable, possibly, over the course of a year. So in my definition I would include those types of costs as potentially variable. I think it would depend on the facts for individual merchants.

What I am really clear about is that it is not costs like premises, which I would not expect to be variable or to change -- the requirements for premises to change in response to a change in price.

MR TIDSWELL: Does that mean in that instance you are not using variable and marginal cost interchangeably, then?

A. I think that is right, actually. Sorry, that is a good clarification. I am very much focused on variable cost pass-on and identifying costs that vary in relation to the price change that I am considering and the demand response.

MR TIDSWELL: Because one of the ways we see -- and we do see here, and also when we were looking at 124 and the comparator approach, it was very much focused on cost of goods sold and the identification of marginal costs but using variable costs effectively as a proxy for the identification of marginal costs. So that is something a bit different from what you are talking about now, is it not?

A. Yes. So I think I am thinking about how firms set their prices to maximise profits, and then thinking about what is the set of costs that would be relevant for them to consider in that price setting trade-off that we have talked about.

MR TIDSWELL: Yes, thank you.

MR WOOLFE: I think you said a moment ago that you are focusing on costs that are variable with respect to the price change. The flipside of that is that a fixed cost, with respect to a price change, is any cost that is not variable in that sense, it is everything else?
A. Yes.
Q. So negatively defined?
A. I think that is right.
Q. Okay. In your second report, at page {RC-G/12/43}, perhaps this states what you have been saying.
3.46, at the top of that page:
"... economic theory implies that the only costs that should impact directly on firms' pricing decisions are those that affect the additional profit contributions associated with any sales won or lost as a result of a price change."
That I think encapsulates what you were saying (inaudible), does it not?
A. Yes.
Q. Now, I am going to turn to models of competition. When you refer in your reports to the predictions of economic theory, you have not set out what model of competition you are referring to, have you, explicitly?
A. No, I have not.
Q. So I want to talk to you about the different models of

competition that are frequently discussed. So can we go to perfect competition first. Within -- I will take the RBB study as a way of doing this {RC-J2.2/87/77}. This says analysis of competitive market environments may provide a good starting point and it refers to the textbook paradigm of perfect competition.

Take a few points in that paragraph to see if you agree with them. Few, if any, actual markets resemble --

THE CHAIRMAN: Which paragraph are you on?

MR WOOLFE: Paragraph 150, sorry. The fourth line down, the first point:

"... few, if any, actual markets resemble its idealised features in practice."

Would you agree with that?

A. I think broadly, yes.

Q. Then features of it:

"In the textbook model, firms are atomistic 'price takers', ie they take prices as a given ... they cannot influence ... must simply decide how much output to supply to the market accordingly."

You would agree with that as being a feature of the perfect competition model?

A. Sorry, apologies, which sentence are you looking at?

Q. The one starting:

"In the textbook model ..."

The fact that firms are price takers.

A. Yes.

Q. So in the perfect competition model, they do not actually have a pricing decision at all, do they, they have in output quantity decision; yes?

A. Yes, they take the price, the market price.

Q. Then the prediction here is that they will do so provided marginal cost is less than that price. So essentially the price of the next unit is their marginal revenue. If the marginal revenue is higher than their marginal cost, they will keep on expanding outputs, yes?

A. Yes, they will sell the quantity that they can at that level.

Q. Okay.

A. That price level.

Q. The final point here:

"... an individual firm's supply curve is traced out by its marginal cost curve ..."

It would be willing to -- its marginal costs show any given price how much it is willing to supply?

A. Yes.

Q. "... the industry supply curve is simply the sum of individual firms' marginal cost curves."

So the industry as a whole?

A. Yes.
Q. Okay. It is also not stated here -- it assumes that firms sell homogeneous goods, does it not?
A. Yes.
Q. So the goods are only differentiated on price, and if firm A prices even one penny lower than the others the whole demand in the market will switch to firm A?
A. Yes.
Q. Okay. The logic in broad terms in terms of pass-on is that if marginal costs go up for this industry as a whole, then because price equals marginal cost, market price goes up as well?
A. Yes.
Q. The firms are just price takers in that sense.

Now, can we look your report -- actually, can you leave -- actually, no, sorry, go to {RC-F/14/35}. At paragraph 3.15 you say there are two key factors that determine profit maximising price:

"... extent of sales decrease (increase) that would follow from a price increase ..."

Then:

"... the size of the incremental profit contribution associated with these sales - that is, the difference between the price and any additional costs faced by the firm in making these sales."

Now, in general, whatever model of competition we are looking at, for a firm, if the marginal revenue of making a sale exceeds marginal cost, it will be the profit-maximising thing to do to make the additional sale, will it not?

A. I am not quite sure that I agree with that statement. I think it is clearer, as I have written it here, exactly how the profit-maximising calculus works out.

Q. Okay. But when you are looking at the size of the incremental profit contribution associated between the price and any additional costs, you are looking at something that looks like perfect competition, are you not? You are assuming that marginal revenue is ...

A. No, in fact, what I am setting out here, I do not assume perfect competition at all. I am much more in Professor Waterson's monopoly diagram from the hot-tub. So assuming that when a price is increased, there is a reduction in demand for that firm, but demand does not fall off a cliff in the way that it would under perfect competition.

Q. So in a sense, that is referring back to paragraph (a) of this. This is a more generalised statement, as I understand it, when it is profitable to make the price changes, and it is not restricted to perfect competition?

A. That is right.

Q. Okay. Can we go to -- still ploughing on with perfect competition for a bit though. Go to the RBB report at {RC-J2.2/87/251}. We have a heading at the bottom of that page, "Pass-on in competitive markets and analogies with tax incidence". Now, this is by way of apology to the Tribunal. I heard that Keynes once wrote in a letter that an economist must understand symbols but speak in words. I am afraid we are going to take a bit of a diversion from words for a while to actually look at some of the symbols involved. I am sure Ms Webster will be fine with it, I am sure Professor Waterson will be, and the rest of us will have to do the best we can.

If we go over the page to page 252, and we can see paragraph 6.29 and paragraph 6.30, and in between we have figure D.1. I want to look at this graph with you. We will go at it stage-by-stage to make sure that the rest of us can follow.

So looking at that, we have a downward sloping demand curve in blue, labelled D; yes?

A. Yes.

Q. Then we have two red lines. The lower one, marked S, is in red. That is an upward sloping supply curve. That is sort of supplier time 1, as it were. They meet at point A and that determines the market price. It is a fairly conventional step.

If we follow down from point A to the quantity axis, that will give us the quantity supplied. If we go left from point A, that will give us the price. I am reading that correctly?

A. Yes.

Q. Okay. Now, paragraph 6.29 says:

"Now suppose that there is a market --"

Sorry, paragraph 6.30:

"Now suppose that there is a market-wide increase delta c in the unit cost of supply. This will cause the market supply curve to shift up vertically under competitive conditions by an amount equal to delta c from S to S' in our diagram."

So we can see where it says delta c. We can see the size of that. If we -- we can see the distance between points A and B is the same as delta c, is it not?

A. Yes.

Q. So the whole supply is vertically higher. I want to check I have understood the economic interpretation of that distance. The supply curve shows the quantity that the firms in the market are willing to supply at any given price, does it not?

A. Yes.

Q. As I think you agreed before, since we are in perfect

competition, the marginal cost curve and the supply curve are the same thing, and so when marginal cost has gone up, the entire supply curve has been lifted up. Am I understanding that correctly?
A. Yes.
Q. Okay. So an increase in the marginal cost by delta c means the marginal cost of production at any given quantity has gone up by delta c. That is what ... okay.
Now, looking at the diagram again, the new supply curve, S', intersects the same demand curve at point C, and that is the new market equilibrium; yes?
A. Yes.
Q. Again, what we do is trace down to the horizontal axis to see the quantity supplied, yes, and across to the price to see the price supplied. So what we can see is at the bottom, delta q shows us how much the quantity supply has shrunk, yes?
A. Yes.
Q. Then looking at the left-hand side, following where the dotted lines are, the difference between the old price associated with equilibrium A and the new price associated with equilibrium C, if we trace the dotted lines left from A and C respectively, and then look at the vertical distance between those, that is delta p, that is the difference in market price; yes?

A. Yes.
Q. So in this stylised example, there is not 100% pass-on, is there?
A. That is right.
Q. Because delta p is smaller than delta c. In fact it says at paragraph 630:
"... with downward-sloping demand and upward-sloping supply, the market price will increase by less than the amount of the cost increase ... In effect, the supply-side of the market absorbs some of the unit cost increase, so that only a fraction of that cost ... is passed through [and there is a volume effect]."
I think reading over the page:
"The more price-sensitive - or elastic is demand, the greater the reduction in volume associated with a given price increase."
Now, can you go back one page to 252. Thank you.
A. May I make an observation --
Q. Yes.
A. -- on the diagram, because I think this was very similar to the discussion that we had in the hot-tub, and the view that I shared at the time is that, actually, I am of the view that this is not a very helpful framework for thinking about the pass-on decisions that merchants would need to make, and there are two reasons for that.

The first relates to the slope of the supply curve, and I make an explicit assumption that for merchants facing a cost increase associated -- well, let us say it is a cost increase associated with MSC costs, the effect of passing that on, and any quantity response in terms of what is demanded, the merchant would be able to meet that change in quantity without experiencing a change in its marginal cost of supplying that additional unit or not supplying that additional unit.

So in the very localised sense of the likely change in quantity supplied in response to the passing on of an MSC, it would not be relevant to think about an upward-sloping marginal cost curve. So that was the first point.

The second point is that in the framework that I am using, I am explicitly recognising that there is likely a very high degree of commonality between competitors, certainly, if we are talking now, in the late stages of the merchant period, a high degree of commonality in terms of merchants facing the MSC cost. That means that actually there is not an outside constraint on those merchants where consumers can get the same products without going to a merchant that is also incurring those costs, so everybody is incurring the costs, and in that sense, there is no volume effect.

So a merchant putting up its price does not fear losing sales to an outside constraint where that other merchant does not face these costs. So this assumption of commonality means that the downward sloping demand curve, I think, is not appropriate, or not a useful way to think about the options available to the merchants in this case.

PROFESSOR WATERSON: So you are assuming, then, that the demand curve is vertical in the short-run?

A. Yes, in effect.

PROFESSOR WATERSON: Do you have an underlying reason why it might be vertical?

A. Yes. Well, in fact, I do not use this framework at all. I would be more likely in imperfect competition, using your monopoly diagram, and assuming that all merchants may have a certain degree of market power, a downward-sloping demand curve to some extent, and the assumption that the demand curve is, in effect, vertical comes from the assumption that there is no outside constraint when there is a very high degree of commonality across close competitors in terms of the merchants that were facing the MSC.

PROFESSOR WATERSON: But that relies on a very high degree of commonality --

A. It does.

PROFESSOR WATERSON: -- even with a monopolist. Obviously there are -- there will be a downward-sloping demand curve in general because there will be other -- some people will decide not to buy the product?

A. There will be -- yes, there will be that effect.

PROFESSOR WATERSON: That effect would persist in other market structures?

A. Yes. What I am not sure about is how large any such effect would be for the size of the price increase that one would be thinking about, associated with passing on the MSC. I would think that income effect would be small. Then what I am saying is due to the assumption of commonality, then -- and close to 100% commonality, given that assumption, the substitution effect is much weaker than it would otherwise be; and even with a monopolist, so we think about the monopolist in their own sector, but there will be substitution alternatives out there for the customers buying from a monopolist. But all of those substitution alternatives, if they involve purchasing from a merchant that really is a distant competitor, if that merchant is still facing MSC costs as well, then, you know, there really is no constraint that is available through substitution.

PROFESSOR WATERSON: It accepts the amount of money that the person has to spend?

A. Yes, and in that sense that is the income effect. Then I just query how big that is, given the size of the price increase that would be associated with passing on an MSC.

PROFESSOR WATERSON: Right. Thank you. I am going to come back to a point on this later.

MR WOOLFE: We are going to come later on -- part of the reason I am going through this stage-by-stage now is you can see this is very much the important point, this is an important -- the shape of the demand curve and supply curve are important assumptions in your analysis. I am really trying to help the Tribunal to understand where they come from. We are looking at perfect competition and in monopoly. Then we are going to come to your report where indeed the assumption of commonality is dealt with. You will be able to come back to it then, sir. It is precisely for that reason that we are dealing with it.

A. Perhaps I just might make one further comment, which is I think -- I would not want to leave the impression that I am assuming it is 100% commonality for all merchants. I think I would not go as far as saying that. What I would be saying is I think, at the current period, an assumption of a relatively high degree of commonality is probably a reasonable one.

Q. What we are going to do is actually trace through why these two assumptions, as to an elastic supply curve and an inelastic demand curve, lead to the conclusions of no pass-on. I think you will find it helpful when we get to your report.

Now, so looking at this diagram still. Look at the old supply curve S, and what you can see is you start at point A -- this is how I understand it anyway -- you trace the dotted line left from that towards the market price p, but it intersects very soon with the vertical line coming down from the new equilibrium, C; yes?

A. Yes.

Q. Then you have a little triangle which is formed by that line, just below it the red supply curve, and then a little vertical line coming down from the point of intersection; yes?

A. Yes.

Q. Am I right in understanding that the distance between -- the distance in that little vertical line that you get if you go left from A and down from C, that point, that little vertical line represents the cost change that is not passed on?

A. So the part of the dotted line falling from C that is underneath the line that connects A with p*?

Q. That is right, yes.

A. Yes.

Q. You explained it better than me, yes. Okay.

Now, if you held the supply curve -- imagine it pivoted at point A and made it flat, imagine it hinges at point A and made it flat, so the supply curve now runs precisely along the line that connects A and p*, that is a perfectly elastic flat supply curve.

A. Yes.

Q. Then in that situation, then the old market price -- in that situation that triangle effectively disappears, does it not? At that point there is no -- if you have a perfectly flat supply curve, then you just have the same -- the price -- delta c and delta p are exactly the same?

A. Yes.

Q. Okay.

A. So there is full pass-on.

Q. Full pass-on?

A. Yes.

Q. But you would still get a volume effect, would you not, under that?

A. Assuming that the slope of the demand curve is as shown here.

Q. Okay. Now, the other way you can get 100% pass-on, as you said, is with perfectly inelastic demand. That is a point which RBB explain at paragraph 6.31. If you go over the page, please {RC-J.22/87/253}. They say:

"It is this reduction in volume which causes the pass-on of the cost increase to be incomplete. The upward shift in the supply curve will cause purchases to be more expensive at each level of supply. Indeed, if there were no reduction in the volume demanded, the shift in the supply curve caused by the cost increase would translate fully to an increase in the price paid by [consumers] (Point B in the figure)."

Can we go back to the graph, please {RC-J2.2/87/252}. So instead of having the demand curve downward-sloping at D, we are going to imagine a vertical demand curve running straight down through points A and B.

A. Okay.

Q. That is perfectly inelastic demand, is it not?

A. Yes.

Q. In that situation, we have two points of intersection, A and B, each associated with a price. The difference between A and B is the marginal cost change; yes?

A. Yes.

Q. There is no change in the quantity supplied?

A. Yes.

Q. Okay. In general, perfectly inelastic demand is

a fairly unusual economic assumption to adopt, is it not?
A. I do not know about that. It will be fact-specific. What I have done, in setting out my theoretical expectations or my expectations based on theory, is to consider the specifics of what is happening in relation to the MSC, and the assumption that most of a firm's close competitors would face a similar change in MSC costs is what enables me to say I do not think there is an outside constraint on firms experiencing a change in MSC costs and, as a result of that, the consequence of passing on the MSC in full or to a large degree would not be any volume loss.
Q. Can we go over the page again to 253 {RC-J2.2/87/253}, paragraph 632. They make the general point that:
"... the extent of industry-wide pass-on in competitive markets will depend on the relative slopes or elasticities of supply and demand. The steeper/less elastic is the demand curve relative to the supply curve, the greater to which the cost increase will be passed through to the customer, as the next figure below illustrates."
If we look at the figure below. So essentially this shows what we have been talking about, which is when you have very flat supply curves, very steep demand curves,

you have high pass-on, and when they are less steep you get low pass-on, effectively, yes? So even in the model of perfect competition, the level of pass-on would depend upon the slopes of those curves, would it not?
A. In purely theoretical terms, yes, and then I think there is a question about how relevant that is in this case.
Q. Yes, okay.
Then can we go over the page, again, to page 254, paragraph 633 {RC-J.2.2/87/254}. They make the general point that:
"[Although] It is frequently assumed there will be 100% pass-on of industry-wide cost changes in competitive settings. ... this is not necessarily the case."
It depends upon the elasticity of the industry supply and industry demand curves. Yes?
A. Yes.
Q. So you would agree with that paragraph?
A. I agree with what it says in the context of sort of general theory, yes.
Q. Right. Now, you will be pleased to hear we are moving on from perfect competition now to monopoly. I think I can deal with that fairly shortly, and then it will be time for a break, sir.
THE CHAIRMAN: Yes.

