# OpUS 2 I NTERNATIONAL 

Sainsbury's Supermarkets Ltd v (1) MasterCard Inc, (2) MasterCard International Inc, (3) MasterCard Europe S.P.R.L.

Day 10 - Redacted
February 10, 2016

Opus 2 International - Official Court Reporters
Phone: $\quad+44$ (0)20 30085900
Email: transcripts@opus2.com
Website: http://www.opus2.com

| Wednesday, 10th February 2016 | 1 |
| :--- | ---: |
| (10.30 am) | 2 |
| (Proceedings delayed) | 3 |
| $(10.40 \mathrm{am})$ | 4 |
| (Open court session) | 5 |
| $\quad$ Housekeeping | 6 |
| MR JUSTICE BARLING: Good morning. | 7 |
| MR HOSKINS: Good morning, sir. | 8 |
| $\quad$ I have a tiny piece of housekeeping just to keep you | 9 |
| in the loop. We were sent a third von Hinten-Reed | 10 |
| yesterday, and haven't had a chance to take proper | 11 |
| instructions on it. What I said to Mr Brealey is I will | 12 |
| take instructions at lunchtime and then I will indicate | 13 |
| to him whether we are happy for that to go in or whether | 14 |
| he has to make an application. | 15 |
| MR JUSTICE BARLING: That's fine. I'm not sure whether we | 16 |
| have got it. I'm not conscious of having it, but it may | 17 |
| be that the system has got it here. | 18 |
| MR BREALEY: It was sent. | 19 |
| MR JUSTICE BARLING: Yes, I am sure it was. | 20 |
| MR BREALEY: It corrects a calculation. | 21 |
| MR JUSTICE BARLING: I haven't read it, so -- | 22 |
| MR HOSKINS: As you did with Mr Sidenius, if you have the | 23 |
| time and inclination and want to look at it | 24 |
| de bene esse, obviously I have no objection to that. It | 25 |

## 1

might speed things up if we do have to put up a fight about it.
MR JUSTICE BARLING: That's fine. Any other housekeeping?
MR HOSKINS: I'm going to call Mr Willeart.
MR BART WILLEART (affirmed)
Examination-in-chief by MR HOSKINS
MR JUSTICE BARLING: Thank you, Mr Willeart. Make yourself comfortable. Get some water if you would like some.
I do not see any glasses. Are there glasses?
There are.
MR HOSKINS: Hopefully you should have bundle C2 in front of you, and if you can turn to tab 7, please, there should be a document entitled "Witness statement of Bart Willeart".
A. That is correct.
Q. If you can flick through -- you do not need to read it -- to the end, can you confirm that this is your witness statement?
A. This is my witness statement, that is correct.
Q. Thank you. There is a signature on page 138.
A. Yes, that is correct.
Q. Can you confirm that that's your signature?
A. That is my signature, that is correct.
Q. Actually, there is a correction there I think you want to make before I ask you the next question, which is to
paragraph 1.
You say:
"I was the head of MasterCard's interchange fee team from the start of 2010 to 2012, I'm currently
...(Reading to the words)... for MasterCard."
I understand you want to bring that up to date?
A. Yes, I have just changed role. Since October 2015,

I was general manager of France.
MR JUSTICE BARLING: Since October 2015?
A. Correct.

MR HOSKINS: Subject to that update, can you confirm the contents of the witness statement are true?
A. They are the same, so they are true.

MR HOSKINS: Sir, I know you wanted to ask some questions. It is between you and Mr Brealey when you want to.
MR JUSTICE BARLING: I suspect we will do that afterwards and then you can come back if you want to.

Cross-examination by MR BREALEY
MR BREALEY: You are now based in Paris?
A. I am based in Paris.
Q. Although you are based in Paris now, just from paragraph 1 of your statement, which -- I think is the key relevance for today is that you were part of the interchange fee team for just over two years?
A. That is correct.

## 3

Q. In your statement, and I can start here at paragraph 11, you refer to MasterCard's terms of dealings. Just so that we get it straight, I think these are the scheme rules. You call them scheme rules?
A. Correct.
Q. Just to identify them, I think they are at E3.10. You will be happy to know that I am not going to go through them in detail, but to identify that these are what you mean by the MasterCard terms of dealing. It is at tab 201. So it is the 2014 version. Obviously, the versions change, do they?
A. Yes. These are indeed MasterCard rules, I assume.
Q. Yes, exactly. Who at MasterCard formulates these terms of dealing?
A. So to be very clear, the interchange team was not involved in setting these rules, these were set by the rules team.
Q. The rules team?
A. Absolutely.
Q. I think if you can --

MR JUSTICE BARLING: You just have to keep your voice up a little bit, and if you can speak in this direction because I think the microphones also have to catch you.
MR BREALEY: Slightly ignore me.
A. So there was, in MasterCard there is a team responsible

1

| for setting the rules. So the terms and the rules, and | 1 |
| :--- | ---: |
| the participants in the payment system how they behave, | 2 |
| how they need to react and respond to different matters | 3 |
| with respect to the scheme. And I was responsible at | 4 |
| that time for the interchange team, which was specific | 5 |
| for setting the interchanges across Europe. So I was | 6 |
| not responsible for the rules; I was responsible for the | 7 |
| setting of the interchange. | 8 |
| Q. Correct. Very quickly, where is the MasterCard rules | 9 |
| team? Were is that based? | 10 |
| A. So MasterCard's rule team is not based in one single | 11 |
| location. So there is different people involved from | 12 |
| both global function as well as European functions. So | 13 |
| I couldn't tell you exactly where everybody amongst the | 14 |
| team is based, where it is multiple people involved in | 15 |
| that team, including a lot of people from Europe and | 16 |
| including also people from product areas, different | 17 |
| business areas, to make sure that the rules that are put | 18 |
| forward in the scheme actually make sense both from a | 19 |
| scheme fraud perspective and business perspective. | 20 |
| Q. So is there a forum that is held every now and again | 21 |
| which sets out the scheme rules? Who decides whether to | 22 |
| amend it, for example? | 23 |
| A. I'm probably not right person to ask that because I was | 24 |
| not involved in that process. | 25 |

5
Q. And how does that potential bank or financial institution sign up to these terms of dealing?
A. It is my understanding that when somebody becomes part of MasterCard's scheme and is assigned a licence, that they are also obliging to the rules that MasterCard puts out there. So you become a member of the payment scheme, then you need to adhere to the rules, so that everybody else in the payment scheme understands that this new participant obeys by the rules.
Q. So you refer to the licensee has to adhere to the rules, obey the rules. So what happens if they disobey the rules?
A. There is various consequences that could be. Of course, in first place this participant will be notified of that.
Q. Notified of the breach?
A. Of the breach, indeed. And of course it is like in any breach of rules, at a certain point in time there could be consequences for that entity. But, again, I was not responsible for managing that process, I was not responsible for setting the rules.
Q. At paragraph 12 , just so that you can refresh your memory, you say:
"It is the combination of all these rules which
determine the allocation of responsibilities between the
issuers and acquirers."
So the issuers and acquirers, by signing up to the terms of dealing, adhere to MasterCard's allocation of responsibilities?
A. Yes. Just to put it into a perspective, so what I refer to in my witness statement is the fact to interchange, we might come to that, is a balancing mechanism where the objective of this balancing mechanism is to maximise the volumes, transactions and usage of the payment scheme. And in order to do that we need to maximise at one site, on the site where the card is issued to the cardholders. The issuers of this card, at the same time, need to maximise the participation of the merchant in this eco-system.
Q. Mr Willeart, I do apologise, but that is in your statement, that is your evidence. But if you could concentrate on answering my questions I'm posing --
A. Sorry, I will get to the point.

So one of these rules relates to the fact that who is paying in case, for instance, as an example, if there is a fraud on the card. The rules specifies that the issuer in many cases will be responsible for covering the fraud, so the issuer has a cost for that and the interchange needs to take that into account. There is a balance in the system. And that's where, for

7
instance, in a practical way this refers to.
Q. So you refer to costs of the issuers. So if one goes, for example, yes, if you just keep your finger in your witness statement but if you go to tab 1 of this bundle. Don't lose your witness statement, but if you go to tab 1 of the bundle, which is the witness statement of Mr Sidenius, page 11, paragraph 31, you have mentioned at paragraph 12 of your witness statement the allocation of responsibilities as regards fraud.
But I take it from your evidence that the MasterCard terms of dealing also set out the allocation of responsibilities for the actual credit write-offs, fraud losses, fraudinvestigation cost, collections, funding costs and processing costs? Have you seen paragraph 31?
A. Yes, I see paragraph 31.
Q. At paragraph 12 , you say there's an allocation of responsibilities, and you highlighted fraudulent transactions. And I'm just asking you whether the MasterCard terms of dealings also sets out allocation of responsibilities relating to the six items at paragraph 31.
A. I wouldn't be able to answer if they were specifically in the rules because, again, I was not responsible for setting the rules. But typically in a payment scheme where it is a bank issuing cards, the costs for fraud
investigation and so on are borne by the issuing side.
That's why they recover the costs.
Q. Let's put it another way: your team sets the multilateral interchange fee, correct?
A. Correct.
Q. When you are setting the multilateral interchange fee you have regard to these six items?
A. We use multiple components to define the right balance and the right level of interchange, of which one of the components is the cost components. And this is what is referred to in this witness statement of Mr Sidenius.
Q. So the answer is yes, you will have regard to these six items?
A. Yes, we will get information in terms of the costs that issuers in the market on average bear for driving the payment scheme.
Q. This is an area where you may be asked further questions. Have you still got your finger in your witness statement? Keep your finger in your witness statement and just flip to C2, tab 2, page 40, paragraph 67. You have got those two.

You say at paragraph 10:
"The interchange terms on which acquirers and issuers deal together can either be agreed by an acquirer and issuer with each other (a bilateral

9
agreement) or can be set by MasterCard in a particular country.
"Fallback interchange fees. Fallback interchange
fees only apply in ...(Reading to the words)... as their name would suggest."
Now, you were the general manager for the Nordic and Baltics. You are now the general manager for France, as I understand it. Before we get to what Mr Douglas says about the UK, arethere any examples of bilaterals in Europe?
A. Absolutely there are examples of bilaterals. Just to be very clear and the mechanism, how interchange works, it is in the first place the promise that a cardholder, in every market where it goes and wants to pay, the system works. And the issuer knows what he will get as a cost and what he will get as a revenue to accept the transaction. At the same time the merchant knows what the costs and revenues are associated with the transaction.

That is the basis. That iswhy we have a fallback
balancing mechanism. Then MasterCard allows between the issuers and acquirers to make bilateral agreements around what is the level ofinterchange which they will agree. So in some markets this is applied and used, in some other markets it is not applied and used, and in
some European markets, for instance, like the Swedish market is a good example, bilaterals are used.
Q. And as I understand it, is it Austria, the debit card? Are there bilaterals in Austria, are you aware?
A. I'm not aware of bilaterals in Austria. But there are multiple examples where it exists and there are multiple examples where it does not exist.
Q. You have given Sweden there and you say there are multiple examples. Can you assist the Tribunal with any other examples or countries in Europe, for example?
A. I can give you an example. Sweden is a market where there is a lot of bilateral existence. For instance, also in the Baltic markets there are examples of bilateral interchange fees.
Just to clarify, perhaps also on the bilaterals, that the level of the bilaterals can sometimes be higher than the multilateral interchange fees, sometimes can be lower. This is a commercial, or a negotiation between the two parties in the system.
Q. I asked you to just go to Mr Douglas' witness statement C2, at tab 2 of C2, paragraph 67 , page 40 . So this is in a world of no multilateral interchange fee in the UK.

He says:
"MasterCard would have had to persuade its issuers and acquirers to enter into bilateral agreements setting

## 11

bespoke interchange fees to apply to the transactions between them. I believe that a sufficient number of bilateral agreements could have been entered into to deal with this given the limited number of major issuers and acquirers in the UK market."

Then he goes on to say about Maestro and rates.
But just concentrating on those two sentences, is that something that you would agree with?
A. Within the market domestically in the UK, if there is a limited number of participants, issuers, acquirers, I think indeed it is possible that those issuers and acquirers would be able to agree amongst themselves about what is the level of interchange that both parties seem to need to make the system work. That is domestically set.

