A. Yes, I was retained in October, late October 2012.
Q. Did you see the other draft, did you see the 24th July draft?
A. I was on holiday.
Q. Did someone in your team review the 24th July draft?
A. They must have seen -- I would assume so.
Q. Were you involved throughout this process, you or your organisation?
A. We were involved and it would have been my Rotterdam office who would have looked at this survey.
Q. But were you principally responsible for it?
A. I'm always responsible for anything I say in terms of this.
Q. Let's go to D2.1, tab 3, which is your second report --
A. Yes.
Q. -- page 520 --
A. Yes.
Q. -- paragraphs 466 to 467, and table 7.6.
A. Mmm.
Q. My understanding of this is that if we are looking at, in relation to credit, the changes made by Sainsbury's to its cost classifications from its first draft to its final submission, would cause a MIT-MIF calculated on the basis of those costs to decrease by roughly threefold; is that right?

A. This is why I need to explain the actual process. So, whoever -- I think it is Bruce Lessels or the department -- managed to come up with a survey that would have implied 0.31 and 0.29, you see the first email which is 5th July. If they had actually followed their classification in 2010/2011, basically they would have had MDR0062728, and then that 0.18.20 because they failed to actually be consistent and managed to actually get a higher MIT-MIF despite the incentive that you have outlined.
So this is the error that they have made. When I received the 5th July email, I talked to my team and my team looked at the estimate and basically compared it with 2010/2011 and said: they are just not consistent.
So what happened in the end was that they adopted eventually the 2010/11 classification and the rates came down, that is true, and the final submission is 0.09 and 0.11.
Q. So taking table 7.6, the MIT-MIF, comparing the analysis in the first draft with the final submission, the MIT-MIF -- resulting MIT-MIF decreased by roughly threefold, correct?
A. As I say, if you had actually been consistent in Sainsbury's finance department, they should have employed 2010/2011 classification and they would have

had something closer to the 0.118 and 0.20.
Q. But am I right about the rate of decrease --
A. Sorry, let me be very clear, there is a rate of decrease here.
Q. That's also consistent -- I'm not saying this did or didn't happen, but it is also consistent with a merchant categorising cost so as to achieve a lower MIF?
A. If you had had applied the 2010/2011 we actually have a MIT-MIF which is in the particulars of claim, which are in April 2013, which is a MIT-MIF based upon the scenario 1 of 0.04.
MR JUSTICE BARLING: That's the one based on 2010/2011, which you say is the right one?
A. It is but the thing is this is based on the different methodology. The 2010/2011 survey and the particulars of claim were based upon scenario 1, which is one transaction, and I have said I did not like that in my report, I wanted something different and in Deloittes 2011/2012, (a) the survey itself is not the same as 2011 but they have also gone and asked different questions to elicit the avoidable costs over three to four years. So we are talking apples and pears here.
PROFESSOR JOHN BEATH: So MDR0662728 uses scenario 1?
A. No, it uses the 2010/2011 cost classification.
PROFESSOR JOHN BEATH: Under --

A. Under scenario 2.
PROFESSOR JOHN BEATH: Under scenario 2, sorry.
A. But we said "Look, at the start please do this, because you have submitted something to the Commission previously and you have got to have some sort of consistency". It is not that I wanted or I believe, even, Sainsbury's -- I mean they got it horribly wrong, horribly, and that's what I have detailed. And I hasten the add the first expert report is a totally and utterly different exercise because I viewed the final submission, and by the way, I actually -- I should state categorically, I was asked whether they should send this submission in and I said no because I was not happy about some of the supporting evidence. So when -- in June/July 2014 I started the process again, and Professor Beath that is the annex you have seen.
PROFESSOR JOHN BEATH: Yes.
A. I hope the Tribunal sees it is a quantitatively and qualitatively different exercise.
PROFESSOR JOHN BEATH: Right.
MR HOSKINS: In relation to reviewing these drafts, the Sainsbury's drafts, who at Sainsbury's was primarily responsible for dealing with you?
A. David Brooks is head of finance and is still head of that particular department, but I was actually engaged

with Mr Ed Anderson and Ms Kate Botting(?), who are in Sainsbury's legal team.
Q. Was Mr Brooks aware of the function you were performing?
A. Yes, as an independent outside expert. He was made aware that I was not there to try to get any particular figure.
Q. If we go to paragraph 468 of your second report?
A. Yes.
Q. You say:
"Secondly, in my own analysis, I have not relied on Sainsbury's cost classification but I have thoroughly reviewed all cost items and determined how they should be classified."
A. Yes.
Q. If we go still in this report to paragraph 744. It is page 577 --
A. Yes.
Q. -- you see what your results are. The resulting average MIT-MIF is 0.15% for credit cards. That's the figure you get taking the Sainsbury's data but reclassifying it, whether you think it is fixed or variable over the three to four-year period?
A. That is correct. It is my classification. It is fully set out in annex B.
MR JUSTICE BARLING: Sorry, I think I have missed something,

I want to be sure before we leave this topic. When we looked at Dr Niels' report at tab 3 of D3, and we looked at the table which is confidential at page 422, which of those -- because it is so small I'm having trouble reading it -- drafts and scenarios is the one that you eventually -- is it the one dated 24th July 2013 on scenario 2, MDR0062728? Is that the one that represents your final position?
A. It is not my final position.
MR JUSTICE BARLING: No.
A. Let's be very clear, these are emails about a process of filling out the Deloittes 2010/2011 survey that was done in 2013. The eventual one, I think, was -- you are right it is too small -- but I think it was sent -- in fact, late September.
MR JUSTICE BARLING: Yes.
A. I think it is late September. But we don't have a date here. Basically there was confusion as to whether it was actually sent, and apparently it was sent even after I had said it wasn't fit for purpose.
MR JUSTICE BARLING: None of these represent something which you thought was fit to be sent, is that the position?
A. Exactly so.
MR JUSTICE BARLING: Is that the position?
A. Exactly. None of this. That's why I went through the

process which you see in annex B, in the following year.
MR JUSTICE BARLING: Could you just take me -- remind me where annex B is. I'm sorry, Mr Hoskins, I just want for my note to get this right. Where is your annex B?
A. Annex B to the first expert report, so I think it is in --
MR JUSTICE BARLING: D2.
A. This is a weight lifting course.
MR JUSTICE BARLING: I don't know whether this is confidential or not.
MR BREALEY: D2.1.
MR JUSTICE BARLING: It is in D2.1 the annex B, is it?
MR BREALEY: Tab 3A.
MR JUSTICE BARLING: Tab 3A. Right, okay, sorry.
A. There is a letter from Mischon de Reya at the front.
MR JUSTICE BARLING: It is at table B.
A. So it is 659A.10, is the start. You can see the table of contents.
MR JUSTICE BARLING: Right, I see.
PROFESSOR JOHN BEATH: But the meat comes at A.83, doesn't it, where you actually give the reasoning behind the cost categorisation?
A. That is right, sir.
PROFESSOR JOHN BEATH: That's where the meat of the report is.

