IN THE COMPETITION APPEAL TRIBUNAL

Case No. : 1382/7/7/21

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 6th October 2025 – Tuesday 4th November 2025

Before:

Mrs Justice Bacon

Derek Ridyard

Justin Turner KC

(Sitting as a Tribunal in England and Wales)

BETWEEN:

Consumers' Association

Class Representative

v

Qualcomm Incorporated

Defendant

A P P E A R AN C E S

PHILIP MOSER KC, ROB WILLIAMS KC, MICHAEL ARMITAGE, CIAR MCANDREW, CHARLOTTE MCLEAN, DANIEL ALEXANDER KC and DAVID IVISON (Instructed by Hausfeld & Co. LLP) on behalf of Consumers' Association

DANIEL JOWELL KC, NICHOLAS SAUNDERS KC, DAVID BAILEY, SOPHIE BIRD, CHARLES WALL, ALEXANDRA BRECKENRIDGE (Instructed by Norton Rose Fulbright LLP and Quinn Emanuel Urquhart & Sullivan LLP) on behalf of Qualcomm Incorporated

Friday, 31 October 2025

(10.30 am)

Closing submissions by MR WILLIAMS

THE CHAIR: Good morning, Mr Williams.

MR WILLIAMS: Good morning, Madam.

Members of the Tribunal, can I start by explaining the plan on our side for closing submissions. Mr Moser and I are adopting the same broad split as we did in opening but we are going to do it the other way around and begin at the beginning, with the theory of harm and market power. I am going to start by outlining the building blocks of the theory of harm and the nature of the abuse in broad terms and I will then address the question of why the case we advance is distinct from excessive pricing, which we know is an issue which has been of interest to the Tribunal.

I will then cover what are broadly the four economic topics: market definition; dominance, including Apple and Samsung's particular dependence on Qualcomm, with a particular focus on the key points in time for the purposes of the claim; the economics as it bears on abuse, and then, before I hand over the baton, I will hopefully today deal with RTL, which is slightly out of the natural sequence but it is the convenient way to do it so that I can hand over.

I am hoping to hand over to Mr Moser by around lunch today. He will then deal with abuse. There are obviously many sub—topics within that heading and he'll cover the more fact—intensive issues relating to that and that will take us to the end of today and into some of Monday.

At some point on Monday, Ms McAndrew is going to deal with one topic within abuse, which is what we have called the "silencing issues", and then if time permits, Mr Moser and Mr Armitage will sweep up on anything that is left over. That is where we are going and who is dealing with what.

My plan is to stay in open, if I can. To do that, I want to refer to or point to paragraphs of our written closing. I do not know whether the Tribunal has that to hand?

THE CHAIR: Yes, we do.

MR WILLIAMS: I am grateful.

If that is satisfactory, I will do that so I can stay in open. If the Tribunal finds it unhelpful and we need to go into closed, then we can do that as and when.

So I will start with the theory of harm. The Tribunal has seen the theory of harm expressed in two ways, one in is in the bargaining model and the other is in what has been described as the narrative theory of

harm and this was discussed in the hot—tub. It seemed to us that one did not need to read too closely between the lines to see that the Tribunal does not feel it needs "fancy economics", to use your phrase Madam, to establish the theory of harm and there are two reasons for that.

First, as ——

THE CHAIR: If you want to seek to persuade us otherwise, please do, but that was a question that I put to Mr Noble, given the way that the evidence had come out on this point.

MR WILLIAMS: Yes. Well, let me introduce the topic and we can see where we go, but the first point is that, as Mr Turner, I think, particularly explored with Mr Noble in the hot—tub, there is a clear narrative to the theory of harm and of course there are points of economics that bear on the abuse and I will be dealing with those, for example the question of why Qualcomm takes the rent on the licensing royalty, rather than in the chipset market. Of course we will get into that, but the basic logic of the theory of harm, in my submission is clear and I will come to that now.

The second reason is that the heart of the case is then whether the theory of harm fits the facts and we accept that and, as the Tribunal will have seen from our

written closing, we have very much focused on trying to establish the facts that support the theory of harm, both at a general level and specifically in relation to Apple and Samsung.

So I am going to outline the building blocks that make up the theory of harm and then how we populate that with evidence, which I hope will give the Tribunal a route map for really the rest of the closing.

The first point is that OEMs, including Apple and Samsung, depended on Qualcomm for sale of chips and related technical support. I am not going to refer to technical support every time in my submissions, but I am treating both as necessary to allow OEMs to make handsets. This issue of dependence is central and it has a number of aspects to it. One is the sheer scale of Qualcomm's presence in the market, as expressed through market shares which, as we say in our closing, give rise to a legal presumption of dominance. Another is Qualcomm's market leadership in terms of the quality and the technical capability of its products and how far ahead of the competition it was. Another is the extent of the alternatives that were available to Apple and Samsung at any one point in time.

The Tribunal has seen this question of dependence is contested and it is contested even at points in the

story where Qualcomm has 100% market share, or thereabouts. We deal with that issue through two lenses. First of all, through dominance as a general matter and then in relation to Apple and Samsung in particular. At the risk of stating the obvious, this first building block is critical because it is the source of the leveraging power that Qualcomm had over OEMs and that includes very large counterparties, like Apple and Samsung, and we say it is central to understand the balance of power in the negotiations that we are dealing with and the tendency of the conduct to distort those negotiations. It is not an issue that one can really postpone until page 98 of a skeleton argument, which is the approach that Qualcomm takes, because we say it is the springboard for everything.

The second building block is that Qualcomm's conduct put OEMs at risk of disruption to chipset supply if they would not accept the licensing terms that Qualcomm was prepared to offer. The language that Mr Noble uses is "credible threat", but the Tribunal has our point that that does not mean that express or even veiled threats are necessary. What we mean is that Qualcomm has the credible ability to cut off or disrupt the supply of chips so we are saying there is a threat to the supply, rather than that Qualcomm has threatened to cut off

supply. Sometimes there were threats. Sometimes there were not. But either way, we say the OEM was operating at risk and we have used that language of risk to avoid the suggestion that there has to be an express threat every time.

The credibility of the risk has two aspects. The first is the extent of an OEM's dependence on Qualcomm, which I have touched on, and the other is how did Qualcomm conduct itself? That is a question of fact.

THE CHAIR: So do you say it is enough that Qualcomm has, if it wanted, the ability to cut off the supply, even if it made —— and I know you say that it did make threats, but let us just assume a situation where Qualcomm had not made any threats at all.

MR WILLIAMS: To a specific OEM?

THE CHAIR: To a specific OEM. It was simply that —— it is, you say, a dominant undertaking that could have refused to supply. That is enough, you say?

MR WILLIAMS: No. No. Sorry, let me make a second part of the submission. I hope this will answer your question, Madam. The first point is dependence and the second is what is —— what is the nature of the conduct? So how did Qualcomm conduct itself in licensing negotiations as a general matter? Is its description of the chipset supply practice a complete or adequate description of

the overall approach that it took? What was the rationale for the conduct, including what is the motivation for the separation of the two businesses? What were the risks for an OEM in a renegotiation situation and what might happen in the situation where the OEM uses a CM who has a licence?

So the first plank is what is the nature of the conduct? Now, the second point I am going to come to is: was the OEMs' reasonable understanding of the threat —— the risk that they faced consistent with the nature of the conduct? That is the point I am going to come to shortly, and we say it was. What one sees is, on the one hand, the body of conduct which is capable of establishing that risk to chipset supply and, secondly, OEMs understanding that and I am going to come to that in just a moment.

So it is not just the fact that it had the ability to do it; we say that there is a course of conduct, a practice, which establishes that approach and creates that risk in a given situation.

THE CHAIR: Let me just be a bit more precise about it. You say there was a course of conduct which establishes that approach. What approach do you mean?

MR WILLIAMS: The approach whereby Qualcomm was prepared to disrupt chipset supply or to use the risk of chipset

supply as leverage in these negotiations.

So I am going to make the submission in a moment where I sort of explain how we put the whole body of evidence together, but essentially what we say is that Apple, for example, was not the subject of direct threats, but what one sees in the evidence is Apple believing, at all material times, that if it did not conform to Qualcomm's preferred licensing terms there was a risk that the supply would be disrupted. If it challenged the royalty rates, there was a risk that its supply would be disrupted.

THE CHAIR: But you accepted that it is not just about the fact that a dominant undertaking has the ability to refuse to supply a customer. Am I right in thinking that you are not saying that if there is a dominant undertaking who has the ability to cut off supply to a customer, that is sufficient?

MR WILLIAMS: No, I am not saying the ability to cut off supply.

THE CHAIR: The ability to cut off a supply is not enough.

MR WILLIAMS: No.

THE CHAIR: There must be something which leads the customer reasonably to believe that the undertaking will cut off supply in a certain situation?

MR WILLIAMS: May, yes.

THE CHAIR: Or may cut off supply.
MR WILLIAMS: Yes.
THE CHAIR: A simple conceivable risk, is that sufficient? How certain does the risk have to be?
MR WILLIAMS: Well, look, can I just get to the next part of my submission and answer it?
THE CHAIR: No. I think I just need to know in a sort of very concise way what your case is. Where is the best paragraph of your closing submissions which sets out what you say, in an absolute nutshell, Qualcomm did which characterised the theory of harm? I have 163 in front of me. Is that it?
MR WILLIAMS: Yes, exactly, Madam. That is where I was going to go.
THE CHAIR: All right. So you say, leaving aside the departing from competition on the merits point. I mean, that is a conclusory sentence. I have the second sentence in 163 underlined. You say:
"Qualcomm leverages the prospect of chipset supply disruption to secure its desired licensing outcomes."
Is that the best articulation of the theory of harm?
MR WILLIAMS: I was going to point to paragraphs 161 to 164, Madam, because what we say in those paragraphs is essentially that one starts with the chipset supply practice. One starts with an admitted practice, which

is to say that the supply of chips is conditional on the conclusion of a licence.
THE CHAIR: You do not say that that itself is the abuse?
MR WILLIAMS: No. What we say is that that forms part of this wider approach, which is intended to and does exert leverage.
THE CHAIR: Okay. But I think we need, as I said a minute ago ——
MR WILLIAMS: So when one sees the way that Qualcomm approaches licensing negotiations with a range of OEMs, including Samsung, it exerts threats. It uses threats in those negotiations to apply pressure.
THE CHAIR: But we are not talking about —— your claim is not about the range of OEMs. Your claim is about Apple and Samsung. So in relation to Apple and Samsung, what exactly was the abuse? Is it that Qualcomm gave those OEMs to believe —— to understand that it would or quite likely might refuse to supply chips if they were to —— if they were to invoke litigation or FRAND arbitration?
MR WILLIAMS: The position is different for Apple and Samsung because, as we have set out, Samsung was the recipient of direct threats at various points. What we say is that to understand the nature of the practice, one has to look at the conduct as a whole and the conduct across the market.