Of course, it is impossible for every single acquirer and issuer in the UK market to do this across the world with all transactions. On a limited scale it is possible. Just to clarify, that possibility exists and there's nothing stopping in MasterCard rules for issuers and acquirers in the UK market to do that.
Q. On that point, it existed, if you just -- have you got bundle E3.10? Go to page 4068, bottom right.
A. This is the same bundle?
Q. It is the scheme rules. It is bundle E3.10. The terms

```
of dealing. And the relevant page, it is the big
printed one, 4068. I'm interested in section 3.3.3
"Transaction requirements".
    So the customer must apply with a functional 24-hour
day operating connection to the interchange system.
    Have you got the page?
A. Yes, I have got the page.
Q. And not force any other customer wishing to operate
    multilaterally using the interchange system into
        bilateral agreements.
    Can you just assist on what the purpose of that
        obligation is: not to force any other customer wishing
        to operate multilaterally to use bilaterals? Why would
        that obligation be in the terms of dealing?
        A. I cannot comment on the specifics, why this is there.
        This seems to be a technical requirement, and sometimes,
        for instance, if we are talking about cross-border
        transactions as one example, a multilateral fee is
        required if one of the parties does not have
        a bilateral.
        In any case, if there is a bilateral agreement
        between an issuer and acquirer it always prevails, so it
        is always the transaction that is used. And there is
        nothing stopping MasterCard(?) between issuers and
        acquirers to enable bilaterals.
    Q. Okay. You can put that bundle away, I won't refer to
        that again.
        If you go to paragraph 24 of your statement, please,
        to pick up a point that you started to make. I slightly
        cut you off. But you say there that there are multiple
        factors which are considered when setting interchange
        fees. And you start off with cost data, yes?
        A. Correct.
        Q. And you say at paragraph 26 , I'm just focusing on cost
        data at the moment, so it is the first heading that you
        refer to in 24. Just focusing on that.
            At paragraph 26, if you could just look at
        paragraph 26 , at a basic level the scheme must ensure
        that all the participants involved in it can cover their
        costs.
        What do you mean by that? Costs of what?
        A. I mean, that is a payment system. This is a two-sided
        system. This is at the one hand the issuing bank
        distributing the cards and they will incur costs for
        distributing these cards. They need to recruit new
        cardholders, they need to score credits, for instance,
        on this new cardholder, they have costs to process the
        transaction.
            At the same time, also on the acquiring side that
        deal with the merchants that have a relationship with
Q. Okay. You can put that bundle away, I won't refer to that again.
If you go to paragraph 24 of your statement, please, to pick up a point that you started to make. I slightly cut you off. But you say there that there are multiple factors which are considered when setting interchange fees. And you start off with cost data, yes?
A. Correct.
Q. And you say at paragraph 26 , I'm just focusing on cost data at the moment, so it is the first heading that you refer to in 24. Just focusing on that.
At paragraph 26, if you could just look at
paragraph 26 , at a basic level the scheme must ensure
that all the participants involved in it can cover their costs.
What do you mean by that? Costs of what?
A. I mean, that is a payment system. This is a two-sided system. This is at the one hand the issuing bank distributing the cards and they will incur costs for distributing these cards. They need to recruit new cardholders, they need to score credits, for instance, on this new cardholder, they have costs to process the transaction.
At the same time, also on the acquiring side that deal with the merchants that have a relationship with
the merchants, they also have costs. So there is the overall set of costs to make the payment system work. That is the costs I refer to.
Q. So keeping that paragraph 26 in mind, then going to paragraph 31 , and again just focusing on costs, you say that:
"MasterCard, in attempting to balance the costs of the issuers and acquirers ..."
Which is what you just referred to:
"... wants to ensure that issuers are not paying too large a proportion of the total costs, since this will make the scheme uncompetitive ...(Reading to the words)... from cardholders."
What do you actually mean by that?
Could you just explain how paragraph 26 and the
first sentence of paragraph 31 act out?
A. This I think goes back to the principle of the
four-party scheme that I mentioned. It is costs on the issuing side to recruit cardholders, to manage that, it is costs to recruit merchants and manage and process the transactions on the merchant's side.
Various studies and theories have been developed and measured those costs in this eco-system, and it has been found that the costs on the issuing side far outweigh the costs on the merchant side. So in order to make the

\section*{15}
system work and to make sure that issuing banks distribute cards to cardholders that participate in the system, they need to be compensated, because if the costs are not the same you will not get any issuing of cards to the cardholders. And you will, of course -you get merchants, but you also need to get cardholders.

That is the basic foundation of the interchange, is to balance the mechanism and to make sure that both parties who have a benefit to make the payment scheme work, the merchant and the issuers who distribute the cards, that they both contribute to make this eco-system maximal, optimal and drive volume and drive usage of the system. And at the basis of it, the issuing side has a much higher cost component than the merchant side, and that's why there is a balancing mechanism which we call interchange.
Q. We shall come on to that in a little while.

Going back to paragraph24, after cost data you
refer to competition, and this is a theme that is
throughout your witness statement.
Could you just explain what you mean by competition there?
A. So competition is indeed a very important element in the setting of interchange as well. Why? Because in the first place MasterCard, when you develop and launch

1
\begin{tabular}{lr} 
a product, it needs to be competitive in the market. So & 1 \\
if you launch a product you need to make sure that the & 2 \\
product you provide to the issuer can compete in the & 3 \\
market with other products. & 4 \\
So if you are making a standard product you need to & 5 \\
be able to compete with alternative products for the & 6 \\
issuers, for instance. It could be Visa in this case. & 7 \\
If you are making premium product you need to make sure & 8 \\
that from a consumer perspective the benefits that are & 9 \\
given to the consumer, the insurances, the rewards, that & 10 \\
they are competitive with what the issuer could do as & 11 \\
an alternative. For instance, issuing an Amex card. & 12 \\
So competition is a very important part of setting & 13 \\
interchange as well. & 14 \\
Q. Keeping that competition, that competitive element in & 15 \\
mind, I just want to take you to three paragraphs of & 16 \\
your witness statement. & 17 \\
Again, keeping the competitive situation in mind, & 18 \\
the first sentence is paragraph 30 and then I will take & 19 \\
you to all three and then I will ask you the question. & 20 \\
In 30, you say: & 21 \\
"The costs incurred are not necessarily the defining & 22 \\
factor in the ratesset by MasterCard." & 23 \\
All you have to do is say yes or no, because & 24 \\
otherwise we will lose ourselves. & 25
\end{tabular}

\section*{17}

But that's your evidence: that the costs incurred are not necessarily the defining factor in the rates set by MasterCard.
Then at paragraph 35 , you say, again this is your evidence, a vital factor when setting rates is the rates of MasterCard's main competitors. Correct?
A. Mmm .
Q. Then if you go back to paragraph 17, you say that:
"To assess and set interchange fees, the interchange fee team researches the relevant payment market looking at market trends."
And
"If necessary, will request a cost study."
I take it from that that sometimes you don't
actually request a cost study.
So keeping those three statements in mind, the
logical implication of that, those three statements, is
that you may raise an interchange rate that is not based on cost?
Can I have a yes or no answer to that and then you can --
A. Am I allowed to put the context?
Q. I will ask you the question, then you can say anything you want, but I would like an answer to the direct -MR HOSKINS: I think he should be allowed to answer it the
way he wants.
MR BREALEY: No, I would like to --
MR HOSKINS: I think he should be allowed to answer it the way he wants.
MR BREALEY: I would like to ask the direct question and then you can say anything you want to clarify it.
The logical implication of that is that you may raise an interchange rate that is not based on cost? Yes or no, and then you can say whatever you want.
A. I would say no. And I would say that the -- in setting the interchange for a specific product always different factors will be taken into account.

What I mean is in the first place a cost basis will be taken into the account. In the first place. And we always will take -- look at what is the cost basis. It does not mean that at every point in time a new cost exercise needs to be conducted because that is a very complex process, but an element of the cost is always taken into account.
Secondly to that, it might not be the determining factor for setting interchange. You might very well have an interchange which is below -- set below a certain cost level to make the balancing. But if that results in a product that is not competitive, it doesn't work in the market, the issuer is not able to issue the

\section*{19}
product because you have set the wrong interchange and it cannot compete on the issuing market, then you have got the wrong interchange. It is one of the factors.
Next that there's also a third dimension which important, which is the evolution of the market, for instance, new technology. If we are talking about contactless transactions, if we are talking about chip cards to improve the security, we will use interchange to drive the innovation in the market.

So there is multiple aspects to setting of the interchange of which the cost and competition are important ones, but they are not the only one.
Q. That is not quite what I asked you. You do take into consideration costs, I accept that. I asked you, and I will ask it again: do you ever raise an interchange rate which is not based on cost? Is the increase ever made with, for example, a competitive situation in mind?
A. That is possible. It is very well possible that you have an interchange which is higher than the cost rate because of a competitive reason, though those cases are very, very exceptional. But theoretically it is possible.
Q. I had understood that MasterCard's evidence regarding the Maestro is that it just was that: they wanted to increase the Maestro rate in order to be competitive
with Visa?
A. I think that is a very short (inaudible) summary of why their rate needs to be increased. But I understand that it is essential in the market to have a product that is competitive. So if the rate is not competitive that is a good reason to increase it, yes.
Q. Mr Willeart, there are thousands of documents in this case and, forgive me, but one document seems to be missing and that is the precise calculation by the interchange fee team of the UK MIF.
Can you assist the Tribunal with why that is?
A. I cannot answer on the specific document because I was not --
Q. It is not annexed to your statement, for example?
A. No, exactly. So I would say that, and I think what you are hinting at is, is there one precise formula where you magically pump in all the information and the interchange comes out? No. An interchange is a balancing mechanism and you need to take various inputs into account to set the right level of interchange.
There are other examples, for example if the Central Bank sets a interest rate, they are also using a mechanism in the market to balance. So it does not necessarily require one specific formula.

\section*{21}

So this, typically whereyou are balancing two different market sides, it does not mean necessarily there is a specific formula for saying "This is now the right level of interchange".
Q. There is no document that MasterCard can produce to the Tribunal or to the experts in this case which will allow them to assess in some detail how the interchange team arrived at a certain level throughout this claim period.
A. I would disagree with that. I think MasterCard typically put a very robust methodology in place. We set interchange levels, taking the different components into account. That was surely the same case for the UK interchange where at the one end there was taken a cost basis as an input, which was a cost study performed typically by Edgar Dunn, it was outsourced to have an independent company to look at what are the costs in the market. Secondly, we would look at different research. What is the trends in the market. How we drive people from cash to electronic payments. And of course there was a (inaudible) done from competition, and there is various documents from every single time that MasterCard set an interchange, there was a thorough process done that took multiple months, was independently done and came to a conclusion in a document that was presented for approval independently
by MasterCard.
So I would disagree. There was a very robust process and there was documentation to prove it, as in the various documents.
Q. Have you exhibited any calculation to your witness statement?
A. I have not in my witness statement given any statement about exact level of interchange in UK.
Q. No.
A. So I did not feel I would need to submit annexes on what is the level of interchange. But I am sure that the court can have access to the pages and documents, if it has not got it already, that defined how the rate in the UK was set.
Q. And with detailed calculations of the costs, the competitive situation, the market conditions, every single factor that was taken into account to arrive at the certain level of interchange fee for the UK, you think that such a document exists, do you?
A. There are typically interchange documents, EIC documents, which are a proposal and which state -- which are a summary for a committee to review.
Q. Correct, they are a summary. I am not sure I need the exhibit to your witness statement. We get a minute saying this is what it should be, but I'm asking you

\section*{23}
whether there are any documents which would allow us to verify how it has been calculated?
A. So in preparation of this document there are various materials made, calculations made to come to this conclusion and this is the end result, which is a study that were done to come to the conclusion. For instance, if there is a cost component and a cost study done, there is a lot of work done, data collected from various parties in the market, in this case I'm referring to studies done by Edgar Dunn, they collect those informations and they produce an end report. The result of this end report is produced in the interchange proposal, which is the EIC document.
So there is a process and there is a summary to come to a conclusion.
Q. Yes, Mr Willeart. We have lots of Edgar Dunn reports, we have lots of EIC reports, we have nothing in the middle. We have no detailed calculations from your interchange team which would allow us to verify how you have gone from Edgar Dunn to what the EIC has sanctioned.
A. I would say the different inputs are clearly laid out in the document, and the logic and how a rate was proposed is clearly laid out in this document. So I'm not sure -- as I mentioned, there is no one formula that
will make up this is the level of interchange, but the logical conclusion, how you get to the level of interchange, is clearly explained in this document.
Q. Anyway, for today's purposes you are not able to assist the Tribunal in how the interchange fee team arrived at the UK MIF? Except in a very vague terms.
A. I would disagree with that. I think to me what I explained is that interchange committee took into account the various cost components, took into account the competitive level in the market and took into account the different factors to come with the rate proposal. And that was what was used, and in this case for the UK interchange team it was done before I became responsible, for the same process applied when I was responsible.
MR SMITH: Mr Willeart, a few moments ago you used the analogy of the Bank of England interest rate setting. Now, as I understand that process, there is a regular meeting, a monthly meeting, at which the rate is reviewed. And I anticipate before that meeting there are briefing documents circulated, they are read, the Committee assembles, they discuss, make a decision and then after the decision minutes are published for the public as to how the conclusion has been reached. Is that the sort of process that MasterCard adopts?

In other words, are there regular reviews of what the MIF should be for a particular market, monthly or however, or is it a more ad hoc process?
A. I would say it is -- there are multiple changes that can happen and when there is a review required. For instance, when there is a new product being launched in the market, that will be taken into account. There is going to be a meeting with the business people and the product teams in MasterCard to understand what they are trying to achieve in the market, what is the competitive situation, what is happening in the market trends.
That information will be collected, and of course together with the interchange team, will be reviewed and a proposal for how the interchange should be set is developed. So such process indeed exists.
And there is multiple ways it can exist. It can start with the interchange team reviewing the rates. It can come from business needs. It can come also from, for instance, a new technology in the market and there is a change required. It can also be that competition has made a change.
So there is, I would say there is a very regular discussion with market teams about what's the level of interchange, what are the various products that need to be issued. And all that typically results in
an interchange proposal if there is a change required to the setting, and that would then go to the -- through the approval process.
So there is a similar type of approach, not necessarily every week, but there is a similar type of methodology approach.
MR SMITH: Correct me if I'm wrong, it is perhaps not regular in terms of a monthly set date.
A. Correct.

MR SMITH: But perhaps more triggered by something happening, whether it be a new product or a new technology or a sense that the competitive situation in the market may have changed requiring a review.
So would it be fair to say that the review of the MF requires some form of external trigger to produce it rather than it being done on a time set basis?
A. Definitely external factors will trigger it, but also internal factors; we will look at the evolution of the products in the market.
To give you one example, at some point in time we observed that the premium product, which were competing with Amex, we had launched the world product in the UK market, became very successful in the market. We expected more world products to come into the market, so we proactively took the decision to lower the

\section*{27}
interchange across products in order to manage the cost in the system for the merchant and for the acquirers in the system.
So this was a case, for instance, where there was not necessarily any external competitive situation. There was more, let's say, a proactive approach from MasterCard side to look at what is going to be the future evolution of the average interchange in the markets and do we need to take any action.
So that was one occasion. But you are right, there is multiple ways you can be proactive. Sometimes it is a new product.
MR SMITH: Thank you, Mr Willeart.
Thank you, Mr Brealey.
PROFESSOR JOHN BEATH: I have a supplemental question. I'm still trying to get to grips with what goes on in your team's mind as you are generating this MIF, because the way you describe it you have some hard information, Ipresume that's what EDC provide, hard information, it maybe based on some judgments of players, but it's hard information. Then you also have soft information, which is all this stuff about, you know, what the market is like and so on.
Now, when you bring these things together you have to have a baseline to start from. So is the baseline
the cost information and you then have a judgmental 1 factor? Because, you know, thinking about the Bank of 2 England MPC process that's exactly what it would be. 3 There is hard data on the economy, and then you think about expectations and things of that sort.
Is that actually the way your team ends up with
"This is today's MIF"?
A. It is a very good question. I'll try to explain it.

So I would say -- in the first objective I would say that the product that you put in the market, let me assume that we would be setting the rate for a new product from MasterCard that would be launched, of course the first objective would be to ensure that the product is competitive in the market.
So that is the first objective. Then what you would do is you would look at the cost information --
PROFESSOR JOHN BEATH: But if it didn't cover the costs.
I mean, if to be competitive it didn't cover the costs, would you simply withdraw the product?
A. So if you would, let's say, need to set an interchange would be higher than the costs in order to be competitive, then I think no. So you could still go ahead.
But, for instance, let memake a concrete example. The premium product. We get a study from Edgar Dunn
that says the cost in the market on average is 100 basis points on average. Then we want to compete with Amex. So we say, well, Amex gives the issuers on average, let's say, 160. So if I'm going to launch a product at 100 , it is never going to be able to compete, no issuer in the market will launch this.
So I can actually make -- set an interchange rate which is competitive with Amex, say I put it at 140 because Amex has a different acceptance. So we look at 140 as a competitive rate, but then I would look at the overall costs in the market and then make an estimate how much of these products will be issued in the market. And I will look at the total costs in the market of all MasterCard products for merchants: Standard products, premium products. And the average of that, I would try to ensure that that is below the cost level, so that on average the merchant does not necessarily have an increase, or will not be above the cost. But that does allow me within this average to set some products at the higher rate to compete and some at the lower level.

That is why the average is a very important mechanism for setting this interchange.
MR BREALEY: That was a very helpful answer of the thought
process that you go through, but we don't seem to have
any details or minutes of the interchange fee team which would give us a clue as to how you go about that thought process; is that correct? Do you have minutes of the interchange fee team?
A. There were minutes of the meeting made which noted to the decisions taken on each of the proposals.
Q. But not why? Not detailed calculations?
A. Again, to me if I look at the proposals, read the proposals, I think the logic in the proposals is quite clear and follows the same logic as I explained.

There is not a dfference and the proposal is clear to how a rate was set, what was taken into account. The minutes did not go further than the discussion and the proposal, that is true.
Q. Well, let's look at an example that you give in your witness statement, which is the development and the repricing of the DMC proposition, which you refer to at paragraph 42.

\section*{You say.}
"I was therefore taskedwith developing and repricing the DMC ..."
That is the debit MasterCard proposition:
"... in an attempt to grow its volumes in 2010/11."
You saythat essentially you wanted to establish debit MasterCard as a superior debit product offering
towards issuers, correct?
A. Correct.
Q. 43 , the strategy was essentially to increase the
functionality of the debit MasterCard, and link it to the premium segment.

Again, at 44:
"In terms of functionality, we sought to relaunch debit MasterCard mandating PayPass functionality."

That was the increase in functionality, but it was also a correlation with the increase in interchange rates because you say that in order to do that, you wanted to increase the interchange rates to persuade issuers to issue MasterCard debit cards.

So in 43 and 44, you are looking at increasing functionality and increasing interchange rates to persuade issuers to take that card.

Could you expand on that? Why are you increasing the rates in order to persuade the issuers to take the DMC which has increased functionality?
A. I think it comes back to the essential point that if we set and launch a new product in the market, it needs to be competitive. And it needs to be competitive in terms of the proposition to the cardholder so the issuers can have an attractive product to distribute in the market. That is the essentials.

What we foundis when DMC at that time, when it was launched, and it is no secret, was not gaining a lot of traction in the market. If you look at our market share in the UK market, it was very low.

When we lookedat the position of DMC versus the competitive product of Visa, we did not find there was sufficient appeal to pick up this product.
So the strategyof the product in the market team at that time was to revamp, relaunch it and make something that was more appealing and also more adjusted to the time.

At that time it was the coming of contactless, so that needed to be a default proposition. We wanted to make sure that cardholder had a secure product, so we would put zero liability for cardholders in the product.
Then we refreshedthe interchange setting. Two objectives: first of all because we made a more appealing product, it was also higher cost for the issuers to put contactless on there, to put the zero liability insurance on there.
Also because we found the product, and in this case the interchange, had not made a difference for issuers to issue the product. So there was a change in product construct that justified us to change the interchange setting for that product.
Q. Okay. Also at paragraph 42, at the same time as you are establishing debit MasterCard as a superior debit product with increasing interchange rates to persuade issuers to take them, this is the third bit in 42 , you are confirming Maestro has entry level debit product.
We have evidence on this, you may have been in court. What is entry level debit product? Is that, as some people have acknowledged, the youngsters and the students?
A. I think this is in the context, when we look at the debit product that MasterCard wanted to offer to issuers, we say we are going to offer product which is superior versus Visa, with contactless on there, with insurances on their superior product. But we also want to make sure that when we have a range of products in the market there is a product which has less functionality, which has less benefit around the product, if you wish. So that is where Maestro was positioned at the time.
Q. You gave evidence of what I call the Maestro story, 36 to 41. Can I just confirm your knowledge of it. You joined MasterCard I think in 2010?
A. 2009 .
Q. So this is after --
A. Correct.
Q. -- the HSBC story --
A. Correct.
Q. So your knowledge of Maestro is a couple of years on, and as you fairly say at 39 :
"It was my understanding from historic documents"?
A. That is correct.
Q. Then at paragraph 41 , you refer to "a selection of documents available to me".
A. Mmm hmm .
Q. One document I should take you to to see whether, when you were drafting this statement, you had access to it, is at E3.12, tab 222, 4949, a document that we have seen. I don't know whether you have seen me refer to it. I took Mr Douglas to it, 4949 , this is a MasterCard document, maybe round about the time that you arrived. Do you remember ever seeing this? Is this one of the selection?
A. I don't remember (inaudible), but I don't remember.
Q. So you never saw this when you drafted your witness statement?
A. I don't know, no.
Q. So if you go to 4949 , here is MasterCard's assessment some years after. So they have obviously spoken to HSBC and RBS.
"The reasons for the portfolio losses in debit ...

\section*{35}
and there are multiple factors that influenced HSBC and RBS's decision to migrate their debit portfolios from MasterCard, notably overall economics, acceptance and marketing."
I took Mr Douglas through this and he accepted that all these were contributory factors to the loss of RBS and HSBC, yes?

If you weren't around at the time, then you obviously can't give direct knowledge of it, can you? But from your reading of historic documents or talking to people, were you aware of the limited functionality of Maestro? Were you aware?
A. What I was aware of is that -- this was mentioned, I think it was also mentioned on Monday. There was the famous less acceptance for the Maestro product. I think that is one of the topics.
Q. If you just pause there. If you look at the second product strategy:
"The UK was still Maestro-based providing strong UK acceptance, but inconsistent throughout Europe and little across other global markets with the US representing a key acceptance gap."

Were you aware of that?
A. Well, I have a slightly different view from the way it is written here, because if I look across Europe,

1
Maestro and especially -- Maestro is a very strong brand and a strong product. If I look at the Dutch market, for instance, all of the Dutch cards are Maestro cards. In Germany, 80 million cards in Germany has as a brand on there, Maestro. Why do they have it? Because it allows them to cards they use outside of Germany.
Q. Pausing there. Can you flip back to page 4857 and let's look at the figures that were available at the time.
So what HSBC and RBS had, when they were making their decision whether to go with Visa or not. 4857. This is another MasterCard document, debit MasterCard. A new choice. You see 4857. We call this the 10 million versus the 23 million point.
So the figures at the time that these two banks were making these decisions, we see the acceptance. I think one of the witnesses -- I don't know whether it was Mr Perez, I can't remember now. I think it was Mr Perez yesterday accepted that where you see the figures for MasterCard, you can take equivalent figures for Visa because they have a similar reach.

But you see there: acceptance 23 million locations worldwide for, say, Visa, but only 10 million locations worldwide for Maestro.
I would suggest to you that that is a humongous difference in acceptance.
A. For sure I'm not going to debate the figures here.

I fully follow you there is a big gap in numbers, but I just also want to put in perspective that Maestro is exactly the brand taken by many banks across Europe to give their cardholders access outside.
So the level of acceptance, where it is, could be that in at small remote locations in the US there is not a Maestro, but if you travel to New York, travel to the key points, there is Maestro acceptance.
So the overall numbers might be lower too, but surely 80 million German Maestro travellers also travel to the US. I agree there is a difference in numbers, but there is also an important factor about where the acceptance is.
But I do agree with you that there is a difference in numbers --
Q. Quite a significant --
A. There is a significant difference in numbers, absolutely. But the important part is where is acceptance gap. The important piece.
Q. One of the reasons for the significant difference in numbers was the limited functionality of Maestro. I think you accept that. For example, we have just seen it was sporadic. Let me put it as neutrally as I can. In the US it could not be used for e-commerce at the
time. It had limited functionality.
That is one of the reasons you were charged with establishing a superior DMC, correct?
A. I think you need to take the time perspective. So I do understand there is, and there is, a difference in acceptance of the product. I'm not going to debate that.
Q. And is it due to functionality?
A. I would say at that point in time there is different functionality of Maestro online versus, for instance, a Visa card online at the time.
But let's put it in perspective at that time.
E-commerce transactions, we are talking the period 2005/2006, e-commerce transactions were a very small proportion at the time. So if you take different perspectives about what happens, to me the interchange component is a very critical aspect.
I'm not saying that the other doesn't play a role, but the interchange one, let's not forget the gap in interchange between Visa card and a Maestro card, and just make the numbers. If you make the numbers, the card was 10 basis points difference. 10 basis point, if you take a portfolio of 5 million cards -- I'm just making an example here -- about \(£ 8,000\) spent makes on a yearly basis about \(£ 40\) million difference for a bank

\section*{39}
if they issue a Maestro card and they issue a Visa debit card.
I think that's also an element that we should not ignore because that's a key factor for me.
Q. It is, but if I'm a cardholder and I have a Maestro and

I go to Los Angeles and I can't use my Maestro card,
I may go to another bank that will offer me a card that I can primarily use in the UK but also gives me that ability abroad. You would accept that?
A. No, I understand that acceptance is a key part. But I'm also saying that acceptance on key locations was there, because the Germans also travel to the US. And it might be that in outside locations, in Texas and wherever, there is a lower acceptance, but if you go to the key airports, key cities in the US, there was Maestro acceptance. There is no problem.

There is 80 million Germans, all the Dutch. This was a cross-border brand. The reason of existence of Maestro in Europe is the fact that it allowed domestic schemes in Europe to give international acceptance. So surely it worked for the Germans, so it cannot have been that bad that it totally didn't work for the UK market.
Q. But I think you have accepted that there was --
A. A difference --
Q. -- a difference in functionality between Maestro and the
```