A. I would say the meat is roughly --
PROFESSOR JOHN BEATH: That's where the definitions are?
A. It is where the definitions are and then I do a calculation. The whole purpose of this depth was to try to get a document that could be replicated by anyone who picked it up and could get the calculations and do sensitivity analysis. See, I recognise that Deloittes and the confidentiality concerns in Deloittes means that sometimes it is very hard to replicate.
MR JUSTICE BARLING: Right. I think that's clarified that. Thank you very much. Sorry, Mr Hoskins, carry on.
MR HOSKINS: Not at all. If we go back to your table 7.6, at D2.1, tab 3, 520. What we see in relation to credit, therefore, is five examples of a MIT-MIF based on different classifications of fixed and variable costs; is that correct? That's what that table is?
A. There are different classifications, yes.
Q. What that shows us is it proves the point of just how sensitive the MIT-MIF is to the classification of costs as fixed or variable, which the Commission described as critical, yes?
A. It shows that if you get it wrong, then the numbers change, but the thing is, what you need to actually see is, if we go to the Deloittes actual figure, that they quote, it is for credit cards, it is 0.13%. Now, let's

get the causation right, the 0.15 is based on annex B, the 0.13, which they derive over 200-odd large merchants and we ought to define that as well, is 0.13.
Q. It is not just if you get it wrong that it varies because fixed variable costs is a bit of science and a bit of art. It is subjective by nature. You accept that at paragraph 469.
A. I do accept that.
Q. All I'm saying is that, because of the degree of subjectivity in the classification of fixed or variable costs you can actually get a quite widely divergent MIT-MIF cost as you see in table 6, correct?
A. You are able to achieve that.
Q. Can we go to E3.10, back to the Commission's survey.
A. Yes.
Q. Tab 202, page 4297. At paragraph 13 the Commission says:
"DG competition undertook computations of the MIT using all the data coming from surveyed merchants, including their allocation between fixed and variable costs. It has also undertaken a computation of the MIT which are based on ...(Reading to the words)... The choice to deploy econometric techniques has been motivated by two main objectives. First reducing the dependency of the results on the merchant's judgments

and cost nature and (2) treating the heterogeneity of merchants and trying to perform out of sample predictions."
Then they go on to say:
"First, econometric techniques are capable of identifying fixed and variable costs without relying on the merchants' views."
Do you agree that the use of econometric techniques reduces the dependency on the merchants on judgments on whether costs are fixed or variable?
A. It reduces the subjectivity but econometrics is not like pressing a button and getting the right result. If you are objectively measuring the wrong thing, and that's my contention here, then it is garbage in, garbage out.
Q. Can we go back to your second report, D2.1, tab 3, page 520, paragraph 469 which we have seen you say:
"It is the case that there is some degree of ...(Reading to the words)... which are themselves a matter of subjective judgment."
In conducting its own econometric analysis, if anything, the Commission would have preferred a lower than a higher MIF, wouldn't it?
A. Sorry, I don't quite understand the link to objectivity.
Q. You say that, fairly, when you are putting together an econometric model, you have to make certain

assumptions?
A. That is right.
Q. You have to use your skill?
A. Yes.
Q. So you say, well, econometrics involves a degree of subjectivity. My point to you is that the econometric model that the Commission created and carried out is not one that's created by someone with an incentive to produce a high MIF. The Commission would either have been neutral or may even have had a sneaking incentive to create a lower MIF, because that's what the Commission has been trying to do for years.
So in terms of exercising subjectivity, it was the Commission who were being subjective and they had no interest in a higher MIF, correct?
A. I think we need to get off the idea of subjectivity --
Q. It is you that introduced it. It is 469, I'm dealing with your report.
A. Okay, then I will explain it in very simple terms, in terms of what we are trying to measure: what we are trying to measure is the avoidable cost of going from cash to cards for a 10% increment over three to four years. That is a within firm estimation. Now, what they did econometrically was not that at all.
It was an increment across a wide range of firms, so

remember what "large" is here, it is 20 to 20 billion. 20 million, 6 to 7, to 200 category, and then above that are very large firms. You can see there is an inherent number of different cost functions.
They did it effectively with one year's data.
PROFESSOR JOHN BEATH: I think what you mean is the only feasible set of data these people could have, because they have one year of data, is a cross-section?
A. Is a cross-section it is not --
PROFESSOR JOHN BEATH: So the only way you could estimate a fixed cost and variable cost is by fitting a linear line through this cross-section. I just make a factual point, I'm sorry.
MR HOSKINS: No, it is very helpful.
PROFESSOR JOHN BEATH: It is very hard to see how, if you -- with given numbers, you fit a straight line through the cross-section, you can make any judgments at all about bias or trying to get particular results, the results are simply what the data you have -- they are embedded in the data.
A. Yes, and --
MR HOSKINS: I'm not trying to make submissions but, in a sense, that's what I was trying to get across because we have looked at Commission scenario 2, which is based on the merchant's approach.

PROFESSOR JOHN BEATH: No, no --
MR HOSKINS: You have my point, and the Commission itself says econometric analysis reduces the dependency on subjectivity.
A. It is not about pressing the return button and get the right -- the thing is, if you are measuring the wrong thing, if you are thinking about the increment and you are thinking about all this huge range of firms from 20 million to 200 or 12 -- 20 billion, you are not actually measuring -- if you don't take full account of, for example, the admitted variable bias issue, Professor Beath. So the econometrics, if it is not correct -- and I will show you why it is probably not correct -- when it produces certain estimates is objectively measuring the wrong thing. And, you know, what I will try to do and I --
PROFESSOR JOHN BEATH: I think we could have a seminar on this but I don't think --
MR HOSKINS: I think we are having a seven-week seminar.
PROFESSOR JOHN BEATH: I just wanted to make a rigorous technical point.
A. It was a very good point, sir.
MR SMITH: When you say it is measuring the wrong thing, what exactly is wrong about it? What is the wrong thing?