THE CHAIR: All right, but I think we need to understand, in an absolute nutshell, what the conduct was. Can you describe in one sentence what the abuse was?
MR WILLIAMS: Well, I think the way we tried to summarise it was paragraph 2 of the skeleton, which we then develop, which reflects what we said in the further note and then we tied —— we develop that in paragraph 3. What we say is that there is this overall conditionality of the supply of chips contingent on accepting licensing terms. It starts with the chipset supply practice, but it is then reinforced by the use of threats in particular situations, and if one puts all that together and one puts it together with the internal materials, one can see that Qualcomm is using the threat of —— and the risk —— I should say the risk of supply disruption. If I can put it this way, Madam, and this is probably the answer to your question: it is using the risk of supply disruption as a lever in negotiations, and Qualcomm took an approach to these negotiations across the market. Sometimes OEMs were on the direct receiving end of the conduct. Some of them were not and Apple was not ——
THE CHAIR: So in relation to Apple and Samsung, you are saying Qualcomm used the risk of supply disruption as a lever in negotiations?
MR WILLIAMS: Yes, but it used it because the practice was

always there, Madam. The practice was always there. As far as Samsung was concerned, it was on the direct receiving end of threats. Apple understood that Qualcomm was prepared to act in that way if it did. One of the submissions I was going to make in a few moments, but I will make it now is we see in the Apple evidence that Apple apprehended disruption to chipset supply if it did not accept Qualcomm's terms, even though it was not on the receiving end of direct threats. What we say is, well, is Apple imagining that there is that risk? We say it is not imagining it because we see that that is exactly how Qualcomm is prepared to conduct itself. So Qualcomm establishes this basic conditionality and then it uses that conditionality, or is prepared to use that conditionality as lever in the licensing negotiations.
THE CHAIR: The conditionality being what? That if in the negotiations Apple and Samsung did not accept Qualcomm's terms, it would withdraw the supply of chips?
MR WILLIAMS: Yes, and/or if they brought a challenge, their supply was at risk and there is a whole range of conduct from across the market which we say goes to establish that that is in fact how Qualcomm conducted itself and Apple and Samsung were subject to that overall approach in the same way as everyone else. That is the

submission I was going to come on and develop in a moment, Madam, about the importance of cross—market evidence.

THE CHAIR: Right. Okay. Thank you.

MR WILLIAMS: So I was saying that the third building block is that there is this risk and we have now covered some of the submissions I was going to make about how we say that risk is established.

The third building block is that if OEMs —— is that OEMs cannot make —— if OEMs cannot make handsets using Qualcomm's chips, then they lose profits. They may lose those profits because they cannot make phones at all. It may be that there is disruption to production or product development. It may be that not being able to make a handset with a particular type of chip means that rivals steal a march and steal shares so there are a range of possibilities, but if the OEM does not have a credible substitute for the Qualcomm product, then cutting off supply puts a spoke in the wheel of the OEM's business. So that is why we see witnesses talking about how devastating it would be to lose chip supply and the staggering impact it would receive and so on. So the point is not hard to understand, in my submission, but it is established by factual evidence.

The fourth point is related to the third, which

is ——

MR TURNER: Presumably even if there is an interruption in chip supply, sorry, if there is a refusal to supply chips, that is —— even if you have an alternative supply, there is still going to be a significant interruption because there is an element of bespoke ——

MR WILLIAMS: That is right. There is a time interruption, as well as the quality interruption and all the other —— yes, exactly right, sir. I mean, there is evidence in the case about how once a chip had been designed into a phone, you could not just pull it out and stick another chip in. That is exactly right.

MR TURNER: Yes.

MR WILLIAMS: So the fourth point is related to the third point, which is that the risk of losing profits incentivises the OEM from pursuing the FRAND determination because if they pursue FRAND, they risk suffering disruption to supply. This is principally a factual question about the impact of the conduct and OEM's understanding of how Qualcomm might act, which is a point I was just making and the Tribunal has factual evidence from OEMs about how they felt constrained from challenging Qualcomm's rates. It has factual evidence about how Qualcomm actually acted when there was litigation on foot and it has the Apple example of how

it did not bring proceedings and then it did bring proceedings, which Mr Moser will come to.

Then the last building block is that this all drives up the OEMs willingness to pay higher royalties to avoid the downside risk of a business disruption. The OEM is prepared to pay a higher royalty to avoid a much larger business loss and a point is taken that we have not proven that the OEM was incentivised to pay the overcharge rather than suffer the lost profits, but that is a non—point in my submission and I will come to that.

So putting it together. The economic mischief, we say, is a distortion of the process of bargaining over royalty rates. We do not say Qualcomm totally refused to negotiate at all. Clearly we do not say that. What we say is that there was a negotiation, but it was distorted or skewed because Qualcomm's conduct polluted what should have been a negotiation about the value of the technology being licensed with an extraneous cost or risk which is the cost or risk of disruption to supply and OEMs should be protected from that by the FRAND regime.

So the essence of the abuse is distorting the negotiation in one market by exercising leverage or pressure in an adjacent market.

Now, of course, we need to satisfy the Tribunal that

that is what happened on the facts, but we say if we can satisfy the Tribunal of that, it is not conceptually hard to understand why it is an abuse. That is why it is not competition on the merits and why it is capable of distorting the process of bargaining over a licence.

So the specific question the Tribunal has raised in the —— a specific question the Tribunal has raised in the course of the trial is why this is not an excessive pricing case? Now, we did deal with this in our skeleton argument, but I am going to develop that point, if that would assist the Tribunal? We address it at 156 to 158 and I am going to make three points. They are quite long points, but there are three of them.

The fundamental point is, as I have just said, the economic mischief, as I have outlined it, is distorting the process of bargaining that generates the price, whereas in an excessive pricing case the economic mischief or the theory of harm is charging a price that bears no reasonable relation to the economic value of the product.

So in an excessive pricing case the distortion of competition is found in the level of the price itself or, to put it as we do in paragraph 158 of our closing {EAOS/4/43}, the abusive conduct and its effects are not distinct and that is not the case here, because here we

say the abusive conduct distorts the process of bargaining and the pricing effects are downstream of that distortion. So that is the first point.

The second point, and I hope this is not stating the obvious, but it is not the case that any abuse that has a price effect has to be assessed as an excessive pricing case. Other forms of related market abuse are likely to have price effects. That might be true of abuses that are usually analysed as exclusionary, like tying or refusal to supply, which then rebound and lead to higher prices on the related market. If a claimant were to say that it had suffered loss —— financial loss because an exclusionary abuse had led to higher prices, it would not have to show that those prices meet the test for excessive pricing and, in our submission ——

THE CHAIR: The damage is the exclusion —— is the harm to the structure of competition by, say, excluding a competitor, but we are not —— I do not think you are talking about an exclusionary abuse as such here.

MR WILLIAMS: No, we are not.

THE CHAIR: You are not.

MR WILLIAMS: I am just ——

THE CHAIR: Do you accept that you are talking about an exploitative abuse?

MR WILLIAMS: Yes, we are talking about exploitative abuse.

But your point, Madam, the damage is the damage to the structure of competition. Well, we say the same thing about the leveraging abuse. We say the damage there is done to the bargaining process, to the negotiation process.

Now, I want to look at the Apple App Store case which is Music Streaming which is at {AB3/31.2} in authorities bundle 5, which I think you have in pdf, Madam. I think the reference starts at page 842.

THE CHAIR: Authorities 3, page 842.

MR WILLIAMS: Sorry, authorities 5/842. I understood you had a separate pdf.

THE CHAIR: Yes.

MR WILLIAMS: Just to provide some context, the decision concerned Apple's anti—steering provisions which prevented developers from steering customers to cheaper purchasing mechanisms outside of the App Store and Apple charged a fixed commission fee of 30% or 15% to developers in—app purchases. The complainant in this case was Spotify. The Commission concluded that the anti—steering terms were an unfair trading condition under Article 102(a) and this case was analysed as an exploitative abuse, which I will show you in a moment.

Although it was an exploitative abuse, the Commission made clear that excessive pricing principles

do not apply. Can we look at 160 on Opus, please, and it is 1001 in your pdf, Madam {AB3/31.2/160}. If the Tribunal reads down to somewhere on the beginning of the next page, paragraph 544.

THE CHAIR: Where would you like us to start?

MR WILLIAMS: Paragraph 544 gives the —— the reason why the point is relevant will become clear as you read into it. It is down to the second line of the next page {AB3/31.2/161}. (Pause)

THE CHAIR: Right.

MR WILLIAMS: If we then move on to 548, that is where you can see that the Commission is clear that this is an exploitative abuse. So that is on 162 or 1003 {AB3/31.2/162}. It is towards the end of the paragraph. It says:

"Rather, the analysis focusses exclusively ... "

THE CHAIR: Yes.

MR WILLIAMS: If one then turns to 163, or 1005, one can see the test that the Commission applies {AB3/31.2/163}.

THE CHAIR: So this is unfair trading terms.

MR WILLIAMS: Yes, it is an exploitative abuse under the same limb as excessive pricing. So there is a distinct test at 555 —— sorry, on the next page, I think.

THE CHAIR: So it sets out an established —— fairly established conditions for unfair trading conditions as

an abuse.

MR WILLIAMS: Yes. Then the Commission went on to find that the provision caused harm to consumers downstream in a variety of monetary and non—monetary ways. I will just give you the paragraph references for this, if I may. It is 576 and 599. I then want to pick it up on page 178 of Opus or 1019 {AB3/31.2/178}. Here we see a number of arguments run by Apple, including, at 640, that the commission fee does not constitute unfair prices. If we then move through, the Commission says, at 644 on the next page {AB3/31.2/179}, that the —— it is not necessary to show that the monetary consequences for consumers satisfy the test for excessive pricing. That is 644.

THE CHAIR: So this is an unfair trading terms case and it is said that that does not —— the fact that there is an unfair trading term imposed —— or unfair trading conditions imposed is enough. You do not have to go further and show that that led to an excessive price.

MR WILLIAMS: It is an exploitative abuse with financial consequences and the exploitative abuse is established by a particular set of principles and it is not necessary to establish that the consequential price is an excessive price, but this is consumers and I am going to now deal with the Commission itself, if we then move

on to 678 on page 185 or 1026 {AB3/31.2/185}. If you look at 678 through to 680. (Pause)

THE CHAIR: Yes. That is just saying if you are alleging an abuse from unfair trading conditions, you do not also have to meet the test of excessive pricing.

MR WILLIAMS: Yes, that is right, because —— but this is a case in which one has anti—steer provisions which result in streaming services paying a commission which they would not otherwise pay and consumers paying higher prices in consequence and the Commission is clear that none of the financial consequences need to satisfy the tests for an excessive price because the abuse is found in other conduct. Here it is the anti—steer provisions.

THE CHAIR: So are you saying that this case is analogous to unfair trading conditions, the unfair trading condition being that the OEMs were not permitted to access FRAND arbitration or determination?