Visa product?
A. Absolutely.
MR SMITH: To be clear, this difference in functionality
though is exactly the same in Germany as it is in
the UK?
A. Absolutely.
MR SMITH: So why is it that Maestro is still so popular inGermany compared to the UK, in your view?
A. My personal belief is that the product in the UK was uncompetitive. If you have a 10 basis points gap versus the competition, versus Visa, which result in 40 million difference on a yearly basis, that is the difference. In the Netherlands, in Germany the product is not uncompetitive.
And I do agree that there is perhaps the benefits of the bigger acceptance, higher e-commerce use is an element in consideration, but I would not -- let's notforget the key component is the fundamental economics of the product.
MR JUSTICE BARLING: So the difference, differential in Germany and Holland was --
A. There is no differential between the competition.
MR JUSTICE BARLING: The MIFs were equivalent, were they?
A. Exactly. So there was not a competitive disadvantage which was the case in the UK.

```

\section*{41}

So that to me is a very logical explanation why the banks moved away from the product. The amount of money that they lost if they would not switch was too big.
MR SMITH: Just to understand in very broad brush terms the structure of, say, the German market. Obviously Maestro is bigger. Could you just give us a thumbnail sketch of the extent to which there is greater or less debit versus credit card usage in Germany than in the UK and the extent to which Visa and MasterCard are bigger or smaller relative to Maestro, again in Germany and the UK? Just give us a feeling of the two markets.
A. I (inaudible) your point, because of course I don't want to simplify, compare the UK market, German market. The markets are different in terms of card usage.

The German market is verymuch a cash market still, and in terms of proposition, MasterCard has, because of Maestro, been, let's say, the cross-border partner for the domestic banks, if there is a domestic scheme in the market, which is called Giro. And that is used by the Germans, and when they travel abroad they use the Maestrobrand to pay the cards. That is --
MR JUSTICE BARLING: E-commerce is less, is it?
A. No, e-commerce -- so there is e-commerce developed for Maestrofor sure as well. But the acceptance for Maestroonline is still less than it is for MasterCard.

That is a fact.
MR JUSTICE BARLING: Are you saying that's less important in Germany because it is a cash economy?
A. I would make a difference between now when e-commerce is significant, but let's not forget this was happening in 2005/2006 when the banks took the decision, e-commerce was a very small proportion at that time. We were at the start of the e-commerce period.
MR BREALEY: With respect, they gave the decision in the last quarter of 2007.
A. Excuse me?
Q. The banks made their decision not in 2005/2006. They made their decision in the last quarter of 2007.
MR JUSTICE BARLING: Sorry, Mr Brealey, we have been interrupting you. Shall we have a short break then?
Mr Willeart, feel free to stretch your legs but do not talk to anyone.
(11.40 am)
(A short break)
(11.50 am)

MR BREALEY: So Mr Willeart, just concluding on this and we were looking at paragraph \(42,43,44\), the launch of what you call the superior debit MasterCard. And I think we have established that your evidence is that the launch of the superior debit MasterCard merited higher

\section*{43}
interchange fees because of its functionality, correct? It is what you say.
A. It needed to be a competitive product and functionality was one of the aspects, yes.
Q. So if you get higher interchange fees because of increased functionality, logically, I would suggest to you, an inferior product should attract lower interchange fees. It is a question. An inferior product should logically attract lower interchange fees?
A. It depends on the context, the specific context of the market, what product was the competition at that time. I cannot answer that as a theoretical hypothetical scenario.
Q. You can't answer a straight question? You think it depends?
A. It depends on the context because the product in all cases needs to be competitive, so I don't know in your scenario what is the competitive situation. If the inferior product is competing with another inferior product which has a higher interchange then it is a different situation.
Q. Let's see if we can get this straight. So on the Maestro, I think it is accepted that it was not as good as the competing Visa product. You would accept that?
A. Correct.
Q. If it is inferior to the competing Visa product you say 1 that you need higher interchange fees in order to make that inferior product competitive with a Visa product, correct? Competitiveness seems to be the key element here.
A. It needs to be a competitive product, yes.
Q. So in other words, I think you talked about the 10 basis points. It would be MasterCard's intention to increase the interchange fee of the Maestro product simply to compete with the superior Visa product, correct? To make it competitive in terms of the amount of money the issuers are going to receive.
A. That could have been one of the scenarios, yes.
Q. So in essence, the effect of your evidence is that had MasterCard increased the Maestro interchange rate, they would have been asking merchants to pay issuers to retain an inferior product? Correct? Logically it follows.
A. I think -- I mean -- I'm not sure I follow the context.
Q. I think you do follow me. The whole thrust of this evidence that you give at 36 to 41 is that if only we could have increased the interchange fees we could have made the Maestro as competitive with Visa and retained the two accounts.
That's the thrust of what you are saying, and what

\section*{45}

I'm putting to you is if you had been able to do that, to make it as competitive as regards price, the merchants would have been paying for issuers to retain an inferior product. It is a simple proposition. Can you agree or disagree?
A. I would agree that if the rates would have been the same as the Visa product, that most likely would not have lost the debit portfolio to Visa. That's my personal belief on that.
Q. And it would have meant that for a period of three or four or five years, MasterCard retaining the accounts, that people with a Maestro card in the UK would have had a 13 million location gap, because we have seen the difference between Visa and Maestro amounts to 13 million locations?
A. But just to be very clear, the interchange you are discussing is a domestic interchange in the UK.
Q. I thought --
A. The acceptance gap we are talking about was an acceptance gap in the US.
Q. It means --
A. So the proposition in the UK was very competitive and similar as the Visa proposition. You were talking about a competitive difference in acceptance in the US.
Q. Anybody living in Tottenham in London with a Maestro
card would have 13 million locations, less than if the person in Tottenham took the Visa card to use worldwide, correct?
A. I don't understand why the acceptance in the US has a difference for the acquirers in the UK in terms of the costs for the transaction of the card.
Q. It has a difference for the cardholder, doesn't it?
A. For the cardholder, there is a difference, I understand, yes.
Q. Yes.
A. But I don't understand what is the difference for the cost of a transaction in the UK. I don't understand that.
Q. All I'm putting to you that had MasterCard increased the rate by \(3 p\) or \(4 p\), on your evidence, your evidence is, if only you had been able to do that, you would have retained the accounts for three, four, five years, how long the period was, you would have retained the accounts, the customers in the UK who had Maestro cards would have had an inferior product?
A. In the UK the customer would have a similar product as the Visa product because the acceptance was the same.
Q. You also mention Amex.
A. Yes.
Q. About how you are going to lose market share if only you
could compete with Amex. Is this the evidence -- we are looking at essentially paragraphs 46 to 56 -- are you giving this evidence with your interchange fee hat on, or what? Or your experience as the general manager of France, the Nordics? Where is the experience coming from?
A. Probably my witness statement has elements of both, I am sure.
Q. So if you go to -- I don't know what bundles -- have you got E --
A. I have bundle E3.12.
Q. I think we will not need that. You will need to put that away and go to E3.13.
So we won't go at length through all the Amex documents, we have been through it with the witnesses, but I will take you to this one, E3.13, tab 249. Before we delve into this document, let's just go to the front -- is this blue? (Pause)

Then I'm afraid I can't ...
MR JUSTICE BARLING: This is the document that we went into camera.
MR BREALEY: Let's see if I can --
MR JUSTICE BARLING: It depends on how extensive your cross-examination --
MR BREALEY: I will do my best.

MR JUSTICE BARLING: See how we get on.
MR BREALEY: This is confidential to MasterCard so I will
take you to various passages, you can read it and
then ... (Pause)
I'm going to show you this document in the context
of your evidence where you say that you need higher
interchange fees to compete with Amex, correct? And
just let's get some base rules from the evidence that
you have given on the interchange fees, how you set
them.
Do you accept that the multilateral interchange fee
is a cost set by MasterCard?
A. It is a balancing mechanism by MasterCard, correct.
Q. If I can call it the MIF, that the MIF sets a proportion
of the issuer's costs. I think you have accepted that.
So the MIF sets a proportion of issuers' costs?
A. The MIF balances the costs from the issuers to the
acquirers, correct, yes.
Q. I'm just taking this from your evidence.
This is not necessarily in your evidence, but I put
it to you that the effect of that is that there is no
competition between acquirers and issuers as to the
proportion of issuers' costs because it is a common
cost. Do you agree with that?
A. Yes. 49
Q. But you say that this fixed common cost is necessary to
stimulate interbrand competition from a competitor, here
Amex, correct?
A. Yes.
Q. Whilst it may restrict intra-brand competition -- do you understand the --
A. Can you --
Q. Intra-brand competition? Intra-brand competition is competition in the focal product, say MasterCard. So there is no competition in the MasterCard interchange fee.
A. Okay.
Q. So there is a distortion of competition, a common fixed cost, MasterCard. But you say that that restriction of competition intra-MasterCard, you need it in order to compete with Amex?
A. What I'm saying and what I mean is that you need to be competitive with Amex, and for that purpose MasterCard has multiple products, premium products to compete with Amex, and other products that compete with standard products, yes.
Q. It's what the economists like Dr Niels and

Mr von Hinten-Reed --
A. It's complex --
Q. Call intra and inter-brand competition. I thought you
might know that.
That is in the context of your evidence here. This document, you can see what it is. It is a -- I am sure I can say this, a steering committee. Do you know whether you were on the steering committee?
A. I was not on the steering committee, no.
Q. So you have never seen this document?
A. I have never seen this document.
Q. Do you get access to these sorts of documents? I mean, this is essentially a commercial document giving the state of play of the market and of the competitors. Do you ever get access to this sort of stuff?
A. Could be that I get access to this, but this is not necessarily systematic.
Q. When you signed your statement, when it was prepared for you, did you have these sorts of documents? Were these sort of documents shown to you?
A. No.
Q. If you go to page 5319, I think it is 5319 , we have seen
this before, do you agree that MasterCard has
a significant acceptance advantage over Amex?
A. Yes, I agree with that, but you need to nuance a little bit.
We are talking about the premium markets. So it is important always to look about the premium market in

\section*{51}
specific. So if you look at the market in total and look at acceptance, for a premium cardholder, the acceptance in a small village in the north or in the south is less important than the acceptance in a high street location in London.

So while these figures are market averages, you of course would need to look into, from a premium perspective, what is the acceptance and what is level of acceptance, but of course there is a difference in acceptance, I do agree with you there.
Q. At paragraph 55 of your statement, I think you are, or throughout really you also are referring to the Amex GNS offering.

If you go back to 5318, at the bottom you see it says:
"The Lloyds Duo."
You see the second bullet point, there was evidence from someone from a bank in these proceedings saying that the Lloyds Duo was complex and customers did not really understand the two-card concept.
Would you agree with that? Is that your experience?
A. Unfortunately, I can't comment a lot on the market experience, but I understand that it was not, let's say, potentially as successful as they may have wished. I have not been very close to that specific product ...
\begin{tabular}{lr} 
Q. Again, this has been debated at length, but I in & 1 \\
fairness show it to you. If you go to 5327 , you see & 2 \\
that that is dealing with what we have referred to & 3 \\
publicly as the experience in Australia. Are you aware & 4 \\
of the Australian experience -- & 5 \\
A. I'm not aware in detail of the Australian experience. & 6 \\
Q. If you go over the page, which is 5328, the penultimate & 7 \\
bullet point, which says "meaning". & 8 \\
A. Which page? It is page 28. & 9 \\
Q. I'm sorry, page 5328, with the fourth bullet point: & 10 \\
"Meaning that ..." & 11 \\
Are you aware that thatwas the experience in & 12 \\
Australia? & 13 \\
A. I guess -- I'm not aware of the details in the & 14 \\
Australian market, but I think the key point is to & 15 \\
understand in this context how did MasterCard compete in & 16 \\
that market. & 17 \\
If MasterCard was able to compete with the premium & 18 \\
rates towards Amex, I would expect typically that lots & 19 \\
of market share would be limited. MasterCard would have & 20 \\
been capped at an interchange level, then of course it & 21 \\
would have been a challenge to compete and I would & 22 \\
expect Amex to gain share. & 23 \\
If MasterCard was able to issue a card at the & 24 \\
premium interchange rate, I would expect them to be able & 25
\end{tabular}
Q. Again, this has been debated at length, but I in fairness show it to you. If you go to 5327 , you see publicly as the experience in Australia. Are you aware of the Australian experience --
A. I'm not aware in detail of the Australian experience.
. If you go over the page, which is 5328, the penultimate
Q. I'm sorry, page 5328 , with the fourth bullet point:
"Meaning that ..."
Are you aware that thatwas the experience in Australia?

I guess -- I'm not aware of the details in the
Australian market, but I think the key point is to
understand in this context how did MasterCard compete in hat market.
If MasterCard was able to compete with the premium rates towards Amex, I would expect typically that lots of market share would be limited. MasterCard would have been capped at an interchange level, then of course it would have been a challenge to compete and I would expect Amex to gain share. premium interchange rate, I would expect them to be able
to compete and defend their position. My understanding is that there was a premium interchange for MasterCard at that time in the market. But ...
Q. Well, I'm not sure that's correct. But are you aware that --
A. I believe there is an average of what MasterCard was expected to respect, and an average is important because it is allows you to set premium interchange to compete with Amex and to set a lower rate, and then you respect the average. I think that's the essential element for the Australian case.
Q. So you have or you have not studied Australia?
A. No, I have not studied, but I understand that there has been an average interchange which is respected.
Q. If you were aware of it you don't feel you should have dealt with it in your witness statement?
A. Sorry?
Q. Should you not have dealt with this in your witness statement? You are coming to this Tribunal, it was for the court, saying that it was almost certain that you would lose premium business. I'm suggesting to you that you haven't really been shown all the documents which would better inform you as to whether that's correct or not. Would you accept that?
A. I have not seen this document.
Q. Are you aware of what is happening in the UK, the market
intelligence about how Amex is responding to the 0.3\% cap?
A. No, I'm not.
Q. But I do suggest to you that the concerns that you or MasterCard have about losing market share to Amex, if you did read all documents and gained the market intelligence, would be misplaced. I have to formally put that to you.
Do you accept that you would like to gain more market intelligence in order to say that it is certain that you would lose the premium business to Amex?
A. I would say that the Amex is a significant threat in the premium space to MasterCards. I mean, both when I was working on the interchange side, both as I'm working as a general manager, I see we are competing with Amex in the market. So I'm very comfortable in saying that, yes.
Q. Sorry, are you saying that you would not wish to look at more market intelligence before making statements that MasterCard will lose its premium business? Are you saying that you would not want to be better informed? That you can make this statement on the few documents that you have seen?
A. I'm saying that I have seen, I have seen and

\section*{55}

Iexperienced myself commercial discussions where we have been competing with Amex and we have had a very tough time to compete and on many occasions we have lost business to Amex. That I can definitely say.
Q. Can you go back in your witness statement to paragraph 14. This is something we have not seen before.

Paragraph 14, you say:
"Although interchange fees have generally been paid by the acquirer to the issuer in four-party schemes, given the structure which has been adopted by MasterCard in relation to issues such as fraud and payment timing, it is not inevitably the case that the fee must be paid to the acquirer to the issuer."
Paragraph 14.
Has it ever happened in your experience that the interchange fee, or a fee, has been paid by the issuer to the acquirer?
A. It has happened, but it is rare occasions.
Q. In what circumstances does it happen?
A. It can happen in cases where the balance of the cost and the mechanism to operate a payment system needs to be incentivised in the opposite system. But it is not common and itis a typical exception.
Q. Well, in that balancing of the costs -- I think you have
gotE3.13. If you could go to, I think it is the same tab. Are you still at 249? At tab 249? Could you go to page 5312

Are you aware of the amount of money that UK banks earn in interchange fees as opposed to what they earn in interest on credit cards?
A. I'm not aware in specific terms and I would assume that, of course -- I understand it is a significant component of their revenues, I fully understand that. If you ask aboutspecifics, I'm not aware to give you an exact amount.
Q. Butyou have been head of the MasterCard interchange fee for the UK, and so I take it from your evidence that you have never really considered interest payments when setting the interchange fee?
A. As part of when we set interchange fees, we used -- one of the aspects was the cost methodology. In that cost methodology, as I mentioned, the process was to look at the different components in that system on the cost side, and my understanding was that those costs would be used and then put to set the interchange fee also has taken into account the fact that there could be other revenue streams in -- for issuers on that side.
So to my understanding that was the basis, yes.
Q. So it is your evidence, is it, that when you set the UK
interchange fee, you have regard to the substantial amount of money that banks earn in interest on credit cards?
A. My understanding is that -- and I would definitely suggest, because this is a specific question also, the way we make our cost studies regarding to interchange, and I would suggestalso to -- and I'm not the expert -say that at that point in time Edgar Dunn was sending us the cost methodology and the cost process, that as part of this methodology has been looked at the various credit card components, being cards that had revolving aspects or where there was an interest case, and there is cards which had -- charge cards where there was no interest attached, if you wish to --
Q. Mr Willeart, sorry to interrupt. Are you referring to the two reports that Mr Sidenius is going to refer to tomorrow? Have you looked at those, is that what you are meaning?
A. I mean to that exactly.
Q. You mean those two reports?
A. I mean exactly this.
Q. In 2002 one is a draft. We will have to ask him tomorrow because we don't know whether they have been submitted to the OFT, the European Commission. We are at a complete loss. But you are getting your knowledge
from those two reports, you are not getting your knowledge of interest from anything that you have done during your time at the interchange fee?
A. No. For sure we also looked at the overall market and how issuers can make, let's say, can compensate costs that they face. In terms of some markets there is card fees in the markets, like a market like France, for instance, you have high card fees, which is not the case in the UK market. In the UK market you have some banks which have interest and you have some other banks that don't have an interest income.

So definitely I'm aware of that and that's definitely something that we took into account.
Q. If you go to page 5313 , you will see at 5313 that MasterCard's analysis, which comes from Datamonitor, which I understand is a public group, and the Boston Consulting Group analysis, where you see on the right-hand side the billions of pounds that credit cards generate for issuers, correct?
A. Yes.
Q. If you go to 5315 , you will see a significant proportion of credit card customers are revolvers, that is to say they pay interest. 5315.
A. Yes.
Q. Now, did you ever follow the European Commission's

\section*{59}
infringement decision of 2007?
A. What do you mean with follow?
Q. Did you read it?
A. I did not read it of course.
A. Of course I understand that there was a procedure ongoing with the European Commission, yes.
Q. And did you see the General Court's judgment? Have you seen that in your --
A. I have not read it, no.
Q. So in your role as head of interchange fee, you have neverbeen educated as to the implications of the Commission's decision and the judgments of the European Court?
A. Iunderstand that there was a proceeding ongoing with the European Commission, yes.
Q. Have you ever been told by MasterCard that interest from credit cards should be taken into account when fixing an interchange fee? Are you aware of that?
A. Ihave not been aware of that, no. But of course all the revenue sides that the bank can take into account, like, for instance, card fees, also interest fees, we boked at those market elements as part when we reviewed the markets. So ...
Q. Have you ever carried out an exercise where you have

1
\begin{tabular}{lr} 
netted off the interest from the level of issuers' costs & 1 \\
incurred in dealing with credit cards? Have you ever & 2 \\
carried out that exercise? & 3 \\
A. No. & 4 \\
MR BREALEY: No. I have no further questions, my Lord. & 5 \\
Thank you very much. & 6 \\
MR JUSTICE BARLING: Mr Hoskins, perhaps it would be more & 7 \\
expedientif we asked some questions ourselves and then & 8 \\
Mr Brealey can come back if he needs to, and then you & 9 \\
can -- & 10 \\
MR HOSKINS: It saves me bobbing up twice, potentially. & 11 \\
MR JUSTICE BARLING: Yes. & 12 \\
\(\quad\) Questions by THE TRIBUNAL & 13 \\
MR SMITH: Mr Willeart, I have got what I fear are some & 14 \\
rather basic questions on the operation of the & 15 \\
MasterCard system. If you don't know the answer, please & 16 \\
don'tworry, just say so. & 17 \\
Ithink I will be avoiding discussion of information & 18 \\
that's confidential, but if we do stray into & 19 \\
confidential territory perhaps you will say. & 20 \\
Just to begin with, some terminology. MasterCard & 21 \\
obviously is a four-party system, and I'm going to & 22 \\
describe the four parties in my questions as customer & 23 \\
issuing bank, although I know it can be a financial & 24 \\
institution, acquiring bank and then merchant, and then & 25
\end{tabular}

\section*{61}
we have MasterCard as the scheme operator.
As I understand it, both the issuing bank and the acquiring bank have a contract with MasterCard?
A. Correct.

MR SMITH: And that is largely, as I think you told Mr Brealey earlier, based on the standard terms contained in the MasterCard rules?
A. Correct.

MR SMITH: Which we saw in bundle 3.10.
But to be clear, there are many other rules descending into far greater detail in terms of how one processes transactions and how one administer --
A. Correct. There is a whole set of technical rules as well.
MR SMITH: Which, quite rightly, we have not been troubled with.
To what extent though are terms individually negotiated between, let's say, an issuing bank and MasterCard, for instance, agreeing exclusivity to one bank that it would only issue MasterCard or, as the case may be, Visa cards?
A. So typically when a bank, especially when we take a larger bank, MasterCard can get into commercial agreements. So I want to make a bit of a separate -there is the rules. All the banks that are
participating in this scheme respect the rules, there is no necessarily exceptional or limited. When we are talking about commercial agreements, MasterCard can engage with commercial agreements, and what it does is it gives financial incentives to issuing banks to distribute and promote the card basis in the MasterCard brand.

You mentioned specifically about exclusivity, and I can talk a little bit about that as the general manager, I have been, for the Nordics and now for France. We typically do not have agreements where we are exclusive working or, if you wish, locking in a customer with MasterCard. What we are doing is we are providing a financial incentive and in return, of course, we are asking that this bank drive the volumes, drive the spend.
What happens if the bank decides halfway through, okay, I want to get rid of MasterCard, I want to work with Visa or somebody else? They can fully do that. There is not a protective measure in that contract, but they will not get the benefits of the contract. They might agree with another scheme, a new contract.

So that is typically the practice that we make the agreements. We make a financial agreement, the bank will benefit from some financial incentives, could be
a discount on the pricing, could be an additional financial incentive linked to the performance of the card portfolio.
MR SMITH: And are there similar, you call them commercial agreements between MasterCard and acquiring banks?
A. There is agreements with acquiring banks, absolutely.

That exists. There are probably less so (inaudible) agreements, but that exists.
MR SMITH: So in the case of acquiring banks it is much more likely that you have really just got the licence with MasterCard and very little on top by way of supplemental commercial agreements?
A. It depends, so I would agree that is typically what happens. But in some cases, for instance when we are deploying, let's say, contactless infrastructure, to accept contactless cards might give the acquirer an incentive to put his terminal in the market, for instance. That could be an example of that. Or to run a campaign with a merchant, for instance.
MR SMITH: Yes, I see.
To be clear, as between issuing banks and acquiring banks, there's no express agreement apart from that contained in the MasterCard scheme rules?
A. Typically not.

MR SMITH: Now, I just want to understand exactly the flow
of monies when one has a transaction using the MasterCard payment system.

So let's suppose that a cardholder goes into a shop in London, using his MasterCard and purchases a product for a certain consideration. Obviously, the transaction is processed using the merchant's equipment, the card reading equipment, and I will come backing to that, if I may. But let us assume the transaction is authorised and goes through. In terms of the money flow, the money is taken from the cardholder, either from his current account if it is a debit card or by way of the extension of credit from the issuing bank to the cardholder if it is a credit card.

So assuming no bilateral agreement as to interchange, at this point the issuing bank will pass money over to the acquiring bank --
A. Correct.

MR SMITH: -- but it will hold onto the MIF?
A. That is correct, yes.

MR SMITH: Does it hold onto anything else, for instance, the scheme fee which I understand is payable --
A. No.

MR SMITH: It doesn't?
A. No. So the scheme fee in this case, MasterCard will have a separate billing of its fees directly to the
issuer.
MR SMITH: I see. Thank you.
So the only thing that the issuing bank holds onto is the MIF?
A. Correct.

MR SMITH: And it passes the net amount over to the acquiring bank?
A. Yes, that is correct.

MR SMITH: And the acquiring bank then deducts a further amount, representing the cost of its services to the merchant?
A. That is correct.

MR SMITH: And passes what one could call the net net amount to the merchant?
A. That is correct.

MR SMITH: Again, there's no deduction for the MasterCard scheme fee, that's separately accounted for?
A. No, absolutely, that is correct.

MR SMITH: Just assist me on this. The MasterCard scheme fee, obviously paid by both acquiring bank and issuing bank, but separately from the \(£ 10\) transaction that I'm hypothesising, is that a flat fee or is it ad valorem, or does it depend?
A. It is typically linked to the drivers. So they are linked from the issuing bank to the number, volume of

MR SMITH: And would I be right in thinking that in terms of

\section*{67}
the deductions that, say, the issuing bank can make when paying the acquiring bank, it is only entitled to make agreed deductions, it can't make the deductions that it feels on any one day able viable to make?
A. Absolutely.

MR SMITH: These are stipulated.
A. Absolutely, that is my understanding.

MR SMITH: So the only deduction that an issuing bank can make is either the MIF, or if there is a bilateral agreement, the amounts stipulated in the bilateral agreement?
A. Correct.

MR SMITH: Now, just help me -- if you don't mind can we confine this to the UK in terms of the size of issuers versus acquirers in the UK. We have heard from other witnesses that there are perhaps 20 or so acquirers in the UK. Does that fit with your understanding?
A. Yes, that could be the case.

MR SMITH: But you are sounding quite tentative. It is not perhaps your --
A. It seems to me a lot. It could be that it was a lot at that time. Typically there is a bit of consolidation in the market, so it could be that it's less now than it was 20 -- over time, yes.
MR SMITH: So 20 feels a higher figure to you?
```