A. Well, we have a cross-section of data, we have firms that go from 20 to Sainsbury's size, 20 million to Sainsbury's size, in that sample. There are all these different types of cross function and we are trying to estimate what the econometric scale across one year's data, across all these different sizes of firm.
That is not really telling us what happens within a firm when you change the component of cash to the component of cards. Ultimately, that's what we are trying to measure. What changes? The avoidable cost over an increment. What's the increment? 10%. Is the 10% reasonable or should it be higher, should it be lower? That's scenario 2.
You know, I appreciate that there are these issues about DG competition wanting politically to get lower interchange fees. But my understanding, from living in Brussels and having been in the Commission, and understanding these political pressures, is that in this case, this was the economist team --
MR HOSKINS: I'm not sure this is appropriate evidence, I'm sorry to interrupt. I don't want to go into what the --
MR JUSTICE BARLING: I wouldn't worry too much about it. But I would still like to understand the answer better to Mr Smith's question, you know, about --
MR HOSKINS: Can I see if I can manage it with a question

which is: is your main objection to the Commission's econometric analysis, the fact that it doesn't sufficiently take account of the heterogeneity of the merchants in the sample?
A. We can do the heterogeneity --
MR JUSTICE BARLING: Can you not answer yes or no to that question? It would help us.
A. It is a no, it is more than the heterogeneity.
MR HOSKINS: But is that part of it?
A. It is part of it.
Q. Well, that's a start.
MR SMITH: Okay, apart from heterogeneity then, is it the fact that one only has one year of data, is that another issue you have?
A. That is another issue. That is what it is. What we are trying to get here is the average transaction benefit. I'm not worried whether it is the average merchant or not, I'm worried about the average transaction benefit because I'm trying to get something that is actually measurable for the purpose of article 101.1. That's what I'm trying to measure. So I want to know what are the benefits of swapping cards and cash, and I don't think I'm getting that via the econometric approach, or at least there is something going on here -- and I will show you in practical terms later why I think it is

coming up with wrong estimates. Let's leave that for now.
MR SMITH: Let me just ask you one very simple question, just this: are you saying that the econometric approach is a misconceived approach no matter what data you use? In other words, that it is --
A. No --
MR SMITH: -- simply not the way to do it, you should look at, as you have done, the actual costs of an enterprise.
A. If we had managed to have ten years' worth of data and we had managed to account for all those reasons why costs change in a firm, or between firms, so as you get the issuers -- as you get larger, you have different things, you have legal departments coming in, so you have different fixed costs and all those other things. If it had taken account of that, you could understand it. But it is not taking into account that. It is trying to measure across firms when it is easier in this case actually to do, within the firm, and measure the -- then the issue is, is that estimate representative? Then you have to work out whether it represents a fair share. That is the exam question.
MR SMITH: Right, just identifying the issues you have with the data, it is period of time and the fact that the data doesn't sufficiently differentiate between sizes of

firm?
A. The data itself goes between 20 and 20 billion, in terms of size, but we are not actually taking full account then of how things --
MR SMITH: The cross balance may be different --
A. The reasons why things are changing over time in terms of the cost function. So we have a large -- the implied increment in the econometric approach is rather large, so it is an empirical point, should it be large or should it be 10%, or should it be some other number?
MR SMITH: Thank you.
MR HOSKINS: Can we go to your annex B, so that is D2.1, at tab 3A. It is page -- I will ignore the 659A, it is page 127 in that tab. (Pause)
A. I have 125.
Q. So you don't have 127? It runs out?
MR JUSTICE BARLING: Mr Cook has it. (Handed)
MR HOSKINS: Have you got 126?
A. I don't have 126 either.
MR SMITH: Are you referring to bundle numbering or to the internal numbering?
MR HOSKINS: The page I'm looking at has the number 659A.127 on it.
A. Sorry.
MR HOSKINS: That's fine. It's not the easiest numbering

system.
A. So 126 is the DSS cost and cost of equipment.
Q. Yes, and it is the top of 127 I want to look at. So at 8.6:
"Relative use of cash and cards in the UK in the past 10 years, the number of value and card transactions ..."
I think it has been cut off. It probably should be "in the UK".
A. Yes.
Q. "... has been steadily increasing", I think it should say.
A. Mmm hmm.
Q. Then if we go over the page, 259, you say:
"However, the increase in card transactions cannot be directly interpreted as a displacement of cash transactions, as at least a part of this increase may be due to the general increase in the value and number of transactions."
What you then go on to do is try to estimate the cash displacement rate; is that correct?
A. Yes.
Q. Then at 261 you come up with your estimate and your estimate is for an annual displacement ratio of about 7%; is that correct?

A. It states there 7% but that's a mistake.
Q. What should it be?
A. If I go to Dr Niels' table, figure 3.1, I think we will get a ballpark idea of what it should be.
Q. The place I was going to take you to, to see if this was correct or not, let's see if we can shortcircuit it, was D3.1, tab 6. This is Dr Niels' second supplemental report. Then if you go to page 601, it is paragraphs 339 and 340. He supports what I hope is the same error that you have said there is, and he says that because you give an annual figure of 7%, given that we are dealing with a three to four-year period, what you should have actually said was a cash displacement rate of 20 to 25%; is that the error you are referring to?
A. The error I refer to is the 7%. In fact, the next error is actually in Dr Niels' next sentence. It is not an error in the sense that if you take cards, that is debit and credit cards, you would get that figure, but we are talking about credit cards and, hence, I wanted to go to figure 3.1 of Dr Niels' first report just to give you a --
Q. So you agree with his correction there at 340 but you want to -- he deals with cards and you want to clarify it further in relation to credit cards; is that correct?
A. Yes, sir.

Q. Show us what you want to --
A. It is figure 3-1 of Dr Niels' first report. It gives you an overview of how things have changed in the UK.
Q. 247, Mr Brealey kindly informs me.
MR BREALEY: D3, 247.
A. D3.
MR HOSKINS: D3, tab 3, page 247.
A. So figure 3.1, which is on 247, the point I'm making is that if you see over -- it is a very nice figure going from 2000 to 2014, credit cards is the -- can everyone see the colour at the bottom? It is the very dark one. That is credit cards. You will see share of the payment methods, it actually has not moved much. Let's assume zero.
The displacement of cash, which I assume is the ATM and cash, which is the light green, so cash is getting squeezed. What's squeezing it is actually the debit. So the shift is actually the debit card. That's also, by the way -- we see that, a similar picture, in Australia.
Q. So what is the correction you want to make to your figure, D2.1, tab 3A, page 130, paragraph 261?
A. So the Commission has an increment of 10% but if you took these figures on face value, the cash displacement to credit card would be 0.