MR WILLIAMS: No. I am saying that this case is analogous in the sense that you have on the one hand abusive conduct which includes here —— in fact the abusive conduct here includes specifically the actual —— the commission is part of the engine room of the conduct, because you have the commission and then you have an anti—steer provision and so it is very —— the payment of this commission is very closely bound up with the

abusive —— an exploitative abuse and the test for establishing the abuse is found by focusing on the abusive conduct, the distortive conduct, rather than by focusing on the outturn of that, which is the price, and we are saying that is the approach we take in this case. The abuse here is the conduct which distorts the process of negotiation. The abuse is not the level of the fee, the level of the royalty. That is the consequence of the abuse.

In fact, the point goes further because Apple's conduct in relation to the in—app purchasing mechanism, this whole issue, was the subject matter of the Apple v Kent case very recently and that is in the bundle at {AB2/50} and it also in tab 23 of AB5 and the Tribunal concluded in that case that the commission is an excessive price. So you have a very recent example of a claimant and a Competition Authority looking at the same practice but finding two abusive practices, two different distortions of competition. The Tribunal found —— this Tribunal found that the outturn of the practice was an excessive price, but the European Commission found that the anti—steer provisions that were part of the means to that end were a different form of exploitative conduct, a different economic theory of harm. So we say that is a clear worked

example of the point I am making that you can draw a distinction between the abusive conduct which creates the distortion which distorts the process leading to payment of the price and whether the price is itself abusive.

So that is my second point. I said it was a long point, I am sorry.

MR RIDYARD: Are you saying in the Kent case that —— sorry, I have not caught up on my reading on that one, but are you saying that that was an excessive pricing case so did meet the United Brands criteria.

MR WILLIAMS: Yes, but in Spotify the Commission did not need to analyse it in that way.

MR RIDYARD: I understand you said that.

MR WILLIAMS: Indeed, it specifically found it did not need to analyse it in that way in order to find the prior abuse.

MR RIDYARD: Yes. I do not know what the CAT said in the Kent case, but did they say they did not have to go that high but they chose to go that high in terms of their bar or is that explained?

MR WILLIAMS: Can we come back to you on that, sir, if we may, a bit later? I think the point I am making is that the mere fact that one has conduct that could be excessive pricing at the end of a distorted process does

not mean either that you have to analyse the case under those principles or that it is the only thing going on. That is the submission I am making.

THE CHAIR: What exactly is the exploitation? You can see that in an unfair terms case you exploit the fact that you have dominance to impose an unfair term; in an excessive pricing case, you exploit the fact that you have dominance to make the buyer take a product at an excessive price. What is the exploitation here? What is Qualcomm making Apple and Samsung do?

MR WILLIAMS: It is exploiting their need for chips, their dependence on it for chips, to allow it to leverage the licensing negotiations.

THE CHAIR: Well, leverage is ——

MR WILLIAMS: It is exploiting their dependence on chips to create a situation where Apple and Samsung, like everyone else, are under additional pressure in licensing negotiation to pay a higher rate than they would otherwise pay.

MR RIDYARD: You are saying the FRAND regime is a sort of antidote to the market power in SEPs and you are saying that they are using this mechanism to deny access to that mechanism?

MR WILLIAMS: Yes, well, to deny it or make OEMs fear disruption if they pursue it, yes.

MR RIDYARD: Well, then it is denying them, is it not, because it is not attractive for me to go to FRAND arbitration because I will have to close my phone business down whilst it happens?
MR WILLIAMS: I think the Tribunal —— I am not being semantic. I am saying they do not need to specifically say you cannot do it. It is creating an environment where that is not an attractive option. That is exactly how we put it, because of the risk of the consequences.
So that is two of my points about excessive pricing.
The third point is to now apply those principles in the FRAND context and it is true that it is part of our case, as you put to Mr Mowser in opening, Madam, that the rates charged in this case were not FRAND and it is also true that a price that is not FRAND may be an excessive price, but for the reasons I have been developing that does not mean that the present case can only be brought as an excessive pricing case because the inflated price may be generated by another form of abusive conduct.
There is also the important converse point that a price may be non—FRAND without being excessive. That is the point that is made by Mr Justice Birss in Unwired Planet 757. Can we go there? It is {AB2/22/168}. It is 1609 of the pdf, Madam, if you

wanted that, of the AB2 pdf.
THE CHAIR: 1609?
MR WILLIAMS: Yes. So paragraph 756 refers to Attheraces and the test for excessive pricing and 757 says:
"If the rate imposed is FRAND then it cannot be abusive."
I am going to come to that point now, but then it says:
"But a rate can be higher than the FRAND rate without being abusive too."
So it is not enough for it to be non—FRAND for it to be an excessive price.
THE CHAIR: If the rate imposed is FRAND and it cannot be ——
MR WILLIAMS: I am going to deal with that point now.
MR TURNER: The German courts take a different view of that, do they not?
MR WILLIAMS: I am sorry?
MR TURNER: The German courts take a different view. Do they not approach FRAND on the basis that if you are outside the FRAND range you are abusive. No one has addressed us on that.
MR WILLIAMS: No, I have not addressed you on German law. I was not planning to either, sir.
MR TURNER: It is part of the interpretation of the ETSI contract, is it not?

MR WILLIAMS: Can we take that point away?
But what we say one takes from 757 is it would not be enough for us to show that the price was not FRAND and that makes it very clear, in my submission, that these two forms of economic mischief are not the same and the mere fact that we alleged that the price is non—FRAND does not turn this into an excessive pricing case.
Now to deal with the first part of that where Mr Justice Birss says "If the rate imposed is FRAND then it cannot be abusive" and, in our submission, that is because the form of the abuse he is analysing is excessive pricing per 756. It is based on the level of the price or, more accurately, the level of an offer that was made, as I will show the Tribunal now.
It makes perfect sense that a price that is at a permissible level under the FRAND regime, the regulatory regime cannot be excessive, i.e. at a level that is anticompetitive in itself, but that is not saying that if the price is within the FRAND range that wipes the slate clean even if there has been some other abusive and distortive conduct elsewhere. It is simply saying that the rate itself cannot be abusive, which is what is at issue in this case. Our case is not that the rate was abusive, the royalty rate; our case is that the

conduct —— what I have called the leveraging conduct is abusive and it is instructive to go on and look at what Mr Justice Birss was dealing with in Unwired Planet, which is not an argument that an unfair price was paid but an argument that an abusive offer was made. One sees that in 758 and in 759 we see Unwired Planet's defence, which includes, in numbered point (1), that the offers were made in the context of good faith negotiations. The judge goes on to say he is going to set out the principles to deal with when conduct in negotiations is in itself abusive. He says that in 761.
Then the key reasoning is in 762, 763 and 765 on the next page {AB2/22/169}. So we see in 762 "[i]t is possible to distinguish three kinds of price: there is a price which has been agreed..., a price [that is] demanded... or a price that is advanced in a negotiation".
"...[t]he distinctions may not... be clear cut but... I... agree [they] are all capable of being abusive but that does not mean they are the same kind of thing or must be judged in the same way."
Then if we look at 763, the judge refers to expert evidence and, in particular, he refers halfway through the paragraph to Professor Neven's evidence that the idea of making an offer in the context of a negotiation

which is so outrageous that you cannot expect there to be a process of convergence. It would disrupt the negotiation rather than help it. Then in 765, if you read 765, he then effectively adopts that point.
(Pause)
So this is a modified test, Madam. It is not excessive pricing in the ordinary sense. It is a modified test that is setting out when making an excessively high offer is abusive because it distorts the negotiation process, as distinct from actually charging a higher price for which a different —— an unfair price for which a different test would apply.
One sees that then in 774, because what the judge goes on to do is to say, well, the offers that were made were not FRAND, but they were not so far above FRAND that they were disruptive of the negotiations.
So this is a further illustration of the point that one can have a distortion of the negotiation process that is economically distinct from actually charging an excessive price under the established principles.
MR TURNER: Just so I am clear where all this is going. You say that or it might be said that if the price is FRAND, it cannot be an excessive price, but you say that is not the answer. You have to look at the negotiation process because you have in your crosshairs the prospect of

a price within a FRAND range which is on the higher end so it is not an excessive process. Is that where all this is going?
MR WILLIAMS: I am sorry, I am now —— I should have said —— yes, I am now —— because 757 is the key paragraph, I did not want to go to it for one point and then not tease out, but, yes, we say the rates are not FRAND, but we say because the essence of the abuse is a distortion of the negotiation rather than the charging of the excessive price, we say it is possible in principle to have a distortion of the negotiation and an inflated price within the FRAND range and we give a worked example in our skeleton.
MR TURNER: Right. In terms of whether FRAND is a range or whether it is a price, that has been a point of some controversy, although I think the —— is this right, the Court of Appeal in Unwired Planet said it was a range. Have I got that right?
MR WILLIAMS: We have proceeded in our worked example on the basis that it is a range.
MR TURNER: What does that mean, that it is a range?
MR WILLIAMS: What does it mean that it is a range?
MR TURNER: Yes.
MR WILLIAMS: When the court determines the terms of a FRAND licence, it establishes what the royalty might be within

a range and using a range of different evidence.
MR TURNER: The court has to come up with a figure?
MR WILLIAMS: I see, what is the outturn of that? I believe the position, although this bit is not on my desk, but I believe the position is that in a FRAND case the licensor would be permitted to charge the top of the range but if I have got that wrong —— yes, that is broadly the position. I might be simplifying, but ——
MR TURNER: Right. One can have a range in the sense that reasonable Tribunals might —— are never going to come to the same figure, they are all going to come to different figures, but that is not the same as a range, that is just the nature of the legal process, so it is no different to the speed of a car, there is only —— the car is going one speed, but different Tribunals may form different views as to what the precise speed is to a decimal point.
MR WILLIAMS: That is true. The determination is that the license at the point is FRAND.
MR TURNER: Yes. So if we are talking about distortions within a FRAND range, just knowing the juridical basis for that range is an aspect of that argument and I do not have that clear in my mind at the moment.
MR WILLIAMS: Sorry to talk over you, sir. It is perhaps more accurate to say a price that is inflated but is

below the FRAND price which might be the top of that range.
MR TURNER: Right.
THE CHAIR: But this paragraph, 765, is not saying you can have an abuse even if it is within the FRAND range; it is saying the opposite. Even if it is above the FRAND range, it has to be so far off in the clouds that it is a disruption of the negotiations itself that that will then fall foul of Article 102.
MR WILLIAMS: Yes, sorry. In this case the abuse is the level of the offer. So I was —— perhaps the point was a bit too subtle, Madam. I was simply saying that the Tribunal was there distinguishing between an abuse which is an excessive price and an abuse which identifies a distortion in the negotiation process, rather than the charging of the price. It is a variant on the classic excessive price which is you priced so far above cost and it is out of kilter with the value of the product. This is saying this is even higher again and the reason that that price is an abuse is because it has distorted the process of negotiation.
Of course the issue in that case is: is the level of the offer so high that it is abusive? Obviously it is an answer to that to say, well, the level of the offer is not so high that it is abusive because it is actually

FRAND. That makes perfect sense, but that is because the focus there is on the level of the offer, the level of the price and, for the reasons I have given, that is not this case.