1 A. Yes.

```
A. Yes. 1

MR SMITH: In terms of the number of issuing banks, can you 2
help us on how many issuing banks might be issuing cards in the UK?
A. Maybe 20 as well. 20 as well.

MR SMITH: Right. That's helpful.
Now, we have established that there isn't a direct agreement between the issuing bank on one side and the acquiring bank on the other side. It is the umbrella agreement that constitutes the scheme rules.

So how exactly does the payment stream work? We have obviously got millions of transactions a year done with MasterCards, and somehow one has got to ensure that the \(£ 10\) in my hypothetical example moves from the cardholder account into the account of the merchant. That's what the interchange system does; am I right?
A. So in this case there is different -- I mean, I need to explain a little bit.

When there is a transaction happening, at some point in time the transaction is authorised, the merchant -the cardholder pays it. The merchant at that point, where there is a transaction which is authorised by the issuer, he says, okay, I'm willing to accept this transaction. Then what happens during certain cycles during the day, there is an exchange of information in

\section*{69}
terms of how much is the specific amount and specific additional information is exchanged between the issuer and the acquirer. Then the issuer and the acquirer, they hold accounts to settle against each other. So there is a sort of compensation made every day, for instance, where the issuer and acquirer will settle their accounts.

That is the way it works. So at some point in time, at the end of the day, as an example, the issuer and acquirer will net out and one owes the other and they will make the payment. So that happens in this case, this is happening. If the transaction is processed by MasterCard, MasterCard offers its service to the customers to make these settlements. This is settlement services.
MR SMITH: So essentially MasterCard keeps a running account?
A. Correct. Every bank member has a settlement account, correct.
MR SMITH: Each bank member as a member. And you net off the transactions as against each participating bank and the net figure is paid on a regular basis?
A. That is correct.

MR SMITH: Is that daily?
A. My understanding is it is daily.

MR SMITH: Thank you.
So what we have essentially is a settlement system that means that you don't have to have each individual issuing bank carrying out a series of complicated calculations as to what it owes to a whole range of acquiring banks.
A. Correct.
Q. That is one of the services that MasterCard offers its licensees?
A. Correct.
Q. Now, in terms of the interchange fee, as we all know there is a default set which is the MIF. Now, the issuing and the acquiring banks can choose to vary that MIF?
A. Correct.

MR SMITH: And they can do so, am I right, whilst remaining a member of the settlement system? They simply --
A. Absolutely.

MR SMITH: -- vary the MIF to something else?
A. Typically what happens is if they want to make a specific agreement they will notify MasterCard and they will tell MasterCard: here is our contract, what we want to agree, and MasterCard will implement it as a system.

So then we operate as a technical implementer of

\section*{71}
this transaction, of this agreement between the issuer and the acquirer.
MR SMITH: Is it possible for the banks, by way of a bilateral agreement, to choose to exit from the interchange system altogether and settle as against each other, or is that not possible?
A. I'm not sure I follow. So if they would like to have a different interchange fee applied, they can agree and MasterCard would execute it. I personally have not heard of the situation where -- actually, I do -I think they can select a different processor, I don't know if it could be a first (inaudible), it could be other process provider that does the transaction for them. That is perfectly possible, yes.
MR SMITH: In effect they could choose to have a settlement system separate from the MasterCard system, provided they agree?
A. Absolutely.

MR SMITH: You mentioned earlier on in your evidence that in some markets bilateral agreements are relatively frequent and in other markets, like the UK, they are less so.

Can you help us with what causes bilaterals to be popular in one market but not popular in another. Why is it that -- I think Sweden you mentioned. Why is it

Sweden operates on a basis of bilaterals whereas in the UK the evidence we are having is that they are actually very rare?
A. I think there is various reasons, I think the historical reasons why the banks in Sweden have agreed to use bilateral. I think there was a bit of the common market practice, and my understanding also was that this was done under, let's say, the support and the supervision of the local competition authorities to complement a bilateral agreement system. Which does not mean that there was no fallback, but they implemented a bilateral system.
In other markets it happens, the customer is told it doesn't need to do so, to set these bilaterals, and it relied on the multilateral interchange fee, because it felt that going to bilaterals would not change the outcome and the multilateral interchange fee was the right level.

But I wouldsay in most of the cases there was a multilateral interchange fee. If you look across Europe, it is the most commonly used.
MR SMITH: In general terms it is a MIF?
A. Exactly, and there is a few exception countries, if I can say so.
MR JUSTICE BARLING: Maestro was bilateral in fact even in

\section*{73}
the UK.
A. Yes.

MR JUSTICE BARLING: Mainly it was on the basis of a bilateral agreement.
A. That was my understanding as well, correct. Even MasterCard didn't set those bilateral rates because they were agreed, but my understanding is, well, that wasn't a bilateral...
MR JUSTICE BARLING: Yes.
MR SMITH: As I understand it, it is a less common scenario now than it was in the past, but can I ask you what happens when the issuing bank and the acquiring bank are the same legal entity? So we have exactly the same person at both ends, or not quite the ends but both ends of the chain.
In that case do the issuing bank and acquiring bank go through the interchange system or does the entity simply deal with it itself?
A. It depends a little bit. Most of the cases they do not go to the interchange system because it is as we call it an on us transaction. It is a transaction where the issuing and the acquiring entity is the same, so it remains --
MR JUSTICE BARLING: It is "on us", isn't it?
A. Exactly. That typically does not go through the
interchange system.
MR SMITH: So in effect the bank will settle with itself because it's got the data at both ends that it can work out --
A. That is correct.

MR SMITH: -- the position on its own?
A. Yes.

MR SMITH: The last area I wanted to ask you about was about acquiring banks.
Now, acquirers, would it be the case that they attempt toacquire transactions not just for MasterCard but also for Visa and American Express?
A. Absolutely. So acquirers typically want to have the relationship, and the biggest possible relationship, with all the payment transactions that a merchant offers.

So typically in the first place Visa, very clearly, and then with Amex of course it depends if they are entitled to get an Amex licence, if they are entitled to capture those transactions.
MR SMITH: One can see the business sense. If I'm an acquiring bank I want to be able to say I can process all kinds of transactions, you choose which ones you want me to process for you.
A. Absolutely, I agree.

\section*{75}

MR SMITH: I assume that means that there is a degree of common hardware in terms of the equipment that is at the merchant's shop, so that one card can be processed with one piece of equipment?
A. That's typically in the markets that we know. Here very much the case, yes.
MR SMITH: So, so far as the cardholder is concerned, the transaction looks exactly the same whether it is a Visa card, a MasterCard or an American Express card?
A. Absolutely, they put in the transaction and put in the card in the terminal and they pay.
MR SMITH: And then, at least if it is an electronic transaction, there is some communication between the merchant's terminal and the acquiring bank?
A. Correct.

MR SMITH: But then I assume the streams diverge and one of the functions that the acquiring bank undertakes is to shunt the data that it acquires from the merchant to the appropriate system?
A. Correct. It could be Visa and MasterCard goes to the acquirer. It could be that if it is Amex transaction it goes directly to Amex, for instance. And from the acquirer it can go, for instance, to a MasterCard or to a Visa, let's say, platform.
MR SMITH: Presumably, we mentioned the technical manuals
earlier on, the technical manuals for how one processes 1
a MasterCard transaction will be different to those for 2
Visa and to those for Amex or, indeed, Maestro? 3
A. That is correct. 4

MR SMITH: It might be the same object but the detail is 5 different?
A. That is correct.

MR SMITH: And that is one of the services that an acquirer provides?
A. Correct.

MR SMITH: Can a merchant choose, if it wants to, to use multiple acquiring banks for its transactions?
A. Absolutely. A merchant can choose to say I want -- "for my MasterCard transaction I want to use this acquiring bank, for my Maestro transaction I want this bank, for my Visa cards I want to get a better deal with a different acquirer". So they can fully choose which acquirer they use.
MR SMITH: How, finally, can that division be sliced? You have divided it quite logically between different payment schemes. So you might have an acquirer, as you say, for Visa and an acquirer for MasterCard. Can one differentiate between debit and credit cards?
A. Yes. For instance, and I made the example of Maestro and MasterCard, the merchant can make a specific

\section*{77}
agreement with one acquirer to only process one brand of product. That can happen, yes.
MR SMITH: But presumably there has to be some sort of agreement between the merchant and his various acquirers --
A. Typically they have multiple agreement, to decide on which product they process. Some merchants even have multiple acquirers for multiple products just to allow to not be dependent on one acquiring bank.
MR SMITH: Like issuing banks, acquiring banks essentially are selling a core product, the payment system, that they can't really differentiate. Because one has the common MasterCard system and the honour all cards rule. In effect, the service that any MasterCard cardholder gets is exactly the same. The card is used for payment and the money is moved from his account to the merchant.
A. Correct.

MR SMITH: And that service will be the same whether the acquirer is one acquirer or not?
A. Correct.

MR SMITH: In terms of the honour all cards rule, am I right that it applies as an obligation to honour all credit cards, and separately as an obligation to honour all debits cards in the MasterCard scheme?
A. There is typically umbrellas of products. So under the

MasterCard product, all of the MasterCard products would be contained for the consumer side, for instance. If you have a premium card or a standard card, that would be what we call all under the umbrella of the MasterCard. At the same time, the acquirer is not able to differentiate between I accept a card for this issuer or from another issuer. This is what we call the all issuer aspect of this honour all cards rule.
MR SMITH: Sorry, let me unpack that a little bit.
So one has a premium card that is created by
MasterCard and issued by banks. And one is not as a merchant entitled to discriminate between cards of that sort?
A. So if you are accepting a MasterCard standard, you are also accepting a World card --
MR SMITH: I see. I suppose my question is how many umbrellas are there? Is it the case that every MasterCard with the MasterCard logo has to be accepted, or is there a broad differentiation not based on issuer, but based upon the type of card which limits the honour all cards rule?
A. For instance, Maestro is typically a different acceptance brand. So typically the merchant decides which brands it accepts. Under the MasterCard umbrella they would accept all MasterCard credit cards. Maestro

\section*{79}
would be different, where they can select, accept or don't accept that product, and I understand also in the UK the DMC MasterCard is also a separate product that they can accept.

So there is the choice for which products they accept or they don't accept.
MR SMITH: I see. I can understand it more clearly from Maestro because that was separately branded, but you are saying that the MasterCard debit card is seen as under
a separate umbrella compared to credit cards?
A. That is my understanding.

MR SMITH: Again, that is worked out in the detail of the MasterCard scheme?
A. Yes.

MR SMITH: Going back to this question, then, of differentiation. How is it that an acquiring bank can improve its position vis-a-vis merchants to provide a better service? What can it do?
A. I'm not an acquiring bank so ... Typically they would compete on service, they would compete on the type of terminals they provide, technology they provide, maintenance they provide. Of course they will also compete on the pricing that they provide to their merchants, and to give you an example, you have got merchants with a presence across multiple countries. So
\begin{tabular}{lr} 
they will try to put in place reporting, they will try & 1 \\
to put in place infrastructure that the same merchant, & 2 \\
whogoes across multiple countries, can deploy. So they & 3 \\
have a bit of common infrastructure as a merchant. & 4 \\
So it depends a bit on the merchant segment, I would & 5 \\
say. Some merchants it might be very local support. & 6 \\
Some merchants they might provide an advice service, & 7 \\
like loyalty solutions, like fraud solutions, to detect, & 8 \\
service. Others might be more central support. So & 9 \\
there is all the services that acquirers typically & 10 \\
provided to merchants. & 11 \\
MR SMITH: In terms of competing on price, when one looks at & 12 \\
the merchant service charge, I think it is & 13 \\
uncontroversial that the interchange fee is a large part & 14 \\
of that charge. Do you find that there are acquiring & 15 \\
banks whoare approaching MasterCard with a view to & 16 \\
negotiating a lower MIF for transactions that they & 17 \\
process? & 18 \\
A. So the MIF, that is applicable across the market, so we & 19 \\
typically do not make a specific arrangement with one & 20 \\
acquiring bank. No. We typically don't do that. & 21 \\
MR SMITH: When you say you don't do that, is that because & 22 \\
no one has asked you to do that? Obviously we are all & 23 \\
here because a large number of retailers consider that & 24 \\
the MIF was too high and that they were having that cost & 25
\end{tabular}

\section*{81}
passed onto them by the acquirers, although we have not heard evidence on this. ButI can't imagine that the acquirers weren't aware of it. So it must be a significant advantage if an acquirer could say, look, my price to you, the merchant, is less because I have negotiated a cheaper deal with MasterCard. But in your experience that didn't happen?
A. No, that typically didn't happen. I am sure the commercial pressure from the acquiring side was there and that the sales team who took care of the acquiring side might have gotten those questions. But typically we didn't do that because if you would give one advantage specifically to one acquirer, you create a competitive disadvantage in the market because the other acquirer would not be able to offer the same rate. So the rate in the market needs to be the same for all acquirers, otherwise if I give one acquirer the benefit then he can go off to the market with a specific benefit.
MR SMITH: So one of the things that informs the MasterCard
MIF is that it should be non-discriminatory?
A. Exactly.

MR SMITH: As regards acquirers.
A. Absolutely.

MR SMITH: You might differentiate between products, but you
would not otherwise differentiate --
A. Absolutely, that was essential, yes.

MR SMITH: So if an acquiring bank wants to try and achieve a different interchange fee, the only route, as far as you are concerned, would be the bilateral route to negotiate with the pool of issuing banks?
A. Absolutely, yes.

MR SMITH: Thank you. That was a very long line of questions, but thank you, Mr Willeart.
PROFESSOR JOHN BEATH: Just following on from that, the way we are seeing this four-party or the four-stage system, the circle of flows, we have got these two rather active people in the business: the merchants who are complaining about something and the issuers who are desperate to get profits. And there's this very passive but crucial element, the acquirer.

Do these acquirers exert no pressure at all?
I mean, after all the MIF is supposed, does indeed, to allocate costs between -- somehow balances between acquirers and issuers. In setting that balance, you might expect acquirers to have some voice. Do they?
A. So for sure acquirers definitely did have a voice and they definitely also did -- your point about looking for influencing the MIF, getting a lower MIF. For sure, acquirers definitely are vocal. But I was not
necessarily dealing directly with acquirers at the time.
But also when we set interchange fees at the time we also took that perspective into account. So it was not just there was a look at what needs to be done at the issuing side, what respect to the merchant acceptance, there was also the way that the acquirers could deal with whatever balance was put to the market.
PROFESSOR JOHN BEATH: We got this pie, the MIF, and the sharing does seem to be asymmetric.
A. Correct.

PROFESSOR JOHN BEATH: You might have thought that in a strong market, to get a share of the pie there would be rather more bargaining going on?
A. But I think that -- I mean, there was the -- you mentioned the imbalance because I think the costs were also more higher on the issuing side. I think that is the reason why there is the balancing mechanism. But -PROFESSOR JOHN BEATH: So the acquirers are fairly happy with the way costs are balanced, are they, in the MIF?