MR WOOLFE: So under theoretical model of monopoly, the
relationship of price to marginal cost is different, is
it not, to that under perfect competition?
A. Yes. I think it is summarised well in
Professor Waterson's chart.
Q. As I understand it, a monopolist is also predicted to
expand output so long as its marginal revenue from
making an additional sale is above its marginal cost;
correct?
A. Yes.
Q. But the difference, as I understand it, between the
monopoly situation and perfect competition is that
because the monopolist has the entire market, it is
facing the entire market demand curve, and so ... Let us
assume we have a downward-sloping demand curve for
a moment across the whole ... This is about how an
equilibrium point is reached. It is usually
downward-sloping to some degree. High price means a low
quantity demanded, low price means a high quantity
demanded. That is fairly standard?
A. Yes.
Q. Imagine as well we have a monopolist who cannot
price-discriminate, to make that simpler as well. So
that monopolist thinking about cutting its prices. For
that monopolist, if it -- its marginal revenue from

a price cut is not just the revenue from any increased sales it may make, but also all the revenue it would lose from cutting prices on the units it would have sold in any event, yes?
A. Yes.
Q. So for that reason, its marginal revenue/marginal cost trade-off is different from the firm under perfect competition?
A. Yes.
Q. It is facing a trade-off, and that is the kind of trade-off you were talking about in your -- that paragraph we looked at a few minutes ago.
It will only expand output up until some price that is higher than marginal cost, will it not?
A. So it will set --
Q. It will set prices above marginal cost, will it not?
A. Sorry, yes.
Q. That is the general prediction of --
A. Yes.
Q. If you have downward-sloping demand and monopoly, they will set prices above marginal cost to some degree, but you do not know how much higher than marginal cost, do you; simply in theoretical abstract terms?
A. It will be given where the marginal revenue is equal to the marginal cost, and then the price will be given by

demand at that point.
Q. But that will depend upon the shape of the demand curve and the firm's cost structure as a whole, will it not, not just upon marginal cost?
A. Yes. Sorry, I am not sure about the point you made about the cost structure. It depends on the shape of demand.
Q. Will it not also depend on their pattern of incurring costs: fixed costs versus variable costs and so forth?
A. It will depend on the marginal cost. If we are talking pure theory, it depends on the marginal cost of supplying an additional unit.
Q. Can we go back to the RBB report again at {RC-J2.2/87/212}. Question 12, in the frequently asked questions section:
"How does the expert evidence take into account impact of the intensity of competition on pass-on levels?"
You will see the answer is in half a page, so it is ...
You can see the answer is given that generally the pass-on of industry-wide overcharges is predicted to increase with the intensity of competitions, especially in markets where all firms are relatively similar.
So that is in the main paragraph above the box,

about four lines up, they say that.

So the point about whether the market is homogeneous or differentiated is important, is it not? Whether products sold are homogeneous or if they are differentiated products sold in the market?

A. In a general sense, yes, I would agree.

Q. Okay.

A. But perhaps it is worth saying why I do not think that the level of competitive intensity is as important in the case that we are considering here than in these general models, and it comes back to the fact -- it comes back to the assumption that I make regarding a high degree of commonality currently in terms of firms facing MSC costs.

So were it the case that commonality were not as high as I have described it, my expectation of it being, that would imply that there is some competition and some constraint on merchants facing a change in MSC costs that comes from firms that are not experiencing the same cost. Then what really matters is -- that is what creates then your downward-sloping demand curve, because there will be a volume effect if the firms facing the cost put up their prices, because there is that outside constraint.

Then what determines the degree of pass-on is just how vigorously and intensely the firms who all face the MSC cost change are competing. If they are competing most strongly amongst themselves, the idea that there is an out-of-market constraint becomes much less important, because the competition within the market drives the degree of pass-on, and if it were the case that actually those firms are not competing as intensely, then the degree of pass-on will be less.

Q. So it says at page 212 that the exact predictions will depend upon the precise character of competition. Let us look at what is in the box. Sorry, I should say the point you made about that, we will deal with it when we come to commonality in general.

Another point. They again refer to:

"... sometimes argued that pass-on ranges from 50% in a monopolised market to 100% in a 'perfectly' competitive market. Theory suggests neither proposition is necessarily correct."

They set out what we have seen, that you get 100% pass-on if the industry supply curve is flat.

They say:

"Further, the often quoted finding that a pass-on rate of 50% applies in the case of monopoly is valid only in the case of linear demand. If demand is non-linear instead, the pass-on rate could be lower (when the demand curve is a concave shape) or higher [with] (convex demand). Without making further assumptions, it is not however possible to provide a precise estimate of the pass-on rate for any given market structure on the basis of theoretical considerations alone."

So we will come to the last sentence in a moment, but would you agree with the general proposition that pass-on will depend upon the curvature of demand as well as whether it is, in broad terms, downward sloping?

A. Yes, I do agree with how that is expressed in this box. It is why, when I set out my expectations based on theory, that I am very clear to say that I make an assumption that for the change in demand that would be expected to arise from the passing on of MSC costs, I do not expect there to be a change in the price-sensitivity of customers to that -- to prices, given that small change.

The description of the demand curve as sort of convex or concave I think applies across -- you see that shape when you are considering much larger changes in demand.

MR WOOLFE: Sir, it might be a convenient moment. I am going into monopolistic competition after the break, and then turning to the reasons for the benchmark -- the benchmark case after that.

THE CHAIRMAN: I thought we were just doing monopolistic competition.

MR WOOLFE: We are doing monopoly.

THE CHAIRMAN: Oh, okay, right.

MR WOOLFE: They are perfect competition, monopoly, monopolistic competition and oligopoly.

THE CHAIRMAN: I am learning a lot.

MR WOOLFE: We aim to please, sir.

THE CHAIRMAN: Alright. Ten minutes.

(11.41 am)

(Short Break)

(11.50 am)

MR WOOLFE: Ms Webster, I am going to pick up with you on the subject of monopolistic competition. Would you agree that in broad terms that refers to a situation where there is competition, so it is not a monopoly situation, but there is some degree of product differentiation?

A. Yes.

Q. Whereas in perfect competition, if a producer tried to raise prices above marginal cost, it would lose all of its customers straightaway, in a homogeneous market situation, if the products are differentiated to some degree, that matters to consumers to some degree, then

consumers will not simply switch to the cheapest provider, will they, they have some preference?
A. Yes.
Q. So if the producer of a differentiated product raises its price above marginal cost, it will lose some customers but it will not lose all of them; correct?
A. Yes.
Q. So, in that respect, under monopolistic competition, in terms of pass-on, it is like the monopoly situation, in that the producer faces a trade-off between the higher price and reduced demand to some degree. Would you agree?
A. In the general framework, that is correct.
Q. So they are not just a price taker under that framework?
A. Yes.
Q. That implies, within some price range, that the producer of the differentiated product has a degree of market power, does it not?
A. Yes.
Q. The greater the differentiation, the greater the degree of market power; correct?
A. Yes.
Q. Okay. Now -- and would you agree that monopolistic competition is in broad terms a more realistic way of thinking about most markets than perfect competition?

A. Difficult to make sweeping generalisations, but I think in the context of thinking about local merchants in the case -- in these proceedings, I think that is probably a more realistic framework and is consistent with how I have thought about my expectations of pass-on based on theory.
Q. Okay. So in things like hotels, restaurants, fashion retailers that we have, those are brands associated with some degree of product differentiation, you would agree?
A. Yes, I would not limit it just to brand. It could be differentiation through the location of the merchants. It is the corner shop, it is easy to get to, and that convenience bring a differentiation.
Q. Or in something like the Royal Opera House, is one of our clients. It is differentiated in many ways from opera houses around the world or other entertainment options in London, you would agree?
A. I would agree.
Q. Okay. That is broadly speaking enough on monopolistic competition until we come to commonality of cost shortly.
Oligopoly I think we can cover quite briefly.
A. Apologies, may I just add on monopolistic competition, I think that is entirely consistent with the framework, and the assumptions that I described and how I described

them influencing the monopoly situation, which is that when you have a high degree of commonality in merchants facing MSC costs, even a monopolist would find the ability to pass on MSC costs to a greater degree than predicted in Professor Waterson's chart, where you have that -- so that same result applies in this instance of monopolistic competition as well.

So the commonality assumption is important, and it means the predictions of pass-on under monopoly and monopolistic competition apply to a lesser degree.

Q. Can we go to {RC-J2.2/87/254}. There is a discussion of oligopoly, where we have in a sense just a few purchasers. If you look at what it says at paragraphs 637 and 638, if I can just ask you to read those. Perhaps read 637 to yourself and I ask the Tribunal to as well. (Pause)

A. I have read 637.

Q. So the point I want to put to you is simply this: within an oligopolistic market, you cannot really make a theoretical prediction that the price will have some particular relationship with marginal cost, can you? It depends upon the strategic interaction point?

A. I think, in this case, it would be possible to make a prediction. So what is clearly explained in 637 is the fact that any individual firm would take into account the response of its rivals, and I think what I am saying is because of the degree of commonality of the MSC costs, the response of -- they are also facing a price -- a cost increase, and therefore may be expected to pass that on. So if it is known that a merchant in an oligopolistic situation is facing a cost increase, it will know its rivals are facing a cost increase. I think in that situation, one would expect a high degree of pass-on based on theory.

Q. So, again, in that situation, you are coming back to the point about the cost increase being similar both to firms within this oligopolistic market and outside it as well?

A. What really matters is the closest competitors to merchants, the extent to which they would also face the same change in MSC costs.

Q. Okay. Just finishing up on -- we are going to come to the commonality point in a moment, but finishing up on these models of competition, I just want to put a few points to you.

First of all, specifying which model of competition you are applying is important if you are talking about theoretical predictions, is it not?

A. I think the description that I have provided suggests that actually the assumptions that I have set out will hold, irrespective of really what model of competition one is looking at, although I do think that the perfect competition model is somewhat different and I have not relied on that.

Q. The theoretical predictions will depend very heavily upon the shape of the supply and demand curves, will they not?

A. In general, those two factors matter, so that is why I have sought, in setting out my predictions based on theory, to think, well, what do I actually think about the supply curve and the demand curve and the shape of those in reaching my prediction, and I have set out my assumptions.

PROFESSOR WATERSON: Can I just raise a technical point here. Of course, the supply curve is only relevant to perfect competition because the supply curve asks the question: if the price is such and such, how much would you be willing to supply? That question is not relevant when the firm has some market power, because it is a price -- to some extent a price setter, but I am sure Ms Webster will accept that?

A. Yes.

MR WOOLFE: Perhaps I can re-put the question, with some assistance. Thank you, sir.

A. Actually -- sorry.

Q. The theoretical predictions will depend upon the shape of the demand curve in all situations, will it not?
PROFESSOR WATERSON: And marginal costs.
A. Yes, sorry, that was the point that I wanted to make in response, because I do think it is -- it could be the case that there are instances where a merchant is capacity constrained, and then it will have -- you know, a supply curve could be very steeply sloping upwards, the marginal cost curve, the marginal cost curve, and then that will have an impact on pass-on, but I think in practice we do not have any examples of that in these proceedings.
MR WOOLFE: All of these theoretical predictions are about the firms' external incentives to price in a particular way, are they not?
A. I think -- I am not entirely sure what you mean by their external ...
Q. Well, all of these models are about asking what incentives does a firm have in terms of the market price and profit to price in a particular way. They are not looking inside a firm and asking what is going on in a decision-maker's head, are they? They are looking at the firm's incentives?
A. That is right. They are making an assumption that a firm would seek to maximise its profits.

Q. Yes. They are making a profit-maximising assumption and then they are looking at what the firm's incentives in the light of that assumption are, but what they are not doing is saying that firms will actually be thinking about price in this way or thinking about price in that way, they are talking about general incentives on the firm to converge upon a market equilibrium, are they not?
A. They are setting out how a firm would seek to set its prices to maximise its profits and if it were to wish to do that, and there are no -- what is the word -- difficulties or costs in terms of working out exactly what that price is, then the frameworks can tell us, you know, what the firm should be taking into account and how the firm would seek to find the profit-maximising price, what factors will be relevant.
Q. I am going to put this point to you again, Ms Webster. Because you said that -- you used the words "how the firm would seek to set", and what I suggest to you is people often use sort of anthropomorphic language and say "If I drop this pen, it wants to fall to the ground", but it does not want it, it is just that is what gravity does to it; and these models are not about what any firm subjectively would seek to do, they are about what a firm's incentives are to act in a way that

is economically rational. That is right, is it not?
A. I think that is fair.
Q. Thank you. Across all of these models, fixed costs are irrelevant to a firm's short-run pricing decision, are they not?
A. Yes.
Q. You say that, I think, in paragraph 3.19 of your report. Thank you.
Now, what we are going to do is move on. We have done economic models now, everyone will be pleased to hear. We are going to move on to your rationale for predicting a high pass-on at a variable cost, and we come to the commonality assumption, finally, much trailed.
So can we go to your first report {RC-F/14/41}, paragraph 3.33. You set out four assumptions of your model. Perhaps, to give everybody a chance to get this into their minds, the first one is (a) all competitors are affected by the cost change, ie it is a common cost, and to a similar extent. This is a commonality point and we will come to this in a moment.
A. Yes.
Q. Your second one, (b) is customers' willingness to switch between firms in response to a given price increase or decrease remains unchanged as the overall price level in

the market in question changes. The third one is that firms can expand or contract outputs to a reasonable degree while incurring the same amount of additional variable costs for each extra unit produced. Then (d), variable costs are incurred on a per unit basis.

We are going to run through each of these, but start off with the important one. So stay on that page, 42, please. You actually say that the first of these assumptions, this is the commonality one we have been discussing, is:

"The central determinant of the cost passing rate of 100% in a benchmark case."

Now, I am going to be spending some time with this so can I ask you that read the whole of paragraph 3.34, including subparagraphs (a) and (b), and can I ask that the Tribunal does so as well, perhaps, before we move on. (Pause)

So in the main body of paragraph 3.34, you distinguish between within market constraints and out of market constraints. Now, I just want to understand exactly what is meant in each of these categories within market. Now, clearly if we have a perfect competition of homogeneous goods scenario, we have firms who produce the exact same goods are within the market, other people are outside the market; yes?

A. Yes. It might be helpful for me to say straightaway what I mean by in market and out of market in this context.
Q. Can I ask you one question first and then --
A. Yes, of course.
Q. But if we are looking at -- probably there is some product differentiation. By within market, do you mean goods that are sufficiently similar to act as a direct competitive constraint?
A. No.
Q. Okay. Perhaps you can explain what you mean by within market.
A. So in market, in this context, is any merchant that faces the same cost change. So firms are in the market in the construct of 3.34 if they face the cost change. They are out of market if they do not face the cost change.
So it is not to do with markets as we generally talk about them, product markets, sectors; it has a very specific meaning, which is: is there a constraint that exists on the set of firms that are facing the cost change or not? That is what (a) goes on to explain. If there is this constraint, there are some merchants who do not face the cost change, then they will be exerting a constraint, and then what really matters is the

competition that exists between the firms that all face the cost change.

Alternatively, in (b), if there are actually no merchants, that are relevant competitors in some sense, but if there are no merchants that do not face the cost change, then that external out-of-market constraint is weak.

Q. So, as I understand what you are saying now, and in the last few sentences -- the last sentence of the body of paragraph 3.34, so above (a), starting "In general, where a cost change applies ...", is your construction is to have within market if you face the same cost change, and out of market if you do not face the same cost change?

A. Yes.

Q. Okay. So you are actually then ...

THE CHAIRMAN: Sorry, they are still within the same market. It is slightly confusing what you are saying, because you are talking about relevant competitors. Are they selling the same product or ...

PROFESSOR WATERSON: Can I suggest an example which might illustrate the point? We know that above a certain level, people are subject or businesses are subject to VAT. Now, two decorators, one might be part of a large firm and would need to charge VAT, one might be a sole operator and would not meet the constraint for having to be VAT-registered, and therefore they are in the same market but they do not face the same constraint if the VAT changes?

A. That is exactly right, yes. So in that situation, there would be an out-of-market constraint.

PROFESSOR WATERSON: Yes.

A. On the firm that --

PROFESSOR WATERSON: On the one that --

A. Exactly.

MR WOOLFE: Right. Now, if the out-of-market constraint includes the decision not to consume at all, that decision at least will not be subject to the cost change, will it?

A. No.

Q. No. So going on to your paragraph 3.34(a), you say:

"Where an out-of-market constraint is material [so there is something else, some other option the consumer has that is sufficiently important to be relevant], the rate of cost pass-on is expected to increase with the strength of the within-market constraint."

So if we are looking at a material out-of-market constraint, we are looking at a case with elastic demand, are we not? This is not vertical demand curve situation?

A. That is right.
Q. So a change in price will lead to a change in quantity demanded, so there is some flatness in the demand curve?
A. Yes.
Q. In that scenario -- well, I was going to say about perfect competition, but I think you are saying you are not looking at perfect competition in a sense, but in that scenario there will be some -- you will not get a one-to-one correlation of cost increase and price increase, will you?
A. That is right.
Q. Okay.
A. Sorry, I might have missed the premise. Would you mind repeating, because I am not sure I have answered the right question.
Q. I was going to say in a case where the demand curve is flat -- in a case where the demand curve is not vertical --
A. Downward-sloping.
Q. -- constraint is material --
A. Yes.
Q. -- you will not -- you cannot predict high pass-on, can you?
A. That would then determine -- be determined by the intensity of the competition by those firms that are

facing the cost change.
Q. That would be a point requiring factual assessment?
A. Yes.
Q. Okay. I want to now focus on your 3.34(b). You say:
"Where the out-of-market constraint is immaterial - as would be the case if all of a firms' competitors are assumed to be affected by the cost change - the rate of pass-on is expected to be higher and independent of the level of the within-market constraint."
So this -- again, the out-of-market constraint is immaterial. Since, in a sense, all market constraints are embedded in the demand curve somewhere, in this scenario this is where you are looking at an inelastic demand scenario; yes?
A. In effect.
Q. That was the point Professor Waterson was putting to you before. You are saying that where out-of-market constraints are immaterial or the demand curve is near vertical, inelastic, pass-on is expected to be higher irrespective of the level of within market competition. That is your point?
A. Yes.
Q. Now, the justification you give for that, and when this would be the case, is between those hyphens, is it not:
"... as would be the case if all of the firms

competitors are assumed to be affected by the cost change ..."