Madam, that is what we say about the interaction with excessive pricing. The fundamental point is the abuse we allege is not that the rate was an abusive rate; it is that it was generated by a distorted process of bargaining.

So I had a topic now which, if I may, I will just race through. I think we have more or less covered it in your questions to me, Madam, but I just want to make sure I did not lose out any of the points in the interchange, because there is a question which we have addressed in our skeleton at 161 to 164, in part, and —— which is how far this case is just about Apple and Samsung and the case has got narrow aspects, such as does it matter if the markets are OEM—specific? Does it matter where countervailing buyer power comes in? But it has wider implications in terms of the evidence that we are asking the Tribunal to take into account.

We say that Qualcomm's account of what the subject matter of the case is is broadly what is the position in relation to its chipset supply practice and what happened in a series of specific negotiations with Apple

and Samsung. We say that that is not exclusively what this case is about and that leaves out very, very important aspects of the evidence. This case is about the overall practice or approach taken by Qualcomm across the market and across OEMs which we say existed and operated to give Qualcomm leverage in royalty negotiations. Mr Moser is going to cover this. One sees it in Qualcomm's internal strategy documents. One sees it in strands of its conduct which are just not explicable on the basis of the chipset supply practice as Qualcomm characterises it.

THE CHAIR: All right. But you rely on the all OEMs point to then focus on what happened in Apple and Samsung and say in those cases, they feared disruption because this was a practice applied across the industry.

MR WILLIAMS: Yes, exactly.

THE CHAIR: But you are not saying that in abstract we have to make any findings about Lenovo or BlackBerry of any of the others? You are relying on the other OEMs to say that that was the reason why Apple —— or part of the reason why Apple and Samsung feared disruption?

MR WILLIAMS: If you look at the list of issues, there is a question —— there is an issue about whether this is competition on the merits and then there is an issue about effects, the capability of the conduct having an

effect on Apple and Samsung, and the way we put the case is we understand you have structured the list of issues in that way at the effects end, but if you want to understand whether the conduct is competition on the merits, you should look at the conduct as a whole. We are not asking you to find that the conduct was capable of having effects on Lenovo or on anyone else, because you have excluded that from the list of issues, but when you decide whether this is competition on the merits, you have to decide what the conduct is and we say that the whole canvas informs that question.

MR TURNER: But if Apple had threatened to withdraw chip supply to BlackBerry and Lenovo ——

MR WILLIAMS: Apple?

MR TURNER: I beg your pardon, if Qualcomm had threatened to withdraw chip supply to BlackBerry and Lenovo but not threatened —— either explicitly or implicitly —— to withdraw chip supply to Apple, what are you saying is the relevance of the evidence with regards to BlackBerry and Lenovo?

MR WILLIAMS: Well, I sort of made a version of the point earlier, but there is evidence from Apple saying that they feared that Qualcomm would act in a certain way in these negotiations and that it would withdraw supply and would disrupt supply and the question for the Tribunal

is: is Apple imagining that? We say it is not imagining it ——

MR TURNER: That evidence does not link it to Lenovo and BlackBerry.

MR WILLIAMS: Well, the Tribunal will see evidence where Apple says, "We basically got the message about what Qualcomm was prepared to do" and Mr Moser will come to that later on.

MR TURNER: Okay.

MR WILLIAMS: But the point —— the sort of short point I am making is that you see on the one hand conduct vis—à—vis other OEMs, albeit including Samsung, and then you see Apple fearing consequences which —— or a pattern of conduct which is consistent with what we have seen here and it is not a coincidence.

MR TURNER: Well, there is not a direct cause and effect. I mean, it goes back to the question the President put to you earlier. I mean, one could understand it might be rational for, let us say, Apple not to want to poke the bear, the bear being Qualcomm, in circumstances where it is entirely dependent on Qualcomm for its chips.

MR WILLIAMS: Yes, yes.

MR TURNER: But that would seem not to be sufficient ——

MR WILLIAMS: It is more than that. It is the understanding

of the conditionality. That is what —— it is —— there is the admitted element of conditionality and we say that the conditionality goes further than the sort of benign chipset supply practice. It is the willingness to use that conditionality to apply pressure in licensing negotiations and to avoid scrutiny of the rates through litigation.

MR TURNER: But to what extent do we have to make determinations with regards to Lenovo and BlackBerry? That just seems to be of no direct relevance.

MR WILLIAMS: Well, it is of direct relevance to the extent that the Tribunal has —— well, the question is really what was really going on here? Is it a benign practice that is designed to protect against patent exhaustion, which is what Qualcomm says, or is there more to it? We say there is clearly more to it when one looks at the evidence as a whole. We say you have internal documents saying that Qualcomm saw the ability to use this leverage as a stick, and Mr Moser is going to come on to that, and we say that is what it was doing and ——

THE CHAIR: All right. To make out your case then, do you accept that you have to show that Apple —— let us just take Apple —— looked at what was going on in relation to other OEMs, saw that Qualcomm was applying pressure on other OEMs by threatening to withdraw their chipset

supply and therefore reasonably believed that Qualcomm would, or might well, do the same for it?

MR WILLIAMS: It is not as tidy as that, Madam, but we do say that Apple understood that Qualcomm's practice was based on conditionality.

THE CHAIR: But from what? Because if there was not a threat to it to —— to Apple itself but you are relying on the other OEMs, what is the linkage between the other OEMs and Apple? You have to then say Apple looked at what Qualcomm was doing with, let us say, Lenovo, knew that and therefore understood from that, otherwise you do not have where did it understand it from.

MR WILLIAMS: I understand the point you put to me, but what we say is that Apple reasonably understood that Qualcomm was prepared to act in this way. Mr Moser will show you the evidence of Apple, first of all, of the risk that Apple apprehended and, secondly, the evidence which goes to the question of why it apprehended that.

THE CHAIR: All right.

MR WILLIAMS: I do not think we —— we do not say Apple specifically knew about what happened to Lenovo. I do not think we say that.

THE CHAIR: Then how can you say —— what is the basis on which you say —— you do not have to take me to the evidence, but you are explaining the theory of harm.

What is the basis on which Apple understood it? If it was not a direct threat made to it, how did it gain that understanding?

MR WILLIAMS: Well, the starting point is that it understood the conditional —— the basic conditionality that is implicit in the licensing practice.

THE CHAIR: What do you mean, the basic conditionality?

MR WILLIAMS: The fact that it needed a licence, a licence needed to be put in place.

THE CHAIR: Yes, but you do not say that that led —— that led to the abuse. You say the abuse is more than the chipset supply practice. You say that the abuse is that Qualcomm might withdraw supply, even if there was a licence in place, if the licensee invoked litigation. So that is different.

MR WILLIAMS: No, that is right, but the Tribunal has the evidence from Apple. It will see it. The submission I can make really abstract from the evidence is what we see on the one hand is a body of conduct that Qualcomm is prepared to act in a certain way. You then have the essential conditionality that is part of the chipset supply practice and then you have Apple's understanding that Qualcomm is prepared to use disruption to supply in order to put pressure on Apple in negotiations.

THE CHAIR: But can I just ask you, in the abstract, you do

not have to take me to the evidence, but Apple's understanding gained from what?

MR WILLIAMS: Well, sorry, the point I was going to come to is I think there is a degree of inference, Madam, but there is some evidence of Apple listening to what Qualcomm said in the context of an investor call, which Mr Moser will come to a bit later on, and there is also —— sorry, and there is Apple drawing inferences from what I have described as the conditionality. The Tribunal is going to have to form a view based on the evidence as to whether, as I say, Apple is imagining this risk or whether Apple has formed an impression that is consistent with the conduct.

THE CHAIR: But I am still not getting what is the relevance of the OEMs. If you are saying Apple drew the inference from, number 1, an investor call with Qualcomm and, number 2, the conditionality, i.e. the chipset supply practice of Qualcomm, then that has nothing to do with the OEMs. If you are saying that Apple understood, because of its knowledge of the other OEMs, then I can see that we need to look at the other OEMs. So exactly how do the other OEMs tie in with the theory of harm? What is it about that that led to the understanding?

MR WILLIAMS: Well, the point I was making, Madam, is that one has to form a view as to whether Apple's

understanding of the risk is reasonable and the way we put the case in broad terms is that Apple's case —— Apple's understanding and impression as to how Qualcomm is prepared to conduct itself is reasonable because it is consistent with the way Qualcomm did conduct itself.

THE CHAIR: All right. But that is not answering my question. So where did Apple's understanding come? If it came from Qualcomm's direct conduct vis—à—vis Apple and conditionality which is, again, you say it is just Qualcomm's supply practice, that is something Qualcomm does vis—à—vis Apple, that does not involve the other OEMs. Where do the other OEMs come in?

MR WILLIAMS: I think for the moment, Madam, the way I put it is to say that the failure —— the departure from competition on the merits is the overall practice, as I have described it, and Apple's apprehension of the risk is consistent with the overall practice and we see specific evidence that Apple understands that this is the way Qualcomm is prepared to conduct itself across the market.

MR TURNER: You talk about whether the risk is reasonable and if you were in Qualcomm —— hypothetically in Qualcomm and were drawing up a risk register, you would have to put the failure of your supplier to supply —— if you are in Apple, sorry, and you are drawing up a risk

register, you would have to put Qualcomm's ceasing to supply chips on that register. I mean, it must be a risk and it must be a risk for the simple reason that Apple does not know what Qualcomm will do. So it is a risk. That is —— and even if it had a letter from Qualcomm saying, "We will not do this", it might have a different colour on the risk register, but it would still be there as a risk. It is always going to be a risk and so just saying is it a rational risk or not does not seem sufficient to get you home.

MR WILLIAMS: No, sorry. I am sorry if I was not clear.

MR TURNER: That is what you said.

MR WILLIAMS: What I said is Apple reasonably understood —— what I meant to say, whether or not I said it. Apple reasonably understood that Qualcomm was prepared to conduct itself in a particular way. I think the position —— I will be corrected if I am wrong when we take a break —— is that the Tribunal is going to have to draw an inference as to whether Apple's apprehension of the risk that it faced was reasonable but the point ——

THE CHAIR: No, we have to —— before we do that, we need to understand where you are getting the understanding from. So you can talk about whether that was reasonable, but where do you get the understanding from and if you are saying that it is from conduct of Qualcomm vis—à—vis

Apple, that is one thing; if you are saying, on the other hand, that it is from Apple's knowledge of other OEMs, then that is a direct linkage between the other OEMs and this case.

So I am just trying to get at which of those two it is in this case.

MR WILLIAMS: I think the reason I am not giving you a direct answer is because I think one has to infer —— one has to infer from Apple's perception of the risk that ——

THE CHAIR: Well, it is all right. Maybe we could just move on and review it later, but you have got our question.

MR WILLIAMS: We have.

THE CHAIR: Exactly how do the other OEMs tie in with the theory of harm and ——

MR WILLIAMS: This is part of the problem with the division of labour.

THE CHAIR: All right. Why don't you move on.