A. Of course, being -- they are looking at their costs and they typically would like to see lower costs. So for sure they would also, at the same time that the issuer would always complain that interchange is too low, the acquirers would always complain that the interchange is too high. It is a fact in the balancing mechanism, both
parties are always unhappy.
MR JUSTICE BARLING: Mr Willeart, can I just ask you 2
a question about paragraph 38, just to clear up something. This is not confidential, is it?
MR HOSKINS: Sorry, I'm just catching up. No, it is not.
MR JUSTICE BARLING: This is dealing with the Maestro experience.
You say in summary between 2000 and 2006 Maestro experienced this decline in market share volume. Then you refer to July 2006 and Maestro UK's debit market share and you have the percentage there. That was the high point, wasn't it, rather than the low point?
A. My understanding was that it was the high point. It might have been a little bit higher before and that it was already coming down to \(40 \%\), but it definitely went down further, much lower --
MR JUSTICE BARLING: Yes. You say in the next passage, you refer to a much lower market share, don't you?
A. Correct.

MR JUSTICE BARLING: Of the defined debit MasterCard and Maestro. So that obviously happened, therefore, after July 2006.
Do you know what the trajectory was over time of that? There was quite a dramatic --
A. It was a dramatic decline.

\section*{MR JUSTICE BARLING: Yes.}
A. It was a dramatic decline. Honestly, I don't know -when I joined MasterCard, at that time I think the decline was mostly already happening, so we were -let's say, we are seeing that the customer had flipped the portfolio from Maestro to Visa at the time. So there was the decline of the transactions that I was aware of.
MR JUSTICE BARLING: There was mainly two customers, wasn't there?
A. Exactly, very big customers.

MR JUSTICE BARLING: Thank you very much.
Mr Brealey, anything arising out of that?
MR BREALEY: No.
MR HOSKINS: Sir, I do, but I will be quick. I feel the pressure from behind me.
MR JUSTICE BARLING: Sure.
Re-examination by MR HOSKINS
MR HOSKINS: In relation to the last question, I am sure you are well aware that I have the graph I have shown you a few times?
MR JUSTICE BARLING: Yes, I might just need to be reminded where that is. Don't bother now.
MR HOSKINS: I can do it very quickly. It is reproduced in our skeleton argument, which is A2, at page 10.

MR JUSTICE BARLING: A, tab 2, page 10.
MR HOSKINS: You will see it comes from first Niels, figure 33, which is D3, tab 3, page 249. That gives you the trajectory.
MR JUSTICE BARLING: Thank you very much.
MR HOSKINS: I just want to deal with two topics with you. I will deal first with Maestro, as that's what we have just been dealing with.
We know that the Maestro MIF in the UK, back in the 2000s, was set by S2, not MasterCard.
A. Mmmm .
Q. If MasterCard had been free to set the rate for Maestro in the UK during that period, what process would MasterCard have followed to determine what you describe as a competitive rate? What process would have been followed?
A. I think we would have followed the process where, as I described, we would have taken a consultation on the market to understand the costs that issuing banks and acquiring banks faced to deploy the product. So there would have been a process where there would have been consultation, in this case with an external company that collected the costs. They would do the survey in the market with the issuing banks, with the acquiring banks and they would come with a result which was the average

\section*{87}
costs to process this transaction in the market, that would result in the cost basis.

Of course, we would alsolook at the same time about what is the competition in that market. So what would be competitive products to this Maestro proposition. We would also look at, if we look at the specific levels of interchange per transactions, what this -- the incentives we would like to give to stimulate the deployment of more secure technology in the market. And then we would have put together a proposal that would have set the rate that would come to this -- to take this information into account, the cost level as well as the competitive aspects, yes.
Q. You said you would look at what competitive products are. Functionality, as Mr Brealey has described it, does it play any part in this process of setting a competitive MIF?
A. If the functionality leads to higher costs for the issuing side, or other costs in their cost system then we would take it into account. We would not take into account that there would be a lower acceptance gap necessarily in the US because the domestic interchange is not supposed to deal with that. The domestic interchange is to deal with the domestic market.
Q. Then going back onto a different topic, it probably
seems a very long time ago, but when we started this 1 morning, Mr Brealey put it to you that there are no documents which indicate the methodology adopted by MasterCard to set the UK MIF or UK MIFs. There are no detailed calculations.
You referred to proposal documents, I think was one of the terms you used, and you said the logic was clear from them. Can I ask you to go to bundle E3.2, tab 49, please. Is this the type of document you were talking about in response to Mr Brealey?
A. Absolutely.
Q. What is the purpose of this type of document, just in terms of how does it fit into the process of arriving at an interchange --
A. So the process to come to an interchange rate is typically a process that takes several months' time, where there is this phase of collecting the information from the local market, of collecting the local market cost information. Working together with the local market seems to take the input from the local issuing banks, local acquiring banks, the merchant side. And then based on this information there is a proposal made to the Committee, which is called the European Interchange Committee, that discusses, challenges, asks questions to ensure that the right balance is set. And
in that committee there is multiple people, multiple functions, if you wish, represented, people from the merchant side, people from the issuing side, people from the product side, legal team, and they would discuss the proposal that has been prepared by the interchange team. And then they would either endorse it, ask questions, review it and move on. But this is, let's say, the discussion document that is proposed in the Interchange Committee.
MR HOSKINS: We see from this document, the heading is
"European Interchange Committee and its proposal". Is this what you were talking about when you were talking about a proposal --
A. Absolutely.
Q. I have no idea, but have you seen this particular proposal before?
A. I have seen this proposal, yes.
Q. You have. We don't need to go into great detail, but just to give a flavour of what's taken into account and how the final decision is reached, perhaps by reference to headings in this document, can you just give a sense to the Tribunal of how this document demonstrates what you say is the logic behind the setting of a MIF rate?

I'm not particularly concerned with this particular MIF, but the general process, what is taken into
account?
A. So this is a document that is supporting a specific proposal, so it typically starts with laying out what is the proposal so that everybody understand what is the current rate and what is the proposed rate.
Then when we go section by section, we'd describe how the interchange team came up with this proposal, or we'd start typically by laying out the market context, what is the context, what is the usage of electronic payments in the market, what is the state of the technology, how much cash there is in the market, what is the needs of the market. Then it will typically include -- it will include, if there is any background on the specific product it will explain that, what has been the history of this product.
Then it will make a proposal and explain why this proposal is laid out there and it will take into account that the cost information, as I mentioned before, what is the result of any cost study that has been conducted.
Secondy, we would also take into account what is the competitive landscape in the market. Then it will come with a proposal, and then it will deal with what is the -- our expectation as MasterCard of this proposal in the market. So how will issuers react, will they be able to use this product and compete. Secondly, how

\section*{91}
will merchants react, how will acquirers react.
So this is a sort of holistic perspective from all the stakeholders in the system on the proposal, and that typically concludes the document and the proposal.
Q. Why do you take into account how merchants might react?
A. It is very important, for instance, when we are setting a new product, premium product, for instance, we understand that you are setting a higher interchange, so you want to understand is this something that can be acceptable in the market, does this give benefit, additional sales to the merchant, one example.
The other example is, for instance, when you are setting out contactless technology, if you are setting a specific rate of interchange will this rate allow merchants to deploy terminals that are capable of accepting contactless transactions.
So we are driving towards more secure transactions and secure payment system, so we want to ensure that it makes sense for the whole eco-system.
Q. Why do you take, or do you take account of how acquirers mightreact?
A. Acquirers, of course, are very important in the eco-system as well. Just to give you one example, there is not only the economics, but there is also the technical specifications.

We can come up with a very creative rate to make a new product in the market or to deploy new technology. But if acquirers cannot implement it in the system, we can never deploy the product in the market. So all parties -- it needs to work for all parties otherwise it doesn't work.
Q. How do acquirers fit into the economic eco-system? You mentioned that when you moved on to the technical aspect.
A. We typically also looked at how, if acquirers could position this product into the market. So if they would be able to sustain this, include this new product in their pricing towards merchants. So if we introduced a new interchange fee or launched a new product and we knew that this needed to be included into the contractual agreements between the merchant and the acquirer, we tried to make sure that there was sufficient time and sufficient possibility to position this into the merchant agreements.
MR HOSKINS: I don't have any further questions.
MR JUSTICE BARLING: Thank you.
Right. Well, Mr Willeart, thank you very much indeed.
We will start again at 2.10 pm .
( 1.10 pm )

\footnotetext{
(The short adjournment)
( 2.10 pm )
MR HOSKINS: Good afternoon, sir. Mr Brealey bamboozled me
by giving me a bit of paper to put in a file just as you
walked in, so if you would bear with me.
MR JUSTICE BARLING: Keep you on your toes.
MR HOSKINS: I will gather my thoughts. Thank you.
Just to update you on theMr von Hinten-Reed, we are
don't consent to it, so there is going to have to be
a little spat. But I think Mr Brealey would prefer to
do that tomorrow afternoon, because obviously it's his
application. I'm happy to do it then.
MR BREALEY: Apparently it is at D2.1, tab 8.
MR JUSTICE BARLING: So we have to read it, then?
MR BREALEY: Apparently.
MR JUSTICE BARLING: I haven't read it yet.
MR BREALEY: D2.1, tab 8.
MR JUSTICE BARLING: I suppose we need to do it now rather
than when the witnesses are ... (Pause)
Tab 8.
MR HOSKINS: Sir, I think Mr Brealey wants to make the application tomorrow.
MR JUSTICE BARLING: Yes, I will forget otherwise to take
it. D what?
MR BREALEY: D2.1, tab 8 .
}

\section*{MR JUSTICE BARLING: Right.}

MR BREALEY: As I understand it, it goes to the quantum. There was a flurry of experts' reports in December and then before the trial on the question of whether Sainsbury's should give benefits in respect of Nectar points.
MR JUSTICE BARLING: Yes.
MR BREALEY: In other words, it was thought that interchange fees paid by Sainsbury's Supermarkets fed into the bank, fed into Nectar points and then fed back into retail. The argument is that Sainsbury's Supermarkets has to give credit --
MR JUSTICE BARLING: Against any damages?
MR BREALEY: -- against any damages. It's like a set-off.
As I understand it, this comes from Mr Greg Harman.
He says we have got to give credit.
Mr von Hinten-Reed -- this came late, this was after the expert reports. We didn't object to it. This came late. Mr von Hinten-Reed dealt with it. Then as I understand it, shortly before the trial Mr Harman adduced a further report on this, which bumped up the amount that we would have to give benefit for. It's like 3 million to 32 million or something, and this has prompted Mr von Hinten-Reed to look at it again. And he does not see on published documents that there is a link

\section*{95}
between the reduced interchange fees, result of the cap, and the Nectar points.
MR JUSTICE BARLING: This is the further response from
Mr von Hinten-Reed?
MR BREALEY: Yes.
MR JUSTICE BARLING: So he is answering the second Harman on that?
MR BREALEY: Harman 4.
MR JUSTICE BARLING: I know, but the second one dealing with --
MR BREALEY: Yes. He doesn't believe that Sainsbury's
Supermarkets should give the credit that he originally thought.

Essentially in his report, as I understand it --
I can go and have a look at it -- he conceded that there was some credit to be given.
MR JUSTICE BARLING: And now he says there shouldn't be any credit? Is that the gist of it?
MR BREALEY: It's got lower. It is certainly not the
30 million that Mr Harman now says.
MR JUSTICE BARLING: Anyway, it is some kind of response to
Harman 4?
MR BREALEY: Yes.
MR JUSTICE BARLING: That's it, right.
MR BREALEY: That is it.
MR JUSTICE BARLING: Mr Hoskins, do you want to just give us
the flavour of your objections?
MR HOSKINS: I thought this might happen.
MR JUSTICE BARLING: Just so we can bear it in mind when we
read it, without --
MR HOSKINS: I will just give you why we oppose it.
It is not correct that thisis a response to third
Harman because Mr von Hinten-Reed had already responded
to the point in the third Harman in the addendum to
second Mr von Hinten-Reed.
f you go to our skeleton argument, you can see what
the position is currently on the evidence before the
Tribunal. So if you take up A, tab 2, at page 275 .
MR JUSTICE BARLING: Yes.
MR HOSKINS: So this is dealing with our flowcharts and this
paragraph deals with this need to give credit for the
lower amounts of benefits Sainsbury's stores would get
fromSainsbury's Bank if there were a lower MIF. That's
what we are dealing with.
MR JUSTICE BARLING: Yes.
MR HOSKINS: As the evidence stands at the moment, Mr Harman
and Mr von Hinten-Reed both accept that some discount
should be applied, but have differing views as to its
size. You will see in the footnote the reference to
first Harman because this was not something that was
introduced later, it was in first Harman. And Mr Harman's figure is that the value is about 4.4 million per annum. So that's for a period for end of 2006 to present day, 4.4 million per annum.
Then the addendum to second Mr von Hinten-Reed, which is the response to Harman as it currently stands, you will see the reference there, his total is 24.5 million. So you see the disparity is about 40 million-odd against 24 million-odd.
That's the current evidence before the Tribunal.
MR JUSTICE BARLING: Until this came along?
MR HOSKINS: Until this came along. So it is not that this is simply our response. What this actually is is an attempt to resile from a response. It is not that Sainsbury's hasn't had a chance to deal with this, it has dealt with it, but now Mr von Hinten-Reed wants to resile from the position that is in the evidence and take a different view.
MR JUSTICE BARLING: Right.
MR HOSKINS: If you have the third expert report that Mr Brealey referred you to --
MR JUSTICE BARLING: Which --
MR HOSKINS: I have it at D2, tab 8. Sorry 2.1, tab 8.
MR JUSTICE BARLING: The one that's objected to?
MR HOSKINS: That is correct.

MR JUSTICE BARLING: Yes.
MR HOSKINS: It is paragraphs 6 to 14. I think the easiest thing, if you don't mind, is if you just briefly read those.

MR JUSTICE BARLING: I was not intending that we would have the whole argument now, but I just wanted to --
MR HOSKINS: I can finish the argument in four minutes, and then you have got -- Mr Brealey knows what we are objecting to.
MR JUSTICE BARLING: 6 to 14 is the bit you object to?
MR HOSKINS: It is the reason why we say there is a problem with this.
MR JUSTICE BARLING: It is the reason. Yes. Yes.
MR HOSKINS: You will see the point is the experts in the evidence currently before the Tribunal were both proceeding on a given factual basis.
MR JUSTICE BARLING: Which is now said to be fundamentally flawed.
MR HOSKINS: Paragraph 9, what Mr von Hinten-Reed says:
'I have revisited Sainsbury's Bank's website to understand why these changes were made."
And he produces this extracts from the website.
A piece of factual evidence. And as a result of that,
he then says, paragraph 15 , he is going to propose an alternative approach entirely to the assessment.

\section*{99}

So the reason we say, it won't surprise you, why we object to this going in, is that the justification for the new report is based on a completely new alleged factual issue. We don't know if we have had proper disclosure on this issue. The inference must be we haven't, because otherwise Mr von Hinten-Reed wouldn't be going to the Sainsbury's Bank website and pulling down a new document.

So, first of all, we say it seems pretty clear that there hasn't been disclosure on this factual issue. The second point is that there is no Sainsbury's witness evidence to support this position, there never has been. So all we have is apparently Mr von Hinten-Reed, whether prompted by Sainsbury's or of his own volition, we don't know, going to the Sainsbury's Bank website and pulling down this piece of information. So no disclosure, no witness evidence. And of course the Sainsbury's factual witnesses, they have now closed their factual evidence so we have not had a chance to cross-examine anyone on this particular factual point.