A. Yes.

Q. So this does not mean -- I think you said before -- what slightly confused me is you said before that you are defining within-market competitors to be people who are affected by the costs change and out-of-market competitors to be people who are not affected by the cost change, and yet you are saying here the out-of-market constraint is material if all of the firm's competitors are assumed to be affected by the cost change. You are trying to say let us put everybody who might be a relevant alternative option inside the relevant market; yes? Is that the logic?

A. So what I am trying to do is to set out the framework with this within-market constraint and then the out-of-market constraint, and then what I have sought to do is to say in the context -- sorry, when I apply this to the MSC, the question that I am asking myself is: do I think it is likely that individual merchants would be facing a material out-of-market constraint, ie it would have competitors that are not facing the MSC cost change, and if my conclusion is that actually I think most of the competitors would be facing, then I then say that those competitors are -- there is no material

out-of-market constraint. Does that help?
Q. Yes. You agreed with me a few moments ago that the out-of-market constraints include the decision not to consume at all, did you not?
A. I mean, it could do, yes.
Q. So even if, which is not the case, even if all firms across the whole economy were affected in the same way by this cost change, there would still be an out-of-market constraint overall on demand, would there not?
A. So this comes back to the point that we were discussing with Professor Waterson, which is I would not expect that, as a sort of matter of theory, to be particularly material, given the change in price of goods that would result from the pass-on of a cost change as small as the MSC.
Q. You are saying it is a small change?
A. Yes.
Q. But a small change just tells me I do not move very far along the demand curve, it does not tell me the slope of the demand curve, does it?
A. But it does tell you the change in quantity that is demanded.
Q. It does not tell me anything about the shape of the demand curve either, does it?

A. No. No, I agree.
Q. We are going to come to the extent of commonality further in a bit.
The third -- another point. When you say affected by the cost change -- you said the out-of-market constraint is immaterial as would be the case if all other firms' competitors are assumed to be affected by the cost change. I want to focus on what you mean by "affect". It is not enough for this argument, is it, simply that the out-of-market firms -- sorry, it is not enough for this point that these competitors simply incur the costs, is it? They have also to change their prices as a result?
A. Erm ...
Q. Sorry, let me put it again. I am not constrained by my competitors' costs, I am constrained by my competitors' prices, am I not?
A. Yes, I agree with that.
Q. So there is only -- when you say if all the firms' competitors are assumed be affected by the cost change, you are not simply assuming they incur the same cost, you are assuming that they pass on the cost?
A. Yes, and I am saying that if, as a merchant, I know what my costs are, and I know I have a change in my MSC costs, and then I have an expectation that my rivals

probably look quite similar to me, would also be -- they are supplying the same customers. Those customers are probably going to come in and use a similar range of payment types. I would have an expectation that they would be facing a similar cost change as a result of change in the MSC, and that would lead to -- and consistent with economic theory, if competitors are facing the same cost change, it increases the extent of pass-on of costs.

So the merchants do not need to act on it, but theory would tell us it is more likely that they would in the knowledge that their firms -- their competing firms are also facing the same cost change.

Q. But we are looking, I think you agreed, largely at differentiated competitors, are we not?

A. That would still be the case with differentiated competitors.

Q. But differentiated competitors might -- the MSC might affect them in many different ways, might it not, because the choice might be between a more upmarket hotel and a slightly more mid-range hotel? The price difference between them reflects some degree of constraint, but there is a difference between the prices that reflect what they are like. If you increase both by 0.2%, that may mean I stop consuming the high price

one and go to the medium price one, might it not? So there may be a differential constraint between the two?
A. I think there are a number of assumptions that sort of are implicit in what you have described. Let us say there is a competitive constraint that exists between the expensive hotel and the cheap hotel today --
Q. Or two expensive hotels, but one very expensive, one moderately expensive, let us put it that way?
A. Okay. But we are assuming that there is a constraint, and then what we are saying is there is a change in MSC costs. Now, if the change in MSC costs affects both equally, then there will -- there will be the ability to pass it on. So the cheaper one, let us say, passes it on, but knowing that the more expensive one will pass that on, and the constraint will still exist.
So the expensive one passes it on; that creates a little bit of room for the cheaper one to pass it on, vice versa. Both face the constraint -- both face the cost change, both know that their outside option -- the customer's outside option is to switch to the other hotel, and because both will pass it on, that status is retained.
Q. But in a differentiated market, monopolistic competition, however you want to call it, a firm is going to have a fair bit of uncertainty about whether or

not its competitors, in the broad sense, are going to pass on all these cost changes, is it not?
A. It may have some uncertainty. I do not deny that. What I -- the way in which I form my view on this commonality point is that if there is a set of competitors and a set of merchants, they are supplying similar products to a similar set of customers, I think it is reasonable to assume that the sort of -- those customers, when they visit one shop versus another, they are using the same sort of payment methods. There would not be any difference, really, in the mix of payment methods faced by those competitors, and therefore I think that that reduces the degree of uncertainty.
Q. So now you are looking really at fairly close competitors?
A. Yes.
Q. Okay. To finish on this, but again saying, I think you have accepted this but to check, that if one of the outside options is not -- for the market as a whole, the demand curve is going to be constrained by consumers' budgets and their decision ultimately not to spend anything on this product at all and go to buy something else. Even if everybody in the market is affected by a cost change, and even if you are looking at only a small increment, it cannot be assumed that the demand

curve is vertical over the relative increment, can it?
A. No. If one thought that that was a material out-of-market constraint and customers would genuinely not buy, then I think then what becomes more relevant is we are then in the realms of 3.34(a), and then what becomes relevant is the intensity of competition between those firms that are -- the merchants that are facing the MSC cost increase.
Q. Okay. Can we leave commonality of costs and go back to your second assumption, so go back to the previous page, please, 3.34(b). This is customers' willingness to switch in response to a given price increase. So this is ... Can I check: when you say a given price increase, do you mean a given price increment in absolute terms or a given percentage price increase?
A. I have not thought about it specifically, but I think it probably holds -- I think it probably holds either way. What I really have in mind, because this is a benchmark case that I think applies to the MSC, is here I am talking about a small increase in price, and in response to a small increase in price I do not think that the customers responding to that become more switchy or less switchy.
Q. You had not specified, when you were talking about the willingness to switch remaining unchanged in response to

a given increment in price or a given percentage change in price. You had not specified that. Would I be right in understanding that if this referred to an increment in price, so customers' willingness to switch remains unchanged as a result of a certain absolute increment in price, we would be looking at a linear demand curve, straight line demand. Is that right?

A. I think, yes, over a very small part of the demand curve, I am saying there is no change in the customers' willingness to switch.

Q. You are saying the smallness is a point?

A. Yes.

Q. But if it was looking at a percentage price change, that would be an assumption of constant elasticity of the market, would it not?

A. Yes, and I have not --

Q. You would have a convex demand curve, would you not?

A. Yes, I think, strictly speaking, you are right on that. I think in this respect what I am saying is for any small change in price, I do not expect there to be a change in customer sensitivity to that price.

Q. Can we go to page 43, please, paragraph 3.37(a) {RC-F/14/43}. Here is this paragraph 3.37(a) where you set out your justification, in a sense, for not your commonality assumption you have already dealt with but your other three, which you are saying are less important but still important assumptions.

Perhaps if you read 3.37(a) to yourself and I will ask the Tribunal to read it as well. (Pause)

So I suggest there that what you have done is discussed the general issues of the importance of willingness to switch, but you do not actually set out in this paragraph, do you, a justification for an assumption that willingness to switch will not change?

A. No, that is right. It follows from the smallness of the price change that I suggest that, at the very sort of local part of the demand curve that would be affected, that is linear.

Q. Can we go to {RC-J2.2/87/261}. We are back to the RBB report again. Paragraphs 661 and 662. It refers to the "formula reported above". I will take you to that in a moment so you can see what it, so is you are not speaking to this blind. Theory indicates that the extent of pass-on will depend upon the shape of demand, and they say that:

"... the curvature of demand as well as its slope (or its elasticity) is relevant in this respect. The curvature of demand is the rate at which the responsiveness of demand to price changes [and so forth]."

I am going to ask you some questions in a moment. Just before I do, can you just go back to page 258, please {RC-J2.2/87/258}. Can you zoom in on that formula. That is the formula which it is talking about. I think the rest of us will not necessarily understand it, but you presumably do, so I thought I would just let you see what is being talked about.
A. Okay.
Q. Broadly speaking, that is the pass-on rate for industry-wide change in marginal cost, so it is the ... R, is that right? It is the difference in price over the difference in cost equals, and then the formula 1 over, and then all of that. There is a bit which I think -- is that epsilon sid? It sounds like a very sort of naff 1950s science-fiction show, but the elasticity of the slope of inverse demand is in there somewhere, and C'' is the rate at which marginal cost changes output increases.
So with that in mind, can we go back to what they say about it on page 661. I want to make sure I have understood the difference between three things because I think I was confused about it until the start of this trial. So we have the demand curve, and the demand curve shows us for any price what quantity will be demanded. Is that correct?

A. Yes.
Q. Now, this section here refers also to the slope of the demand curve, and they say or, equivalently, the elasticity of demand, I think, in paragraph 662.
A. Yes.
Q. So that refers to the slope of the demand curve at a particular point; correct?
A. Yes.
Q. The slope shows how quickly the quantity demanded is changing with price.
A. Yes.
Q. So that is the same thing as elasticity -- price elasticity of demand?
PROFESSOR WATERSON: Just to point out, Mr Woolfe, something you may be confused about, just to say, but you may not --
MR WOOLFE: I am always happy to learn. Shall I just ask --
PROFESSOR WATERSON: The point I was going to make is that even on a straight line demand curve, the elasticity changes over the course of the curve.
MR WOOLFE: That is why I was focusing on the increment versus percentage change, because in a linear demand curve, willingness to switch remains the same as you go up in absolute increments, I think, whereas if there is a percentage change, then I think the elasticity changes

in a different shape curve.
PROFESSOR WATERSON: Maybe. Carry on.
MR WOOLFE: We will come to it.
This also refers here to, at paragraph 662, the curvature of demand as being the rate at which the slope changes. So the curvature is different from the slope at a particular point, is that correct?
A. So the curvature is, I think we were saying, the rate at which the responsiveness of demand to price changes.
Q. Yes. So we have the demand curve. The elasticity is the derivative of the demand curve; yes?
A. Yes, I think so.
Q. A different point. Then the curvature of demand is the rate at which the elasticity is changing, so it is a second derivative?
A. Right.
Q. Is that correct?
A. I think that is right.
Q. Okay. So what RBB are saying here is that when marginal cost changes, I think this is in 662, the resulting change in price depends upon the rate at which the slope of demand changes, ie on the curvature of demand. So it is not just the elasticity but the curvature of demand that matters. That is correct, is it not?
A. Yes.

Q. Thank you. Then at 663 they describe linear, convex and concave curvature. They say in the case of convex demand, the quantity demanded becomes less sensitive to a given change in prices as price increases. Then concave, the demand that remains as price increases becomes increasingly price insensitive.

Then 664, they say:

"Many demand functions commonly used in economic analysis -- such as constant elasticity demand ..."

Then two others, neither of which I have heard of before.

"... exhibit convex curvature properties."

Is that correct?

A. Yes.

Q. Then can we go over to the next page {RC-J2.2/87/262}, we see a linear demand curve, a concave demand curve and a convex demand curve; yes? Then if we go to paragraph 667, I want to ask you if you agree with this paragraph:

"The relevance of the curvature of demand to the magnitude of the pass-on rate has significant practical implications. That is because the specifications of demand that are usually adopted in demand estimation work do not allow the curvature to vary freely (and therefore to be determined empirically). Rather, the process of demand estimation typically starts with the adoption of a particular form of demand, which then dictates the curvature. For example ... linear [is] zero curvature."

Then over the page {RC-J2.2/87/263}. Would you agree that the curvature of demand has significant practical implications?

A. In general terms, yes, and then specifically in this case, given the small size of the price change that would be associated with passing the MSC on, I do not think that there will be a significant or even material change in the responsiveness of customers to prices, and therefore not significant curvature in demand that would get in the way of making expectations based on economic theory in this case.

Q. Now, I can see that if price changes only a little bit, I am only going to move quite a short way along the demand curve, but that does not mean the demand curve is -- when I say locally flat, it does not mean that it is vertical at that point, does it?

A. I think what I am assuming is that it is linear at that point in response to the change in demand.

Q. Okay, so you are saying linear. So that would be --

A. Without the curvature. There is no change in the responsiveness of the customers to price associated with

a small movement along the demand curve.
Q. If we are looking at -- I think what they are saying is the pass-on function depends not upon the rate of change of demand but on the rate of change of the slope of demand, so the second derivative, so how the slope is changing. So however small an increment of price we are looking at, there is no reason to assume that the second derivative is small, is there?
A. So I think what I am saying is this curvature really is getting at the change in the responsiveness of customers to price, so their sensitivity to price. I am making an assumption in my benchmark case that the change in the MSC would be sufficiently small that the movement along the demand curve, that is not going to be associated with a material change in the responsiveness of customers to price.
PROFESSOR WATERSON: So the second derivative will be zero.
A. Yes.
MR WOOLFE: But if I am --
A. So it is an assumption and it is in this benchmark case, and we will come on to it, I am sure. My benchmark case tells me an expectation of sort of close to 100% pass-on. There is then a whole question about sort of whether that is the case that is followed through in practice, so I would not want -- as I am describing and

defending my benchmark case, I would not want to leave the impression that I am describing how all of this will play out in practice, and therefore all the numbers can follow from theory, but I think it is a useful guiding principle, if you like, to start with an expectation of: if we follow the theory, where does that leave us?

Q. If I am standing on the start line of a Grand Prix and I take a photo one moment just before the lights go, and I take another one a 100th of a second after the lights have gone red and the cars start going, in those two photos, there is only a very small distance between the cars in these two photos, but that does not tell me anything about how fast the car is accelerating in that period of time, does it? You could work out an example, but the fact that it has only gone a small distance does not, in itself, tell you that there is not a significant change in the rate of change?

A. No, and perhaps it is useful to describe an example where I think this curvature can really be -- have an effect on pass-on. So if we took, for example, the instance of tax on alcohol, say, so you have a material change potentially in the cost of supplying alcohol and then the prices that consumers pay. Now, it could be the case that what happens with that price change is that demand falls and, with demand falling, that is the withdrawal of certain customers from the market who think: this is just too expensive for me now. What is left is a set of people who really, really value whatever the alcoholic product is, and they are not going to change their consumption irrespective of how much the price goes up.

So that would be an example of the price-sensitivity. Because the customer set has changed, the price-sensitivity of that customer set has changed, and that is when you really need to worry about these examples of sort of understanding the curvature of the demand curve.

The point I am making is that this change that we are talking about is unlikely to change -- lead to a material change in the mix of customers in the market, such that merchants would need to take into account a different set of price sensitivities in response to what -- when thinking about what to do with their prices.

Q. But we only have to have quite a small constraint on prices to have -- bear in mind we are talking about a very small cost change here, and therefore, on any view, even if there is pass-on, a very small price change. Even a very small constraint on prices means lower pass-on, does it not?

Your argument runs both ways. You are saying: oh well, it would not be a big cost change, therefore there would not be many customers who would drop out of the market, therefore it would not have much of an effect on prices.

That runs the other way. We are only looking at a small price change at best here, are we not?

A. I think this is not the only assumption that matters, so --

Q. Shall we move on to the next one, which is the ability to expand output. So {RC-F/14/42}. You assume that firms can expand or contract output to a reasonable degree whilst incurring the same amount of additional variable cost for each unit produced. So you are using variable cost here in the sense of marginal cost, are you not, as cost per unit produced?