Q. You are changing your evidence from annual displacement ratio of about 7% and you want to say it is now 0?
A. I'm just looking at this figure saying, look, we have to sort of step back --
Q. But what's your evidence, because we have got your evidence at the moment -- let's look at it, it is D2.1 --
A. The reason --
Q. Please let's look at, this is important.
A. Sure.
Q. D2.1, tab 3A, page 130, paragraph 261. Now, there is a fair bit of reasoning before that, but the punchline is the last sentence of 261:
"This corresponds to an annual displacement ratio of about 7%."
What is now evidence now? What's the figure that you want to give?
A. Look, I would be quite happy if we keep to the Commission's 10%, as a very conservative figure.
MR JUSTICE BARLING: So you change your 7% -- you prefer to have 10% there; is that what you are saying?
A. No, the point about this paragraph is to say was the Commission's 10% reasonable? And I made the point, which is erroneous, that it looks like 7%. If you go to the figure, it could be 0 but I'm simply saying, look,

let's keep to 10%.
MR JUSTICE BARLING: You say it doesn't matter what it is?
A. It doesn't matter. It doesn't matter, we could actually have said zero.
MR JUSTICE BARLING: As a matter of interest why did you say it was 7 again, what was the mistake?
A. Because I looked at it and I basically, as Dr Niels has pointed out, I have made an arithmetic error and if Dr Niels' calculation -- he made -- he suggested it was 25%, and that was for cards, and I'm making the point that actually the growth or the substitution seems to be debit card and cash, not credit card and cash.
MR HOSKINS: To be fair to Dr Niels, he was actually following through the logic of your 7%.
A. He did.
Q. That was not his own figure, he said on your own analysis of 7% that should have been the correct figure if you followed the logic through.
A. If I followed the logic in terms of credit cards but in terms of -- sorry. He followed my logic, my logic was wrong. It should have been on credit cards. I got the arithmetic error. This 25% though is on cards and, as I suggested in figure 3.1, the substitution looks to me on this basis of this evidence from cash to debit, not cash to credit.

Q. But you are ignoring charge cards, aren't you, in figure 3.1? We are dealing here with credit and charge cards as against cash, aren't we? If you include charge cards, then the displacement is more marked, isn't it?
A. I can't even read that up there.
Q. Well, the charge card is the light blue.
A. Yes.
Q. You will see that colour, it is -- if you go on the vertical axis, 80%, you will see a little blue block. We have all got different colours. It is a dark grey. The first block between the 80 and 90 on the vertical axis?
A. That looks like it has grown by, let's say, 5% over the period.
Q. You have to add that in when you are comparing displacement of cash as against credit cards.
A. I agree.
Q. So you have to put that in as well?
A. Yes, we should.
Q. In terms of the costs, because we are looking at here costs which vary over time in terms of handling cash, as opposed to accepting cards, and in this specific instance credit cards, but the costs of accepting debit and credit cards, it doesn't matter, you have to look at them altogether, because the infrastructure is the same,

whether you are accepting a debit or a credit card.
A. Mmm hmm.
Q. So the distinction you make in saying you have to look at just credit cards isn't correct, is it, because the infrastructure is the same, therefore one is looking at the total costs?
A. The infrastructure may be fixed costs which are not contained in the calculation. If they don't vary over time, that's the three to four years. If they do, they are in.
Q. For this purpose, there is no utility in the distinction between debit or credit because the infrastructure is the same: yes or no?
A. In terms of the actual increment, can I think about it for a few more minutes?
Q. We do have to move on. I have one more question on this topic --
PROFESSOR JOHN BEATH: Before we move on, and while he is thinking about it, could I be assured that the data set that was used to construct figure 3.1 is exactly the same as the data set that was used to construct figure B6.5?
MR HOSKINS: Sir, 3?
PROFESSOR JOHN BEATH: In Mr von Hinten Reed's second report, before the phrase we have been looking at about

displacement ratio, it is based upon a chart.
MR HOSKINS: Sir, can you give me the bundle reference?
PROFESSOR JOHN BEATH: Sorry, D2.1, tab 3, 659A.129, then on the page before the statement about 7%, the paragraph says it was based upon this calculation and this figure, and it covers not quite the same but almost the same period, has a larger aggregation of units, I just wonder whether it is the same data set used.
MR HOSKINS: I will ask Dr Niels --
MR JUSTICE BARLING: In that case --
MR HOSKINS: I have one more question on this, otherwise we will lose the chain. So if you will just let me finish off.
MR JUSTICE BARLING: Okay, go on.
MR HOSKINS: I need to go back to D3.1, tab 6, page 601. At paragraph 3.41, he says:
"As I explained above, the Commission's medium-term approach ...(Reading to the words)... over a three to four-year period."
Then he goes on to say:
"Given that a larger level of cash displacement ...(Reading to the words)... timeframe ..."
You corrected your error, but if you have a higher cash displacement rate, that provides evidence that a greater proportion of fixed costs should be included

than the medium-term approach considers.
I want to unpack, because that obviously includes the area you corrected, but is it correct that the greater the cash displacement, the greater proportion of fixed costs should be included than the medium-term approach suggests, ie the greater the cash displacement, the less costs are fixed?
A. The greater the cash displacement, the costs that are displaced will increase.
Q. Therefore it should be variable rather than fixed?
A. It should be variable rather than fixed.
MR HOSKINS: Sir, that is a good point to break.
MR JUSTICE BARLING: Good, right, we will have a break.
(3.20 pm)
(A short break)
(3.30 pm)
MR HOSKINS: I'm glad it is Friday. Am I allowed to say that?
MR JUSTICE BARLING: Yes, you are now.
MR HOSKINS: It's too late.
PROFESSOR JOHN BEATH: Some of us have been away from home for a while.
MR HOSKINS: There we are.
MR JUSTICE BARLING: Okay.
MR HOSKINS: I have an answer to Professor Beath's question

on whether these are based on the same data. The answer is: they are not.
PROFESSOR JOHN BEATH: They are not, okay.
MR HOSKINS: So if we go to Mr von Hinten Reed's figure 6.5, which is at D2.1, tab 3, 659A.129 --
PROFESSOR JOHN BEATH: Yes.
MR HOSKINS: -- you will see that the source stated there is the UK Cards Association --
PROFESSOR JOHN BEATH: Yes.
MR HOSKINS: -- and have debit cards credit and charge cards cash and cheques. Figure 3.1 in Dr Niels' report, so that is D3, tab 3, 247 came from MasterCard internal documents.
PROFESSOR JOHN BEATH: Thank you.
MR HOSKINS: Whether they obtained information from the UK Cards Association, I don't know, but they are not on their face from the same source.
PROFESSOR JOHN BEATH: Thank you.
MR HOSKINS: Obviously, it is clear, figure 3.1 includes more types of payment.
PROFESSOR JOHN BEATH: Yes. That's why I mentioned in relation to Mr von Hinten Reed's -- it seemed to me aggregating things together.
MR HOSKINS: Yes.
There was a question that Mr von Hinten Reed asked

for more time to think about, I don't know if he wants to take up that --
A. Yes, just a small -- in terms of thinking about common costs and fixed costs, in annex B, 659A.34, so in effect, we have the first table which is table B2.13 on debit cards. The second table is overleaf, B2.14 on credit cards. So I have separately treated the fixed and variable costs involved in debit and credit card payments. To the extent that there are common aspects to them, they are in the cost allocations. In my view, the increment is not the place to actually change. What we are trying to ask there is, what is the change that we observe from cash to a credit, or in charge card, not a debit card. That's not what we are trying to assess here.
So I have actually calculated the MIT-MIF separately for the credit card and the debit card, the debit card being slightly higher.
Q. Can we go to E3.10, which is the Commission's survey again.
A. Sure.
Q. Tab 202, page 4315, paragraph 82. So E3.10, tab 202, page 4315. It is paragraph 81, the Commission says:
"Merchants in this population are likely to be heterogeneous with respect to the relative cost payments