MR WILLIAMS: Yes. Sorry, I mean, one note that was passed to be me but I did not read while I was answering your questions is we did take you to a document in opening which said what Apple's perception of the industry view of the policy is. We can give you the reference.

MR MOSER: If I can just give the reference to that document. I think it might be confidential, but it is

the starting point. It is the jumping—off point, whatever the phrase is. It is {POF/493/1}. It is an Apple internal email and you will see what it says in the first paragraph and you will see what it says about Qualcomm's licensing programme. That's the beginning of the quest for what Apple knew about what was thought across the industry.

THE CHAIR: It does not make any specific point about Qualcomm refusing to supply.

MR MOSER: No, that is ——

THE CHAIR: It says the programme and you do not say that the chipset supply policy was abusive.

MR MOSER: That is why I say it is the jumping—off point and we will see a lot of other documents that I will show you either today or on Monday.

THE CHAIR: Yes. I think at some point, by the end of your submissions, you need to explain, with precision, how the other OEMs' story ties in with the theory of harm. Are you saying that Apple understood what was happening with other OEMs and, therefore, from that, gained a perception about Qualcomm's conduct or are you not? If you are not saying that Apple knew what happened with the OEMs, then precisely how does the story about the other OEMs have a bearing on the theory of harm? You do not have to answer that now but by the end of your

submissions.
MR WILLIAMS: So the point I was coming to is, as I say, the case that we put is based on a market—wide approach. We will come back to your question, Madam. The premise for all of that is Qualcomm having dominance on a wider market. So I will come on to the market now.
The Tribunal does ultimately have to decide whether the conduct is capable of having an effect on Apple and Samsung. That has got three aspects. First of all, were Apple and Samsung subject to the same practice as the rest of the market? We say the answer to that is "yes". We do not see any trace in Qualcomm's closing of an argument that its conduct differed across OEMs and of course it would not help Qualcomm to impose an inflated rate on one OEM only. So we say that whatever the conduct is, it was consistent and common across the market and that is partly why we say the wider evidence is relevant, but we will come back to that.
So were they subject to the same conduct as everyone else? Yes. Were they dependent on Qualcomm, like others? Yes. Thirdly, is there something about the negotiations with Apple and Samsung which means that the conduct did not bite on them? We will ultimately say, having looked at the evidence in detail, the answer to that is "no".

So we appreciate that coming back to the question of —— we looked at in opening about the importance of what the market is and where one considers countervailing buyer power and so on, one could ultimately approach the case pragmatically and say, well, the case has a number of component parts and as long as the Tribunal considers them all, then the economic framework is not decisive and it does not matter exactly what the market is.
The substance of the questions is obviously more important than which box they go into, but what we do strongly resist is the idea that this case is only about Apple and Samsung and that the whole economic framework should be set up in a way that leaves everything else on one side, but, apart from anything else, we say Mr Noble's economic framework is clearly right on the merits and that is what I was going to come to next.
We are a bit early for a break, but we could have one now, rather than get into that?
THE CHAIR: That is fine. We understand the last point you make. I think that these are distinct questions. One can still —— one can look at the market definition on an OEM—agnostic basis and still then focus in the abuse section, as you have, I think, rightly said, on the position of Apple and Samsung. The fact that you might

not look at countervailing buyer power on your case in relation to dominance does not mean that you do not look at it as one must ——
MR WILLIAMS: Yes, exactly.
THE CHAIR: —— in relation to abuse, yes. All right.
Thank you very much. We will take a ten—minute break.
(11.36 am)
(Short Break)
(11.46 am)
MR WILLIAMS: Market definition. I made some fairly detailed submissions in opening and you now have our written closing. As you have heard, our case is based on Mr Noble's view, which in turn relies on evidence from industry participants which now includes Mr Katouzian, evidence of chipset pricing in the market, including the CDMA adder and so on, and Qualcomm's own internal documents. As far as self—supply is concerned, we rely on the tiny scale of external supply by Samsung until the 5G era which then needs a bit more scrutiny.
I will not go back over all the evidence, but I will make some —— an overarching submission, if I may. You have my point from opening that this —— Mr Noble is not breaking new ground. The Commission has looked at all this and Mr Noble's approach is to the same effect.

Qualcomm says that the Commission's findings are not on point for two reasons. One is that the —— one of the decisions relates to dongles not handsets, but that does not affect any of the core reasoning. The other is the Commission's findings relate to other OEMs, but that is, in my submission, a circular submission because the point we are debating is whether that is a relevant point of distinction.
We say that Dr Padilla's approach is certainly novel and we go further and say that it is strained and problematic and, in my submission, the deficiencies of Dr Padilla's framework have become clearer as the trial has gone on.
THE CHAIR: Yes, but just before you launch into that, can you help us on this: is there anything in the law which might help us on when it would be appropriate to define "OEM—specific" as opposed to "OEM—agnostic" markets? Is there any precedent that helps us with the test to apply?
MR WILLIAMS: I mean, I think on the —— there is a framework on the price discrimination side which we started to explore with Dr Padilla in cross—examination. I am not aware, as I stand here, that there is anything similar on the OEM —— on the distinct requirements aspect of his approach, but I am hoping to cut through those pretty

quickly on the evidence anyway, Madam, because the first point I was going to make is that Mr Katouzian was cross—examined on the issues and Mr Katouzian accepted the clear logic of Mr Noble's position on basically all these issues about market definition and substitutability. The concessions he made were in confidential session, I believe, and so they are designated confidential for now. I do not think they will ultimately be confidential, but the Tribunal will recall them, I hope. We have them in our skeleton at various points, 37, 42 and 45.

Although Qualcomm says no weight should be given to RFI responses provided to the Commission, presumably it does not say no weight should be given to Mr Katouzian's evidence, which says the same thing as the RFI responses. That is leaving aside the realism of the idea that we could produce all these OEMs in class action proceedings in any event.

The second point is that Dr Padilla has pursued various economic arguments which did not stand up to the scrutiny of a trial. I will try and take them quickly because I think the Tribunal knows what we say about them.

In terms of substitutability between standards, Dr Padilla accepted in the hot—tub that his price

overlap analysis does not test for substitutability. So we say that is basically accepting that the analysis is not probative of anything.

He then diverted into what were two new arguments. One was the steering mechanism, OEMs steering customers onto different standards through marketing, which was unforeshadowed in any of the evidence and, as the Tribunal saw, this idea of steering was positively contradicted by the evidence I put to Dr Padilla. That is paragraph 56 of our closing {EAOS/4/17}.

The second new argument was that data relating to UMTS CDMA showed a continuous variation in mix and showed substitution between them and then —— that was in cross—examination, he said that point did not help either side. So that one came and went very quickly as well. Just before I move on to another topic, Qualcomm says in its closing at paragraph 320 {EAOS/5/106}, that the CDMA adder is a charge for additional functionality, but that is not the issue. The question is not whether CDMA is an additional functionality, but whether it was a premium that Qualcomm could impose because Qualcomm —— CDMA was in its own distinct market? We say the evidence is clear on that: see paragraph 50 of our skeleton.

So that is substitutability across standards.

In terms of OEM—specific markets we do say, as I put to Dr Padilla, that his view on price discrimination markets hardened up in oral evidence, but the key point is that he has not carried out any analysis of pricing across the market. The point of this analysis is to say that Apple and Samsung paid different prices compared to anyone else, but he has not done any analysis of pricing across the market taking account of rebates and discounts. What that means ultimately is that he has not established price discrimination. So, in my submission, that argument does not even get off the ground. But this issue was also important because it showed perhaps most clearly that the whole thesis of OEM—specific markets is self—contradictory because the idea is that pricing —— the prices charged for Apple and Samsung are so distinct compared to the prices charged to others that they are in their own market. So it's the actual prices charged to them, but when it was put to him that price discrimination would be defeated by supply—side substitutability, Dr Padilla said, well, that could not happen because all of the suppliers are in the market, but that is obviously having the point both ways. One cannot say these prices are a distinct market, but then say but in fact there is no supply—side substitution because everything is in the market. The

whole thing is having it both ways.

So what that really amounts to is accepting Mr Noble's point that there is supply—side substitution and that is why Mr Noble says price discrimination would be defeated and that is footnote 119 in the Commission's guidelines.

MR RIDYARD: Substitution between what, sorry?

MR WILLIAMS: Between suppliers. So ——

MR RIDYARD: Everything or ——

MR WILLIAMS: Sorry, this is —— we are talking about chips of the same standard. I am sorry.

MR RIDYARD: That is accepted by ——

MR WILLIAMS: Yes, it is accepted, but we then have the circular argument about whether there is any other supplier that can constrain it, yes.

Then we have the other limb of the OEM—specific argument which is that Apple and Samsung have distinct requirements, but, as the Tribunal saw, that turned out simply to say that Apple and Samsung started and stopped and started selling handsets conforming to different standards at different times to each other and other OEMs. That is not a distinct —— such a distinct requirement. It is just about when they phased in handsets and phased them out. There is simply no evidence at all that, for example, once Apple decided to

make —— the pricing of 5G chips to Apple was constrained by the fact that it chose to make the transition at a different time from other OEMs.

So we just say none of these points have stood up to scrutiny. I do want to deal with a related issue which is bidding markets, which is an issue that was given some focus in the oral evidence. Dr Padilla said in his report that these are bidding markets so that market shares are not informative, but he accepted in cross—examination that he had not considered the criteria for bidding markets when these were put to him and, in my submission, we showed in cross—examination that the recognised criteria are not met. There is no evidence at all that purchases by Samsung were the sort of bulk contracts that may amount to a bidding market and such evidence as there is to the opposite effect.

As far as Apple is concerned, the question is was there effective competition? Were all suppliers equally well placed? It is clear that there were no other credible suppliers for the exclusive contract that Apple entered into in either 2011 or 2013, because of Qualcomm's total dominance of CDMA and then LTE.

Paragraph 328 of Qualcomm's closing {EAOS/5/108} basically accepts that, but it seems to advance a sort of free floating idea that these are nonetheless bidding

markets based on the fact that there are bids.

In my submission, that is not a tenable approach and it is also not consistent with Churchill Gowns, which I would just like to go, if I may. This is {AB2/33/20}. Of course Mr Ridyard will be very familiar with this.

THE CHAIR: Authorities 2.

MR WILLIAMS: The pdf page, sorry, Madam, is 2694 in AB2.

THE CHAIR: Thank you.

MR WILLIAMS: So one sees in 56, Ede & Ravenscroft contend that whilst accepting that the markets do not meet all the criteria for a perfect bidding market, the competitive conditions are sufficiently close to the benchmark and there is then discussion of whether that argument is tenable.

The next page, paragraph 57 {AB2/33/21}, Churchill through their expert reject that argument with reference to the Klemperer criteria which run parallel to the CMA criteria, which we looked at with Dr Padilla.

Then 58 explains that if Ede & Ravenscroft want to advance that augment, they are going to need to provide robust evidence and look at the matter closely. That theme is then picked up through the following paragraphs. 61 explains the need for full analysis. 62 deals with the need to consider whether the contracts are lumpy, which is the point we make about Samsung.