A. I think I am very specific. I am looking at variable costs, so the costs that would vary for the change in output.

Q. So you are assuming constant marginal costs over the relevant increment?

A. Yes.

Q. When we were looking at the RBB paper before, I think the graph, RBB said that under perfect competition -- I know that is not your assumption -- you generate 100%

pass-on from either perfectly elastic supply or perfectly inelastic demand, so a horizontal supply curve or a vertical demand curve. You have actually assumed both, have you not?
A. Not in the perfect competition framework, but I have made these assumptions as set out here.
Q. Okay. So can we go to page 43, please {RC-F/14/43}, paragraph 3.37(b). This is where you discuss this assumption in more detail. Essentially what you say there is where there are bottlenecks in production, that can reduce pass-on?
A. Yes.
Q. But you do not say anything here which justifies the assumption of perfectly elastic supply, do you?
A. No, I think I am clear that I am making an assumption that for the quantity change associated with passing on an MSC, I would not expect merchants to encounter bottlenecks in their ability to meet that change in quantity.
Q. But you are essentially saying that where the change is small enough, those bottlenecks are unlikely to occur. Is that your point?
A. Yes, apart from if we did have situations, which might be the case in relation to -- if a hotel has sold all of its rooms and was operating at capacity, then it clearly

faces bottlenecks.
Q. But a supply curve cannot be locally flat everywhere, can it? Sorry, a marginal cost curve cannot be locally flat everywhere?
A. So, again, this is the sort of benchmark case that I am setting up and I am saying in general -- sorry, in this case, it seems reasonable for the benchmark to say: I would not expect there to be these bottlenecks in supply associated with the quantity change that would be associated with passing on of the MSC, and I think that is a reasonable starting point. All of these assumptions may be departed from to some extent, and that is where the empirics comes in, but as a starting point for a benchmark case this seems a reasonable assumption.
MR TIDSWELL: Because the change in price driven by the MSC is not going to result in a very significant change in quantity?
A. Exactly that, yes.
MR WOOLFE: Can we go to {RC-G/2/55-56}. Start with 55, please {RC-G/2/55}. This is from Dr Trento's second report. He is -- I am showing the heading there, "No ex ante expectation that the supply curve is flat" so you can see what it is going to.
Go to the next page, please {RC-G/2/56}, and I will

show you paragraphs 4.38 --
A. May we return to the one that you just showed because I just read the --
Q. I was just showing you that heading so you understood the context I am about to put you through.
A. Yes, but the first paragraph starts with:
"... there is no guarantee that the industry-wide supply curve would be flat ..."
It just strikes me that that is not at all what I am talking about. I am talking about marginal cost that would be facing any individual merchant. So my assumption is perhaps quite different to the set-up --
Q. That is why I am taking you to the next page so you understand the point and the context of it.
A. Fair enough.
Q. The next page, please, 4.38 {RC-G/2/56}:
"The size of the MSCs and the elasticity of supply.
"As set out above, Ms Webster and Mr Holt consider that the supply curve is likely to be flat."
You might say that does not characterise your position.
Now, according to them, given the MSC overcharge is small, any change in output that results in the pass-on of the MSC overcharge must be so small as not to trigger any change in marginal costs. That sentence, does that

accurately state your point?
A. So not the point about the supply curve?
Q. But the second sentence.
A. The second sentence, which talks about -- yes, I expect that for the change in quantity that would be associated with a change in demand following a passing on of the MSC costs that the firm would face the same level of marginal cost for producing the next unit of output.
Q. That's an assumption?
A. It is an assumption.
Q. An assumption in the modelling sense, rather than an assumption of assuming that the world is -- the real world is a certain way; it is a modelling assumption?
A. I am not sure I quite follow the distinction, but it is -- it is an assumption of the situation that would face merchants if contemplating passing on MSC costs, that they would still face the same level of marginal cost for any unit they sell as a result of any change in consumption -- sorry, their supply following a passing on of the MSC cost.
Q. Can we go over the page, please, and go to paragraph 4.39 {RC-G/2/57}. Can you zoom in on the top half of the page. Paragraph 4.39(a) is the about the supply curve. I understand that is not your concern. 4.39(b):

"I understand ... Ms Webster's point to be that - if a firm can produce 1,000 t-shirts at a certain marginal cost - it will also be able to produce 10 additional t-shirts at the same marginal cost. However, I do not consider that cost increases necessarily happen in steps, such that a small change in output is consistent with a flat supply curve up to a point ..."

Then he gives some examples of a restaurant paying overtime and then, as firms grow, more intangible costs which may affect marginal costs are likely to kick in. Increased firm size --

THE CHAIRMAN: Do not forget to keep your voice up.

MR WOOLFE: Sorry, I will try and do that.

A. I think those are examples of the sort of bottlenecks. So it may be that there are some merchants that, you know, do face something of a bottleneck. You know, they may have to pay overtime in this restaurant example initially, but let us say the change in the quantity demanded is then -- becomes the norm, then actually there may be the possibility that that firm then contracts labourers to work those hours at the same rate as it pays, you know, the team that work the hours they were working before.

Q. But if Dr Trento's proxy cost analysis, where he is measuring the responsiveness of prices to other costs, that kind of analysis automatically takes account of these kinds of shifting marginal cost points, do they not?

A. I am not sure whether it would be sufficiently precise to be able to pick up this type of effect.

Q. But, in a sense, if you are doing empirical real world analysis, (inaudible) direct comparator analysis, you would not need to worry too much about this because it will get -- it will feed through into the numbers somewhere?

A. I mean, I think it is definitely important that one then does come to an estimate of pass-on in practice and we cannot do that for MSCs, which I am sure we will come to.

What I have been talking about here is I would like, before I go into the empirical investigation, to have a set of expectations that are based on theory which I can then use to inform my assessment of the empirical exercises and I do think that is quite important in this case because I think I have made clear in the hot-tub I do think the empirical evidence that is available in these proceedings is quite imprecise. It is quite -- there is a lot of uncertainty associated with it. So I think an interpretation of the empirical evidence needs to be alongside predictions of theory.

Q. So it is an assumption.
Now, the last of your assumptions is that variable costs are incurred on a per unit basis. That is {RC-F/14/44}, paragraph 3.37(c). I am going to come back to this. I just want to note for the Tribunal -- to keep everyone's mind, so you have four assumptions. I am not just forgetting one. You have made it clear that is an assumption and we will come back to that later on.
Now, let us see if I can fit this in before lunch. In terms of -- all of that is about pass-on really of variable costs and your benchmark case. So is your theoretical case your benchmark case?
A. So I use theory, in particular, to identify some expectations of the rate of pass-on were the MSC to be treated by merchants as a variable cost and everything that we have just spoken about is in that framework.
Q. That is great. That is about -- I think you said first thing this morning that was your benchmark?
A. Yes.
Q. Whereas you have in chapter 5 your base case?
A. That is right, which is based on the bringing together of the theory with the empirical evidence for proxy costs.
Q. Just because I want to finish off on theory, the other

element is fixed costs and how economic theory says firms will treat fixed costs. Essentially I think we agreed that fixed costs are irrelevant to a firm's short-run pricing and so would be ignored in short-run pricing?
A. Yes. Just to be clear, they do not feature in the profit-maximising price-setting equation. They are irrelevant to that. Whether firms think that they are relevant or not may be a different point.
Q. That is the point I was discussing with you before. Subjectively a firm may pay attention to all sorts of thing, but these models are really about incentives and that in a sense fixed costs are irrelevant to a firm's incentive?
A. Yes.
Q. Okay. There is a longer term -- in the longer run, the theoretical prediction about entry and exit and so forth and we are going to come to that. So can we go to {RC-F/14/49}. This is still in your first report, volume 1. We are going to look at 3.52 and 3.55. What you say in 3.52 is:
"... cost pass-on would occur where a reduction in fixed costs makes entry and expansion opportunities profitable that would otherwise have been unprofitable."
The flipside of that presumably is an increase in

fixed costs makes opportunities unprofitable that would have been profitable. So essentially this is where a firm responds to a rise in input costs by re-evaluating investment decisions. Is that fair?
A. Yes.
Q. Now, this could be the result of a rise in fixed costs, but the same mechanism in principle could operate in respect of a rise in variable costs, could it not? Shall I give you an example?
A. No -- well, yes, perhaps.
Q. So if I am thinking about investing and opening a new restaurant which I think will achieve a certain level of business and earn a certain level of revenue, in planning for that I identify my fixed and variable costs and what revenue I think I can earn and if my fixed and variable costs are too high, then I conclude it is unprofitable, but it could -- I could conclude it is unprofitable either because the variable costs are too high or because the fixed costs are too high. That is right, is it not?
A. So if I were approaching this as an economist --
Q. Well, as opposed to a diner?
THE CHAIRMAN: I think that's all you can do really.
A. I would look at this opportunity for setting up a restaurant and I would think: right, what will be the

price that I can charge in the market for the type of food, type of ambience that I am going to offer to customers and then I would think: right, what is likely to be my set of variable costs for every customer that I serve in that restaurant? That will give me my variable margin on every sale I make and then I will work out how many customers I think I will be able to serve, so what is -- you know, taking into account local market demand. That will then give me a gross profit and I will have -- which will be derived from variable cost, the price that I can charge times the volume, and then the question becomes: is that profit that is available to me sufficient to offset the fixed costs that I know that I will have to incur in setting up my restaurant and operating my restaurant?

So this pass-on mechanism that I describe for fixed costs is -- if, let us say, you took an increase in fixed costs relative to this counterfactual situation that I have just described, the gross profit that I can achieve is the gross profit and it will be set by this trade-off between put my price up, I lose these sales, the profit-maximising price trade-off. If the fixed cost that I have to cover goes up, it may be that that gross profit no longer covers it, in which case I do not invest in the restaurant.

MR WOOLFE: A bit like --
A. Alternatively, if I may just finish the example, let us say the fixed cost has come down, then actually that may make it more likely that I then make the investment.
Now, the pass-on comes as a result of me either choosing to set up my new restaurant or not set up my new restaurant because when I bring the new restaurant into the market, it has an effect on the competition in the market and an effect on the outturn market prices.
So that is the mechanism by which these fixed costs influences the decisions to invest or not invest and then the consequent effect on prices and pass-on, if that helps?
Q. Yes. That is broadly what you said in your report, I think.
A. Yes.
Q. Now, that -- but you had a scenario where it is the same investment opportunity and you are thinking: well, indeed, are my variable -- is my profit margin sufficient to cover my fixed costs, you said, and that is fine, that is the equation.
A. Yes.
Q. But it is a factual and counterfactual analysis. In the factual I have a certain amount of profit and a certain fixed cost and in the counterfactual my fixed costs are

a bit higher, the profits are not enough so I decide not to enter that market. That is the -- what you say and then there is an effect on competition: yes?
A. Yes.
Q. That is the mechanism?
A. Yes.
Q. Now, a different case. We have a cartel which raises the price of a variable input. It is the exact same investment opportunity. The fixed costs actually stay just the same between the factual and the counterfactual. What has changed are the variable cost but the variable cost could be enough to push it between being profitable and unprofitable. So, in principle, you can get the same mechanism of pass-on through competition -- through exit and entry decisions and competition in respect of a variable cost, as well as in respect of a fixed cost?
A. So I would say not in that example because if it were a variable cost change and I knew it were a variable cost change that was affecting all competitors in the local market where I am going to set up my restaurant, I would know that, yes, my variable cost is higher but the price that I will achieve in the market will be higher.
Q. But your volume might be lower?

A. Then that depends on the volume response.
Q. But, in principle, a variable cost can also lead to changes in entry and exit decisions and competitive conditions, can it not?
A. Yes, and then I think the question is how big would the volume response be to change in price of the size that would be likely following a passing on of the MSC.
Q. Okay. The way you explained it to the Tribunal a few moments ago, this mechanism is not about a firm's short-run choice of a profit-maximising price, rather it is about the firm's choice to make or not to make some form of capital expenditure; correct?
A. Yes, it could be capital expenditure or it could be -- I do not think this necessarily applies in the case of MSCs, but a decision to invest in marketing, for example, advertising.
Q. You are saying that it could -- this mechanism could operate in quite a big scale, "Do I open a new factory?", but also it could be quite a -- can operate in quite a small-scale, so whether or not to purchase a new machine or open a second till or something of that sort?
A. Yes.
THE CHAIRMAN: Is that a convenient time?
MR WOOLFE: I have just about two or three minutes, I think,

on this and then this topic is done, sir.

THE CHAIRMAN: All right. Finish that then.

MR WOOLFE: Thank you.

Aside from capital expenditure, I think you agree with us so -- in fact I think you already have. Okay.

Actually, sir, I think that is convenient. I may not be able to finish on this entirely. Let me think. I may have one more question after the break. We can stop there, sir.

THE CHAIRMAN: Right. How are you doing with your timing?

MR WOOLFE: I am just under halfway through my notes. The second half, I think, should go quicker because it is more --

THE CHAIRMAN: Are we going to move to the real world?

MR WOOLFE: We are. We are.

THE CHAIRMAN: I might not be alone in wanting to do that, but --

MR WOOLFE: I can understand. The important thing, sir, is it is the match between the real world and the theory.

THE CHAIRMAN: No, I understand that.

MR WOOLFE: Sir, I am on track to finish, broadly speaking, at some point which is around the end of today, the beginning of tomorrow.

THE CHAIRMAN: Okay. That is fine. All right.

As you probably know, Ms Webster, you cannot talk about the case during the break. So we will see you at 2 o'clock.

(1.05 pm)

(The luncheon adjournment)

(2.00 pm)

THE CHAIRMAN: Mr Woolfe.

MR WOOLFE: One last question about economic theory which is just this: several times this morning you referred to the smallness of the cost change in the course of your argument, both in respect of the elasticity of demand, you are saying you thought income constraints, effectively, would not be relevant over small cost changes, and on the supply side you also thought the marginal cost is unlikely to change over a small increase in marginal cost.

I just want to put this to you: it is odd, is it not, that your framework would predict high pass-on for a small cost change but lower pass-on for a bigger cost change. That is counter-intuitive, is it not?

A. I do not believe so. Perhaps you can say more about the second part of your sentence? If lower pass-on for a --

Q. (Overspeaking) If your key assumptions of what drive your prediction of high pass-on are both premised on the smallness of the cost change, then if you abandon that assumption and say we are going to have bigger cost changes, and you cannot justify those assumptions in the same way, the framework does not apply. So your framework will be predicting high pass-on for a small cost change but lower pass-on for a big cost change, and I am suggesting to you that that is an odd and counterintuitive outcome?

A. So my framework does not make any predictions for the extent of pass-on of a larger cost change. I think what I am saying is if you had a larger cost change, then it may be -- and the merchants sought to pass that on, things like the curvature of the demand curve become important, and then they may mean that pass-on is higher or lower depending on the nature of that curvature.

So, actually, I am not saying anything at all in my framework about what one would expect for a larger cost change. What I am trying to do is to think about the relevant theory as it applies to a cost which has the same nature as the MSC.

Q. Okay. So moving now to the nature of the MSCs. Can we go, please, to your first report {RC-F/14/39}, paragraphs 3.24 and 3.25. This is where you make -- this is moving from theory to fact. You say that, in paragraph 3.24:

"... determining which set of theoretical insights is expected to be most relevant in practice when assessing the rate of MSC pass-on by merchants requires factual insights into the likely relevance of changes to MSCs in the price-setting decisions of different types of merchant."

It should be on the screen in front of you. It is the end of paragraph 3.24. It is your own words, Ms Webster. Sorry, I have been reading paragraph 3.24 to you. (Pause)

A. Yes.

Q. Just to recap: those predictions refer to marginal cost, not variable cost, do they not? So the theoretical insights are derived from not whether a cost is variable or fixed but marginal or fixed?

A. So I have been interpreting the theory in the context of the costs that vary over the relevant output change.

Q. Now, you go on to say at 3.25 you understand that MSCs can be either ad valorem or per unit depending on the circumstance.

A. Yes.

Q. Now, if -- you have already stated your assumption further back, that your benchmark case requires assuming that they are per unit variable costs, and you accept very fairly, I think, that if they are ad valorem costs, that assumption does not deliver high pass-on in quite the same way. Is that correct?

A. So it may or may not do. What matters for the pass-on of an ad valorem cost is the size of the variable margin that the merchant earns. So if the merchant earns a larger margin, then it would pass on a change in an ad valorem cost to a lower degree, but if it faces a slim variable margin, then it will pass on any change in ad valorem cost to a similar degree as a per unit cost change.

Q. In that paragraph you say, the second sentence:

"... I understand that interchange fees have been applied on an ad valorem basis since the Interchange Fee Regulation was introduced in 2015, and therefore -- to the extent that MSCs are charged on the same basis -- MSCs depend on both the volume and value of sales that a merchant makes."

So this is based on your understanding of how interchange fees work, and then you are making an assumption that MSCs work on the same basis, is that correct?

A. Sorry, could you repeat the question?

Q. You are working on the basis of an understanding that MIFs are charged on an ad valorem basis?

A. Yes.

Q. Then you are making an inference that MSCs are charged on the same basis. Is that correct?

A. Yes.
Q. The two steps there. Was that understanding as to interchange fees given to you by your client, or where did you source that from?
A. I sourced that -- I say here the report of Dr Niels from December 2023.
Q. Okay. You have not verified to what extent MSCs are actually charged on an ad valorem basis, have you?
A. No, I have not.
Q. Now, in terms of this choice between ad valorem and per unit, leaving ad valorem to one side for a moment, I want to explore what is meant by per unit.
If I go to a restaurant with my family and we order four starters, four main courses, four puddings -- we are a family of four, you may have guessed -- a couple of soft drinks, two glasses of wine, two cups of coffee, we have ordered 18 different items, and I want to leave a tip for the waiter, so that is 19 bits of payment I want to make. When I get the bill, I do not make 19 different payment transactions, do I, I just make one?
A. Yes.
Q. If it is an ad valorem charge, that does not matter, because it all gets wrapped up. But actually, if MSCs or MIFs are being charged on a per unit basis, they are charged on a per payment transaction basis, are they

not?