…(Reading to the words)… need to be taken into account."
A. Mmm.
Q. Skipping the next sentence:
"The size of the merchant may also have an impact since a larger size may imply different organisation of the business or a specific payment process and therefore a different transaction cost."
First of all, do you agree with the Commission that the relative costs of payment methods may vary between merchants?
A. Yes.
Q. Do you agree that one of the factors that may have an impact on costs is the size of the merchant?
A. Yes.
Q. Can we go to E3.14, tab 266. It is the Rysman and Wright article. If we can go to page 5737. We looked at this again earlier in another context. It is a second complete paragraph on the page that begins "Firstly surveys are often conducted":
"Firstly surveys are often conducted only with large retail firms, firms that will tend to have lower costs of accepting cash due to the economies of scale involved in cash handling, as opposed to cards which are fairly scale invariant."

Do you agree that large retail firms will tend to have lower costs in accepting cash due to economies of scale?
A. Yes.
Q. Can we go to E3.5, tab 99A. This is the Rochet and Tirole article from 2008, yes?
A. That is correct.
Q. The numbering is 2194A, it's 0029 that I would like to go to. You will see the third paragraph on that page begins "First, in the short run"; do you see that?
A. Yes.
Q. If you skip five lines down, there is a sentence that begins:
"Third, merchants are heterogeneous and an IF that properly guides cardholders' decisions must reflect the …(Reading to the words)… at the social optimum."
Do you agree with that?
A. In terms of the statement, yes.
Q. Can we go to E3.10, tab 202, so the Commission survey again. E3.10, tab 202 at 4295. Again, it is something I think we looked at in another context. The first paragraph in that page, paragraph 4 continues at the top of the page. If you go up from the bottom of that paragraph seven lines, you get to a sentence that begins:

"In order to maximise coverage …"
It begins in the middle of the page.
A. Yes.
Q. The Commission says:
"In order to maximise coverage and to ensure the best quality data, it was decided to …(Reading to the words)… Eventually, this represents a trade off between precision of data and sample size and representativeness."
We see from that the Commission study only took account of large merchants, yes?
A. Large merchants above 20 million.
Q. The Commission believed that that had implications for the representativeness of the study, correct?
A. In that it didn't actually have small firms in it.
Q. Can we go to paragraph 23 in this document. The Commission says:
"The report finally explores the possibility to obtain figures that would describe the whole merchant population and not only large merchants. This, however, requires very strong assumptions on the cost functions of the different payment means for smaller merchants. Taking this into account and after careful consideration, the Commission therefore considers that without further data from small merchants, it is not

possible to draw reliable conclusions from the study concerning the level of indifference of all merchants."
Do you agree with the Commission that without further data from small merchants it is not possible to draw reliable conclusions from the study concerning the level of indifference of all merchants?
A. You cannot get the level -- at least you can calculate what it should be for all merchants but you can't get the level of indifference for all merchants because we don't have small firms.
Q. Do you agree it is not possible to draw reliable conclusions concerning the level of indifference of all merchants for that reason?
A. The meaning of "indifference" to me is -- in the exam question is that firms are no worse off, that's the Article 101.3(b) criterion. So I can tell you that large firms will be worse off if, for example, they have to pay a MIF, which is estimated for the category 6 to 7, but what I can't do is tell you whether actually the small firms are benefiting and offsetting the loss made by large firms. That's what I can't do.
Q. Do you agree or not with the Commission's own assessment of its own survey that, without further data from small merchants it is not possible to draw reliable conclusions from the study concerning the level of

indifference of all merchants?
A. In that context which I have just said, yes.
Q. Dr Niels has sought to deal with this problem by relying on the cost data for the group of smaller merchants within the Commission's sample of large merchants, which he has taken as merchants with an annual turnover between EUR20 million -- sorry, the Commission's sample is EUR20 million and EUR200 million, but you are aware of that, aren't you, he relies on a subset of that data?
A. I am and let's be clear it is category 6 to 7 and the larger merchants than that are category 8. So if I refer to that --
Q. If we go to your second report, that's D2.1, tab 3, 523. D2.1, tab 3, at page 523, it is your paragraph 489, this is where you deal with what Dr Niels has done in terms of the sample he has taken, and you say:
"I note that excluding the largest merchant seriously limits the reliability of results and their applicability to the UK. As 130 merchants out of 256 included in the sample ...(Reading to the words)... as also shown by lower R2 values."
Your preferred approach is to rely on the cost data submitted by Sainsbury's to Deloitte which you then reassess for fixed or variable, correct?
A. That is correct and then I try and do sensitivity tests,

which kind of replicate what category 6 to 7 would look like.
Q. But your basic approach, by relying on the cost data submitted by Sainsbury's, is to rely on a sample of one, isn't it?
A. It is a sample of 1 and then we conduct sensitivity tests to try to replicate data for a wider sample.
Q. So you rely on a sample of one with sensitivity analyses and Dr Niels relies on a sample of 126?
A. He relies on a sample of 126, but by excluding or focusing on the average merchant you are not actually focusing on the average transaction benefit, which is what we get from the literature as being the appropriate thing to measure.
Q. Let's go to your second report, again. D2.1, tab 3 at 526. Paragraph 505, you say:
"We know, however, that in the UK a typical payment takes place at a large retailer."
Then at the end of the paragraph you conclude:
"Therefore, it is reasonable to assume that the MIT-MIF obtained for these retailers would be representative for the vast majority of the UK sales."
Then at 506 you go on to say:
"As a sensitivity check I consider how the MIT-MIF ...(Reading to the words)... based on the Eurostat data

for the UK discussed above.
"As I mentioned earlier, no data is available for the cost of payments to small merchants ...(Reading to the words)... being twice as high and three times as high. I apply the sensitivity test to three MIT-MIF estimates."
You don't cite any evidential basis for your assumption that the MIT-MIF for small merchants is twice or three times as high as for large merchants, why is that?
A. That is correct, because I do not have any evidence on the exact costs for cash and cost of payments for small firms. In 7.7, by the way, large merchants there are categories 6, 7 and 8.
Q. Can we go back to the Commission's survey. That's E3.10 at tab 202. This time can we go to page 4350, it is paragraph 185. It is E3.10, tab 202, page 4350. If you pick it up at paragraph 185:
"As regards the distribution of the MIT MSC levels of individual merchants, the figures below indicate heterogeneity among the merchants in the sample. In particular, where the MIT MSC is between 0 and 0.5 for the majority of merchants, there is a non-negligible number of observations resulting in very high or negative sales."