So we say there are obvious parallels with this case where there has just been no analysis of this. There has just been broadbrush references to the fact that there are bids and next to nothing by way of analysis of any sort of bidding process in relation to anybody, let alone is there a credible case that the criteria are satisfied or close to being satisfied.

So if we stand back from these various issues around market definition, the bottom line is that on the markets defined by Mr Noble, Qualcomm has a market share of somewhere between 50% and 100% and there is a strong presumption of dominance and Dr Padilla's approach to market definition, it does mitigate those numbers to some extent by introducing other constraints into the market, like overlapping standards, and the constraint of self—supply, and we do say that, given the shifting basis of the argument here and the fact that several of these points are weak and undeveloped, one does find it hard to avoid the conclusion that the net has been cast around to try and identify arguments that reduce the risk of a finding of dominance and some of this has skirted pretty closely to the line between expert opinion evidence and argument.

I do say that in part because there was an argumentative flavour to some of Dr Padilla's answers in

cross—examination when I would put a point to him and he would deflect and say that my question was inconsistent with some other part of our case. The Tribunal will have its own impressions about that. I will not spend time trying to persuade you about it, but I will give you one reference because, having made the point, I should make it good with at least one example. It is {EAOS/3/37} 142, lines 2 to 13 and this is a situation where I asked Dr Padilla to look at a ——

THE CHAIR: Which day of the transcript?

MR WILLIAMS: This is Day 9. {EAOS/3/37}.

THE CHAIR: Do you have the internal page number?

MR WILLIAMS: It is 142. At the top of 142 I asked Dr Padilla to look at a graph which shows 100% market share. (Pause)

You will see his answer down to line 13.

So it is a simple point. I asked Dr Padilla to look at a graph which shows 100% market share and before I asked any question, he took the opportunity to suggest that the exclusion of Samsung's self—supply from the graph suggested that these were OEM—specific markets. That was actually wrong because this was the whole market excluding self—supply, which is Mr Noble's approach, but it was nothing to do with what I was asking about and I had not actually even asked

the question, but Dr Padilla took the opportunity to sort of argue the case, in my submission.

So this is a matter for the Tribunal, but we do say some of Dr Padilla's evidence has veered towards argument and we invite the Tribunal to weigh that, but on the issues we are dealing with for now, we say we are clearly right on the merits in any event.

MR RIDYARD: Sorry, it might be useful, not right now, but at some point for you to clarify what are the circumstances in which you would —— because of price discrimination or whatever, in which you would regard an OEM—specific market as being the right way of looking at things.

MR WILLIAMS: We can take that away.

MR RIDYARD: Yes.

MR WILLIAMS: I think the position on price discrimination markets is difficult because if one looks at the Commission's guidance and indeed Dr Padilla's own book, which I can give you the reference to if you like, he says, look, there are formidable obstacles to price discrimination markets from supply—side substitution and it is common ground that within a standard there is supply—side substitution within a standard. So in a sense I —— it is difficult for me to set up a case which has not been advanced for me to knock it down.

All we say is that the way that this case has been put on price discrimination does not make it right. I will see whether I can improve on that answer.

MR RIDYARD: Thank you.

MR WILLIAMS: Moving to dominance. If Mr Noble is right about the definition of the market, then Qualcomm's market shares are not just very high but at times there is a monopoly or something close to it so we are clearly in the territory of a presumption of dominance.

Dr Padilla did not pursue the idea that market share should be measured by volume, rather than value, but, as set out in our note on market shares at {X/2.1}, we say the presumption would be engaged either way because the position is the same on both measures.

It does bear emphasis, again, that Mr Katouzian made concessions in his evidence which are said to be confidential, but I think the Tribunal will know what I am referring to, which support the case that we advance. We give the references at 27 of our closings. Those concessions go directly to the points the Tribunal has to decide, but one sees them dealt with at the very end of Qualcomm's submissions about dominance at paragraph 362, where Qualcomm says that the Tribunal should not attach weight to them. I mean, it does bear emphasis this is a senior individual from the Qualcomm

business with decades of experience working in the chipset market and he has been put forward to address the question of whether Qualcomm faced chipset competition. The idea that he simply slipped into making concessions because he did not understand what he was being asked about is just not credible, in my submission. So significant weight should be attached to that evidence.

The same is true of the submission in the same paragraph, 362, internal documents referring to Qualcomm as [redacted or as a redacted] are not evidence of market power. That is addressed in paragraph 33 of our closing {EAOS/4/11}. The Napp case says evidence from undertakings themselves may be particularly significant and even decisive because it provides an unvarnished view of the market from those involved in it.

So that is the sort of framework.

One can, on one view, cut the discussion on dominance short on CDMA and LTE because at the points in time that matter for our claim, the position on those standards is that Qualcomm had 100% share of CDMA in 2008/2009 and they had an almost 100% share in LTE in 2013. Qualcomm has sought to suggest that these are vibrant markets that are the subject of vigorous competition and healthy expansion, but that is just not

the picture that the Tribunal has seen in the evidence. In 3G CDMA there was a single competitor, VIA, that over many, many years creeps up to a market share that never exceeds 15%. It never sold a multi—mode chip, which Mr Katouzian accepted gave Qualcomm a significant competitive advantage. It did not sell a chip to Apple and it sold a small proportion of chips only to Qualcomm, very small, so —— sorry, to Samsung.

THE CHAIR: When you refer to Mr Katouzian's various concessions, can we take it that the main points on which you rely are set out in your closing submissions?

MR WILLIAMS: Yes, they are all set out.

THE CHAIR: All right.

MR WILLIAMS: They basically go to substitutability and broadly the question of dominance.

THE CHAIR: I am just checking there is not anything else that is not in your closing submissions?

MR WILLIAMS: No, it is all there. I am trying to give you the overview really rather than take you back through all of it.

THE CHAIR: That is helpful. Thank you.

MR WILLIAMS: So that is 3G CDMA. For LTE—CDMA, there is no competition at all until at least 2015 when MediaTek enters the frame, you know, many years into the —— four or five years after the market has kicked off. Then,

later on, we see Intel, which acquired VIA but did not supply LTE chips until, I think, 2017 —— LTE—CDMA, yes. In the hot—tub Dr Padilla suggested that this was evidence of competition through entry, but, in our submission, the example shows the opposite. Intel's inability to enter other than by acquisition and even then only at the very tail end of the LTE—CDMA era, it actually tells you the opposite story.

MR RIDYARD: Sorry, it entered by acquisition, but it did not acquire the incumbent, did it? It did not acquire the dominant firm so it is, surely —— that is I think the point Dr Padilla made. Acquisition is part of entry.

MR WILLIAMS: Yes, sorry, my point is not that it did not happen and it did not create a presence in the market. My point is is this a sufficiently powerful point to demonstrate that this is a market that is constrained by entry? That is the point I was making. Entry or expansion, depending on how you analyse it. It does not happen until LTE—CDMA is on the way out basically. So ...

There has been a sort of weak suggestion that Qualcomm was constrained by the possibility of combining an LTE and 3G CDMA chip, but there is very, very limited evidence of this. At paragraph 87 of our closing

{EAOS/4/24} we cite a Qualcomm internal document which suggests that the multi—mode feature was must—have and we say this is just another example of a totally marginal point that has been given a profile it just does not merit.

For LTE—UMTS, Qualcomm's share was 100% in 2013 and it was still 65%, even by 2016. MediaTek gradually obtains a share of something like 20%, but the Tribunal has heard evidence about how it could only compete at the lower end of the market. That is paragraph 88 of our closing {EAOS/4/23}. Again, Mr Katouzian made concessions about this. There is a suggestion in Qualcomm's closing, again in 362 {EAOS/5/121}, that Qualcomm was not dominant, it was just the best, but of course technological advantages can themselves be a source of market power.

In paragraphs 104 and 105 {EAOS/4/29} of our closing we have sought to address Mr Ridyard's question about the relevance of differentiation by quality in a single market. I hope you saw that. But there are basically two points. The first is that in a differentiated market it is relevant in principle to understand competitive dynamics in particular segments, because there may still be market power which is not constrained by substitution from other parts of the market. We cite

the Wieland—Werke case in relation to that. It is a mergers case but it goes to that question as to whether market power in a premium segment or high—end segment is necessarily constrained by a wider market. That is the first point.

The second point we make is that Qualcomm has both very high market shares and the premium offer in the most profitable part of the market which no one else could match. So it is the aggregation of those factors that we say heightens Qualcomm's market power, the fact that it does not face any competition for certain products within the market.

So the Tribunal knows that the position changes somewhat in 2016 when Intel arrives on the scene and takes Apple from Qualcomm, but that was after several years of trying and failing to do so, in large measure because of Qualcomm's exclusive contract with Apple, which is capable of being a barrier to entry and we say was a barrier to entry, and we deal with the facts relating to that in 296 of our closing {EAOS/4/85}.

Just to round this off, because we are going to go to Mr Noble's report anyway, can we just bring up again {POE/21/38} which is the graph the Tribunal has seen many times. It is interesting to see in 2016 when Intel

starts to really gain a foothold that what happen is not that Qualcomm's market share falls, but actually it ticks up and MediaTek's share ticks down. We say that is really clear evidence of the resilience of its market power and the fact that it is not being effectively constrained by entry or expansion, because you see this major development in the market where Intel comes in and yet Qualcomm not only maintains its position but actually seems to do even better than it had been in terms of share, even though it has lost business to Intel.

So this whole thesis about Qualcomm being constrained by entry or expansion, this is a major event in the market and we saw what happens.

So if we then turn on within the report to 42, we have the same graph for 5G. Just to remind you which is that we see Qualcomm starts with 75 —— page 42 {POE/21/42}, in the same document. Is it coming? I will speak to it as it comes up. It just reminds you that Qualcomm starts with 75% of the market and then it stays there every year more or less until the present day. Dr Padilla said that this was endogenous, by which I think he meant this was driven by the choices that Apple was making, but that was not true in 2019 because Apple did not have any —— did not buy any chips in 2019

and those chips did not come on—stream until 2020. So in truth what has happened is Apple has acted in line with the market.

MR RIDYARD: Mr Williams, there must come a point —— just going back to the LTE chart, there must come a point where the decline in even a high market share is so significant that you do reach the conclusion that dynamic competition is working effectively?

MR WILLIAMS: Yes, that is true. There would come a point, although here it never went below 65. The significance of the event of 2016, the point I was making there, was that even though you have this major event which you might expect to sort of be a catalyst for change in the market, in fact Qualcomm stays where it is. So the question the Tribunal has to decide is —— one of the main ways the case is put against me is, well, look, there is this constraint, there is constraint —— there is constraint from expansion, but that is a good illustration, sir, that where one sees on one view major change, in fact you do not see that effect. What you see is Qualcomm continuing to tick over. So of course there could come a point and it does slide off eventually when 5G comes into focus, but I am simply making —— I made that point really in the context of the case that is made against me in terms of entry and

expansion.