A. Sorry, MSCs are paid on a per transaction basis?

Q. If MIFs or MSCs -- when you refer to it as your -- you say MSCs could be either ad valorem or per unit, if we are looking at the possibility of per unit (inaudible) some more, that actually means a per payment transaction basis, does it not?

A. Yes, that is my understanding.

Q. Okay. The same would be true if I go to do my weekly shop at the supermarket. I have 40, 50, 60 items in my basket or trolley, the same is true, is it not? If it is a per unit, that MSC cost would be a payment cost that is not specific to any item in that basket; correct?

A. Yes, I think that fits with my understanding.

Q. Now, you do refer to this point briefly. If we go to 3.26(a)., you say:

"Where merchants offer a range of goods and customers purchase a basket of these goods in the same transaction, the MSC is incurred on the overall basket rather separately on each product that it contains. In contrast, pricing decisions may be taken for individual goods or groups of goods within these baskets."

Now, you say that, but that is quite a fundamental point, is it not, to the extent that MSCs are charged on a per unit basis, this is an important respect in which they are not variable costs per unit of production in the sense that you use them?

A. So what I am -- the reason that I make that point in that part of my report is I agree that it is not the case that the MSC cost to merchants is associated with the sale of any individual product, it will be a cost that is associated with a transaction. So I agree with that.

What I would expect though -- and this is why I say that I think the MSC is a variable cost -- is as a merchant, if I have a larger number of transactions, I would expect the -- my MSC costs to go up in proportion with the increase in the number of transactions, assuming that the payment mix does not change as I increase the number of transactions that I process.

So if the payment mix stays the same then, as I do more business and undertake more transactions, my MSC cost will go up. So they are variable but not specifically attributable, necessarily, to any individual product.

Q. So variable with the scale of the business, in some sense. But in that sense, their treatment as an overhead makes complete sense, does it not? They are --

I mean, they are sort of indirect costs of doing business, even if they are variable?
A. I would not describe them as such. I would say they are a direct cost associated with processing more transactions for a given merchant.
Q. But processing more -- processing more payment transactions?
A. So if one makes an assumption that, as more customers come through the door, the next set of customers have a similar mix of payments as the previous set of customers that came through the door, then having more customers come through the door will lead to an increase in transactions -- MSC costs.
Q. But in the per unit case, if I simply sell more to the same customers or sell the more expensive goods, that does not necessarily equate to an increase in payment costs, does it?
A. That is right. If customers -- the next set of customers had larger baskets, they might incur just the same level of MSC cost.
Q. Or smaller baskets?
A. Yes.
Q. Can we go to {RC-K/21.5/1}. This is Mr Holt's eighth report. So this is a report he did for Trial 1. Can we go to page 42, please {RC-K/21.5/42}. This starts with

a description of the different types of MIF that are applicable: debit versus credit, consumer versus commercial, etc, laying out the points of principle.

I am taking you to this for a factual point, essentially. Can we go to page 44, please. At paragraph 123, you see what he says there:

"The MIFs of credit cards have always been set on an ad valorem basis, save for a short period where [there was] a fixed fee ..."

Then he explains the percentage on which they were charged. This is under the heading "Domestic/Intra-EEA consumer MIFs", so we are in the domestic and intra-EEA consumer segment of MIFs, talking about credit first.

Then he says:

"Since the introduction of the IFR in December 2015, all UK domestic and intra-EEA Visa consumer credit card transactions are subject to a MIF of 0.3% ..."

That is credit.

Then debit. It says:

"MIFs for debit cards, on the other hand, were charged at a fixed fee per transaction with no ad valorem component between January 2007 and January 2015 for domestic transactions and January 2007 to February 2011 for intra-EEA ..."

So there is a period at the start of our claim period where domestic consumer MIFs for debit cards, which is quite a big chunk, were not ad valorem, they were per payment transaction, then these were reduced in 2015 and ad valorem component introduced.

But just footnote 103, where he says that ad valorem fees were introduced. At the bottom of page, at 103, he says:

"In March 2015, also introduced a fee cap (ie maximum fee per transaction) ranging from [between 50p and a pound] for domestic transactions."

So it is ad valorem but capped once you get to a certain value.

So the nature of that cap, as a matter of economics and maths, is that above a certain level of payment the fee essentially becomes fixed, does it not?

A. Yes, I assume that is how that operates.

Q. If we are looking at a rate which is 0.2% ad valorem capped at 50p, then -- and I will give you my figure -- essentially that becomes a fixed cost of payment if the transaction value goes above £250. Does that sound plausible?

A. Yes, I trust you.

Q. Thank you.

So if I am buying a basket of goods above that value on my Visa debit card, the payment cost of that in reality is fixed with respect to all the products in the basket, is it not? It is not specific to any particular one?

A. Yes.

Q. Then if we look at page 47, paragraph 132, and then footnote 111, we can see this is about commercial MIFs, and we can see, again, there are some fee caps on commercial MIFs.

Then over the page, page 48, paragraph 134, this is about commercial debit MIFs.

THE CHAIRMAN: Do you want us to be reading any particular parts of these?

MR WOOLFE: Can we just -- we can see in the middle of that, in March 2015, Visa introduced an ad valorem fee of 0.2% --

THE CHAIRMAN: In the middle of what, sorry?

MR WOOLFE: In the middle of paragraph 134, sorry. Visa introduced an ad valorem fee of 0.2% and introduced fee caps ranging from 0.75 to £1.50 per transaction. So again fee caps would be the same point, that above a certain transaction value these are not purely ad valorem?

A. Yes. Perhaps just to note: I realise that all of these relate to what Visa was charging. I do not have the knowledge specifically of the equivalence for

Mastercard.

Q. No, okay. Fair enough. To be fair, I think from looking at it there is not quite the same equivalent for Mastercard on the evidence. It may be that it is maybe more ad valorem, and I am not drawing a distinction.

The point is that from the merchant's point of view we do have some card payments which are not being charged on an ad valorem basis, and Visa is a significant part of the card payment market, are they not?

A. Right.

Q. Okay. Then so you -- your assumption was MIFs are always ad valorem, at least post-2015, and then you said you assume that MSCs are similar. Now, can we go to {RC-J4.4/21.4/1}. So this is part of a report of the PSR, Payment Systems Regulator, a market review into the supply of card acquiring services. Were you aware of this report, broadly speaking? Not so much the annex, but the report?

A. The report generally, yes.

Q. As you can see from the title, this is about scheme fees. Can we go to page 7 {RC-J4.4/21.4/7}. Do you know what scheme fees are, Ms Webster?

A. Yes.

Q. If I say to you that scheme fees are another fee charged by Mastercard and Visa to card acquirers and it has to be recovered through the MSC --

A. Yes.

Q. -- is that fair enough?

A. Yes.

Q. What they say, as regards scheme fees in here, paragraph 1.10, so if you go down, please:

"Most fees from 2014 to 2018 were flat but some were stepped and tiered. Stepping and tiering may result in a non-linear relationship between total fees and transaction volume or value."

First of all, I put to you that if the MSC is incorporating costs that are not ad valorem, you cannot infer from the MIFs being ad valorem that the MSCs will be ad valorem, can you?

A. I think that is right. What I would say is there is clearly a set of fees that are charged from the schemes to the acquirers, and on the basis of this report it is clear that there are some scheme fees and then there are the MIFs, and then there is an MSC that is set to the retailers, and I have made a statement, I think. My understanding was that the MSCs were charged on an ad valorem basis. I do not have the factual -- I mean, that is a factual question, and I suppose my main point is to the extent that MSCs were incurred by merchants on an ad valorem basis, then that may have implications for how the merchants chose to pass on the cost -- any cost change in MSCs. I am happy to accept, if that is not how the merchants faced the costs --

Q. (Overspeaking) There is some evidence on it that is publicly available which I will take you to. If we go to {RC-J4.4/21.1/1}. So this is another annex to the same report. This is setting out the general industry background from the PSR, dated November 2021.

Can we go to page 55, please {RC-J4.4/21.1/55}. What the PSR does here, starting in the middle of that page, it starts setting out a description of IC++ pricing, which is what applies to most of the SSH merchant group. We can see that under this, the first sentence of paragraph 1.222:

"With IC++ pricing, the acquirer automatically passes on interchange fees and scheme fees at cost to the merchant and the remainder of the acquirer's cost plus margin are generally recovered through:

"A processing fee ...

"One or more additional fees ..."

Then they say at 1.223:

"The processing fee can take the form of an ad valorem fee, a pence-per-transaction fee or an ad valorem plus a pence-per-transaction fee (depending on the acquirer and the merchant's preferences)."

So the PSR is saying, in fact, in the real world MSCs vary, and sometimes they contain both ad valorem and fixed components and there is a blend?

A. Yes. I think what I do not get a sense of from this -- these paragraphs is a sense of the relative importance of these different components of the fees. So I do not have a sense actually of sort of what the merchants would face in practice.

Q. Then over the page, we have a description of IC+ pricing, which is pretty close to IC++. At least the difference, I think, is interchange fees rather than scheme fees that are passed through as cost.

Then paragraph 1.229, which is at the bottom of the page, "Fixed pricing". It is unusual, this, but they say:

"A very small number of acquirers' merchants have fixed pricing, whereby they pay a fixed, periodic fee for card-acquiring services ..."

Two acquirers offer those card payment services.

So did you consider at all this variety in the way that MSCs are charged in your report?

A. So what I considered is to the extent that merchants were facing MSCs and changes in MSCs on an ad valorem basis, then that would have a particular implication for how they might seek to pass it on if they were following principles of profit maximisation.

I think also, if I were thinking about --

Q. Sorry, you --

A. Just to follow on. If I am thinking about a counterfactual in which the MIF was charged at a lower rate, then my understanding of the operation of the IC++ and the IC+ contracts is that it would be that element of the MSC -- sorry, of the -- yes, that element of the MSC that would be reduced, with everything else staying, as was the case potentially.

Q. But to the extent that those interchange fees that were no longer being charged were being charged on a fixed per payment transaction basis, they would drop out?

A. Is your view that those are the ones that apply at 1.229?

Q. No, no. To be clear, no, that is not what I am saying. I do not think that is what it is saying. "Fixed pricing" here appears to be referring to an option offered by some acquirers where acquiring is being offered at a fixed price, which is not the same thing as IC++, and I am not saying -- I am talking about a variety of payment structures in the market. That is the only point I am making.

A. Okay.

Q. But the basic assumption in your report was that MSC payment costs are a per unit marginal cost of production, and they are not, are they? They are either an ad valorem charge or they are a per payment transaction charge, but they are not a per product produced charge, are they?
A. So they are a cost which is incurred by merchants when making transactions and customers are paying by card, and in the sense that a merchant makes more transactions, and the payment mix of those transactions stays the same, the costs that they face would go up.
Q. Can we go to a document at {RC-J4.2/141/1}, please. This is a study produced by Ernst & Young and Copenhagen Economics for the Commission on the application of the Interchange Fee Regulation, and it is the economic consequences of it. Is this a document that you are familiar with?
A. I would not say familiar. I am aware of it.
Q. You are aware of it and you have looked at bits of it at some point?
A. Possibly.
Q. Possibly. Okay. Well, can we go to page 175, please {RC-J4.2/141/175}. This is part of the analysis where what they are doing is looking at a regression analysis which shows -- in the food retail sector and about how

cost increases are generally passed through. What they find is, in relation to food retail, cost increases -- in the middle of the paragraph at the top of the page:

"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 passed through."

So that is a rocket and feathers point, and so they set that out.

Now, the reason for taking you to this, though, is at the bottom of the page. They say, very last paragraph:

"The reported pass-through rates for the five [Member States] cover direct cost changes in the food retail sector that we use 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 a change in costs of 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 rates should be applied with caution."

The point is this: it is correct to regard interchange fees as indirect costs, is it not?

A. I think it is quite a loose term in the sense -- so

I think one has to be very clear about what one means by an indirect cost. I do agree that the MSC is not a cost that is attributable to any individual product to the extent that a merchant sells typically a basket of goods to consumers. If, for example, it were only selling one product, then it would clearly be a cost of selling that product. But where the merchant sells a basket, I agree, it is not specific to any individual product, and I think I have been sort of quite clear about that in my report.

I do not necessarily think that it follows that one would necessarily expect a different rate of pass-on. One might do, but one might not.

Q. But would you also accept the point that you have to be cautious about relying on studies that show the pass-through of more direct costs, and inferring that interchange fees will be passed on to the same extent?

A. I think one needs to be really clear about what one is expecting. So in my framework, if I take the view -- so I take the view that the MSC cost is a variable cost in the sense that the costs are likely to rise the more products a merchant sells, or the more customers a merchant serves. Then the question is: given that in making those additional sales the merchant recognises the MSC as a variable cost, then actually I do not think

that it necessarily matters that it is not a cost that is specific to any individual product. They may nevertheless seek to pass that on for the basket of goods that they sell, and I do not necessarily think it follows that pass-on rate is different.
Q. It all depends on how they go about doing it?
A. Yes, it depends about how they treat it in practice.
THE CHAIRMAN: Or whether they recognise it as a variable cost?
A. So my point is that if they recognise it as a variable cost, then I think that they -- and they are seeking to maximise their profits, then it would be a relevant input into their profit-maximising calculations.
MR WOOLFE: I would like to move to discuss your reliance -- your analysis of the studies and public data. I will use a more neutral term.
A. Yes.
Q. So can we go, please, within your first report, volume 1, to {RC-F/14/51}. So this is a section headed "Empirical evidence". To remind the Tribunal, within this you discuss -- in fact you say in paragraph 4.2 what you discuss, (a), (b) and (c), your analysis of publicly available data, and your analysis of pre-existing studies, and your analysis of data provided by the data-producing claimants. So with all those

three together, that is what you do in this section.

Can we look at paragraph 4.4. You say that you think:

"I consider that these sources of evidence are such that it would not be appropriate to single out and adopt specific estimates of variable cost pass-on for particular merchant sectors ... distinguishing between merchant or merchant sectors ..."

Sorry, I have jumped a bit:

"While my preference would be to do this, were the evidence available, I do not consider this to be the case."

So I think you are saying not just that it is not appropriate to move directly from these sources to specific estimates of MSC pass-on, but you are actually saying more than that. You are saying you cannot adopt specific estimates of variable cost pass-on for particular merchant sectors or cost types, is that right?

A. Yes, that is right.

Q. Then you tell us what you do with this. You go on to say:

"I therefore take account of the range of estimates provided by each approach in making my assessment of merchant cost pass-on in the round, distinguishing between merchants on merchant sectors only where I consider the available evidence clearly allows me to do so. Given the limitations of the empirical evidence, I also draw on insights from economic theory and the available qualitative evidence, in the round ..."

So it is fair to say that in the end, you use this empirical evidence only in quite a broad way to validate your overall insights from your economic theory. Is that correct?

A. So I would not say that I use it to validate the insights from economic theory. Firstly, when I look at the empirical evidence, I can largely only look at the pass-on of variable costs, and I do that through public data, through the existing studies, and in my analysis of merchant data. That tells me, for the set of variable costs that I am able to measure, or that are reported in the existing studies, it gives me a broad range, 70 to 100%, of the likely pass-on of variable costs in practice.

Q. Okay. But you use -- what I am interested in is what this bit of your report is doing functionally in your analysis, where it is taking you. You are saying that this analysis of empirical evidence in the round is what gives you your 70 to 100% number --

A. Exactly that.

Q. -- that you would then attach to your benchmark case and say that where a merchant is treating this cost as if it were a textbook economic theory variable/marginal cost, this is why you get the 70 to 100%, but it is where the number comes from. Is that right?
A. Yes. So if I were just basing my view of pass-on on theory, I would suggest that the pass-on of the MSC would be closer to 100%, based on the theory that I have set out. When I look in practice at the pass-on of industry-wide variable costs, query whether they are all industry-wide, but when I look at the pass-on of variable costs, actually I see a range which is a bit lower than that, it goes sort of 70 to 100%. So I therefore consider it is more appropriate to have a base case which reflects both theory and empirical estimates, rather than relying solely on theory.
Q. But this section of your analysis, it does not in itself seek to draw any conclusions about MSCs, it just seeks to derive a pass-on rate that attaches to the situation where one is looking at variable/marginal costs?
A. To a proxy cost, that is right.
Q. Is it also fair to say that your analysis -- your evidence as a whole depends to a lesser extent on the analysis of empirical evidence than that of Mr Coombs, Mr Holt and Dr Trento?

A. Sorry, could you ask the question again?
Q. Is it fair to say that your evidence depends to a lesser extent on the analysis of empirical data than that of Mr Coombs, Mr Holt and Dr Trento?
A. No, I do not think so. I think the difference between us is that I suppose I am giving more recognition, perhaps, to what I consider to be the uncertainty in the empirical estimates and I am not willing to say that the pass-on rate in sector A is, say, 85%, whereas it is 80% in another sector. I think that that level of distinction in the pass-on estimates is not -- the evidence is insufficiently reliable to be able to draw that level of distinction, whereas the other experts have, but the empirical evidence that I have gathered is -- plays an equally important role in my expectations for pass-on.
Q. I am going to do what my mother always told me off for doing, which is jump to the end of the story to find out what happens before we look at what went on.
Can we go to page 82 {RC-F/14/82}, and this is where you finish your discussion of all the empirical evidence in the round. So this is discussing public data and studies and the merchant evidence. You set out the things which you say you think limit the inferences that can be drawn from it, and I think this relates to what

you were talking about just now, your reasons why you place less reliance on this.