Then, over the page, the Commission sets out figure 11, which is a distribution of estimated MIT MSCs by number of merchants. We know from paragraph 14 the number of merchants in the sample is 254, yes?
A. Yes.
Q. The range of MIT MSCs is on the horizontal axis. You see that below 0, minus 2, minus 2 to minus 1, minus 1 to 0.5 etc, that is the range of MSC MITs, yes?
A. Yes.
Q. Then the number of merchants within each range is on the vertical axis, yes?
A. Yes.
Q. We see from this graph that most merchants had a MIT MSC from the 0 to 0.5 range. That's in the middle of this, yes?
A. Yes.
Q. If you move to the right, we see around 15% had a MIT MSC in the 0.5 to 1% range, yes?
A. Yes.
Q. If you take the median point of those ranges, so for the first we are looking at the median of 0 to 0.5 is 0.25, and the median of the 0.5 to 1 is 0.75, yes?
A. Could you re-do that one?
Q. Of course. I'm looking, first of all, at the most popular category, 0 to 0.5. The median of that is 0.25.

I'm just saying half of 0.5 is --
A. I should have said yes.
Q. If you go to the next range, 0.5 to 1, the median is 0.75?
A. Yes.
Q. 0.75 is around three times higher than 0.25?
A. Yes.
Q. So that indicates that around 15% of larger merchants had a MIT MSC around three times higher than the majority of large merchants, yes?
A. Yes.
Q. Let's do the same exercise for the 1% to 2%. That's three in from the right. 1% to 2%.
A. Yes.
Q. Around 6 to 7% of large merchants had a MIT MSC in that range, yes?
A. Yes.
Q. Take the median of that, that's 1.5%, yes?
A. Yes.
Q. If you compare that again with the most popular range, the median of which is 0.25, what we see is 6% to 7% of large merchants had a MIT MSC around 6 times higher than the majority of large merchants, correct?
A. Yes.
Q. We will do the same again for the 2% to 5%, the median

of that is 2.5%. There is about 5% in that range, yes?
A. Yes.
Q. That shows therefore that around 5% of large merchants had a MIT MSC that was 14 times higher than the majority, yes?
A. Mmm.
Q. Then, finally, if you take the last category on the right, around 2% of large merchants had a MIT MSC above 5%, and if you do the same exercise that tells us that around 2% of large merchants had a MIT MSC that was 20 times or more higher than the majority of large merchants; is that correct?
A. Yes. Remember that you have got MSC, so you have got the acquirer margin coming in here.
Q. But that's minimal compared to the --
A. It is not so minimal all the time. But your point is taken.
Q. Of course this survey was based only in large merchants, we know that, don't we?
A. Yes, above 20 million.
Q. One would expect the disparity to be even greater between small and large merchants, wouldn't you?
A. Small in terms of small 1 to 5 and 6 or?
Q. I mean small outside this category --
A. So 1 to 5?

Q. You accept that, the disparity you would expect to be greater?
A. I don't know what 1 to 5 really is, but I'm just -- I will assume for the purpose of this that it is.
Q. I think you are saying the answer is yes, you would expect the disparity to be greater.
A. I would expect it to be greater, based on my estimates.
Q. In your evidence yesterday you referred on a number of occasions to the interest that issuers earned from cardholders. Just to be clear, are you suggesting that the interest that is earned in that way is large enough to cover the whole scheme costs; is that your evidence?
A. The interest earned by issuers?
Q. Yes.
A. For issuing cards is greater than the cost of them issuing the cards.
Q. Is the logic of that that no MIF is necessary?
A. The logic of that is that lending, which is the process by which banks are offering credit, for example, would happen anyway, with or without the MIF.
Q. Is your logic that no MIF is necessary?
A. On that, yes.
Q. How does that tally with what you also said yesterday, which is that a MIF is necessary to balance the two sides of a four-party system?

A. If the revenues and the costs are all on one side, then the issuers are making more than the costs of actually providing the service.
Q. So is your evidence that a MIF is necessary or not necessary?
A. A MIF is necessary for the part which attracts transaction efficiencies. So the switch between cash and cards. To that extent, that benefit, I think a MIT -- a MIT-MIF measures it, also Visa 2 indirectly measures it and that's the justification for a MIF.
Q. Your MIT-MIF analysis doesn't take account of interest revenue received by issuers, does it?
A. That is right.
Q. Can we go to E3.14. At 265, it is the Tirole article we have looked at earlier today.
A. I'm with you.
Q. Page 5696, it is the top of that page, the first paragraph, Tirole says:
"There is substantial debate as to whether anti-trust authorities should factor profits into the computation of social welfare and they rarely do. Take issuer profits. If the profits associated with cardholders and ...(Reading to the words)... leads to enhanced cardholder welfare. Ultimately, what fraction of profits should be factored into the computation of

interchange fee is an empirical question which we will not attempt to resolve here but there is no question that not including any leads to a conservative estimate of the desirable interchange fee."
Do you accept that it follows from that analysis that your MIT analysis results in a MIF that is too low?
A. My MIT-MIF is based upon Article 101.3. It is not based on Rochet/Tirole or Rochet/Wright or Wright and something else. The issue that Jean Tirole comes up with here is quite interesting because if we are right that interest is above the cost of issuing cards, then what is the exact market failure that necessitates some subsidy from merchants to achieve that end? I don't think there is.
Q. Let's assume, leave aside what the legal position is or isn't --
A. That's your job.
Q. That is right. If one accepts Tirole's analysis of profits as being capable of driving technological and pricing innovations as well as new entry, if one accepts that the test is social welfare, do you agree with his logic? I know you don't agree with everything but assume those factors are corrected, do you agree that failing to take account of them would lead to a MIF that was too low?