I do not think the graph on page 42 has come up, but I was going to move on now anyway. It is a straight line running across from 75% and it is more interesting actually in terms of what you see —— what happens below that in terms of the interaction between Samsung and MediaTek.

So Mr Katouzian was cross—examined and the Tribunal saw all the evidence through 2018 of Qualcomm's confidence in its leadership of the market, its technological advancement in mmWave compared to others. We can see it now. The next biggest player we can now see is MediaTek which from 2020 takes something like a 20% market share, [redacted]. I am going to come on to deal with them in a bit more detail when I deal with Apple and Samsung in a minute.

There is also evidence of Qualcomm consciously imposing price premia over its competitors in 5G as well as 3G CDMA and we set that out 100 to 102 of our skeleton. It is only when we get to 5G that the constraint exerted by Samsung's self—supply becomes any sort of issue. Just to cover this off, Samsung never self—supplied 3G CDMA. It did not supply LTE 3G CDMA until 2018 and in 2013 barely even supplied itself with LTE. We know that in 2013 Samsung was 90% dependent on

Qualcomm for LTE and in the following year it was still over 80% dependent. Both years Samsung supplied only 10% to itself. So we explored this in the evidence. Samsung obviously had the incentive to self—supply as much as it could and one can see, from {ORI/261/15} that it ramps up over time but even by 2015 it is still using Qualcomm for 60% of its chips. So there is really no serious suggestion that it was able to offer constraint in the early years when it could not even supply itself. That is not the right document, sorry, but it does not matter. It is {ORI/261.15}. In any event, what is clear is that in 2008, 2009 and 2013 there just is no material constraint from self—supply which are the years that matter.

I just want to deal with two points of law to round off on dominance, if I may. In paragraph 330 of their closing {EAOS/5/108}, Qualcomm refer to the case of Cisco in support of the proposition that market shares should be approached with caution in dynamic markets. I will try and take this quickly. If the Tribunal wants to see it, you can see it. It is {AB3/17}. This was about Microsoft acquiring Skype and Cisco objected to the merger, but it was cleared by the Commission. If we look at page 15 {AB3/17/15}, paragraph 52 ——

THE CHAIR: What pdf page is it?

MR WILLIAMS: I am sorry, Madam. I am going to go to 1355 in AB3. Sorry, I have the references. I just keep forgetting to read them out.

THE CHAIR: All right.

MR WILLIAMS: So one can see in 52, there is a paragraph which says, about four lines down:

"First, in this respect, it took the view that market shares are not particularly indicative of competitive strength in a fast—growing market ..."

So that is the Commission's view.

If we then move on to page 67 —— sorry, paragraph 67, bottom of page 17, pdf 1357 {AB3/17/17}. It says there:

"[Cisco] criticised the factors put forward in the contested decision in order to qualify the significance of market shares."

It says the criticism is unfounded.

MR TURNER: I have lost where you are reading?

THE CHAIR: It is the very last two lines, is it?

MR WILLIAMS: The very end right at the bottom of the page. It is saying Cisco criticised the factors put forward in the decision to qualify the significance of market shares. This is the Commission saying market shares are not very significant.

Then 68, one can see the facts which is that there

was significant fluctuation in market shares over seven months and 69 talks about ephemeral market shares: "Large market shares may turn out to be ephemeral." I think there is one thing we can say about Qualcomm's market shares is that they are not ephemeral. We are obviously not looking at a period as short as seven months, we are looking at periods of many, many years. So this case does not really help my learned friends at all. Then the other legal point is countervailing buyer power where I made my submissions in opening about whether countervailing buyer power should be assessed with reference to a single customer or across the market and we went to Irish Sugar and the Motorola case. In paragraph 326 of their closing {EAOS/5/107} Qualcomm cite the Flynn case which will be familiar to you from a former life, Madam, and they say that that clarified the law following Irish Sugar and Motorola. I mean, I think the point that is being made is that paragraph 204, which is quoted in their skeleton at 326, refers to the buyer, singular and, hence, one can have countervailing buyer power of a single buyer. The submission we made was you have to look at the position across the market, but that was a case in which there was only one customer for Phenytoin, which was the NHS.

In fact that point is made in the same paragraph, paragraph 204. So the question that we are dealing with is whether countervailing buyer power is assessed at the level of a single customer or across the market just did not arise and Irish Sugar is not referred to. So, in my submission, it is just not dealing with the point and it is certainly not overruling Irish Sugar and the Motorola approach. So then moving on to Apple and Samsung's specific dependence and building on the points you have seen about the overall market position. Now, the Tribunal has seen that 3G CDMA was essential for certain major markets, including China and the US, and I did want to take you to one document which I think is illuminating on this. It is {POF/134}.

MR TURNER: Can I just ask you: where was the evidence in the —— on how widespread CDMA 2000 was in the factual evidence? I have heard —— if somebody could give me the references at some point.

MR WILLIAMS: Where you say how widespread ——

MR TURNER: You say it was the present in the US and China.

MR WILLIAMS: Do you mean what were the volumes compared to UMTS, for example?

MR TURNER: Just any evidence on it, which carriers were using CDMA 2000, which jurisdictions, which —— I have

heard it being referred to in open court on a number of occasions. I just was not —— it was the evidential basis for it. I do not think there is anything arising on it. I just want to know where it is.

MR WILLIAMS: We can deal with that, I am sure.

THE CHAIR: I think it is just the references for which jurisdictions it has been used in and how widely. So we know it was being used in the US with certain carriers.

MR TURNER: Certain carriers, yes.

MR WILLIAMS: To some extent it has been dealt with through the expert evidence and you are saying you want to see the factual ——

MR TURNER: What evidence there is. If there is not anything, let us know. If it is in the expert evidence, let us know. I do not understand it to be in dispute.

THE CHAIR: Probably somewhere in the technical evidence I would have thought.

MR WILLIAMS: We will tidy that up for you. I am sure there are plenty of places. We will find the best one for you.

MR TURNER: Just while you are there, can I raise a similar —— sorry to take you out of your course. Also there is a reference to the need for backwards compatibility for 5G, that it is not necessary when you get to 5G for it to be backwards compatible with,

I think, 3G CDMA. Again ——

MR WILLIAMS: That is a judgment Mr Noble has made actually.

MR TURNER: That is just —— again, if I could just have the references for that. The last thing ——

THE CHAIR: Before you move on then, also I think can you include backwards compatibility with 3G UMTS because I think the extent to which the 5G handsets were all multi—mode or were not multi—mode backwards to 3G either UMTS or CDMA goes to the point that has been somewhat debated in the closing submissions about Mr Gonell's evidence about the scope of the 3G licences and whether those covered 5G.

MR WILLIAMS: Is it convenient to get references like this on a page of paper?

MR TURNER: Yes, that would be perfect. Thank you very much. There is one more. The different types of 5G, there was the mmWave, I think, which was used by one carrier only. Again, I just do not recall reading that in the evidence so if that, again, could be put on the piece of paper as well.

MR WILLIAMS: Does the Tribunal need these by the end of the trial?

MR TURNER: The end of the trial is fine, yes. No urgency.

MR WILLIAMS: I think we can get them.

MR TURNER: Are you asking for longer than the end of the trial?
MR WILLIAMS: I was just wondering. I am sure we can do it over the weekend.
MR TURNER: If you need a couple of extra days, that is absolutely fine, yes.
MR SAUNDERS: It may be helpful if we could see this so we could try to agree it, if possible.
MR TURNER: Yes, that would be perfect.
MR WILLIAMS: That would be helpful, but it might take a bit longer.
THE CHAIR: Yes, of course, if that takes a bit longer, because I know you are all busy working on your oral closing submissions, if it takes a bit longer than the end of the trial, then a few days will be fine.
MR WILLIAMS: Yes, {POF/134}. This is part of the context —— goes to part of your context, because this is about China Telecom adopting CDMA at the time, but it is —— could we blow that up, please. Thank you. Now, it might be best for the Tribunal just to sort of read the paragraph starting:
"We had assumed ..."
(Pause)
In fact, perhaps start at:
"Since our preliminary recommendation to spin ..."

That is coming back to —— that is coming back to the separation of the two businesses.
MR TURNER: So the author of this document is who? This is a Qualcomm document?
MR WILLIAMS: This is a Qualcomm document. So:
"Since our preliminary recommendation to spin, China has re—organised the carriers and China Telecom will own the CDMA2000 network. This is extremely positive news for us. From a spin perspective, it militates against spinning for at least the following reason ..."
Then read the next paragraph.
THE CHAIR: What does "spin" mean?
MR WILLIAMS: It means separate the licensing and the chipset businesses. It is that issue. (Pause)
Really we take two points from this. The first is that Korean manufacturers, like Samsung, will want and need to supply CDMA into these regions. Qualcomm refers to itself as the pre—eminent supplier. It talks about OEMs being reliant on it for continued supply.
Then at the —— toward the end of the paragraph, it says:
"I believe that this will help us grow our business as one company. If we were two companies, they would rely entirely on QCT, but would have no incentive not to attack QTL."

We said in our skeleton —— I think one other document was our case in a nutshell and this is another document which is our case in a nutshell which is identifying the dependence on OEMs on Qualcomm for particular types of chips and the fact that that reduces the risks of attacks on the licensing business because of the dependence for chips. That is what that is clearly saying. So it is an extremely illuminating document, but I was taking the Tribunal to it as an example of how 3G CDMA was essential for certain major markets. Here it is China.
I said in opening that Qualcomm had found a few emails between Samsung and Qualcomm which referred to VIA and that these were a drop in the ocean. That is still my submission after the trial. I mean, paragraph 334 of Qualcomm's closing refers to this {EAOS/5/109}. It boils down to one episode in 2009, where VIA tried and failed to take share off Qualcomm, even though Qualcomm were still charging higher prices. It is paragraph 101 of our closing. This is really not the stuff of rebutting the presumption of market —— of dominance based on a 100% market share. We do say that this is indicative of a more general approach where every conceivable point has been taken to resist what we say is an inevitable finding of dominance in each of

these markets. One can understand why Qualcomm is resisting this notion of dependence because it is the first critical building block of the theory of harm, but we do say there is a lack of realism in some of the submissions that are made in this part of the case.
Paragraph 345 of Qualcomm's closing {EAOS/5/114} deals with the equivalent issue for Apple and it is equally thin gruel, in my submission. It is, again, more or less one email chain which refers to the possibility that Apple might choose a competitor, although in that email chain Qualcomm is still proposing to charge Apple a CDMA premium. So it is, again, not a compelling basis on which to rebut a presumption of dominance based on 100% market share. Apple never bought a single chip from VIA and the Tribunal has Apple's views about its dependence on Qualcomm —— that is 109 of our closing —— for 3G CDMA and its views on the lack of credibility of VIA at 110.
So if we move to LTE. I have already addressed the position in 2013 when Qualcomm has, again, more or less 100% market share and I have dealt with the position on Samsung self—supply. There was no constraint, no material constraint, from self—supply in 2013. The volumes are just too tiny. [redacted].
If we just look at Qualcomm's closing on this, 338

{EAOS/5/111}. [redacted]. Now, if we do bring up {ORI/261.15}, you can see the names of the suppliers. If we bring up {ORI/261.15} —— sorry, I am not being clear. If you look at the table of shipments to Samsung, you have Qualcomm and Samsung and then you have effectively everyone else and you can see the volumes are absolutely de minimis at this time. In fact, the Tribunal knows that two of these players left the market. One of them left citing Qualcomm's dominance as a reason for doing so and the Tribunal knows Intel did not gain any traction until much later. Then the rest of the evidence cited in paragraph 338 refers to a document from a year later. So that is all after the event. So, again, no serious basis for rebutting the presumption of dominance.