Now, at 4.76 you set out reliability and accuracy issues, and I think the three points you make there are broadly about admitted variable bias, the problems of obtaining costs on a like-for-like basis, and the last one is a problem about converting pass-on elasticities into pass-on rates.

That last one, which you say introduces uncertainty, can you just explain why the conversion of pass-on elasticities into pass-on rates introduces additional uncertainty?

A. Yes. So points B and C here relate primarily to the analysis of public data, where you have cost information that is coming from one source and you have price information that is coming from another source, and in both cases you do not have absolute levels of cost, you have -- and prices, you have indices. You can do an analysis of the relationship between these two indices, and then the nature of that analysis gives you a price elasticity -- sorry, a pass-on elasticity. Then the question is, well, what is the pass-on rate that is associated with that pass-on elasticity? To understand the pass-on rate, one needs to understand the relationship between the cost and the price measure

through the price-cost ratio, but one does not know the price-cost ratio in relation to the public data because all you have are the indices, so one has to make an assumption, bringing in data which is sort of from another source, which may or may not be an accurate reflection of the true relationship between prices and costs that are being measured.
Q. I think -- at paragraph 4.77, you go on to say that these issues are likely to be worse for public data or studies than for claimant data. I think you have just explained why that is the case for the last one, which is the public data -- sorry, the public data simply does not contain the information on price-cost ratios that you really need.
But as for why the other reliability and accuracy issues are worse for the public data and studies than claimant data, is that just because the claimant data is more granular?
A. Not entirely. So in relation to (b), where I say "Considering costs and prices on a like-for-like basis", the problem here is, which I just described, in the public data, I just have two separate sources of information and they do not necessarily match. We talked quite a lot in the hot-tub about the mismatch between the cost and the price data. You do not tend to

have that with the merchant data, because the merchant data provides costs and prices for that business and it is easier to match them.

There is sometimes an issue about the level at which the prices and the costs are reported, so you can get quite detailed pricing data at product level. The cost data is not necessarily always at the same level of aggregation, and the source of that might be through P&L statements at a more aggregated level.

In relation to the first point, dealing with the risk of omitted variables, I think that tends --

THE CHAIRMAN: I do not think you have been asked questions on that yet.

A. Have I not?

MR WOOLFE: I think I did ask -- well, my question was about -- it was in paragraph 4.77. I think Ms Webster said:

"These challenges ... apply to all three of the sources of empirical evidence ... [but are] more likely to apply, or be pronounced, [for public data, rather than claimant data]."

I think.

THE CHAIRMAN: So are you asking a question about that?

MR WOOLFE: My question was as to why because I -- she was giving you an answer in respect of (c). She just covered (b).

THE CHAIRMAN: Okay. Sorry, I wrongly interrupted.

A. In relation to (a) and the omitted variables, it is somewhat more of an issue in relation to public data, because in the public data you tend to be using longer time series of data, and that can mean that there are quite some other things that will have affected prices that one ideally needs to control for, and then it can be quite difficult (a) to identify all the relevant set of factors to control for, and then there is a question about actually getting data to do the controlling.

When one is looking at the merchant data, you tend to be looking at a relatively shorter period of time, and because there is qualitative evidence that is produced alongside the quantitative data for most of the merchants, it is possible to identify from that information what would be the specific controls that would need to be put into any modelling exercise to control for these other factors, so one is more able to control them, so you do not have the problem of omitted variable bias.

Q. So broadly speaking on the rubric of reliability and accuracy issues, this is more of a problem for public data than claimant data.

The next set of issues you refer to, if you go to the next page {RC-F/14/83}, at the top of the page, paragraphs 4.78 and 4.79, availability issues, which you say apply to all three sources of empirical evidence, and you mention the fact that it comes from a relatively small number of merchants, and then, at 4.79, big gaps in the data.

Then we want to come to applicability issues that I want to ask you some questions about, at 4.80. So to understand what you mean by applicability issues, this effectively is to what extent empirical analysis is relevant to MSCs. Is that a fair way of understanding it? It is to what extent you can actually carry conclusions across from the empirical analyses of other costs to say they will apply to the MSCs. Is that broadly what this is about?

A. May I have a moment to read?

Q. Yes, absolutely.

A. Thank you. (Pause)

Yes, turning to your question, I think this is about the ability to analyse the relevant set of proxy costs which could be used to inform the extent of MSC costs pass-on.

Q. Yes. But it is just the applicability, because obviously you are not looking at MSCs directly.

A. No.

Q. It is essentially saying how useful are these when we are thinking about MSCs. Is that the applicability problem?
A. It is -- well, it is necessary to look at the pass-on of a proxy cost in any empirical analysis, because we cannot look directly at the pass-on of the MSC. So the question here about applicability is: do I have, in my empirical analyses, or through the existing studies, analyses which are going to give me good estimates of pass-on of relevant proxy costs?
Q. So I think the first sentence of 4.80(a), by definition results would not be directly applicable, that is really just a point about proxy analysis in general?
A. Yes, that is right.
Q. Then the next point you make, I think, is about the size -- you refer to the larger size of the potential proxy costs compared to MSCs. You made that point towards the bottom of paragraph (a).
A. Yes.
Q. That can skew the analysis. But that is liable to skew any estimate of pass-on upwards, is it not, if you are looking at a proxy cost that is too large relative to the MSC?
A. Yes, and to be clear, the importance of the size of the proxy cost is relevant if we are thinking about the

pass-on of fixed costs, or costs that are treated by merchants as fixed. When it comes to a variable cost, my expectation is that a small variable cost would be passed on at the same rate as a large variable cost, and that is because the variable cost will be just put into the profit-maximising calculus that the firm needs to do, and that will predict the level of pass-on determined by the market conditions.

PROFESSOR WATERSON: Can I raise a point here, because this was something that I noticed in the hot-tub. You said something more or less exactly the same to what you have just said. We can go to that, if you want. That was on {Day5/101:12}.

So you say here, line 15:

"Okay, so I have thought about this in the context of whether the merchants would have treated MSCs as a variable cost and their price setting as a fixed cost. When I --"

Then if we carry on down:

"If it is a variable cost, my position is very similar to Mr Holt's. I suspect most variable costs can be used as a relevant proxy. COGS, for example, so long as it is permanent ..."

So on.

A. Yes.

PROFESSOR WATERSON: But then earlier today, this is on [draft] page 93 today, at line 12, you say:

"So, actually, I am not saying anything at all in my framework about what one would expect for a large cost change. What I am trying to do is to think about the relevant theory as it applies to a cost which has the same nature as the MSC."

So, I mean, of course I appreciate that you cannot read a verbal discussion like a deed, in the sort of way that a lawyer would read it, at least as I understand it. But there seems to be an assumption here that the effect will be the same, whether it is a large variable cost or a small variable cost.

A. Yes, that is a very good noticing. So I have assumed, all else equal, in thinking about the pass-on of a variable cost, then I would expect a small variable cost to be passed on at the same rate as a larger variable cost, but I am making the assumption that all else is equal.

In this discussion which you have just taken us to from earlier, that is not all else equal. That is assuming that there is a curvature of the demand that might become relevant when thinking about a larger cost change.

PROFESSOR WATERSON: Or even a straight line demand curve?

A. Yes, yes. So that could create a difference.
What I have said elsewhere is these points about the curvature of demand, and, in particular, I have talked about in my report where you have convex demands and then the potential for overshifting, I have said -- and I think I would expect that to happen in a sort of limited set of circumstances. So I would not expect it to be something that I see across many markets, and I gave the example of the customer buying alcohol as an example of that.
PROFESSOR WATERSON: Yes. But with concave demand, you would expect the opposite?
A. With concave demand, you would expect opposite. So that could be feature, and what I do not know is quite how many markets are sort of subject to concave demand. I think what it would mean is to the extent that my empirical estimates are picking up some concavity in demand, it may mean that the extent of pass-on that I am estimating there is lower than that which I would expect for the MSC.
PROFESSOR WATERSON: But in the case of a convex demand curve ...
A. It will be the opposite.
PROFESSOR WATERSON: It will be opposite. If the price were to fall, you would expect a different reaction?

A. Yes.
PROFESSOR WATERSON: From a price rise?
A. Yes.
MR TIDSWELL: Can I ask you a slightly different question. I am not sure whether we are in the real world or the theoretical world.
MR WOOLFE: We are dancing between the two.
MR TIDSWELL: Somewhere in between, but this is really, I think, about the interaction between the two of them. When you say your expectation is that a small variable cost will be passed on in the same way as a large variable cost, because the variable cost will just be put into the profit-maximising calculus, is that a theoretical point or a real world point? In other words, are you expecting that a firm will identify every small variable cost and put it into their profit-maximising calculus, or are you just saying that on the assumption they did that, it would have that effect?
A. I think the latter. This comes to sort of the reading that I have made of Mr Harman's report and of the factual evidence. My view is that if the merchant has gone to the trouble of recognising that MSC costs are variable, and they have the ability to monitor those costs, and it might well be in a bucket of other costs,

but if they have the ability to monitor that and they do monitor it, and then they have some process which enables them to change prices off the back of it, then my assumption is it is more likely than not that they would factor the change in an MSC into their profit-maximising calculus. But they may not do that, because they may not even get to the -- they may just think: it is too small for me as a merchant to pay attention to when trying to fine-tune my pricing. They might think: I am not fine-tuning my pricing to this extent. It is very small. I will, to all intents and purposes, treat it like a fixed cost.

MR TIDSWELL: So -- sorry.

THE CHAIRMAN: I think we should probably let Mr Woolfe carry on with his cross-examination.

MR WOOLFE: I am happy for questions to be taken now, or indeed you can ask them at the end of the witness, once all cross-examination is finished, but there are some points I will come to which may enlighten this. We are moving gradually towards the real world and, as we do, some of the (inaudible) may become clearer. I am happy either for you to ask questions now or ...

MR TIDSWELL: I think you went a bit further than I was intending towards the real world.

A. Sorry.

MR TIDSWELL: But I think -- I just want to be very clear about your advancing that proposition about taking into account as a matter of economic theory, and you recognise that there may be lots of reasons why one would depart from it, both in an immediate profit maximisation exercise, and in what has been described as sort of the indirect or other means of taking it into account.

There are other ways -- there are various ways in which it could be taken into account, and I do not want to get into those, because I will let Mr Woolfe get to those, but I just want to be clear, before we get to that, that you were just assuming that they are being taken into account?

A. I think that that is right. So if the firm recognises that they are variable, then putting them into the profit-maximising calculus would lead to pass-on in the same way for a small cost as it would for a large cost, all else equal, to pick up Professor Waterson's point, and then the question is your point about this implicit mechanism or whatever we call it.

My view is that if the firm through that mechanism realises that it is a variable cost and can monitor it, then that would have the same effect as under the theoretical -- I would apply my insights from economic theory to that in forming my view of the expected pass-on rate.

MR TIDSWELL: That is the bit we will leave to Mr Woolfe to get to. Thank you, that is helpful.

MR WOOLFE: Okay. Now, the -- where was I? I think 4.80. So I think we have -- sorry, I am going to deal with studies for a second. You say in your report there is an absence of studies estimating pass-on for fixed costs, I think. Can we go back to page {RC-F/14/71}, paragraph 40. This is the start of the summary of your conclusions from your review of existing studies. So not public data, but studies.

A. Yes.

Q. Your first point is, you say that these can only potentially inform an assessment of pass-on rates in relation to certain sectors and types of costs.

If we just look back to the previous page {RC-F/14/70}, there is a chart in the middle. Can we zoom in on the chart. This sets out in broad terms the distribution of the studies that you have reviewed by the area or sector or sectors that they relate to and by geography. So the red bars, as I understand it, are UK studies, the dark blue bars are non-UK studies. So what we can see is quite a lot of UK studies for alcohol and tobacco, it is a multi-sector, a couple of fuel, and one food and drink. Other than that, all the other studies are all non-UK, and that is the reason you give for putting limited reliance on this.

I want to zero in on the studies looking at costs that are fixed or semi-fixed. If we go back to page 71, please, paragraph 4.40, sub (c) {RC-F/14/71}:

"There are just three studies that investigate the pass-on of costs that might be considered to be fixed, or at least semi-fixed in the sense that they may not vary one-to-one with changes in sale volumes."

You refer to one about the minimum wage in the UK, one about the minimum wage in the US, and then one estimating the pass-on of upstream costs:

"... semi-fixed (eg licence fees) to retail tariffs in the German electricity market."

So of those, the wage costs you refer to, the two studies there, those costs are broadly variable with a scale of a business, are they not? Or wage costs can be variable with the scale of a business?

A. I mean, they can be.

Q. But if you are looking at the minimum wage in the UK as a whole, then the minimum wage will be more semi-fixed than fixed, will it not?

A. I would not want to make too many statements in general about ... So this would be -- well, this was minimum

wage -- let us just check. In the UK -- I mean, it is a very general study, is the point that I would make.
Q. Yes.
A. So it is looking at the effect on prices in sectors where the minimum wage makes up a substantial share of total costs. Now, it could be that there are elements of those wage costs which are variable, but there may also be elements that are fixed.
Q. Then looking at the last(?) part, which is studies in variable costs, can we go to page 66, please, and to a table {RC-F/14/66}. Are we able to rotate it? Ah, you have done it.
This is a table that spans over four pages, setting out the studies reviewed. As I understand it, the left-hand column identifies the cost type, and then you have grouped together the studies based on UK data in the first column, and studies based on --
A. Yes.
Q. A very helpful summary, if I may say so.
So your first category identifies studies that deal with the changes in VAT rates affecting multiple sectors. You identify various studies, both in the UK and non-UK. Changes in VAT rates are much larger than the average size of the MIF we are considering, is it not?

A. Yes, somewhat larger.
Q. Well, if we look, for example, at the 13-month reduction in VAT, so on page 66 {RC-F/14/66}, from 17.5% to 15%, that is a 2.5% fall?
A. Yes.
Q. That is ten times bigger than the size of the MIF?
A. Yes.
Q. They are much more visible as well, are they not?
A. Yes, I would say so. If you mean to consumers?
Q. To consumers, yes, I meant to consumers specifically, yes.
Also they are very -- firms know that everybody is subject to the same rate of VAT, do they not?
A. Well, not all firms are subject to VAT.
Q. No. But thinking about what you were saying before, it matters in -- your close competitors, what they are doing. Thinking about restaurants, for example, that produce -- that pay VAT, or, rather, they charge their customers VAT, and they know that all their competitors -- unless the little corner restaurant, maybe not -- will all be charging VAT as well, whereas with an MSC change each restaurant is not necessarily going to know what MSC its competitor down the road is being charged?
A. I think that comes back to what we were discussing

earlier about the expectations that merchants have, given the customers that they serve.

Q. Your next category on page 67 {RC-F/14/67} is:

"Changes in taxes (eg VAT and/or excise duties) that have applied to specific products or sectors."

There are six studies that you looked at in the UK relating to the retail price of tobacco and alcohol in the UK. I think you probably hinted at this already, but the elasticity of demand for tobacco is not exactly typical of the elasticity of demand for a wide range of other products, is it?

A. I think that is probably right.

Q. Again, those tax rises are very visible, are they not, even if they are sector specific?

Then we have the last column -- last row, rather, which breaks on page 68 to 69, and that is:

"Analysis of the impact of upstream costs."

{RC-F/14/68-69}.

In terms of UK studies, you identify just two, I think, on pass-on of oil costs into the retail price for automotive fuel in the UK, one from the OFT, and an academic one.

The automated fuel industry is a low margin industry, is it not?

A. I do not know the details.

Q. No. But as a matter of your general understanding as an economist, would you expect the automated fuel industry to be fairly low margin?
A. I do not know.
Q. There is also a change to a very direct cost of sale for those businesses, is it not? If oil price changes, that is a very direct pass-through into the real cost of what they put in the pumps?
A. I would say that cost change relates to an important cost component faced by those businesses.
Q. It is an important and truly marginal cost component of (inaudible)?
A. Yes.
Q. Okay. Then over the page, you have one study that assesses the pass-on of the minimum wage on to the prices of UK goods and services. I think -- is that one of the ones we have already covered that was treated as -- you treated as a fixed cost example? {RC-F/14/69}
A. I have said it is likely to be semi-fixed.
Q. Okay. Then in the right-hand column of the same row, non-UK studies, looked at -- so you have to go back to the previous page, please -- pass-on of changes in fuel cost to the retail price of air travel in the US. Again, that is a very direct cost, is it not, of providing the service?

A. I would say it is a variable cost, yes.
Q. Then you have -- there are three studies that estimate pass-on of wholesale costs in carbon prices to electricity and road fuel retail prices. I think I have probably already made the point.
So can I take you back to your report at page 84 {RC-F/14/84} in the same document. We have already looked at these. I am just going to put a quick one to you, which is actually when you point out all the problems with the studies and the public data, you do not take very much at all from the empirical evidence, do you?
A. So from the existing studies, what I take is that to the extent that they are able to provide estimates of the pass-on of variable costs incurred by firms, they tend to support the view that pass-on will occur to a relatively high degree, and there is a lot of variation in those estimates, but to the extent that there is a clustering of estimates, it would be in the range 70 to 100%, and I think that is fairly consistent with what Mr Holt and Mr Coombs have found over their review of a wider set of studies, which bring in more papers from different jurisdictions.
Q. I suggest to you that you have a set of studies which relate to the pass-on of direct and quite large cost

items?