A. A MIT-MIF could be too low compared with the social optimum.
Q. Not all credit card holders are revolvers, are they?
A. Transactors.
Q. If a MIF were to take account of the interest that issuers earned from revolvers, then the MIF would be lower than it would otherwise be?
A. Yes.
Q. I think you said yesterday, but I want to clarify, would that, in effect, lead to a degree of cross subsidisation of revolvers by transactors?
A. Transactors benefit or use the 28-day funding. The question, again, is the additionality of that particular funding thing and what benefits that actually derives. It is not a benefit in terms of transactions. If it is additional sales, well, a transactor is basically paying off next month what they have used this month and it is a fact of financial services that the reason why you offer a 28-day funding is to actually attract people into having a card and, eventually, you want to become revolvers, and that's where the stickiness comes in.
Q. But do you agree that if the MIF were to take account of interest that issuers earn from revolvers, there would be a degree of cross-subsidisation of revolvers by transactors?

A. Yes.
Q. Some banks are primarily transactor banks, aren't they?
A. Yes.
Q. If a bank is primarily a transactor bank it couldn't operate without the MIF, could it?
A. The issue is primarily and the issue then is basically whether that is a statement of truth.
Q. But it is a possibility?
A. It is a possibility. If, for example, their interchange income went down, they have an option of increasing cardholder fees. If that was really on the margin of the decision, but that's not obvious.
Q. Does the MIT-MIF apply to online transactions? Is it intended to cover them?
A. MIT-MIF was designed for the cash and cards, online is cards.
Q. So is your MIT-MIF intended to cover online transactions?
A. My MIF, the 0.15 covers till operations not online.
Q. But a MIT-MIF is for not just for Sainsbury's, it is for all people who use MasterCard or Visa, isn't it? It has to be a general application?
A. That's true, that's why I go back to the way in which I characterise it. What is the benefit we are trying to measure under Article 101.3. If it is basically the

substitution of card for card, then there is no efficiency. Therefore, we don't need to measure it.
Q. But your MIF as you said therefore does not take account of online transactions?
A. That's true.
Q. Can we go to E3.14 at 265. Back to the Tirole article, if we can pick it up at 5689. It is the second paragraph on that page, the first complete one, "Even for debit cards" it begins. It is page 5689, second paragraph down begins:
"Even for debit cards ..."
Do you have that?
A. Yes.
Q. At the end of that paragraph Tirole says:
"More importantly still, e-commerce is vastly facilitated by the use of electronic payments. Cash or even cheques cannot easily substitute for cards for online purchases."
Do you agree that cash is not generally suitable for online transactions?
A. Yes.
Q. Can we go to your second report at D2.1, tab 3, page 528. You say:
"To assess efficiencies, the first issue to address is what would happen if the MIFs were not at the level

obtained by Dr Niels, but at a lower level ...(Reading to the words)... by more efficient card transactions."

But that statement isn't true, is it, if a consumer has a choice between buying online or going to a shop, because then he does have a choice between a card or cash, correct?

A. If he goes to the shop he has a choice between a card or cash.

Q. A consumer has a choice between buying online or buying in a shop?

A. Yes.

Q. Failure to take any account of online transactions will result in a MIT-MIF which is too low won't it, because the MIT-MIF has to be applied generally across all sorts of transactions?

A. The MIT-MIF is applied to online transactions. One has to think -- that is a distribution channel. So the benefits are all in terms of the cardholders not having to get out of bed or use their shoes to go down to Sainsbury's, or wherever.

So I don't quite get where the efficiencies in terms of transaction on the merchant's side -- and that's what we are measuring -- come in. In fact, the merchants are actually having to build out, imply lots of cost to actually achieve that end. I think that's in John

Roger's second statement.

Q. Are you suggesting that online transactions are a burden for retailers?

A. Online transactions are basically another distribution channel, if you are favouring one over another, what is the additional sale you are getting? Well, it may be to the individual. So Amazon may have, for example, a real interest in promoting online sales but that's not necessarily the case for a book store.

Q. Retailers set up online stores because they believe it is going to be profitable, don't they?

A. They believe that they should actually earn a profit otherwise they wouldn't do it.

Q. I'm not sure whether you accept or not that failure to take any account of online transactions will necessarily compromise the accuracy of a MIT-MIF?

A. The MIT-MIF is about measuring transaction benefits on the merchant's side, of getting the efficiencies, of transfer of cash to cards. I can't see where the efficiency of card use comes in on its own.

Q. Is your evidence then that the MIT-MIF does not need to take any account of online transactions?

A. If you come back up to the point of what is the benefit, if you can't see the benefit according to 101.3 then you don't need to measure it.

Q. So your evidence is MIT MIF does not need to take any account of online transactions?

A. That is my evidence, sir.

Q. Can we go to E3.14, tab 266. This is the Rysman and Wright article. If we can go to 5736, pick the first paragraph up from the bottom, where it says:

"Future work might consider ..."

Do you have that?

A. Yes.

Q. It says:

"Future work might consider a broader range of possible ...(Reading to the words)... case of internet transactions, in case these make use of only payment cards and no other payment instruments."

So Rysman and Wright believe that further work is necessary in order to take account of online transactions, correct?

A. They do, they don't consider that in the context of 101.3.

Q. The Commission's 2015 survey doesn't take any account of online transactions, does it?

A. That's true.

Q. Amex is a closed platform, isn't it?

A. Yes.

Q. Looking, again, at what we have just been looking at,

the Rysman and Wright at 5376, in the section I just read out they said, in relation to future work that might be necessary:

"For instance, existing theory does not cover the case in which the relevant alternative to the open platform cards is closed platform cards."

They think that further work is necessary to take account of closed platform cards such as Amex, correct?

A. They believe that.

Q. The Commission's 2015 survey doesn't take account of Amex where it is a relevant alternative to open platform cards, does it?

A. It doesn't. I can't talk about the Deloitte or the Commission but, in my view, again, there is no efficiency benefit.

Q. Your analysis doesn't take any account of Amex where it is a relevant alternative to an open platform cards, does it?

A. That's true.

Q. Can we go to your first report, D2, tab 2, at page 263. Paragraph 707, you say:

"For face to face payments, the most appropriate comparator to card payments is cash."

Do you say that is true for both face-to-face debit and credit card purchasers?