So that is why we object.
This is an attempt to resile from a report that was carefully considered. It is based on new factual evidence and it would cause us considerable prejudice. This is the difference between us and the second
\begin{tabular}{lr} 
Sidenius. We say it would cause us considerable & 1 \\
prejudice because we are not in a position, the Tribunal & 2 \\
is not in a position, to assess whether this is & 3 \\
factually accurate or not. All you have is an extract & 4 \\
set out from a website. And that's why we object. & 5 \\
I understand if Mr Brealey doesn't want to do it & 6 \\
now -- I thought it was helpful hopefully to download & 7 \\
and it's helpful for Mr Brealey to see it as well. & 8 \\
MR JUSTICE BARLING: Obviously without reading it I haven't & 9 \\
taken it all on board, I can't absorb, exactly, this. & 10 \\
But I mean, if there is a sort of some factual position & 11 \\
at large which is within a fairly small scope, the & 12 \\
alternative is for us to assess damages on some assumed & 13 \\
factual basis which is fundamentally flawed and at first & 14 \\
sight has a degree of less attractiveness. & 15 \\
On the other hand, it may be that it can't be easily & 16 \\
remedied for the reasons that you have indicated. & 17 \\
I just don't know at this stage. & 18 \\
MR HOSKINS: I understand. & 19 \\
MR JUSTICE BARLING: There is a little gap obviously between & 20 \\
now and the expert evidence, or the expert witnesses & 21 \\
giving evidence. We will consider this overnight. & 22 \\
MR HOSKINS: Of course you will, and it is my sucking eggs & 23 \\
points. You have a balancing exercise and Mr Brealey & 24 \\
has a chance torespond and to comment on that as & 25
\end{tabular}

101
an issue.
To be fair, I don't think he was expecting to make
the application now. I am not trying to bounce it,
I just thought it would be helpful to explain --
MR JUSTICE BARLING: It is helpful for us to know the nature of your objections.
MR HOSKINS: -- where we are at.
MR JUSTICE BARLING: We will read that.
Fine. Then now we are going to call Mr Koboldt.
MR HOSKINS: I call Mr Koboldt.

\section*{MR CHRISTIAN KOBOLDT (affirmed)}

Examination-in-chief by MR HOSKINS
MR JUSTICE BARLING: Thank you, Mr Koboldt. Make yourself comfortable before you start.
A. Thank you.

MR HOSKINS: Do you have bundle C2? I see it in front of
you.
A. Yes.
Q. If you go to tab 3, please.
A. Yes.
Q. Is that a document entitled "Witness statement of

Christian Koboldt"?
A. It is.
Q. If you just flick through, you do not need to read the pages, to the end.
A. Yes.
Q. Can you confirm that that is your witness statement?
A. That is my witness statement.
Q. There should be a signature on the last page.
A. Yes.
Q. Is that your signature?
A. That is my signature.
Q. Can you confirm that the contents of this statement are true?
A. They are true.

MR HOSKINS: Mr Brealey will have some questions.
Yes, there is a confidentiality issue.
MR JUSTICE BARLING: Right.
MR BREALEY: It is all blued, isn't it? The whole witness statement I think is blued?
MR HOSKINS: It is.
MR JUSTICE BARLING: Right. This is an opportune time to say that I have received a communication through my clerk from someone who I'm not sure is here today, a legal journalist, who I think travels from Brussels. I don't know whether she is present or not?
MISS KENNER: I have asked if we could be let known -MR JUSTICE BARLING: Are you Miss Kenner(?) MISS KENNER: Yes.
MR JUSTICE BARLING: Right, so you are here.

The problem is I am sure that the parties would try and give anybody who asked them as much indication as they can of when they are going to need to hear some evidence in camera, but there is an obvious problem. As you have seen this morning, because the default position is that we sit in public, not in camera, it is incumbent on counsel to do their very best to see if they can conduct the cross-examination without going into camera. And you saw that that's what counsel did this morning, and counsel has made attempts to do that on other occasions. But there are just some times when it becomes impossible without having to refer a witness expressly to something that is a business secret or is otherwise confidential. And even when it is possible to ask the question, there are times when the witness feels very inhibited in giving a proper and full answer.

So, I'm afraid -- can I encourage the parties, at the request of Miss Kenner and anyone else in a similar position if they do ask you, to give them the best estimate if you can, especially if they are travelling, of when a witness is likely to be heard and whether they are likely to give their evidence, or a substantial part of it -- I appreciate you can't give an exact guarantee, and that's the problem because the order in which witnesses are called is not always easy to orchestrate

1
in advance. Sometimes a witness is ill or unavailable,
or there's another reason why you have to call a witness 2
out of the anticipated order in which you were going to 3
call them.
So we do the best we can and I can assure you that
we do try at all times to conduct the hearing in public,
except when it is impossible to do so.
This particular witness'evidence is almost entirely
subject to the confidentiality ring, and so I am sorry,
I know it means it is inconvenient, but that's the way
we have to go. So can I ask anyone else who is not
within the confidentiality ring to leave.
MR BREALEY: We are almost finished with the witnesses of
fact. Just flipping through, for example, the
claimant's expert reports, there's not a great deal of
yellow or blue. I will have a look at the defendant's.
So it may well be that we can give some indication.
A lot of it is white.
MR JUSTICE BARLING: Have you been in touch, Miss, with the
parties, solicitors or anyone, to ask?
MISS KENNER: I just asked on a daily basis.
MR BREALEY: I do not want to put any burden on
Mischon de Reya, but I am sure that I can let people
know the extent to which I am going to cross- examine on blue, but I will leave it --

\section*{105}

MR JUSTICE BARLING: Yes. I will just encourage the
parties, if they can, to try to give as much information 2
as possible to anyone in the position of this lady, who 3
needs to know before she buys her train ticket whether 4
she is going to be allowed in or not. I know it is very 5
difficult, but there we are. 6
Thank you very much. 7
\((2.30 \mathrm{pm}) \quad 8\)
(In camera session) 13

1

4
5 14 15 16 17 18 19 20 21 22 23 24 25

1

14
15
16
17
18
19
20
21
22
23
24

















9



25
7
\(\qquad\)
 0 4 16 7 18 0 23 25
[REDACTED] \begin{tabular}{l}
07 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 109 & & 111 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 110 & & 112 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 113 & & 115 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 114 & & 116 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 117 & & 119 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 118 & & 120 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 121 & & 123 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 122 & & 124 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 125 & & 127 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 126 & & 128 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 129 & & 131 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 130 & & 132 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & \\
\hline 4 & & 4 & \\
\hline 5 & & 5 & \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 133 & & 135 \\
\hline 1 & [REDACTED] & 1 & [REDACTED] \\
\hline 2 & & 2 & \\
\hline 3 & & 3 & (End of in camera session) \\
\hline 4 & & 4 & (The court adjourned until 2.00 pm on Thursday, \\
\hline 5 & & 5 & 11th February 2016) \\
\hline 6 & & 6 & \\
\hline 7 & & 7 & \\
\hline 8 & & 8 & \\
\hline 9 & & 9 & \\
\hline 10 & & 10 & \\
\hline 11 & & 11 & \\
\hline 12 & & 12 & \\
\hline 13 & & 13 & \\
\hline 14 & & 14 & \\
\hline 15 & & 15 & \\
\hline 16 & & 16 & \\
\hline 17 & & 17 & \\
\hline 18 & & 18 & \\
\hline 19 & & 19 & \\
\hline 20 & & 20 & \\
\hline 21 & & 21 & \\
\hline 22 & & 22 & \\
\hline 23 & & 23 & \\
\hline 24 & & 24 & \\
\hline 25 & & 25 & \\
\hline & 134 & & 136 \\
\hline
\end{tabular}

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

\section*{INDEX}

\section*{PAGE}
(Open court session) ................................ 1

Housekeeping \(\qquad\)
MR BART WILLEART (affirmed) ......................... 2

Examination-in-chief by MR HOSKINS .............. 2
Cross-examination by MR BREALEY ................. 3
Questions by THE TRIBUNAL ..................... 61
Re-examination byMR HOSKINS .................. 86
MR CHRISTIAN KOBOLDT (affirmed) ................... 102
Examination-in-chief by MR HOSKINS ............ 102
(End of open session) ............................ 106
\(\qquad\)
A2 (1) 86:25
ability (1) \(40: 9\)
able (17) 8:22 12:12
17:6 19:25 25:4
30:5 46:1 47:16
53:18,24,25 68:4
75:22 79:5 82:15 91:25 93:12
abroad (2) 40:9 42:20
absolutely (21) 4:19
10:11 38:19 41:2,6
64:6 66:18 67:17
68:5,7 71:18 72:18
75:13,25 76:10
77:13 82:24 83:2,7
89:11 90:14
absorb (1) 101:10
accept (18) 10:16 20:14 38:23 40:9
44:24 49:11 54:24
55:10 64:16 69:23
79:6,25 80:1,2,4,6
80:6 97:22
acceptable (1) 92:10
acceptance (35) 30:9
36:3,15,20,22
37:15,21,25 38:6,9
38:14,20 39:6
40:10,11,14,16,20
41:16 42:24 46:19
46:20,24 47:4,22
51:21 52:2,3,4,8,9
52:10 79:23 84:5
88:21
accepted (6) \(36: 5\)
37:18 40:23 44:23 49:15 79:18
accepting (3) 79:14,15 92:16
accepts (1) 79:24
access (6) 23:12 35:11
38:5 51:9,12,13
account (35) 7:24
19:12,14,19 21:20 22:12 23:17 25:9,9 25:11 26:7 31:12 57:22 59:13 60:18 60:21 65:11 67:21 67:22,22 69:15,15 70:17,18 78:16 84:3 88:12,20,21 90:19 91:1,17,20 92:5,20
accounted (1) 66:17
accounts (6) 45:24 46:11 47:17,19 70:4,7
accurate (1) 101:4
achieve (2) 26:10 \(83: 3\)
acknowledged (1) 34:8
acquire (1) \(75: 11\)
acquirer (29) 9:25
12:17 13:22 56:10
56:14,18 64:16 70:3,3,6,10 72:2 76:21,23 77:8,17 77:18,21,22 78:1 78:19,19 79:5 82:4 82:13,15,17 83:16 93:17
acquirers (41) 7:1,2 9:23 10:22 11:25 12:5,10,12,21 13:25 15:8 28:2 47:5 49:18,22 68:15,16 75:10,13 78:5,8 81:10 82:1,3 82:17,23 83:17,20

83:21,22,25 84:1,6
84:18,24 92:1,20
92:22 93:3,7,10
acquires (1) 76:18
acquiring (40) 14:24
61:25 62:3 64:5,6,9 64:21 65:16 66:7,9 66:20 67:9,13,14 67:16 68:2 69:9 71:6,13 74:12,16 74:22 75:9,22
76:14,17 77:12,14 78:9,10 80:16,19 81:15,21 82:9,10 83:3 87:20,24
89 :21
act (1) 15:16
action (1) 28:9
active (1) 83:12
actual (1) 8:12
ad (2) 26:3 66:22 addendum (2) 97:9 98:5
additional (3) 64:1
70:2 92:11
adduced (1) 95:21
adhere (3) 6:7,10 7:3 adjourned (2) 106:10 136:4
adjournment (1) 94:1
adjusted (1) 33:10 administer (1) 62:12 adopted (2) 56:11 89:3
adopts (1) 25:25 advance (1) 105:1 advantage (3) 51:21 82:4,13
advice (1) 81:7
affirmed (4) 2:5 102:11 137:5,10 afraid (2) 48:19 104:17
afternoon (2) 94:3,11
ago (2) 25:16 89:1
agree (19) 10:24 12:8
12:12 38:12,15 41:15 46:5,6 49:24 51:20,22 52:10,21 63:22 64:13 71:23
72:8,17 75:25
agreed (4) 9:24 68:3 73:5 74:7
agreeing (1) 62:19
agreement (19) 10:1 13:21 63:24 64:22 65:14 67:13,16 68:10,11 69:8,10 71:21 72:1,4 73:10 74:4 78:1,4,6
agreements (16)
10:22 11:25 12:3 13:10 62:24 63:3,4 63:11,24 64:5,6,8 64:12 72:20 93:16 93:19
agrees (1) 67:21
ahead (1) 29:23
airports (1) 40:15
alleged (1) 100:3
allocate (1) 83:19
allocation (6) 6:25 7:3 8:8,11,16,19
allow (6) 22:6 24:1,19 30:19 78:8 92:14
allowed (6) 18:22,25 19:3 40:19 67:14 106:5
allows (3) 10:21 37:6 54:8
alternative (4) 17:6,12

99:25 101:13
altogether (1) 72:5
amend (1) 5:23
American (2) 75:12 76:9
Amex (31) 17:12
27:22 30:2,3,8,9
47:23 48:1,14 49:7
50:3,16,18,20
51:21 52:12 53:19
53:23 54:9 55:2,6
55:12,13,16 56:2,4
75:18,19 76:21,22
77:3
amount (11) 42:2
45:11 57:4,11 58:2
66:6,10,13 67:23
70:1 95:22
amounts (3) 46:14 68:10 97:17
analogy (1) 25:17 analysis (2) 59:15,17 Angeles (1) 40:6 annexed (1) 21:14 annexes (1) 23:10 annum (2) 98:3,4 answer (13) 8:22 9:12

18:20,24,25 19:3
21:12 30:24 44:12
44:14 61:16 67:11
104:16
answering (2) 7:17
96:6
anticipate (1) 25:20 anticipated (1) 105:3 anybody (2) 46:25 104:2
Anyway (2) 25:4 96:21 apart (1) 64:22 apologise (1) 7:15 apparently (3) 94:13 94:15 100:13 appeal (1) 33:7 appealing (2) 33:10,18 applicable (1) 81:19 application (4) 1:15

94:12,22 102:3
applied (5) 10:24,25
25:14 72:8 97:23
applies (1) 78:22 apply (3) 10:4 12:1 13:4
appreciate (1) 104:23 approach (4) 27:4,6 28:6 99:25
approaching (1) 81:16 appropriate (1) 76:19 approval (2) 22:25 27:3
area (2) 9:17 75:8 areas (2) 5:17,18 argument (5) 86:25

95:11 97:11 99:6,7 arising (1) 86:13 arrangement (1) 81:20
arrangements (1) 67:7 arrive (1) 23:17 arrived (3) 22:8 25:5 35:15
arriving (1) 89:13
asked (9) 9:17 11:20
20:13,14 61:8
81:23 103:22 104:2 105:21
asking (4) 8:18 23:25 45:16 63:15
asks (1) 89:24
aspect (3) 39:17 79:8 93:9
aspects (5) 20:10 44:4

57:17 58:12 88:13 assembles (1) 25:22 assess (4) 18:9 22:7 101:3,13
assessment (2) 35:22 99:25
assigned (1) 6:4 assist (5) 11:9 13:11

21:11 25:4 66:19 associated (1) 10:18 assume (6) 4:12 29:11

57:7 65:8 76:1,16 assumed (1) 101:13 assuming (1) 65:14 assure (1) 105:5 asymmetric (1) 84:9 attached (1) 58:14 attempt (4) 31:23

75:11 98:14 100:22 attempting (1) 15:7 attempts (1) 104:10 attract (2) 44:7,9 attractive (1) 32:24 attractiveness (1) 101:15
Australia (3) 53:4,13 54:12
Australian (4) 53:5,6 53:15 54:11 Austria (3) 11:3,4,5 authorised (3) 65:8 69:20,22
authorising (1) 67:10 authorities (1) 73:9 available (2) \(35: 8\) 37:8 average (14) 9:15 28:8 30:1,2,3,15,17,19 30:22 54:6,7,10,14 87:25
averages (1) 52:6 avoiding (1) \(61: 18\) aware (22) 11:4,5 36:11,12,13,23 53:4,6,12,14 54:4 54:15 55:1 57:4,7 57:10 59:12 60:19 60:20 82:3 86:8,20 B
back (14) 3:17 15:17 16:18 18:8 32:20 37:7 52:14 56:5 61:9 67:5 80:15 87:9 88:25 95:10 background (1) 91:13 backing (1) 65:7 bad (1) 40:22
balance (9) 7:25 9:8 15:7 16:8 21:24 56:21 83:20 84:7 89:25
balanced (1) 84:19 balances (2) 49:17 83:19
balancing (12) 7:7,8 10:21 16:15 19:23 21:19 22:1 49:13 56:25 84:17,25 101:24
Baltic (1) 11:13
Baltics (1) 10:7
bamboozled (1) 94:3 bank (64) 6:1 8:25 14:18 21:23 25:17 29:2 39:25 40:7 52:18 60:21 61:24 61:25 62:2,3,18,20 62:22,23 63:15,17 63:24 65:12,15,16 66:3,7,9,20,21,25 67:8,9,13,14,19,22

68:1,2,8 69:8,9 70:18,20,21 71:4 74:12,12,16,16 75:2,22 76:14,17 77:15,15 78:9 80:16,19 81:21 83:3 95:9 97:18 100:7,15
Bank's (1) 99:20 banks (38) 16:1 37:14

38:4 42:2,18 43:6
43:12 57:4 58:2
59:9,10 62:25 63:5
64:5,6,9,21,22
67:16 69:2,3 71:6
71:13 72:3 73:5
75:9 77:12 78:10
78:10 79:11 81:16
83:6 87:19,20,24
87:24 89:21,21
bargaining (1) 84:13
BARLING (73) 1:7,16
1:20,22 2:3,7 3:9
3:16 4:21 41:20,23
42:22 43:2,14
48:20,23 49:1 61:7
61:12 73:25 74:3,9
74:24 85:2,6,17,20
86:1,9,12,17,22
87:1,5 93:21 94:6
94:14,16,18,23
95:1,7,13 96:3,6,9 96:17,21,24 97:1,4 97:14,20 98:11,19
98:22,24 99:1,5,10 99:13,17 101:9,20 102:5,8,13 103:13 103:17,23,25
105:19 106:1
Bart (3) 2:5,14 137:5 base (1) 49:8
based (16) 3:19,20,21
5:10,11,15 18:18 19:8 20:16 28:20 62:6 79:19,20
89:22 100:3,23
baseline (2) 28:25,25 basic (3) 14:13 16:7 61:15
basis (22) 10:20 16:13
19:13,15 22:14
27:16 30:1 39:22
39:22,25 41:10,12
45:7 57:24 63:6
70:22 73:1 74:3
88:2 99:16 101:14
105:21
bear (3) 9:15 94:5
97:4
BEATH (6) 28:15 29:17
83:10 84:8,11,18
behave (1) \(5: 2\)
belief (2) 41:9 46:9
believe (3) 12:2 54:6 96:11
bene (1) 1:25

99:21
charge (4) 58:13 67:15 81:13,15
charged (1) 39:2
cheaper (1) 82:6
chip (1) \(20: 7\)
choice (2) 37:12 80:5
choose (7) 71:13 72:4
72:15 75:23 77:11 77:13,17
Christian (3) 102:11
102:22 137:10
circle (1) 83:12
circulated (1) 25:21
circumstances (1) 56:20
cities (1) 40:15
claim (1) 22:8
claimant's (1) 105:15
clarify (3) 11:15 12:19 19:6
clear (11) 4:15 10:12
31:10,11 41:3 46:16 62:10 64:21 85:3 89:7 100:9
clearly (5) 24:22,24 25:3 75:17 80:7
clerk (1) 103:19
close (1) 52:25
closed (1) 100:18
clue (1) \(31: 2\)
collect (1) \(24: 10\) collected (3) 24:8 26:12 87:23
collecting (2) 89:17,18
collections (1) 8:13 combination (1) 6:24
come (17) 3:17 7:7 16:17 24:4,6,14 25:11 26:18,18 27:24 61:9 65:7 87:25 88:11 89:15 91:22 93:1
comes (5) 21:18 32:20 59:15 87:2 95:15
comfortable (3) 2:8 55:17 102:14
coming (4) 33:12 48:6 54:19 85:15
comment (3) 13:15 52:22 101:25
commercial (10) 11:18 51:10 56:1 62:23 63:3,4 64:4,12 67:16 82:9
Commission (3) 58:24 60:7,16
Commission's (2) 59:25 60:13 committee (11) 23:22 25:8,22 51:4,5,6 89:23,24 90:1,9,11 common (9) 49:23 50:1,13 56:24 73:6 74:10 76:2 78:13 81:4
commonly (1) 73:21
communication (2) 76:13 103:18
company (2) 22:16 87:22
compare (1) 42:13
compared (2) 41:8 80:10
compensate (1) 59:5
compensated (1) 16:3
compensation (1) 70:5
compete (22) 17:3,6 20:2 30:2,5,20 45:10 48:1 49:7

50:16,19,20 53:16
53:18,22 54:1,8 56:3 80:20,20,23 91:25
competing (7) 27:21
44:19,24 45:1
55:16 56:2 81:12
competition (23)
16:19,21,23 17:13 17:15 20:11 22:20 26:20 41:11,22 44:11 49:22 50:2,5 50:8,8,9,10,13,15 50:25 73:9 88:4
competitive (42) 17:1
17:11,15,18 19:24 20:17,20,25 21:5,5 23:16 25:10 26:10 27:12 28:5 29:14 29:18,22 30:8,10 32:22,22 33:6
41:24 44:3,17,18 45:3,6,11,23 46:2 46:22,24 50:18 82:14 87:15 88:5 88:13,14,17 91:21 Competitiveness (1) 45:4
competitor (1) 50:2 competitors (2) 18:6 51:11
complain (2) 84:23,24 complaining (1) 83:14 complement (1) 73:9 complete (1) 58:25 completely (1) 100:3 complex (3) 19:18 50:24 52:19
complicated (1) 71:4 component (5) 16:14 24:7 39:17 41:18 57:8
components (7) 9:8 9:10,10 22:11 25:9 57:19 58:11
conceded (1) 96:15 concentrate (1) 7:17 concentrating (1) 12:7 concept (1) 52:20 concerned (3) 76:7 83:5 90:24 concerns (1) 55:5 concludes (1) 92:4 concluding (1) 43:21 conclusion (6) 22:24 24:5,6,15 25:2,24 concrete (1) 29:24 conditions (1) 23:16 conduct (2) 104:8 105:6
conducted (2) 19:17 91:19
confidential (5) 49:2 61:19,20 85:4 104:14
confidentiality (3) 103:12 105:9,12 confine (1) 68:14 confirm (6) 2:17,22 3:11 34:21 103:2,8 confirming (1) \(34: 5\) connection (1) 13:5 conscious (1) 1:17 consent (1) 94:9 consequences (2) 6:13 6:19
consider (2) 81:24 101:22
considerable (2) 100:24 101:1 consideration (3)