A. Yes, I would agree with that.

Q. So the applicability problem that you refer to, as to whether or not these actually have only relevance to MSCs, is quite real, is it not?

A. So I would not say that the applicability problem arises in the way that you describe. So this comes back to, all else equal, I would expect a smaller cost, like the MSC, if treated as variable, to be passed on to the same extent as a larger cost. So, therefore, to the extent that these studies are looking at the pass-on of large costs, then I do not see that as a problem in terms of being able to take insights from these studies.

What I have said is they are actually quite narrowly focused in a certain set of sectors, and that is one of the applicability issues. I think another applicability issue is that, for some, I think that they do not necessarily relate only to the pass-on of costs from the merchants to consumers, but they may also relate to the pass-on of a tax throughout a whole supply chain. So they do not take into account, for example, that upstream producers, in the knowledge of the price change -- of the cost change, or tax change, rather, will change their prices to the merchants. So I think those are some other applicability issues.

Another one is in relation to the studies, that often they report elasticity estimates only, and then one is left with: how do I interpret that in terms of the pass-on estimate?

So I think that is my view on the applicability of the existing studies.

In relation to the public data, there is a different set of problems with the public data, and we have discussed quite a few of them in the hot-tub. Again, what I would observe is that where it is possible to get a reasonably good match between the price indices and the cost indices, it is possible to get estimates of pass-on. Now, these have some instability, and when you change the assumptions, the number -- the pass-on estimates change, but overall they do indicate that for variable costs, pass-on occurs to a large extent -- to a high degree, and I think in relation to the public data, my analyses for the, well, six sectors for which I can get reliable results, it might be five, point to pass-on between sort of 80% and 110%, and I do think that that level of insight can be taken from the public data.

Now, it is not very precise, it is quite a broad range, and I certainly do not think one can identify sector-specific estimates, but I do not think that nothing can be gained from a review of public data or the existing studies.

MR WOOLFE: Sir, I note the time. I have come to the end of public studies, I am now moving to the factual evidence. There is a chunk at the start of that which is about Ms Webster's methodology in general and work with Mr Harman, which can be in public. Then I come to the individual document-producing claimants, at which point it will be easier to move into private. For some of them actually there is not that much, but for some there is quite a bit.

Before we --

THE CHAIRMAN: Shall we have the break now?

MR WOOLFE: Before we do, however, I produced a one-page document which I provided late last night to my learned friends, and Ms Webster has seen this morning, which is a table with some references to her conclusions in respect of each document-producing claimant. Ms Webster has had a chance to look at it. It is just paragraph references. Can I hand up some copies for the Tribunal because it may be useful. (Handed)

PROFESSOR WATERSON: While you are doing that.

When you talked about precision in the public studies, there are two sources of imprecision, are there not? One of them is on the elasticity estimates, and the other one, a quite different one, is on the estimate of price relative to cost. So if you think about it, let us say you get an estimate of the elasticity and it is between, say, 0.5 and 0.7 with 95% confidence, and then you get an estimate of the price, the ratio between the cost and the price, which is 2, say, just to make it easy, but it is between 2.5 and 1.5. Then once you apply that to the estimate of the elasticity, you have two sources of error, and you actually have a very wide range of possible estimates within a 95% confidence interval, essentially?

A. Yes, I totally agree, and that applies where the authors of the studies have not themselves done the price-cost ratio calculation, because I think for some studies, where the authors have done that, then that second source of uncertainty is not there in the study.

PROFESSOR WATERSON: But in the public studies it is there by necessity?

A. The public data analysis, yes, absolutely.

PROFESSOR WATERSON: Thank you.

THE CHAIRMAN: Shall we have the break? Right, ten minutes.

(3.15 pm)

(Short Break)

(3.25 pm)

MR WOOLFE: Now, Ms Webster, I am going to ask you some general points about your factual enquiry and how it meshed with that of Mr Harman, and then after that we are going to come to the document-producing claimants, and that is what that table relates to. Have you seen a copy of that and had a chance to look at it?

A. I have.

Q. It is quite high level. It is almost to save me jumping backwards and forwards.

Can we go, please, to {RC-F/14/40}, paragraph 3.30, if we can zoom in on that. That is a bad reference. Can you go over the page, please {RC-F/14/41}. Here we are, yes. So I think can we go back to the start of the previous page and we will read over:

"In particular [the very last sentence on the page], whether merchants in the context of their commercial decision-making treat MSCs in the way that economic theory implies that they should treat variable costs [for which I think you mean variable in respect of the specific pricing decision, which I called marginal but you said variable], or in a manner more akin to how economic theory implies that they should treat fixed costs is a key question, as my expectations based on economic theory regarding the likely extent of cost pass-on will typically differ depending on the answer to this question."

So that is the key question as you see it, is that correct?
A. The question is, yes, how do merchants in practice treat MSC costs?
Q. Well, you actually said that the key question is whether they treat MSCs in the way that economic theory implies that they should treat variable costs. That is what you say. Would you agree that that is key question?
A. Well, it is variable or fixed. I do not think I am specifically saying the key question is how they treat variable -- how they treat -- whether they treat MSCs as a variable.
Q. No, the question you define is whether they treat MSCs, and then there are two options, either in the way that economic theory implies that they should treat variable costs, or in a manner more akin to how economic theory implies they should treat fixed costs. I am reading your own language. This is the key question, yes?
A. Yes.
Q. By "variable costs" here, you mean your definition of variable costs, which is variable with respect to the pricing decision at issue?
A. Yes.
Q. Which is close to what I would call marginal costs?
A. With respect to the costs that vary with the output

change associated with the price change. That is specifically what I mean.

Q. Merchant evidence can show internally whether they did or did not look at certain types of costs; yes?

A. So I think, in theory, the merchant evidence should be able to inform that question.

Q. But economic theory does not make any prediction -- I think we covered that merchants will or will not look at costs in certain ways. It is making a more abstract point about firms' incentives, is it not?

A. The economic theory tells us that if the merchants behaved in the manner described by economic theory to maximise their profits, then economic theory tells us that this is what they would do.

Q. In terms of how you went about answering this question, you relied upon the work of Mr Harman for this?

A. That is right.

Q. If we go to page 12 {RC-F/14/12}, paragraph 2.13, you say:

"Economic theory is unable to provide insight as to how merchants treat MSC costs in practice. How merchants treat MSC costs in practice is instead a factual question, and I am instructed that I may draw on Mr Harman's view of the factual evidence provided ..."

Just to note there, how merchants treat MSC costs is a different and broader question than specifically what you define as the key question of do they treat them in the way that economic theory predicts that they should treat variable costs, is it not?

A. So what I have done, when looking at the fact -- well, looking at Mr Harman's analysis of the factual evidence, I have focused very specifically on what I can understand from Mr Harman's report about that key question that we discussed a moment ago, which is whether it is more likely than not that merchants treated MSCs as a variable, in the way that economic theory would predict for a variable cost versus for a fixed cost.

Q. Can we look at what Mr Harman actually did. If we go to {RC-F/13/8}, within Mr Harman's first report. Paragraph 1.3.1 sets out his instructions, and specifically:

"I have been instructed [to] ..."

There are actually four points, and the fourth one is over the page and we will come to it.

The first point is to:

"Review the qualitative evidence produced by the document producing claimants and analyse their budgeting and price setting approaches and principles, with a view to identifying the mechanisms (if any) by which MSCs are likely to have influenced pricing."

So that is a broad look at mechanisms, is it not?

A. Yes.

Q. Then his point (II) is to consider, in his view:

"... to what extent their prices directly reflected the MSCs charged, either explicitly or implicitly."

So that would be for explicit or implicit channels of pass-on, is that correct?

A. Yes.

Q. Point (III) is about supplier pass-on, which we will leave to one side. Then point (IV) is to form an opinion -- his opinion -- on how the document-producing claimants are likely to have responded.

So it is really the first two points of that that might be relevant to your analysis, is that correct?

A. Yes.

Q. But whether or not there is a mechanism by which a merchant may have looked at MSCs, or if there is some implicit channel in the business through targets which may have included MSCs in some way, none of that in itself tells you whether a claimant is likely to have treated the MSCs, to use your phrase, in the way that economic theory predicts that they should treat a variable cost in the specific sense that you identify?

A. So I am not sure that I would necessarily agree with that. So my view, and I have set this out in my second report, where I had more time to review the evidence described in Mr Harman's report, is that I start from the assumption that -- or, sorry, it is not an assumption. I start from the observation that MSC costs will have been variable for merchants, not at the level of the individual product but at the level of the sort of overall level of transactions. So they are a cost that varies with the amount that a merchant sells. So in theory one would expect a merchant, if it is seeking to maximise its profits, to take account of changes in that MSC cost.

Now, they may not do that because of just their practices. It may be too complex for them to be able to do. They may consider it too small to be able to do. I therefore want to see some comfort in the factual evidence that there would have been mechanisms that would have enabled them to spot -- to spot changes in the MSC, recognising their variable nature, and then a link to pricing, so that they could have changed prices as a result.

I think it is fair to say, and I think Mr Harman has said, that the quantity and specificity of the factual evidence has not been as detailed as he might have experienced in other cases, and so there is a lot of uncertainty around this, which is why I have sort of taken economic theory as my starting point, and then thought: what is in the factual evidence that would give me some comfort that merchants would be more likely than not to have treated it as a variable cost? I am not saying it is proof that they would have done, but it gives me comfort that it is more likely than not.

Then the things that I have looked for are (i) that these merchants actually have quite a lot -- so here I am talking only about the merchants that do not classify MSCs as COGS, they classify them as overheads. So in relation to those merchants, what I want to understand is: is there evidence that actually they have quite a lot of overheads that are actually genuinely variable in nature, because if that is the case, then my view is it would be surprising if that merchant did not choose to recognise the variable nature of those costs and factor them into their price setting. Because if they do not, they will move potentially further and further away from profit-maximising pricing in response to changes in those costs. So that was first criterion.

Then I looked specifically -- sorry, Mr Harman has some evidence --

Q. We are going to come to (a) your discussion of the individual document-producing claimants, but also the producer/reseller distinction, which is -- that we have just described, so we are going to come on to that later.

A. No, no, I am not on -- that was not what I was talking about.

The second thing -- because this is all about where costs are classified as an overhead, but it may nevertheless be the case that there are merchants that have mechanisms which monitor those costs or cost buckets that include MSC, or margin targets which are calculated net of MSC costs, and that there is a process of monitoring that and prices being changed as a result, and, for me, it is that element that Mr Harman has focused on, and the link between monitoring of either costs or margins, and then a link to pricing, which I think does have the ability to inform the very narrow question which I have in relation to the factual evidence.

Q. Okay. We are going to work through this in stages. The first point is this: I think you have shifted between meanings of variable, because in your theoretical section of your report you were very specific. You mean variable with respect to a further unit of production or variable with respect to the price change at issue. But when you started discussing at the start of your answer to the Tribunal a few moments ago what you meant by variable, in that context you said the cost would vary broadly with the scale of the business. That was not the exact words, but something along those lines that you said. You said that these are costs that scale as the business gets larger.

A. Well, if I did say that --

Q. So those are -- you have shifted between two meanings of the word "variable", have you not?

A. Well, I do not think that I said the second thing that you said I --

Q. (Overspeaking) You said varies with the amount they sell, I think you said.

A. Well, yes, sorry, in the sense that if I were to change my prices, let us say I am talking about transport costs, for example, freight, so I have changed my price, I am able to sell more, I therefore have an increased demand for freight, so the freight costs go up with the volume that I sell, and that might well be with the volume that I sell in response to a price change. So I would see freight, for example, as a good example of a variable cost that is probably classified for many as an overhead, but nevertheless is a variable cost, varying with the quantities of output change in response to price.

Q. I think it will be most easy to see how this plays out when we come to look at specifically how you look at Mr Harman's work in respect of specific claimants. If we -- now, within the same -- go to page 29, please {RC-F/13/29} in Mr Harman's report.

He says, in paragraph 3.3.1, economic theory provides relevant context for his assessment. Then he sets out some theoretical considerations as summarised by Ms Webster and he refers to what you say.

Then it breaks across the bottom of the page and says:

"... it is a factual question whether merchants treated MSCs as ad valorem costs in their price setting processes in the way implied by economic theory and whether their price setting processes were sufficiently precisely calibrated for the effect to be material [for the ad valorem nature]."

He goes on to say:

"However, that does not mean that the document producing claimants necessarily treated the actual MSCs in the manner that economic theory implies for ad valorem costs for the purposes of setting prices or that their price setting processes were sufficiently precisely calibrated ..."

Okay. So Mr Harman says he is looking for evidence that the document-producing claimants treated MSCs in the manner that economic theory implies for variable costs, or, here, ad valorem costs specifically. But you are not suggesting, are you, that a merchant would sit down and write out its profit-maximising function, writing down its MSC costs as being a function of prices and volumes, do some sort of calculation, differentiation, whatever it may be, and solve that equation to produce its price; that is not how people work in the real world, is it?

A. No. So the way that I would see it operating is -- so we will stick in this world where the MSC is classified as an overhead. So a firm that is monitoring its overheads can be monitoring its costs or it could be monitoring its EBITDA margin. It might observe, let us say, following, say, an increase in the MSC, it might observe that its targets are missed or that the budget it set itself for costs was exceeded, and then, as a result of that, it would think: well, I will earn less money.

So I have paid attention to this, and then I have looked at the source of the cost change, and then if it were to observe that the source of the cost change is actually a cost which is a variable cost, and it is a cost that it knows or it suspects its closest rivals will also be facing, then that would give that firm comfort in increasing prices by an amount sort of that may be relatively close to the size of the cost change, if we believe the sort of high pass-on of variable costs. I am saying that the firm would have some comfort in moving its prices upwards in response to having observed the source of the inflated costs and/or poor performance against its EBITDA target.

THE CHAIRMAN: Why could that not similarly apply to an increase in a fixed cost?

A. Oh, because if it saw the increase in a fixed cost, it would not -- it cannot make any more money by passing on that fixed cost. So the most amount of money that it can make is by setting its price in this profit-maximising trade-off with respect to variable costs. This is the point about the fixed cost does not enter into the profit-maximising price calculation.

MR WOOLFE: So am I right to understand, Ms Webster, that on your account, this would differ depending upon whether the merchant, having noted a cost -- having noted its cost increase in some sense, tracked down and subjectively realised that the cost increase in question was a cost that would vary by reference to the pricing decision it was going to make?

A. Yes.
Q. Okay. Now --
A. So in the same way as it might for labour costs or for freight or other variable costs which are equally categorised in overheads.
Q. Now, what Mr Harman does is something that is quite a lot broader than that, is it not? If we go to page 37 of this document, paragraph 3.5.7 {RC-F/13/37}.
"Based on my understanding of each claimant's price setting process, I consider to what extent the document producing claimants' prices directly reflected the actual MSCs, either explicitly or implicitly."
Then:
"That is, I consider the extent to which the actual MSCs (i) are explicitly considered in the document producing claimants' price-setting process ..."
So explicit consideration is one thing.
"... or implicitly affected the document producing claimants' prices through their budgeting and performance-monitoring processes."
I suggest to you that what you are talking about sounds like explicit consideration?
A. No. Well, I think that I am referring to the implicit mechanism, because I have talked about a merchant that has categorised the MSC in overheads, but it

nevertheless might have a budgeting process for the costs that it is willing to incur in those overhead categories. You know, some of the merchants that we are talking about, I think one of them has an expense ratio. That is a way of measuring costs and tracking how the business is performing against those costs. Or it might be in this EBITDA margin monitoring, which would be the performance monitoring process that Mr --
Q. (Overspeaking) -- methodology, though. Because at 3.5.8 he refers to explicit consideration, assessing the cost category, in particular through the category of variable or fixed, and whether this category flows explicitly into the claimants' price setting. So that is one that you say is not what we are talking about?
A. Yes.
Q. 3.5.9:
"Second, I consider whether the MSCs implicitly affected the document producing claimants' prices, even if the claimants did not explicitly consider the actual MSCs in their price setting."
So his implicit consideration is talking about a situation where the claimants did not explicitly identify the MSCs in their pricing?
A. No, I do not think the mechanism that I described requires the merchants -- the people setting prices in

the merchants to have had awareness of the MSC. It requires the business as a whole to have identified that there has been a change in costs and/or a reduction in margin which is triggered by a change in a variable cost, and that could be the cost bucket that includes the MSCs.

Q. But that is an important additional step. They have to identify there has been a change in cost, which is a change in variable costs?

A. In order -- my hypothesis is that in order for it to then have featured in price setting, that would be the case. It would want to take account of the fact that it is a variable cost, and therefore relevant to include it in the profit-maximising calculation.

Q. But looking at the end of 3.5.9, where he says, assessing competitors' prices, budgeting and performance monitoring processes, and then this:

"If the claimants set their prices to meet specific performance targets on metrics that were affected by the actual MSCs (such as ... ('EBITDA') or operating profits), any variation in the actual MSCs would implicitly affect prices."

But changes in a whole load of fixed costs could affect EBITDA. So merely the fact that people are monitoring EBITDA would not be enough, on your hypothesis. They would also have to be doing a further step of subjectively identifying the MSCs that have made the difference as being a variable cost. That is right, is it not?