A. Yes.
Q. Can we go to Dr Niels' first report, that's D3, tab 3 at page 335. This is Dr Niels' first report, page 335, paragraph 6.99:
"Cash is a comparator for credit card purchases. In its implementation of the ...(Reading to the words)... credit card purchases."
You just told us that's your approach as well, correct?
A. Yes.
Q. "While cash would be a closer comparator for face-to-face debit card purchases ...(Reading to the words)... funds credit purchases."
That's where you and Dr Niels not for the first time differ, correct?
A. Yes.
Q. Can we go to E3.6, tab 130A. You see that this is the article by Rochet and Wright. You see that on the second page of this.
A. Sorry, I have got the wrong bundle. (Pause)
Found it.
Q. Thank you. Again, it is the horribly convoluted numbering. If you turn over the first page, you will see the title. You will see it is an article called "Credit card interchange fees" by Rochet and Wright,

yes?
A. I do.
Q. Then if we can go to point 6. You will see in the middle of the page there is a paragraph that begins:
"In our model, credit cards can be used for two types of transactions: ordinary purchases for regular convenience usage, for which cash or a debit card will soon provide identical benefits and for credit purchases where credit is necessary for purchases to be realised. Credit purchases include a range of different types of purchases such as unplanned purchases, impulse purchases and large purchases for which the consumer does not have the cash or funds immediately available to complete the purchase or for purchases to which the deferment of payment facilities facilitates the transaction. For ordinary purchases we assume credit cards are inefficient given that we assume ...(Reading to the words)... for ordinary purchases."
Then they go on to say:
"Taking into account both types of transactions, a monopoly card network always sets its interchange fee too high in our setting. Thus, regulators ...(Reading to the words)... only likely to give a lower bound of possible interchange fees that maximise consumer surplus."

Now, the view you express in your report is not consistent with Rochet and Wright's view expressed there, is it?
A. That is right for, I think, a good reason, that you are going to ask me.
Q. Well, according to Rochet and Wright, if you accept their analysis, the MIT test that was developed by Rochet and Tirole in 2008 is not suitable for credit cards; that's their view, correct?
A. That's their view. I think Jean Tirole in footnote 13 makes the point, in his paper, that the MIT test has a few problems in terms of competition law.
Q. Can we go to E3.14?
A. Sure.
Q. Tab 265 is the Tirole article, 5696. You will see a heading halfway down the page:
"Subsidise competing means of payment."
A. I do.
Q. Tirole says:
"The analysis assumed that alternative payment methods, cash/cheques, are fairly priced. This, however, need not be the case. In some countries banks are not allowed to charge for the costs they incur on cheques. In this case cheques are subsidised in that their costs are recovered through cross ...(Reading to the words)... cash is then unduly favoured."
What he is doing is identifying that there are social costs of cash and your MIT analysis doesn't take account of those social costs of cash, does it?
A. The MIT analysis consistent with Article 101.3 does not take account of those social costs of cash.
Q. If one accepts Tiroles' analysis it will be likely to be too low.
A. If you view his assumptions as correct then it would be too low.
MR HOSKINS: It is probably a good time to stop, sir, I'm about to move on to a new topic.
A. Sir, may I make just one -- two small points about Rochet and Wright?
MR JUSTICE BARLING: Yes.
A. The existence of a credit card, we establish usually in terms of the restriction on whether you can actually -- it is an objective necessity. When you get to 101.3, a credit card exists, so you have to ask yourselves, what is the benefit that Rochet and Wright are actually thinking about, that the MIF is actually contributing to. If I go to Rochet and Wright's model, you can look through the mathematics but, essentially, it is saying it aids rivalry between retailers.
So using a credit card has some benefit between

retailers. That is an additional sales argument at the retail level but he actually says, explicitly, in his model that there's no global additional sales to the totality of merchants which is our test.

The second thing is that I think even -- I'm not saying even you -- but you have read the mathematics, but you also note that there is no interest in his model. So if, actually, as I have said before interest on the issuer side is greater than the cost, then the additionality of providing that credit is absent.

I was given the homework last night of reading these lovely surveys and I really appreciate it because it brought home to me that we can have as many theories as possible, but ultimately they have got to be grounded in the law. I'm the economist, you are the lawyers, that's the basis.

Q. Before we finish then, is your evidence that you believe your MIT-MIF complies with 101.3, but the logic, the result of everything we have seen so far is that what you are saying is, in order to comply with 101.3, one has to apply a MIT-MIF which Rochet, Tirole and Wright all consider would not be appropriate economically because it would be too low? That's your evidence? That is the impact of it, isn't it?

A. The impact of Rochet Tirole is: I think we ought to

measure transaction benefits. Everything apart from that I do not think is much use in the context of 101.3, where the central issue is actually fair share. That is not a straight economics point because you asked me yesterday: does economics worry about the level? Well, the law worries about the level and that's fair share.

Q. Let's stick to economics because that's your expertise.

A. Indeed.

Q. Your evidence is that you would prefer a MIT-MIF which, according to Rochet, Tirole and Wright, would be too low?

A. Yes.

Q. Thank you.

PROFESSOR JOHN BEATH: Might I ask exactly on that point, because I think this whole line of questioning arose in looking at the final sentence of the Rochet paper, E3.14, page 5696, tab 265.

"The use of this term leads to a conservative estimate of the desirable IF."

I think we should be careful that the word "conservative" is being -- as it seems to be being used is too low. In fact, if you take the range of theoretical results, the word "conservative" means it has not accounted for all the relevant factors. It could be either too low or too high.

MR HOSKINS: Sir, can I respond to this with the legal submissions I made in opening, which is remember here we are in the context of the broad axe.

PROFESSOR JOHN BEATH: Yes.

MR HOSKINS: And the judges have applied the broad axe in the past and recognised the need to favour the defendant rather than the claimant. So when one is looking -- the reason why I'm taking you to all these articles is to show you there is a series of issues, a series of factors that would lead to a higher MIF that are not taken account of. My submission, giving nothing away, at the end in closing is going to be, if you want to apply the broad axe you have to be nice to me and you have got to take account of all these factors that aren't in the MIT-MIF.

PROFESSOR JOHN BEATH: I take the point and I still believe I am correct in my use of the term "conservative" to mean not all factors taken into account. Okay.

MR SMITH: Mr Hoskins, one query that we had. We had some mention earlier today of the introduction of the MasterCard World card in 2008/2009.

MR HOSKINS: Yes.

MR SMITH: It may well be in the documents but, if so, I haven't been able to find it. But did Visa have an equivalent premier card at any time, no need to

answer this now.

MR HOSKINS: No.

MR SMITH: And if it did, can you give us a rough date as to when it was introduced. Thank you.

MR JUSTICE BARLING: Thank you very much.

Mr von Hinten Reed, I have already said to you you have to be very careful not to talk about your evidence or the case except in that one respect where you are going to raise it with the team.

A. I appreciate that. Thank you very much, sir.

MR JUSTICE BARLING: Have a good weekend.

A. And you.

MR JUSTICE BARLING: Thank you very much.

(4.31 pm)

(End of open session)

(The court adjourned until 10.30 am on Monday, 22nd February 2016)

INDEX