20:14 41:17 65:5 considered (3) 14:6 57:14 100:23 consolidation (1) 68:22
constitutes (1) 69:10 construct (1) \(33: 24\) consultation (2) 87:18 87:22
Consulting (1) 59:17 consumer (3) 17:9,10 79:2
contactless (8) 20:7
33:12,19 \(34: 13\)
64:15,16 92:13,16
contained (3) \(62: 7\)
64:23 79:2
contents (2) 3:12 103:8
context (11) 18:22
34:10 44:10,10,16 45:19 49:5 51:2 53:16 91:8,9
contract (5) 62:3
63:20,21,22 71:22 contractual (1) 93:16 contribute (1) 16:11 contributory (1) 36:6 core (1) 78:11
correct (66) 2:15,19
2:21,23 3:10,25 4:5 5:9 9:4,5 14:8 18:6 23:23 27:7,9 31:3 32:1,2 34:25 35:2,6 39:3 44:1,25 45:4 45:10,17 47:3 49:7 49:13,18 50:3 54:4 54:23 59:19 62:4,8 62:13 65:17,19 66:5,8,12,15,18 67:24 68:12 70:18 70:19,23 71:7,10 71:15 74:5 75:5 76:15,20 77:4,7,10
78:17,20 84:10
85:19 97:7 98:25
correction (1) 2:24 corrects (1) 1:21 correlation (1) 32:10 cost (52) 7:23 8:13

9:10 10:15 14:7,9
16:14,18 18:13,15 18:19 19:8,13,15 19:16,18,23 20:11 20:16,19 22:13,14 24:7,7 25:9 28:1 29:1,16 30:1,16,19 33:18 47:12 49:12 49:24 50:1,14 56:21 57:17,17,19 58:6,9,9 66:10 81:25 88:2,12,19 89:19 91:18,19 costs (52) 8:2,14,14 8:25 9:2,14 10:18
14:15,16,19,22 15:1,2,3,5,7,11,18 15:20,23,24,25 16:4 17:22 18:1
20:14 22:16 23:15 29:17,18,21 30:11 30:13 47:6 49:15 49:16,17,23 56:25 57:20 59:5 61:1 83:19 84:15,19,20 84:21 87:19,23 88:1,18,19 counsel (3) 104:7,9,10 countries (4) 11:10 73:23 80:25 81:3 country (1) 10:2
couple (1) \(35: 3\)
course (23) 6:13,17
12:16 16:5 22:20
26:12 29:13 42:12 52:7,9 53:21 57:8 60:4,6,20 63:15 75:18 80:22 84:20 88:3 92:22 100:17 101:23
court (8) 1:5 23:12
34:7 54:20 60:14
106:10 136:4 137:3
Court's (1) 60:8
cover (3) 14:14 29:17 29:18
covering (1) 7:22
create (1) 82:13
created (1) 79:10
creative (1) 93:1
credit (22) 8:12 42:8
57:6 58:2,11 59:18 59:22 60:18 61:2 65:12,13 67:22 77:23 78:22 79:25 80:10 95:12,16 96:12,16,18 97:16 credits (1) 14:21 critical (1) 39:17 cross- (1) 105:24 cross-border (3) 13:17 40:18 42:17
cross-examination (4) 3:18 48:24 104:8 137:7
cross-examine (1) 100:19
crucial (1) 83:16 current (4) 65:10 67:22 91:5 98:10 currently (4) 3:4 97:12 98:6 99:15 customer (8) 13:4,8 13:12 47:21 61:23
63:13 73:13 86:5
customers (6) 47:19
52:19 59:22 70:14 86:9,11
cut (1) 14:5
cycles (1) 69:24

\section*{D (1) 94:24}

D2 (1) 98:23
D2.1 (3) 94:13,17,25
D3 (1) 87:3
daily (3) 70:24,25 105:21
damages (3) 95:13,14 101:13
data (7) 14:7,10 16:18 24:8 29:4 75:3 76:18
Datamonitor (1) 59:15 date (2) 3:6 27:8 day (6) 13:5 68:4 69:25 70:5,9 98:4 de (2) 1:25 105:23 deal (14) 9:24 12:4 14:25 74:18 77:16 82:6 84:6 87:6,7 88:23,24 91:22 98:15 105:15
dealing (15) 4:9,14 6:2 7:3 8:11 13:1,14 53:3 61:2 84:1 85:6 87:8 96:9 97:15,19 dealings (2) 4:2 8:19 deals (1) 97:16 dealt (4) 54:16,18 95:19 98:16 debate (2) 38:1 39:6
debated (1) 53.1
debit (25) 11:3 31:22
31:25,25 32:4,8,13
34:2,2,5,7,11 35:25
36:2 37:11 40:1
42:7 43:23,25 46:8
65:11 77:23 80:9
85:10,20
debited (1) 67:23
debits (1) 78:24 December (1) 95:3
decide (1) 78:6
decides (3) 5:22 63:17 79:23
decision (12) 25:22,23
27:25 36:2 37:10
43:6,9,12,13 60:1 60:13 90:20
decisions (2) 31:6 37:15
decline (5) 85:9,25
86:2,4,7
deduct (1) 67:15 deduction (2) 66:16 68:8
deductions (4) 67:10 68:1,3,3
deducts (1) 66:9
default (3) 33:13 71:12 104:5
defend (1) 54:1 defendant's (1) 105:16
define (2) 9:8 67:14
defined (2) 23:13 85:20
defining (2) 17:22 18:2
definitely (9) 27:17 56:4 58:4 59:12,13 83:22,23,25 85:15
degree (2) 76:1 101:15
delayed (1) 1:3
delve (1) 48:17 demonstrates (1) 90:22
depend (1) 66:23 dependent (1) 78:9 depends (8) 44:10,15 44:16 48:23 64:13 74:19 75:18 81:5
deploy (5) 81:3 87:20
92:15 93:2,4
deploying (1) 64:15
deployment (1) 88:9 descending (1) 62:11
describe (4) 28:18 61:23 87:14 91:6
described (2) 87:18 88:15
desperate (1) 83:15 detail (7) 4:8 22:7
entered (1) 12:3
entirely (2) 99:25 105:8
entities (1) 67:13
entitled (6) 2:13 68:2 75:19,19 79:12 102:21
entity (4) 6:19 74:13
74:17,22
entry (2) \(34: 5,7\)
Equally (1) 67:18
equipment (4) 65:6,7 76:2,4
equivalent (2) 37:19 41:23
especially (3) 37:1 62:22 104:20
esse (1) 1:25
essence (1) 45:14
essential (4) 21:4 32:20 54:10 83:2
essentially (8) 31:24 32:3 48:3 51:10 70:16 71:2 78:10 96:14
essentials (1) 32:25
establish (1) 31:24
established (2) 43:24 69:7
establishing (2) 34:2 39:3
estimate (2) 30:12 104:20
Europe (10) 5:6,16 10:10 11:10 36:20 36:25 38:4 40:19 40:20 73:21

European (9) 5:13 11:1 58:24 59:25 60:7,14,16 89:23 90:11
everybody (3) 5:14 6:8 91:4
evidence (40) 7:16 8:10 18:1,5 20:23 34:6,20 43:24 45:14,21 47:15,15 48:2,4 49:6,8,19,20 51:2 52:17 57:13 57:25 72:19 73:2 82:2 97:12,21 98:10,17 99:15,23 100:12,17,18,24 101:21,22 104:4,22 105:8
evolution (3) 20:5 27:18 28:8
exact (3) \(23: 8\) 57:10 104:23
exactly (19) 4:13 5:14 21:15 29:3 38:4 41:4,24 58:19,21 64:25 69:11 73:23 74:13,25 76:8 78:15 82:22 86:11 101:10
Examination-in-chie.. 2:6 102:12 137:6 137:11
examine (1) 105:24
example (24) \(5: 23\) 7:20 8:3 11:2,10,11 13:18 20:17 21:14 21:22 27:20 29:24 31:15 38:23 39:24 64:18 69:14 70:9 77:24 80:24 92:11 92:12,23 105:14 examples (8) 10:9,11 11:6,7,9,10,13 21:22

\section*{exception (2) 56:24} 73:23
exceptional (2) 20:21 63:2
exchange (1) 69:25 exchanged (1) 70:2 exclusive (1) 63:12 exclusivity (2) 62:19 63:8
Excuse (1) 43:11 execute (1) 72:9 exercise (4) 19:17 60:25 61:3 101:24 exert (1) \(83: 17\)
exhibit (1) 23:24
exhibited (1) 23:5 exist (2) 11:7 26:16 existed (1) 12:22
existence (2) 11:12 40:18
exists (6) 11:6 12:19 23:19 26:15 64:7,8
exit (1) \(72: 4\)
expand (2) 32:17 67:11
expect (4) 53:19,23,25 83:21
expectation (1) 91:23
expectations (1) 29:5
expected (2) 27:24 54:7
expecting (1) 102:2
expedient (1) 61:8
experience (11) 48:5,6
52:21,23 53:4,5,6 53:12 56:16 82:7 85:7
experienced (2) 56:1 85:9
expert (6) 58:7 95:18 98:20 101:21,21 105:15
experts (2) 22:6 99:14
experts' (1) 95:3
explain (7) 15:15 16:21 29:8 69:18 91:14,16 102:4 explained (3) 25:3,8 31:10
explanation (1) 42:1
express (3) 64:22 75:12 76:9
expressly (1) 104:13
extension (1) 65:11 extensive (1) 48:23
extent (4) 42:7,9 62:17 105:24
external (4) 27:15,17 28:5 87:22
extract (1) 101:4
extracts (1) 99:22
- F
face (1) 59:6
faced (1) 87:20
fact (8) \(7: 6,19\) 40:19 43:1 57:22 73:25 84:25 105:14
factor (8) 17:23 18:2,5 19:21 23:17 29:2 38:13 40:4
factors (8) 14:6 19:12 20:3 25:11 27:17 27:18 36:1,6 factual (10) 99:16,23 100:4,10,17,18,20 100:23 101:11,14 factually (1) 101:4 fair (2) 27:14 102:2 fairly (3) 35:4 84:18 101:12
fairness (1) 53:2
fallback (4) 10:3,3,20 73:11
famous (1) 36:15
far (4) 15:24 62:11 76:7 83:4
fear (1) 61:14 February (3) 1:1 106:11 136:5
fed (3) 95:9,10,10 fee (40) 3:3,24 9:4,6 11:22 13:18 18:10 21:10 23:18 25:5
31:1,4 45:9 48:4 49:11 50:11 56:13 56:17,17 57:12,15 57:21 58:1 59:3 60:11,19 65:21,24 66:17,20,22 67:2 71:11 72:8 73:15 73:17,20 81:14 83:4 93:14
feel (4) 23:10 43:16 54:15 86:15
feeling (1) 42:11
feels (3) 68:4,25 104:15
fees (26) 10:3,4 11:14 11:17 12:1 14:7 18:9 44:1,5,8,9 45:2,22 49:7,9 56:9 57:5,16 59:7,8 60:22,22 65:25 84:2 95:9 96:1
felt (1) 73:16
fight (1) 2:1
figure (4) 68:25 70:22 87:3 98:2
figures (6) 37:8,14,18 37:19 38:1 52:6
file (1) 94:4
final (1) 90:20
finally (1) 77:19
financial (7) 6:1 61:24 63:5,14,24,25 64:2
find (2) \(33: 681: 15\)
fine (3) 1:16 2:3 102:9
finger (3) 8:3 9:18,19
finish (1) 99:7
finished (1) 105:13
first (20) 6:14 10:13 14:10 15:16 16:25 17:19 19:13,14 29:9,13,15 33:17 72:12 75:17 87:2,7 97:25 98:1 100:9 101:14
fit (3) 68:17 89:13 93:7
five (2) 46:11 47:17
fixed (2) 50:1,13
fixing (1) \(60: 18\)
flat (1) 66:22
flavour (2) 90:19 97:2
flawed (2) 99:18 101:14
flick (2) 2:16 102:24
flip (2) 9:20 37:7
flipped (1) 86:5
flipping (1) 105:14
flow (2) 64:25 65:9
flowcharts (1) 97:15
flows (1) 83:12
flurry (1) 95:3
focal (1) \(50: 9\)
focusing (3) 14:9,11 15:5
follow (6) 38:2 45:19 45:20 59:25 60:2 72:7
followed (3) 87:14,16

87:17
following (1) 83:10 follows (2) 31:10 45:18
footnote (1) 97:24
force (2) 13:8,12
forget (4) 39:19 41:18 43:5 94:23
forgive (1) 21:8 form (2) 27:15 67:20 formally (1) 55:8
formula (4) 21:16,25 22:3 24:25
formulates (1) 4:13
forum (1) 5:21
forward (1) 5:19 found (3) 15:24 33:1 33:21
foundation (1) 16:7
four (4) 46:11 47:17 61:23 99:7
four-party (4) 15:18
56:10 61:22 83:11
four-stage (1) 83:11
fourth (1) 53:10
France (5) 3:8 10:7 48:5 59:7 63:11
fraud (9) 5:20 7:21,23 8:9,12,13,25 56:12 81:8
fraudulent (1) 8:17
free (2) 43:16 87:12
frequent (1) 72:21
front (3) 2:11 48:18 102:16
full (1) 104:16
fully (4) 38:2 57:9 63:19 77:17
function (1) 5:13
functional (1) 13:4
functionality (19) 32:4 32:7,8,9,15,19 34:17 36:11 38:22 39:1,8,10 40:25 41:3 44:1,3,6 88:15 88:18
functions (3) 5:13 76:17 90:2
fundamental (1) 41:18 fundamentally (2) 99:17 101:14
funding (1) 8:13 further (8) 9:17 31:13 61:5 66:9 85:16 93:20 95:21 96:3 future (1) \(28: 8\)
\(\frac{\text { G }}{\frac{\operatorname{sain}(2) 53.2355 .10}{}}\)
gained (1) 55:7
gaining (1) 33:2
gap (10) 36:22 38:2,20
39:19 41:10 46:13
46:19,20 88:21
101:20
gather (1) 94:7
general (9) 3:8 10:6,7
48:5 55:16 60:8
63:9 73:22 90:25
generally (1) 56:9
generate (1) 59:19
generating (1) 28:17
German (4) 38:11 42:5
42:13,15
Germans (4) 40:12,17 40:21 42:20
Germany (10) 37:4,4,6 41:4,8,13,21 42:8 42:10 43:3
getting (3) 58:25 59:1 83:24

Giro (1) 42:19
gist (1) 96:18
give (34) 11:11 27:20
31:2,15 36:9 38:5
40:20 42:6,11
45:21 57:10 64:16
80:24 82:12,17
88:8 90:19,21
92:10,23 95:5,12
95:16,22 96:12
97:1,6,16 104:2,19
104:22,23 105:17

\section*{106:2}
given (8) 11:8 12:4
17:10 23:7 49:9
56:11 96:16 99:16
gives (4) 30:3 40:8 63:5 87:3
giving (5) 48:3 51:10
94:4 101:22 104:16
glasses (2) 2:9,9
global (2) 5:13 36:21
GNS (1) 52:12
go (43) 1:14 4:7 8:4,5
11:20 12:23 14:3
18:8 27:2 29:22 30:25 31:2,13 35:22 37:10 40:6,7 40:14 48:9,13,14 48:17 51:19 52:14 53:2,7 56:5 57:1,2 59:14,21 74:17,20 74:25 76:23 82:18 89:8 90:18 91:6 96:15 97:11 102:19 105:11
goes (11) 8:2 10:14 12:6 15:17 28:16 65:3,9 76:20,22 81:3 95:2
going (32) 2:4 4:7 15:4 16:18 26:8 28:7 30:4,5 34:12 38:1 39:6 45:12 47:25 49:5 58:16 61:22 67:5 73:16 80:15 84:13 88:25 94:9 99:24 100:2,7,15 102:9 104:3,8 105:3,24 106:5
\(\operatorname{good}(7) 1: 7,811: 2\) 21:6 29:8 44:23 94:3
gotten (1) 82:11
graph (1) 86:20
great (2) 90:18 105:15 greater (2) 42:7 62:11 Greg (1) 95:15 grips (1) 28:16 group (2) 59:16,17 grow (1) 31:23 guarantee (1) 104:23 guess (1) 53:14
halfway (1) 63:17
input (2) 22:14 89:20 inputs (2) 21:20 24:22 instance (32) 7:20 8:1 11:1,12 13:17 14:21 17:7,12 20:6 24:6 26:6,19 28:4 29:24 37:3 39:10 59:8 60:22 62:19 64:14,18,19 65:20 70:6 76:22,23 77:24 79:2,22 92:6 92:7,12
institution (2) 6:2 61:25
instructions (2) 1:12 1:13
insurance (1) 33:20 insurances (2) 17:10 34:14
intelligence (4) 55:2,8 55:11,20
intending (1) 99:5
intention (1) 45:8
inter-brand (1) 50:25
interbrand (1) 50:2
interchange (147) 3:3 3:24 4:15 5:5,8 7:6 7:24 9:4,6,9,23 10:3,3,12,23 11:14 11:17,22 12:1,13 13:5,9 14:6 16:7,16 16:24 17:14 18:9,9 18:18 19:8,11,21 19:22 20:1,3,8,11 20:15,19 21:10,18 21:18,21 22:4,7,11 22:13,22 23:8,11 23:18,20 24:12,19 25:1,3,5,8,13 26:13 26:14,17,24 27:1 28:1,8 29:20 30:7 30:23 31:1,4 32:10 32:12,15 33:16,22 33:24 34:3 39:16 39:19,20 44:1,5,8,9 44:20 45:2,9,15,22 46:16,17 48:4 49:7 49:9,11 50:11 53:21,25 54:2,8,14 55:15 56:9,17 57:5 57:12,15,16,21 58:1,6 59:3 60:11 60:19 65:15 69:16 71:11 72:5,8 73:15 73:17,20 74:17,20 75:1 81:14 83:4 84:2,23,24 88:7,22 88:24 89:14,15,24 90:5,8,11 91:7 92:8 92:14 93:14 95:8 96:1
interchanges (1) 5:6
interest (14) 21:23 25:17 57:6,14 58:2 58:12,14 59:2,10 59:11,23 60:17,22 61:1
interested (1) 13:2
internal (1) 27:18
international (1) 40:20
interrupt (1) 58:15
interrupting (1) 43:15 intra (1) 50:25
intra-brand (3) 50:5,8 50:8
intra-MasterCard (1) 50:15
introduced (2) 93:13 98:1
investigation (2) 8:13

9:1
involved (5) 4:16 5:12 5:15,25 14:14
issue (12) 19:25 32:13 33:23 40:1,1 53:24 62:20 100:4,5,10 102:1 103:12
issued (4) 7:11 26:25 30:12 79:11
issuer (25) 7:22,23 9:25 10:15 12:17 13:22 17:3,11 19:25 30:6 56:10 56:14,17 66:1 69:23 70:2,3,6,9 72:1 79:6,7,8,19 84:22
issuer's (1) 49:15
issuers (39) 7:1,2,12
8:2 9:15,24 10:22
11:24 12:4,10,11
12:21 13:24 15:8 15:10 16:10 17:7 30:3 32:1,13,16,18 32:23 33:19,22 34:4,12 45:12,16 46:3 49:17,22 57:23 59:5,19 68:14 83:14,20 91:24
issuers' (3) 49:16,23 61:1
issues (1) 56:12 issuing (42) 8:25 9:1 14:18 15:19,24 16:1,4,13 17:12 20:2 61:24 62:2,18 63:5 64:21 65:12 65:15 66:3,20,25 67:8,19 68:1,8 69:2 69:3,3,8 71:4,13 74:12,16,22 78:10 83:6 84:5,16 87:19 87:24 88:19 89:20 90:3
items (3) 8:20 9:7,13
[

JOHN (6) 28:15 29:17
83:10 84:8,11,18 joined (2) 34:22 86:3 journalist (1) 103:20 judgment (1) 60:8 judgmental (1) 29:1 judgments (2) 28:20 60:13
July (2) 85:10,22
JUSTICE (73) 1:7,16,20
1:22 2:3,7 3:9,16 4:21 41:20,23
42:22 43:2,14
48:20,23 49:1 61:7 61:12 73:25 74:3,9 74:24 85:2,6,17,20 86:1,9,12,17,22 87:1,5 93:21 94:6 94:14,16,18,23 95:1,7,13 96:3,6,9 96:17,21,24 97:1,4 97:14,20 98:11,19 98:22,24 99:1,5,10 99:13,17 101:9,20 102:5,8,13 103:13 103:17,23,25 105:19 106:1 justification (1) 100:2 justified (1) 33:24
\begin{tabular}{c} 
K \\
\hline keep (5) 1:9 4:21 8:3
\end{tabular}

9:19 94:6
keeping (4) 15:4 17:15 17:18 18:16
keeps (1) 70:16
Kenner (5) 103:22,23 103:24 104:18 105:21
key (11) 3:23 36:22 38:9 40:4,10,11,14 40:15 41:18 45:4 53:15
kind (1) 96:21
kinds (1) 75:23
knew (1) 93:15
know (30) 3:14 4:7
28:22 29:2 35:13
35:21 37:16 44:17 48:9 51:1,4 58:23 61:16,24 71:11 72:12 76:5 85:23 86:2 87:9 96:9 100:4,15 101:18 102:5 103:21 105:10,24 106:4,5 knowledge (5) 34:21 35:3 36:9 58:25 59:2
known (1) 103:22 knows (3) 10:15,17 99:8
Koboldt (6) 102:9,10 102:11,13,22 137:10
lady (1) 106:3
laid (3) 24:22,24 91:17
landscape (1) 91:21
large (4) 15:11 81:14 81:24 101:12
largely (1) 62:5
larger (1) 62:23
late (2) 95:17,19
launch (7) 16:25 17:2
30:4,6 32:21 43:22 43:24
launched (5) 26:6
27:22 29:12 33:2
93:14
laying (2) 91:3,8 leads (1) 88:18 leave (2) 105:12,25 legal (3) 74:13 90:4 103:20
legs (1) 43:16
length (2) 48:14 53:1 let's (24) 9:3 28:6 29:20 30:4 31:15 37:7 39:12,19 41:17 42:17 43:5 44:22 48:17,22 49:8 52:23 59:5 62:18 64:15 65:3 73:8 76:24 86:5 90:7
level (26) 9:9 10:23 11:16 12:13 14:13 19:23 21:20 22:4,8 23:8,11,18 25:1,2 25:10 26:23 30:17 30:21 34:5,7 38:6 52:8 53:21 61:1 73:18 88:12 levels (2) 22:11 88:6 liability (2) 33:15,20 licence (3) 6:4 64:10 75:19
licensee (1) 6:10 licensees (1) 71:9 limited (8) 12:4,10,18 36:11 38:22 39:1

53:20 63:2
limits (1) 79:20 line (1) \(83: 8\) link (2) 32:4 95:25 linked (3) 64:2 66:24 66:25
little (12) 4:22 16:17 36:21 51:23 63:9 64:11 69:18 74:19 79:9 85:14 94:10 101:20
living (1) 46:25 Lloyds (2) 52:16,19 local (7) 73:9 81:6 89:18,18,19,20,21 location (3) 5:12 46:13 52:5
locations (7) 37:21,22 38:7 40:11,13 46:15 47:1
locking (1) 63:12
logic (5) 24:23 31:9,10 89:7 90:23
logical (4) 18:17 19:7 25:2 42:1
logically (4) 44:6,9 45:17 77:20
logo (1) 79:18
London (3) 46:25 52:5 65:4
long (3) 47:18 83:8 89:1
look (36) 1:24 14:12 19:15 22:16,17 27:18 28:7 29:16 30:9,10,13 31:8,15 33:3 34:10 36:17 36:25 37:2,8 51:25 52:1,2,7 55:19 57:18 67:18 73:20 82:4 84:4 88:3,6,6 88:14 95:24 96:15 105:16
looked (6) 33:5 58:10 58:17 59:4 60:23 93:10
looking (7) 18:10 32:14 43:22 48:2 67:12 83:23 84:20 looks (2) 76:8 81:12 loop (1) 1:10 Lord (1) 61:5 Los (1) 40:6 lose (6) 8:5 17:25 47:25 54:21 55:12 55:21
losing (1) 55:6
loss (2) 36:6 58:25 losses (2) 8:13 35:25 lost (3) 42:3 46:8 56:3 lot (8) 5:16 11:12 24:8 33:2 52:22 68:21 68:21 105:18
lots (3) 24:16,17 53:19 low (3) 33:4 84:23 85:12
lower (17) 11:18 27:25 30:21 38:10 40:14 44:7,9 54:9 81:17 83:24 84:21 85:16,18 88:21 96:19 97:17,18 loyalty (1) 81:8 lunchtime (1) 1:13

\section*{Maestro (58) 12:6} 20:24,25 34:5,18 34:20 35:3 36:12 36:15 37:1,1,3,5,23 38:3,8,9,11,22

39:10,20 40:1,5,6 40:15,19,25 41:7 42:5,10,17,21,24 42:25 44:23 45:9 45:15,23 46:12,14 46:25 47:19 73:25 77:3,15,24 79:22 79:25 80:8 85:6,8 85:10,21 86:6 87:7 87:9,12 88:5

Maestro-
36:19
magically (1) 21:17 main (1) 18:6 maintenance (1) 80:22

\section*{major (1) 12:4}
making (6) 17:5,8 37:9
37:15 39:24 55:20
manage (3) 15:19,20 28:1
manager (6) 3:8 10:6
10:7 48:5 55:16 63:10
managing (1) 6:20 mandating (1) \(32: 8\) manuals (2) 76:25 77:1
market (112) 9:15
10:14 11:2,11 12:5
12:9,17,21 17:1,4 18:10,11 19:25 20:2,5,9 21:4,24 22:2,17,18 23:16 24:9 25:10 26:2,7 26:10,11,19,23 27:13,19,23,23,24 28:22 29:10,14 30:1,6,11,13,14 32:21,24 33:3,3,4,8 34:16 37:2 40:22 42:5,13,13,15,15 42:19 44:11 47:25 51:11,25 52:1,6,22 53:15,17,20 54:3 55:1,6,7,11,17,20 59:4,7,9,9 60:23 64:17 68:23 72:24 73:6 81:19 82:14 82:16,18 84:7,12 85:9,10,18 87:19 87:24 88:1,4,9,24 89:18,18,20 91:8 91:10,11,12,21,24 92:10 93:2,4,11
marketing (1) 36:4 markets (16) 10:24,25 11:1,13 28:9 36:21 42:11,14 51:24 59:6,7 60:24 72:20 72:21 73:13 76:5
MasterCard (131) 3:5 4:9,12,13,25 5:9 6:5 8:10,19 10:1,21 11:24 12:20 13:24 15:7 16:25 17:23 18:3 22:5,9,22 23:1 25:25 26:9 28:7 29:12 30:14 31:22 31:25 32:4,8,13

28:9 29:20 39:4
45:2 48:12,12 49:6
50:15,17 51:22
52:7 69:17 73:14
86:22 90:18 94:18
97:16 102:24 104:3
needed (3) 33:13 44:3 93:15
needs (16) 7:24 17:1
19:17 21:3 26:18
32:21,22 44:17
45:6 56:22 61:9
82:16 84:4 91:12 93:5 106:4
negotiate (1) 83:6
negotiated (2) 62:18 82:6
negotiating (1) 81:17 negotiation (1) 11:18 net (6) 66:6,13,13

70:10,20,22
Netherlands (1) 41:13
netted (1) 61:1
neutrally (1) 38:24
never (8) 30:5 35:19
51:7,8 57:14 60:12 93:4 100:12
new (25) 6:9 14:20,22 19:16 20:6 26:6,19 27:11,11 28:12 29:11 32:21 37:12 38:8 63:22 92:7 93:2,2,12,14,14 100:3,3,8,23
Niels (2) 50:22 87:2 non-discriminatory (1) 82:21

Nordic (1) 10:6
Nordics (2) 48:6 63:10
north (1) 52:3
notably (1) 36:3
noted (1) 31:5
notified (2) 6:14,16
notify (1) 71:21
nuance (1) 51:22
number (7) 12:2,4,10
66:25 67:2 69:2
81:24
numbers (8) 38:2,10 38:12,16,18,22 39:21,21
obey (1) 6:11
obeys (1) 6:9
object (6) 77:5 95:18 99:10 100:2,21 101:5
objected (1) 98:24
objecting (1) 99:9
objection (1) 1:25
objections (2) 97:2 102:6
objective (4) 7:8 29:9 29:13,15
objectives (1) 33:17
obligation (4) 13:12 13:14 78:22,23
obliging (1) 6:5
observed (1) 27:21
obvious (1) 104:4
obviously (14) 1:25 4:10 35:23 36:9 42:5 61:22 65:5 66:20 69:12 81:23 85:21 94:11 101:9 101:20
occasion (1) 28:10 occasions (3) 56:3,19 104:11
October (2) 3:7,9
offer (4) 34:11,12 40:7 82:15 offering (2) 31:25 52:13 offers (3) 70:13 71:8 75:16
OFT (1) 58:24
okay (5) 14:1 34:1
50:12 63:18 69:23
ones (2) 20:12 75:23
ongoing (2) \(60: 7,15\)