A. Part of -- I agree with part of what you have said, which is I do not think it is enough that a merchant just tracks EBITDA, and then sees that they are not making their EBITDA margin and then takes action on prices, because, as you say, whether an EBITDA margin is met or not will be a function of both the variable cost and the fixed cost.

So I do think it would be necessary in the factual evidence to see some recognition that the merchants look at a more granular level and specifically identify -- have the capability to identify variable elements of overheads as distinct from fixed.

Q. Okay. Can we go to how you have used Mr Harman's work. Can we go to your first report. I am going to come to your second report, where I appreciate things do change, hence the point of the table.

A. Yes.

Q. So {RC-F/14/85}, please. Section 5.2, you have your approach to applying the available evidence to the claims, and you say this. You draw upon (a) your theoretical insights from section 3, and (b) Mr Harman's conclusions. We covered the fact that theoretical insights, those vary depending on whether or not the MSCs are, to use your language, "variable with respect to the pricing decision", I would say marginal.

Then Mr Harman's conclusions, you say, which you used to identify -- you used Mr Harman's conclusions, at the end of paragraph (b):

"... to identify the relevant insights from economic theory to apply to MSC ... pass-on for different merchants ..."

Then empirical analysis.

So you are using him to decide which box to put claimants into, effectively?

A. So I am using the description that he provides of the evidence from the merchants, and I am using that as an input into my conclusions.

Q. But specifically what you have done, I think, is construct your base case now of 70 to 100% pass-on based on some looking at theory, some looking at empirical evidence; you have constructed that as one scenario?

A. Yes.

Q. You have constructed a scenario of people treating it as fixed costs as another scenario, and you have constructed a non-profit-maximising claimant scenario as another scenario. I think those are your three buckets, as it were, and what you are doing is looking at Mr Harman to say, with this claimant, which of those buckets am I going to put them into? Is that a fair summary?

A. Yes. There is a fourth scenario, which I also included, which is that merchants recognise the ad valorem nature of MSCs, to the extent that that is the case and what they faced, and then takes that -- that ad valorem nature of the MSC into account in price setting, and I note that that would really only have a material impact on the extent of pass-on where a merchant is operating in a particularly high fixed cost/high variable margin scenario.

In practice, I think, as Mr Harman acknowledges in the paragraph that you showed us earlier, in practice, he has not got any evidence from the factual evidence that would tell us that merchants are treating --

Q. You say there is a fourth unused bucket?

A. Exactly.

Q. In terms of the role of Mr Harman's evidence -- sorry, just to be really clear -- you are using that to decide, of the three remaining buckets, which of those do I put each claimant into?

A. Not exactly, because I do not think that he comments on the non-profit maximising bucket that I have created.

Q. Okay.
A. So really it is the distinction between whether the merchant treated the MSC as a variable cost for price setting or as for a fixed cost.
Q. Right. But you are using that, then, to decide, going into two buckets, which of the two buckets you put them into. Thank you.
Okay. So page 93, please, in the same document, 5.28 {RC-F/14/93}. So you are -- this includes your four categories. The first one is those who categorise MSC costs from an accounting perspective within a variable cost category and explicitly take account of these costs when setting prices. On the basis of Mr Harman's report, you put Sony and Travix in that category, in that bucket?
A. Yes.
Q. This categorisation does depend, at least in part, does it not, on how the claimants classified the MIFs from an accounting perspective, does it not?
A. It does in relation to these two claimants, yes.
Q. Then a second category, which I think is more people at this stage, is those claimants who categorise MSCs from an accounting perspective in an overhead cost category:
"... but where Mr Harman has identified, with varying degrees of confidence, that they have

established mechanisms through their budgeting and target setting process through which he has concluded MSCs are either like to or may, depending on the claimant and the evidence available to him, have implicitly been reflected in [pricing]."

So this is about implicit mechanisms, this group, is it not?

A. Yes.

Q. You go on to say the picture is incomplete, and you say:

"... I cannot reach a [conclusion] as to whether four out of five of these claimants treat MSCs in a manner that economic theory would imply for a variable cost ..."

So can we just look briefly at -- you say four to five but you do not name them. But in terms of -- if you can look at the table which I gave to you before, the table which I handed up, that one.

A. I do not have one.

Q. I am so sorry.

A. I have listed who those claimants are at the bottom of that paragraph (b), if that is helpful.

Q. Ah, well, the thing is you actually list five claimants there, Allianz ABSL, Primark, M&S, Holland & Barrett and University of Manchester. Those are claimants I think categorise -- there are five claimants who categorise it as overhead, I think, and for whom Mr Harman has said this stuff is unclear, but then what you do not do here is say which four out of five treat the MSCs in the -- you cannot make up your mind.

As I understand it, what actually happened was you treated University of Manchester on your own analysis as being non-profit maximising?

A. Yes.

Q. In fact, all of the remaining four you were concluding at this stage that things were not clear. Is that correct?

A. I think that is correct, but then the claimant that is mentioned in the very last sentence, I think I am clear in relation to that one.

Q. Yes, I think we can give the names, this is not marked as confidential. So there is a distinction between Allianz ABSL, which I think that is the broker?

A. Yes.

Q. LVIC/Fairmead is the underwriter?

A. That is right.

Q. You treat them as different -- hence separated them out in the table?

A. Yes.

Q. But in terms of the -- I think the four out of five you are saying where things were unclear were Allianz ABSL, the broker, Holland & Barrett, M&S and Primark, I believe?

A. Yes, that is right.

Q. Thank you.

I want to suggest this to you: with these merchants, even if you had found clear documentary evidence of an implicit mechanism, such as an EBITDA margin target, the mere fact that there is some sort of mechanism like that, by which a broad measure of profitability may be looked at by thinking about prices, that does not mean that the merchants are treating any given cost within the business in the way that a marginal cost is predicted to be treated in economic theory?

A. So I think I am quite clear in this report, and also in my reply report, that the existence of EBITDA monitoring on its own is not enough. So I would agree with that.

Q. The mere existence of something like EBITDA monitoring would not be sufficient to conclude that the merchant would be passing on a cost at a 70 to 100% level, would it?

A. So in terms of how I am using this evidence, I am not using any of this evidence to make a commentary on the likely rate of pass-on, I am simply using the evidence to say: is it more likely than not that the merchant treated MSCs as a variable cost for price setting or as

for a fixed cost? The rate comes --
Q. (Overspeaking) -- your 70 to 100% you have constructed as part of the bucket, and then this is purely about whether or not to put the claimant in the bucket?
A. Yes.
Q. Okay. Then just for the Tribunal's note, the other two categories, I think, are set out over the page, fixed costs and -- sorry, the fourth category here was actually not non-profit-maximising. It is those where Mr Harman could not form a view at all, I think.
THE CHAIRMAN: Just so I understand. In category B that we have just been looking at, Mr Harman himself did not separate out fixed costs and variable costs. He was not saying whether it was treated as a variable or fixed cost, was he?
A. No. He was saying --
THE CHAIRMAN: He was just saying it would have been taken account of in the budgetary process?
A. Yes.
Q. But you are distinguishing?
A. Yes, and that is because sort of coming at this as an economist, I have a prior that the level of pass-on would have been different depending on how the merchant treated MSCs, and I think the level of pass-on could really be quite different, 70 to 100 in the case of

variable costs pass-on, versus low in the case of fixed cost pass-on. I am really wanting to understand from this factual evidence which is more likely to be relevant.

MR WOOLFE: I think (inaudible), Ms Webster, because I was trying to trace through the theory and how it is put all put together. This is the nature of having things spread across two reports and the times they were produced. You do deal with, in a sense, your evolving views in your reply report.

A. Yes.

Q. So if we go to that now {RC-G/12/52}, paragraph 4.24 at the bottom of the page. Perhaps if we go -- can you zoom out again for a moment, sorry. Forgive me a moment, sir. (Pause)

Can we go to page 51, please {RC-G/12/51}, paragraph 4.19, so just before where we were before. You say:

"With the benefit of additional time to consider Mr Harman's first report and the further factual evidence that has been provided, I have re-assessed whether I am able to update my conclusions or reach firmer conclusions."

4.20:

"I consider this to be an important assessment to make at this stage since it seems likely that only limited factual evidence will be disclosed."

You say you are:

"... conscious it would be of more assistance to the Tribunal if I were to express a view, where possible, on the basis of the evidence that is presently available to me, rather than waiting for better evidence to be disclosed in due course."

Looking at that, there seem to be three factors pushing you to consider changing your view, one of which is you had more time to consider Mr Harman's work; the second of which is further factual evidence, and the third of which is essentially that -- I do not mean this pejoratively but I cannot think of a better way of putting it. You have decided that given -- in the absence of better evidence coming out, now is the time to get off the fence, in the sense of: if I have to jump, I should now jump?

A. Yes.

Q. So there are three separate things going on, and I do not mean any pejorative sense in that.

Okay. Can we now go to 4.24 which is on page 52, so on the next page {RC-G/12/52}. With this sort of shift in stance, you say:

"Where merchants account for MSC costs as overheads, the question is whether they are likely to set prices taking MSCs into account, or would take them into account if MSCs were to change."

You say:

"I consider it more likely that merchants will choose to take MSCs into account in their pricing decisions if the factual evidence shows some of the following ..."

We will pause. We will go over the page and see the three things but, before we do, the question you set yourself here is a different question to the one you set yourself in your first report. The question you set yourself in your first report, in paragraph 3.30 of your first report, was whether the merchant would treat MSCs in the manner that economic theory would predict for a variable cost, whereas here you have shifted, simply asking whether they are likely to set prices taking MSCs into account. That is a different question, is it not, Ms Webster?

A. It was not intended to be a different question. So here, when I am thinking about whether they were setting prices taking MSCs into account, I am setting myself the question of: do I think it is more likely than not that they would have treated MSCs as a variable cost? So in practice, that was the question that I was seeking to

answer in both cases.
Q. Okay. Well, I am going to suggest that it is a rather vaguer question but we will look at the points you say are potentially relevant. So you say things that could push you to reach a different view:
"... if the factual evidence shows some of the following ..."
Go to the next page, please. {RC-G/12/53}
Point (a), (b) and (c). The first one is if a material proportion of the costs that a merchant accounts for are variable in nature. I think you mentioned this one already today?
A. Yes.
Q. You say you would expect a profit-maximising merchant to be looking for ways in which to identify changes in such overhead costs. So this is a merchant who has a lot of variable overheads.
So I understand you are trying to infer from the fact that a merchant has a large proportion of variable overhead costs that they will be more driven to treat the MSC as a variable cost. Is that correct?
A. I think that would probably be going too far. I think what I am pointing out is it would be relevant for such merchants to have processes that enable them to identify changes in the variable costs that are included in the

overhead category, and if they have processes which enable them to do so, I consider it is therefore more likely that those processes would be there in order to identify changes in MSC costs which are also variable costs categorised as overheads, but -- so it is a facilitating factor, is how I would think of it.

If, alternatively, for example, the MSC was categorised as an overhead, and all of the other overheads that a firm faced were fixed, I would consider it much less likely that the firm would go to the trouble of monitoring what is happening with MSC costs specifically in the overhead bucket and take that into account in pricing.

Q. But simply because a merchant is looking at its big variable overheads does not mean that it is going to be looking at its small variable overheads, does it?

A. I think it means that it has processes in place which mean that it can look distinctly at different types of overheads and then make a decision as to whether to pass them on. So it does not mean, I agree, that it would necessarily be doing that for an MSC, but I think it makes it more likely.

Q. But if we are looking, for instance, at a recent period of quite high inflation and quite high wage inflation in this country, if in that context a business looks at a large increase in its labour costs as being a big part of its variable overheads, that does not mean to say that it would routinely take account of a change in other variable overheads of 0.2% as is the case with MIFs, does it?

A. You see, this is where I think the factual evidence can play a big role, because the factual evidence potentially can inform whether it is -- merchants are, as a matter of course, actually -- well, that they have, as a matter of course, a set of variable costs that are classified as overheads. Because if that is the case as a matter of course, then I would expect as a matter of course that they pay attention to that, and then the question of pass-on is a different one.

Q. Can we look at the second factor you are looking for which you say could lead you to think that they are likely to set prices taking MSCs into account. The second one is this, (b):

"The merchants' approach to pricing decisions involve it monitoring target margins that are net of overhead costs and/or budgets for overhead costs, and the merchant also has a process that allows it to adjust its prices depending on its performance against the target margins and/or cost budgets."

This is Mr Harman's implicit mechanism point?

A. Yes.
Q. But this does not contain the rider that you just added today in oral evidence, that the merchant should also identify that changes in its costs are due to the MSC and take action in respect of those, does it?
A. I do not think it is necessary that it -- forgive me if I have said this earlier, but it could be the case that the cost bucket that includes the MSC has gone up, and let us say that is caused by a change in the MSC. Then a merchant that observes that change in the cost bucket, and understands that that is a change in variable costs --
Q. (Overspeaking) So that is the bit you have added?
A. Yes.
Q. The understanding that the relevant change is a change in variable costs as you understand them. That is not included in your paragraph (b), is it, as stated here?
A. No, but I suppose it both works both ways, does it not? If the merchant understood that that was a cost bucket that was fixed, then I would not expect it to be passed on, so I think it does require for the merchant to understand the nature of the costs that it is facing.
Q. Okay. But in principle, therefore, the factual enquiry does require the merchant to understand the nature of the cost in that sense?

A. Yes.
Q. Merely the fact that they have target margins or EBITDA margins, whatever it may be, purely in the abstract is not enough?
A. No, they need to be able to monitor at a lower level of aggregation and to understand the nature of the cost changes -- sorry, the cost changes affecting what nature of costs. But I think, you know, I listened to the testimony from Mr Harman and his -- the view that I took from that was that that would be quite a normal process in terms of businesses understanding the nature of the costs that they face.
Q. Okay. But that is Mr Harman's general view as to how things are done, rather than specific documentary evidence?
A. Sorry, I am not relying on that. I set out what I am relying on in my report.
Q. Okay. Then third:
"Ideally, practical examples of changes in certain costs which are categorised as overheads triggering changes in the merchant's prices ..."
Say it is a low priority, given the disclosure process that has taken place, and it would describe specific instances, rather than explaining the more general mechanism?

A. So what I have seen in the -- in Mr Harman's assessment of the evidence is that there are some examples of that, but there are relatively few examples of that. In an ideal world I would want to see much more, but this framework has been put together recognising the evidence that is available and --
Q. There is no evidence of that type in relation to MSCs, is there, in this third category?
A. There is evidence that is close to that of a cost bucket that includes the MSCs, which we can perhaps talk about in closed session.
Q. I am going to suggest to you that really between your first report and your second report you have shifted the nature of the factual enquiry that you undertake, so now you are really just looking for any link between buckets of overhead costs and pricing.
A. So I am still answering the same question, which is whether I think it is more likely than not that merchants treated MSCs as a variable cost for price setting, and I am recognising that the evidence that I would ideally wish to rely on to reach that view is not there, and so I am making a judgment on the basis of what is available, also taking account of economic theory and acknowledging that the MSC is a variable cost, one that varies with the number of transactions or

the value of transactions, as discussed.

MR WOOLFE: Sir, I am going to move now to the specific document-producing claimants. I need to do it in closed session. That will take me the rest of today, obviously, and then a little bit of time tomorrow morning.

THE CHAIRMAN: Yes. All right. Can we go into closed session then.

In private

In open court

THE CHAIRMAN: Right.

MR WOOLFE: Thank you, sir.

THE CHAIRMAN: I imagine you have a little bit more to deal with tomorrow?

MR WOOLFE: A little bit more to deal with. On my current estimate, I will be about an hour tomorrow morning.

THE CHAIRMAN: You will be about an hour.

MR WOOLFE: Yes. I think the original timetable had us going two hours into tomorrow, so I will be within that. I mean, in practice I will have taken about the same time as the timetable, probably slightly less, but I started slightly earlier than the timetable said. I think the timetable would have had me starting an hour or so into this morning and then having just under seven hours, so I will be finishing about two and a bit hours into tomorrow, whereas in practice I started this morning and I think I will finish about an hour into tomorrow. I am within my estimate and we are coming still under time.

THE CHAIRMAN: We did disrupt your flow a little bit.

MR WOOLFE: If it is useful to the Tribunal.

THE CHAIRMAN: Yes. So, well, the only question is do we need to sit early or not? Probably not, I imagine.

MR WOOLFE: I do not think so from my point of view, but obviously I will be sitting down at some point tomorrow morning.

THE CHAIRMAN: Yes. Well, it is only really Merricks, whether you are going to get through it in the time by Thursday evening?

MR WILLIAMS: It is unfortunately a question more for Mr Simpson. However, my understanding is that there is no expectation to go beyond our allocation and we should be able to fit it this week. The last I heard from Mr Simpson was that that should be capable and we can revisit whether to sit half an hour earlier on the Thursday morning, rather than tomorrow.

THE CHAIRMAN: Yes, all right. No doubt he is beavering away, as we --

PROFESSOR WATERSON: Hopefully.

THE CHAIRMAN: Cutting down his cross-examination.

Anyway, so we will resume at 10.30 tomorrow. The same rules apply: do not discuss it with anybody else. Thank you.

(4.36 pm)

(The hearing adjourned until 10.30 am on Wednesday, 11 December 2024)