online (3) 39:10,11 42:25
open (4) 1:5 106:9 137:3,12
operate (4) 13:8,13 56:22 71:25 operates (1) 73:1 operating (1) 13:5 operation (1) 61:15 operator (1) 62:1 opportune (1) 103:17 oppose (1) 97:6 opposed (1) 57:5 opposite (1) 56:23 optimal (1) 16:12 orchestrate (1) 104:25 order (12) 7:10 15:25 20:25 28:1 29:21 32:11,18 45:2 50:15 55:11 104:24 105:3
originally (1) 96:12
outcome (1) 73:17
outside (3) 37:6 38:5 40:13
outsourced (1) 22:15 outweigh (1) 15:24 overall (5) 15:2 30:11 36:3 38:10 59:4 overnight (1) 101:22 owes (2) 70:10 71:5

\section*{page (22) 2:20 8:7} 9:20 11:21 12:23 13:1,6,7 37:7 51:19 53:7,9,9,10 57:3 59:14 86:25 87:1,3 97:13 103:4 137:2
pages (2) 23:12 102:25
paid (6) 56:9,13,17 66:20 70:22 95:9

\section*{paper (1) 94:4}
paragraph (37) 3:1,22 4:1 6:22 8:7,8,14 8:15,16,21 9:21,22 11:21 14:3,9,12,13 15:4,5,15,16 16:18 17:19 18:4,8 31:18 34:1 35:7 43:22 52:11 56:6,8,15 85:3 97:16 99:19 99:24
paragraphs (3) 17:16 48:3 99:2
Paris (3) 3:19,20,21 part (11) 3:23 6:3 17:13 38:19 40:10 57:16 58:9 60:23 81:14 88:16 104:22 participant (2) 6:9,14 participants (3) 5:2 12:10 14:14 participate (1) 16:2 participating (2) 63:1 70:21
participation (1) 7:13 particular (6) 10:1 26:2 90:15,24
particularly (1) 90:24 parties (13) 11:19

12:13 13:19 16:9
24:9 61:23 85:1
93:5,5 104:1,17
105:20 106:2
partner (1) 42:17
pass (1) 65:15
passage (1) \(85: 17\) passages (1) 49:3 passed (1) 82:1 passes (2) 66:6,13 passive (1) 83:15 pause (4) \(36: 17\) 48:18 49:4 94:19
Pausing (1) 37:7 pay (5) 10:14 42:21 45:16 59:23 76:11 payable (1) 65:21 paying (4) 7:20 15:10 46:3 68:2 payment (20) 5:2 6:6 6:8 7:9 8:24 9:16 14:17 15:2 16:9 18:10 56:12,22 65:2 69:11 70:11 75:15 77:21 78:11 78:15 92:18 payments (4) 22:19 57:14 67:5 91:10 PayPass (1) 32:8 pays (1) 69:21 penultimate (1) 53:7 people (15) 5:12,15

5:16,17 22:19 26:8 34:8 36:11 46:12
83:13 90:1,2,3,3
105:23
percentage (1) 85:11 Perez (2) 37:17,17 perfectly (1) 72:14 performance (1) 64:2 performed (1) 22:14 period (7) 22:8 39:13 43:8 46:10 47:18 87:13 98:3
person (3) 5:24 47:2 74:14
personal (2) 41:9 46:8 personally (1) 72:9 perspective (10) 5:20 5:20 7:5 17:9 38:3 39:4,12 52:8 84:3 92:2
perspectives (1) 39:16 persuade (5) 11:24 32:12,16,18 34:3 phase (1) 89:17 pick (2) 14:4 33:7 pie (2) \(84: 8,12\) piece (5) 1:9 38:20 76:4 99:23 100:16 place (9) 6:14 10:13

16:25 19:13,14
22:10 75:17 81:1,2 platform (1) 76:24 play (3) 39:18 51:11 88:16
players (1) 28:20 please (5) 2:12 14:3 61:16 89:9 102:19 pm (6) 93:24,25 94:2 106:8,10 136:4
point (28) 6:18 7:18 12:22 14:4 19:16 27:20 32:20 37:13 39:9,22 42:12 52:17 53:8,10,15 58:8 65:15 69:19 69:21 70:8 83:23

85:12,12,13 97:9 99:14 100:11,20 points (9) 30:2 38:9 39:22 41:10 45:8 95:6,10 96:2
101:24
pool (1) 83:6
popular (3) 41:7 72:24 72:24
portfolio (6) 35:25 39:23 46:8 64:3 67:3 86:6 portfolios (1) 36:2 posing (1) 7:17 position (15) 33:5 54:1 75:6 80:17 93:11,18 97:12 98:17 100:12 101:2 101:3,11 104:5,19 106:3
positioned (1) 34:19 possibility (2) 12:19 93:18
possible (11) 12:11,19 20:18,18,22 72:3,6 72:14 75:14 104:14 106:3
potential (1) 6:1 potentially (2) 52:24 61:11
pounds (1) 59:18 practical (1) 8:1 practice (2) 63:23 73:7 precise (2) 21:9,16
prefer (1) 94:10 prejudice (2) 100:24 101:2
premium (21) 17:8 27:21 29:25 30:15 32:5 50:19 51:24 51:25 52:2,7 53:18 53:25 54:2,8,21 55:12,14,21 79:3 79:10 92:7
preparation (1) 24:3
prepared (2) 51:15 90:5
presence (1) 80:25
present (2) 98:4 103:21
presented (1) 22:25
pressure (3) 82:9
83:17 86:16
presumably (2) 76:25 78:3
presume (2) 28:19 67:6
pretty (1) 100:9
prevails (1) 13:22
price (3) 46:2 81:12 82:5
pricing (3) 64:1 80:23 93:13
primarily (1) 40:8
principle (1) 15:17
printed (1) 13:2
proactive (2) 28:6,11
proactively (1) 27:25
probably (4) 5:24 48:7 64:7 88:25
problem (5) 40:16 99:11 104:1,4,24
procedure (1) 60:6
proceeding (2) 60:15 99:16
proceedings (2) 1:3 52:18
process (35) 5:25 6:20 14:22 15:20 19:18 22:23 23:3 24:14 25:14,18,25 26:3

26:15 27:3 29:3 30:25 31:3 57:18 58:9 72:13 75:22 75:24 78:1,7 81:18 87:13,15,17,21 88:1,16 89:13,15 89:16 90:25
processed (3) 65:6
70:12 76:3
processes (2) 62:12 77:1
processing (1) 8:14 processor (1) 72:11 produce (3) 22:5

24:11 27:15
produced (1) 24:12
produces (1) 99:22
product (93) 5:17 17:1
17:2,3,5,8 19:11,24 20:1 21:4 26:6,9 27:11,21,22 28:12 29:10,12,14,19,25 30:4 31:25 32:21 32:24 33:6,7,8,14 33:15,18,21,23,23 33:25 34:3,5,7,11 34:12,14,16,18 36:15,18 37:2 39:6 41:1,9,13,19 42:2 \(44: 3,7,9,11,16,19\) 44:20,24 45:1,3,3,6 45:9,10,17 46:4,7 47:20,21,22 50:9 52:25 65:4 78:2,7 78:11 79:1 80:2,3 87:20 90:4 91:14 91:15,25 92:7,7 93:2,4,11,12,14
products (23) 17:4,6
26:24 27:19,24 28:1 30:12,14,15 30:15,20 34:15 50:19,19,20,21 78:8,25 79:1 80:5 82:25 88:5,14
PROFESSOR (6) 28:15
29:17 83:10 84:8 84:11,18
profits (1) 83:15 promise (1) 10:13 promote (1) 63:6 prompted (2) 95:24 100:14
proper (3) 1:11 100:4 104:16
proportion (7) 15:11 39:15 43:7 49:14 49:16,23 59:21

\section*{proposal (24) 23:21}

24:13 25:12 26:14 27:1 31:11,14 88:10 89:6,22 90:5 90:11,13,16,17 91:3,4,7,16,17,22 91:23 92:3,4
represented (1) 90:2
representing (2) 36:22 66:10
repricing (2) 31:17,21 reproduced (1) 86:24 request (3) 18:13,15 104:18
require (1) 21:25
required (4) 13:19 26:5,20 27:1
requirement (1) 13:16 requirements (1) 13:3 requires (1) 27:15 requiring (1) 27:13 research (1) 22:18 researches (1) 18:10 resile (3) 98:14,17 100:22
respect (7) 5:4 43:9 54:7,9 63:1 84:5 95:5
respected (1) 54:14
respond (2) 5:3 101:25
responded (1) 97:8
responding (1) 55:2
response (7) 89:10 96:3,21 97:7 98:6 98:13,14
responsibilities (6) 6:25 7:4 8:9,12,17 8:20
responsible (10) 4:25 5:4,7,7 6:20,21 7:22 8:23 25:14,15 restrict (1) 50:5
restriction (1) 50:14 result (8) 24:5,11 41:11 87:25 88:2 91:19 96:1 99:23
results (2) 19:24 26:25
retail (1) 95:10
retailers (1) 81:24
retain (2) 45:17 46:3
retained (3) 45:23 47:17,18
retaining (1) 46:11
return (1) \(63: 14\)
revamp (1) 33:9
revenue (3) 10:16 57:23 60:21
revenues (2) 10:18 57:9
review (5) 23:22 26:5 27:13,14 90:7
reviewed (3) 25:20 26:13 60:23 reviewing (1) 26:17 reviews (1) 26:1 revisited (1) 99:20 revolvers (1) 59:22 revolving (1) 58:11 rewards (1) 17:10
Reya (1) 105:23 rid (1) \(63: 18\) right (21) 5:24 9:8,9 12:23 21:20 22:4 28:10 67:25 69:6 69:16 71:16 73:18 78:21 89:25 93:22 95:1 96:24 98:19 103:13,17,25
right-hand (1) 59:18
rightly (1) 62:15
ring (2) 105:9,12
robust (2) 22:10 23:2
role (3) 3:7 39:18 60:11
round (1) 35:15
route (2) \(83: 4,5\)
rule (5) 5:11 78:13,21

79:8,21
rules (35) 4:4,4,12,16
4:17,18 5:1,1,7,9
5:18,22 6:5,7,9,10
6:11,12,18,21,24
7:19,21 8:23,24
12:20,25 49:8 62:7
62:10,13,25 63:1
64:23 69:10
run (1) 64:18 running (1) 70:16

S 2 (1) \(87: 10\)
Sainsbury's (13) 95:5
95:9,11 96:11 97:17,18 98:15 99:20 100:7,11,14 100:15,17
sales (2) 82:10 92:11 sanctioned (1) 24:21 saves (1) 61:11 saw (3) 35:19 62:9 104:9
saying (14) 22:3 23:25 39:18 40:11 43:2 45:25 50:17 52:18 54:20 55:17,19,22 55:25 80:9
says (11) 10:8 11:23
30:1 52:15 53:8 69:23 95:16 96:17 96:20 99:19,24
scale (1) 12:18
scenario (3) 44:13,18 74:10
scenarios (1) 45:13 scheme (31) 4:3,4 5:4 5:19,20,22 6:4,7,8 7:10 8:24 9:16 12:25 14:13 15:12 15:18 16:9 42:18 62:1 63:1,22 64:23 65:21,24 66:17,19 67:7,8 69:10 78:24 80:13
schemes (3) 40:20 56:10 77:21
scope (1) 101:12
score (1) 14:21
second (8) 36:17 52:17 96:6,9 97:10 98:5 100:11,25
Secondly (4) 19:20 22:17 91:20,25
secret (2) 33:2 104:13 section (3) 13:2 91:6,6 secure (4) 33:14 88:9 92:17,18
security (1) \(20: 8\)
see (36) 2:9 8:15
35:10 37:12,15,18 37:21 44:22 48:22 49:1 51:3 52:14,17 53:2 55:16 59:14 59:17,21 60:8 64:20 66:2 75:21 79:16 80:7 84:21 87:2 90:10 95:25 97:11,24 98:7,8 99:14 101:8 102:16 104:7
seeing (3) \(35: 16\) 83:11 86:5
seen (18) \(8: 14\) 35:13 35:13 38:23 46:13 51:7,8,19 54:25 55:24,25,25 56:6 60:9 80:9 90:15,17 104:5
segment (2) 32:5 81:5
select (2) 72:11 80:1
selection (2) 35:7,17
selling (1) 78:11
sending (1) 58:8
sense (5) 5:19 27:12
75:21 90:21 92:19 sent (2) 1:10,19 sentence (2) 15:16 17:19
sentences (1) 12:7 separate (5) 62:24

65:25 72:16 80:3
80:10
separately (4) 66:17 66:21 78:23 80:8 series (1) 71:4 service (9) 67:15 70:13 78:14,18 80:18,20 81:7,9,13 services (5) 66:10 70:15 71:8 77:8 81:10
session (5) 1:5 106:9 136:3 137:3,12
set (40) 4:16 8:11 10:1 12:15 15:2 17:23 18:2,9 19:22 20:1 21:20 22:11,22 23:14 26:14 27:8 27:16 29:20 30:7 30:19 31:12 32:21 49:9,12 54:8,9 57:16,21,25 62:13 71:12 73:14 74:6 84:2 87:10,12 88:11 89:4,25 101:5
set-off (1) 95:14
sets (6) 5:22 8:19 9:3 21:23 49:14,16
setting (29) 4:16 5:1,6
5:8 6:21 8:24 9:6 11:25 14:6 16:24 17:13 18:5 19:10 19:21 20:10 25:17 27:2 29:11 30:23 33:16,25 57:15
83:20 88:16 90:23 92:6,8,13,13
settle (4) 70:4,6 72:5 75:2
settlement (5) 70:14 70:18 71:2,17 72:15
settlements (1) 70:14
share (9) 33:3 47:25
53:20,23 55:6
84:12 85:9,11,18
sharing (1) 84:9
shop (2) 65:3 76:3
short (4) 21:2 43:15 43:19 94:1
shortly (1) 95:20
show (2) 49:5 53:2
shown (3) 51:17 54:22 86:20
shunt (1) 76:18
side (25) 9:1 14:24 15:19,21,24,25 16:13,14 28:7 55:15 57:20,23 59:18 69:8,9 79:2 82:9,11 84:5,16 88:19 89:21 90:3,3 90:4
Sidenius (5) 1:23 8:7
9:11 58:16 101:1
sides (2) 22:2 60:21 sight (1) 101:15 sign (1) 6:2
signature (6) 2:20,22

2:23 103:4,6,7 signed (1) 51:15 significant (9) 38:17 38:18,21 43:5 51:21 55:13 57:8 59:21 82:4 signing (1) 7:2 similar (7) 27:4,5 37:20 46:23 47:21 64:4 104:18 simple (1) \(46: 4\)
simplify (1) 42:13 simply (5) 29:19 45:9 71:17 74:18 98:13 single (4) 5:11 12:16 22:21 23:17 \(\operatorname{sir}(5) 1: 83: 1486: 15\) 94:3,21
sit (1) 104:6 site (2) 7:11,11 situation (9) 17:18 20:17 23:16 26:11 27:12 28:5 44:18 44:21 72:10
\(\boldsymbol{s i x}(3) 8: 20\) 9:7,12 size (2) 68:14 97:24 skeleton (2) 86:25 97:11
sketch (1) 42:6
sliced (1) 77:19 slightly (3) 4:24 14:4 36:24
small (5) 38:7 39:14 43:7 52:3 101:12
smaller (1) 42:10
SMITH (74) 25:16 27:7
27:10 28:13 41:3,7 42:4 61:14 62:5,9 62:15 64:4,9,20,25 65:18,20,23 66:2,6 66:9,13,16,19 67:5 67:18,25 68:6,8,13 68:19,25 69:2,6 70:16,20,24 71:1 71:16,19 72:3,15 72:19 73:22 74:10 75:2,6,8,21 76:1,7 76:12,16,25 77:5,8 77:11,19 78:3,10 78:18,21 79:9,16 80:7,12,15 81:12 81:22 82:20,23,25 83:3,8
soft (1) \(28: 21\)
solicitors (1) 105:20 solutions (2) 81:8,8 somebody (2) 6:3 63:19
sorry (10) 7:18 43:14 53:10 54:17 55:19 58:15 79:9 85:5 98:23 105:9 sort (9) 25:25 29:5 51:12,17 70:5 78:3 79:13 92:2 101:11 sorts (2) 51:9,16 sought (1) 32:7 sounding (1) 68:19 south (1) 52:4 space (1) \(55: 14\) spat (1) 94:10 speak (1) 4:22 specific (20) 5:5 19:11 21:12,25 22:3 44:10 52:1,25 57:7 58:5 70:1,1 71:21 77:25 81:20 82:18 88:6 91:2,14 92:14
specifically (3) 8:22 63:8 82:13
specifications (1)

92:25
specifics (2) 13:15 57:10
specifies (1) 7:21
speed (1) \(2: 1\) spend (1) 63:16 spent (1) 39:24 spoken (1) 35:23 sporadic (1) 38:24 stage (1) 101:18 stakeholders (1) 92:3 standard (6) 17:5 30:15 50:20 62:6 79:3,14
stands (2) 97:21 98:6 start (9) 3:4 4:1 14:7 26:17 28:25 43:8 91:8 93:24 102:14 started (2) 14:4 89:1 starts (1) 91:3 state (3) 23:21 51:11 91:10
statement (39) 2:13 2:18,19 3:12,22 4:1 7:6,16 8:4,5,6,8 9:11,19,20 11:20 14:3 16:20 17:17 21:14 23:6,7,7,24 31:16 35:11,20 48:7 51:15 52:11 54:16,19 55:23 56:5 102:21 103:2 103:3,8,15 statements (3) 18:16 18:17 55:20 steering (3) 51:4,5,6 stimulate (2) 50:2 88:8
stipulated (2) 68:6,10 stopping (2) 12:20 13:24
stores (1) 97:17 story (2) 34:20 35:1 straight (3) 4:3 44:14 44:22
strategy (3) 32:3 33:8 36:18
stray (1) 61:19
stream (1) 69:11 streams (2) 57:23 76:16
street (1) 52:5
stretch (1) 43:16
strong (4) 36:19 37:1 37:2 84:12
structure (2) 42:5 56:11
students (1) 34:9
studied (2) 54:12,13 studies (3) 15:22 24:10 58:6
study (7) 18:13,15 22:14 24:5,7 29:25 91:19
stuff (2) 28:22 51:12
three (6) 17:16,20 18:16,17 46:10 47:17
thrust (2) 45:20,25
thumbnail (1) 42:6
Thursday (2) 106:10 136:4
ticket (1) 106:4
time (48) 1:24 5:5
6:18 7:13 10:17
14:24 19:16 22:21
27:16,20 33:1,9,11
33:12 34:1,19
35:15 36:8 37:8,14
39:1,4,9,11,12,15
43:7 44:11 54:3
56:3 58:8 59:3 68:22,24 69:20 70:8 79:5 84:1,2,22 85:23 86:3,6 88:3 89:1,16 93:18 103:17
times (4) 86:21 104:11 104:15 105:6
timing (1) 56:12
tiny (1) \(1: 9\)
today (2) 3:23 103:19
today's (2) 25:4 29:7
toes (1) 94:6
told (4) 60:5,17 62:5 73:13
tomorrow (4) 58:17 58:23 94:11,22
top (1) \(64: 11\)
topic (1) 88:25
topics (2) 36:16 87:6
total (4) 15:11 30:13 52:1 98:7
totally (1) 40:22
Tottenham (2) 46:25 47:2
touch (1) 105:19
tough (1) 56:3
traction (1) 33:3
train (1) 106:4
trajectory (2) 85:23 87:4
transaction (29) 10:17 10:19 13:3,23 14:23 47:6,12 65:1 65:5,8 66:21 67:23 69:19,20,22,24 70:12 72:1,13 74:21,21 76:8,10 76:13,21 77:2,14 77:15 88:1
transactions (23) 7:9 8:18 12:1,18 13:18 15:21 20:7 39:13 39:14 62:12 67:1 69:12 70:21 75:11 75:15,20,23 77:12 81:17 86:7 88:7 92:16,17
travel (5) \(38: 8,8,11\) 40:12 42:20
travellers (1) 38:11
travelling (1) 104:20
travels (1) 103:20
trends (3) 18:11 22:18 26:11
trial (2) 95:4,20
Tribunal (12) 11:9 21:11 22:6 25:5 54:19 61:13 90:22 97:13 98:10 99:15 101:2 137:8
tried (1) 93:17
trigger (2) 27:15,17
triggered (1) 27:10
troubled (1) 62:16


103:9,10
try (8) \(29: 8\) 30:16 81:1 81:1 83:3 104:1 105:6 106:2
trying (3) 26:10 28:16 102:3
turn (1) 2:12
turnover (1) 67:3
twice (1) 61:11
two (16) 3:24 9:21
11:19 12:7 22:1 33:16 37:14 42:11 45:24 58:16,20 59:1 67:13 83:12 86:9 87:6
two-card (1) 52:20 two-sided (1) 14:17 type (6) 27:4,5 79:20 80:20 89:9,12 typical (1) 56:24 typically (38) 8:24 22:1,10,15 23:20 26:25 53:19 62:22 63:11,23 64:13,24 66:24 67:1,3 68:22 71:20 74:25 75:13 75:17 76:5 78:6,25 79:22,23 80:19 81:10,20,21 82:8 82:11 84:21 89:16 91:3,8,12 92:4 93:10
\(\bar{U}\)

UK (51) 10:9 11:22 12:5,9,17,21 21:10 22:12 23:8,14,18 25:6,13 27:22 33:4 36:19,19 40:8,22 41:5,8,9,25 42:8,11 42:13 46:12,17,22 47:5,12,19,21 55:1 57:4,13,25 59:9,9 68:14,15,17 69:4 72:21 73:2 74:1 80:3 87:9,13 89:4,4 UK's (1) 85:10
umbrella (4) 69:9 79:4 79:24 80:10 umbrellas (2) 78:25 79:17
unavailable (1) 105:1 uncompetitive (3) 15:12 41:10,14 uncontroversial (1) 81:14
understand (40) 3:6
10:8 11:3 21:3 25:18 26:9 39:5 40:10 42:4 47:4,8 47:11,12 50:6 52:20,23 53:16 54:13 57:8,9 59:16 60:6,15 62:2 64:25 65:21 74:10 80:2,7 87:19 91:4 92:8,9 95:2,15,20 96:14 99:21 101:6,19
understanding (14) 6:3 35:5 54:1 57:20
57:24 58:4 68:7,17 70:25 73:7 74:5,7 80:11 85:13 understands (1) 6:8 understood (1) 20:23 undertakes (1) 76:17 Unfortunately (1) 52:22
unhappy (1) 85:1
unpack (1) 79:9
update (2) 3:11 94:8 usage (5) 7:9 16:12 42:8,14 91:9
use (14) 9:8 13:13 20:8 37:6 40:6,8 41:16 42:20 47:2 73:5 77:11,14,18 91:25
V
vague (1) \(25: 6\)
valorem (1) 66:22
value (1) 98:2
various (13) 6:13
15:22 21:19 22:21
23:4 24:3,8 25:9 26:24 49:3 58:10 73:4 78:4
vary (2) 71:13,19 verify (2) 24:2,19 version (1) 4:10 versions (1) 4:11 versus (8) 33:5 34:13 37:13 39:10 41:10 41:11 42:8 68:15 viable (1) \(68: 4\) view (4) 36:24 41:8 81:16 98:18 views (1) 97:23 village (1) 52:3 vis-a-vis (1) 80:17 Visa (35) 17:7 21:1 33:6 34:13 37:10 37:19,22 39:11,20 40:1 41:1,11 42:9 44:24 45:1,3,10,23 46:7,8,14,23 47:2 47:22 62:21 63:19 75:12,17 76:8,20 76:24 77:3,16,22 86:6
vital (1) 18:5
vocal (1) 83:25 voice (3) 4:21 83:21 83:22
volition (1) 100:14 volume (4) 16:12 66:25 67:3 85:9
volumes (3) 7:9 31:23 63:15
von (15) 1:10 50:23 94:8 95:17,19,24 96:4 97:8,10,22 98:5,16 99:19 100:6,13
\(\frac{W}{W}\)
walked (1) 94:5
want (33) 1:24 2:24 3:6,15,17 17:16 18:24 19:6,9 30:2 34:14 38:3 42:12 55:22 62:24 63:18 63:18 64:25 71:20 71:23 75:13,22,24 77:13,14,15,16 87:6 92:9,18 97:1 101:6 105:22
wanted (8) 3:14 20:24 31:24 32:12 33:13 34:11 75:8 99:6
wants (8) 10:14 15:10 19:1,4 77:11 83:3 94:21 98:16
wasn't (3) 74:7 85:12 86:9
water (1) 2:8
way (16) 8:1 9:3 19:1 19:4 28:18 29:6 36:24 58:6 64:11

65:11 70:8 72:3
83:10 84:6,19
105:10
ways (2) 26:16 28:11 website (5) 99:20,22

100:7,15 101:5
Wednesday (1) 1:1
week (1) 27:5
went (2) 48:20 85:15
weren't (2) 36:8 82:3 whilst (2) 50:5 71:16 white (1) 105:18 Willeart (17) \(2: 4,5,7\) 2:14 7:15 21:7
24:16 25:16 28:13 43:16,21 58:15 61:14 83:9 85:2 93:22 137:5
willing (1) 69:23 wish (5) 34:18 55:19 58:14 63:12 90:2
wished (1) 52:24
wishing (2) 13:8,12
withdraw (1) 29:19 witness (35) 2:13,18 2:19 3:12 7:6 8:4,5 8:6,8 9:11,19,19 11:20 16:20 17:17 23:5,7,24 31:16 35:19 48:7 54:16 54:18 56:5 100:11 100:17 102:21 103:2,3,14 104:12 104:15,21 105:1,2 witness' (1) 105:8 witnesses (8) 37:16 48:15 68:16 94:19 100:18 101:21 104:25 105:13 words (7) 3:5 10:4 15:13 26:1 45:7 67:8 95:8
work (12) 12:14 15:2 16:1,10 19:25 24:8 40:22 63:18 69:11 75:4 93:5,6
worked (2) 40:21 80:12
working (4) 55:15,15 63:12 89:19
works (3) 10:12,15 70:8
world (5) 11:22 12:18 27:22,24 79:15
worldwide (3) 37:22 37:23 47:2 worry (1) 61:17 wouldn't (2) 8:22 100:6 write-offs (1) 8:12 written (1) 36:25 wrong (3) 20:1,3 27:7
\(\frac{\mathbf{X}}{}\)
\begin{tabular}{c}
\hline \(\mathbf{X}\) \\
\hline \(\mathbf{Y}\) \\
\hline
\end{tabular}
yearly (2) \(39: 25\) 41:12 years (5) 3:24 35:3,23

46:11 47:17
yellow (1) 105:16
yesterday (2) 1:11 37:18
York (1) \(38: 8\)
youngsters (1) 34:8
\(\bar{Z}\)
zero (2) 33:15,19
\(\frac{0.3 \text { (1) } 55: 3}{\frac{1}{1(6) 3: 1,22 ~ 8: 4,6}}\)
36 (2) \(34: 20\) 45:21
38 (1) \(85: 3\)
39 (1) \(35: 4\)
\(3 p(1) 47: 15\)

137:3,4
1.10 (1) 93:25

10 (11) 9:22 37:13,22
39:22,22 41:10
45:7 66:21 69:14
86:25 87:1
10.30 (1) \(1: 2\)
10.40 (1) \(1: 4\)

100 (2) 30:1,5
102 (2) 137:10,11
106 (1) 137:12
10th (1) \(1: 1\)
11 (2) \(4: 18: 7\)
11.40 (1) \(43: 18\)
11.50 (1) \(43: 20\)

11th (2) 106:11 136:5
12 (3) 6:22 8:8,16 13 (3) 46:13,15 47:1 138 (1) 2:20
14 (5) 56:6,8,15 99:2
99:10
140 (2) 30:8,10
15 (1) 99:24
160 (1) 30:4 17 (1) 18:8
\(\frac{2}{2(6) 9: 2011: 2187: 1}\)

2 (6) 9:20 11:21 87:1
97:13 137:5,6
2.00 (2) 106:10 136:4
2.1 (1) 98:23
2.10 (2) 93:24 94:2
2.30 (1) \(106: 8\)

20 (5) 68:16,24,25
69:5,5
2000 (1) 85:8
2000s (1) 87:10
2002 (1) 58:22
2005/2006 (3) 39:14
43:6,12
2006 (4) 85:8,10,22
98:4
2007 (3) 43:10,13 60:1
2009 (1) 34:23
201 (1) 4:10
2010 (2) 3:4 34:22
2010/11 (1) 31:23
2012 (1) 3:4
2014 (1) 4:10
2015 (2) 3:7,9
2016 (3) 1:1 106:11
136:5
222 (1) 35:12
23 (2) 37:13,21
24 (4) 14:3,11 16:18
98:9
24-hour (1) 13:4
24.5 (1) 98:8

249 (4) 48:16 57:2,2
87:3
26 (5) 14:9,12,13 15:4 15:15
275 (1) 97:13
28 (1) 53:9
\begin{tabular}{l}
3 \\
\hline
\end{tabular}

3 (4) 87:3 95:23
102:19 137:7
3.10 (1) \(62: 9\)
3.3.3 (1) 13:2

30 (3) 17:19,21 96:20
31 (6) 8:7,14,15,21
15:5,16
32 (1) 95:23
33 (1) 87:3```