Now, there is an additional angle in relation to Samsung and LTE—CDMA because part of our case relates to the 2009 negotiation, which was the original negotiation of the LTE SEP rate. 2009 was the very beginning of LTE and the agreement at that time is actively anticipating the advent of LTE. It is totally clear that —— sorry, Samsung was totally dependent on Qualcomm for 3G CDMA at that time and it would have been equally clear it would be totally dependent when LTE—CDMA came along, as anticipated in the agreement, and if we could look at

{POD/7} at the bottom of page 32 {POD/7/32}, please. This is evidence —— I was not going to read any of this out. I was going to say, this is evidence of Samsung relating to its relationship with Qualcomm about CDMA at this —— at about this time. Then we sort of read on to the next page. It starts at —— probably only need to read from the bottom of 32 on to the next page when the Tribunal is ready.

THE CHAIR: Well, you want us to read from the bottom so let us go over the next page now {POD/7/33}.

MR WILLIAMS: The next page, please. (Pause)

THE CHAIR: Where do you want us to read to?

MR WILLIAMS: Well, you can get the flavour of it down to the end of the sentence that starts, "With that standard ..." because it carries on in similar vein after that. You will see there is reference to particular providers in the last extract which goes partly to this question.

THE CHAIR: All right.

MR WILLIAMS: But I think the Tribunal will see that the extent of the perceived dependence. So we say this is an obvious instance where looking ahead Samsung would have known that it was —— its dependence on Qualcomm for CDMA at that time was going to move into the new era of LTE—CDMA, that they were negotiating an LTE—CDMA licence

and in a world where Samsung was going to want to continue to supply Verizon and Sprint and so on, we say the need for Qualcomm chips would have been perfectly clear.

Now, Qualcomm deals with this in its closing at 335 and 337 {EAOS/5/110—111}. We go back to the two chip solution, which I have already addressed and I have already said that really that point just cannot bear the weight that is put upon it. There is reference to two Samsung phones from 2011 and we just say —— it is a totally inadequate basis for saying that Qualcomm's total dominance in CDMA would have been constrained.

Now, for Apple and LTE, our closing refers to two particular points. There is its need for multi—mode chips, including CDMA, in the context of a global SKU statutory. That is a single chip around the world. We deal with that in paragraph 112 {EAOS/4/31}. That was of relevance, given the importance of CDMA markets for Apple, including in the US, and we quote, at 114 of our closing {EAOS/4/32}, an internal Qualcomm document that says without Qualcomm, Apple would lose big parts of North America, China and Japan. So it is quite clear.

There is also evidence of Apple's need for premium chips where we cite evidence from Apple witnesses which Mr Katouzian also corroborated.

Now, the position obviously changed for Apple and LTE from 2016, but that is a long time after the 2013 negotiation and Qualcomm deals with this at 346 and following of its closing. I can skip over 346 {EAOS/5/115} because that deals with the position before 2013. I am not going to go over CDMA again at 349 {EAOS/5/116}.

The main point is 350 {EAOS/5/116}, which refers to evidence of Apple telling Qualcomm that there is a threat and it said that —— yes, the threats from Intel. I can say that. It says Qualcomm did not know if Apple was bluffing, but the fact —— the mere fact that Apple referred to a possible alternative does not rebut a presumption of dominance arising from 100% market share. As to whether Apple was bluffing or whether Qualcomm knew whether Apple was bluffing, paragraphs 295 and 296 {EAOS/4/85} of our closing set out the evidence that using Intel was not a plausible option for Apple at that time because Apple would lose its rebates and the idea that Qualcomm did not know that is totally incredible because it is the whole part of —— the whole point of Qualcomm's strategy to tie Apple in with those exclusive arrangements, but none of this rebuts the presumption of dominance at that stage anyway.

Then, again, in 350.3 {EAOS/5/117} there is evidence "Apple slides" and we say all this is Apple just thinking about how it can generate some credible competition to Qualcomm but, as the Tribunal knows, failing to do so at that time.

Then the rest of it deals with events after the BCPA so I do not need to spend time on that.

MR RIDYARD: Mr Williams, I think here you seem to be talking about concerns that the exclusivity rebate with Apple made it very expensive for Apple to switch to other chipsets suppliers. That I can sort of see, that argument, but it seems to be an argument from a different case. I mean, is it part of your case here or ——

MR WILLIAMS: Well, I think the point I am making is that Qualcomm says, "We do not know if they were bluffing". I was responding to that. I was saying the idea that Qualcomm did not know if this was a real threat, we say Qualcomm had got Apple where it wanted it.

MR RIDYARD: Because they knew it was very costly for Apple to switch. Even if there were suppliers out there, it was extremely expensive for them to switch to them.

MR WILLIAMS: It was the bluff point I was dealing with really in what was Qualcomm's real perception of the situation.

So none of that supports the proposition that Apple had a serious alternative at a point where Qualcomm had basically 100% market share —— 97% market share.

Coming then to 5G. Now, the Tribunal saw this issue explored in detail in the cross—examination of Mr Katouzian and the overall point that became apparent through Mr Armitage's cross—examination is that there was a stark mismatch, in my submission, between the tenor of the evidence Mr Katouzian gave in his second statement about the extent of the competitive threat that Qualcomm faced in the run—up to 5G in April 2019 and the very, very robust Qualcomm internal view at that time about how far ahead it was. The Tribunal saw, through the documents, that Qualcomm believed it was far in the lead, right through 2018, into 2019, and everything since then has proven them right. We saw where its market share has sat at all times.

Of course Qualcomm can point to odd emails along the way where Qualcomm has contemplated that there might be competition and there is a specific issue about Intel, which I will come to, but Qualcomm has never been in any doubt about its leadership on 5G, both generally and because of the position in relation to mmWave, which remained important for Verizon, and we can cover that off, as Mr Turner has asked.

There are three competitors to consider on 5G: MediaTek, Samsung and then, for Apple in particular, there is Intel. It is right to say that MediaTek established itself more quickly in 5G than 4G and it has hovered around 20% since 2020, but it is a supplier that never sold Apple a single chip and there is nothing to suggest that it was seriously in the running for Apple's 5G deal. In fact, paragraph 121 of our closing {EAOS/4/33} sets out evidence that it is very unlikely MediaTek would even have been ready if it had been a candidate. So we can clear MediaTek away.

In terms of Samsung's relationship with Qualcomm, it has taken around 50% of chips from Qualcomm since 2019, a bit less, I think, in the first year. This is paragraphs 139 and 140 of our closing {EAOS/4/38}.

THE CHAIR: Are these multi—mode chips?

MR WILLIAMS: Multi—mode back to LTE. They are at least back to LTE. I do not think we are splitting out anything in the market share figures.

So there is a very high proportion overall and a particularly high percentage, as we set out in paragraph 140, in relation to flagship phones worldwide. Although MediaTek has sold to Samsung, it has taken share at the expense of itself, rather than at Qualcomm's expense. That is paragraph 141 of our

closing {EAOS/4/39}. We say that is a very revealing fact because even though Samsung has the incentive to self—supply to the extent possible, one can see, first of all, the extent of its dependence on Qualcomm and, secondly, the impotence of the threat from Samsung as an external supplier. It is a total flight of fancy to suggest that Exynos was in a position to constrain Qualcomm in relation to Apple, given that it was not even able to supply itself, and there is absolutely nothing to suggest that it could have supplied the very, very significant volumes that Apple needed.

MR RIDYARD: Is that admitting that MediaTek must be better than Samsung then? You are saying that the MediaTek sales have cannibalised Samsung's own self—supply and you have also said Samsung will self—supply whenever possible, so does that mean MediaTek is higher quality than Samsung's own?

MR WILLIAMS: I mean, I cannot give evidence. One has to read something into the fact that Samsung itself has chosen to use MediaTek —— well, in terms of the measurement of the share, it has taken more from MediaTek than it has taken from itself and there appears to have been a shift. So one has to read something into that.

MR RIDYARD: You also say that Samsung would always

self—supply, if it could.
MR WILLIAMS: Well, that is what Mr Katouzian says.
MR RIDYARD: Yes.
MR WILLIAMS: So there —— but there does seem to be a perception. That does suggest that Samsung has that perception, yes, I agree, but it could depend on particular needs. It is very difficult to say.
MR RIDYARD: Yes.
MR WILLIAMS: So we say that there is no credible suggestion really that MediaTek and Samsung were in the running for Apple. As I say, MediaTek has never sold to Apple a chip and we point to Qualcomm's internal documents, at paragraph 123 of the closing, which tells you what Qualcomm thought Apple's options were {EAOS/4/34}.
Obviously its position with Intel is different because it is a fact that Apple had a plan to use Intel for 5G and Qualcomm understood that for a time, like everyone else. It is a fact that Intel —— it is also a fact that Intel failed to make it on 5G and never made a 5G chip and Dr Padilla described Intel as "a failure". He said that {Day 7/108:10}. So the question is when did it become apparent to everyone that Intel was not going to make it?
As to what Apple thought, the Tribunal has Ms Mewes' evidence that Apple considered itself over a barrel

because it needed Qualcomm's 5G chips and that was why it settled with Qualcomm. I am not going to deal with the settlement. I am just going to deal with whether Qualcomm needed —— sorry, Apple needed Qualcomm's chips at that time and specifically whether Intel was a credible option.
The Tribunal has seen evidence that Apple was late to the market with 5G. It was over a year behind and paragraphs 118 and 119 of our closing {EAOS/4/33} quote Qualcomm internal documents which consider the time —— the issue of time pressure on Apple. That was all put to Mr Katouzian and we say that is very strong evidence that there was real urgency for Apple and it could not delay. It needed to make a decision at that time, which is one of the issues that arises: could it just hold on?
The key point is dealt with in 124 and 125 of our closing {EAOS/4/34—35}, which deals with Qualcomm's assessment towards the end of 2018 of whether Intel could meet Apple's requirements and, as I say, when it reached that view. We say the position is clear on the documents and we invite the Tribunal to rely on those documents. [redacted].
So what does Qualcomm say? I am just going to focus on the material from 2019, rather than the earlier material which does not shed any light on the position

at 2019. I put to Dr Padilla these earlier documents that do not shed light on the position when it matters.
So 356.3 of Qualcomm's closing {EAOS/5/119} refers to a Reuters article to which Mr Katouzian was taken in re—examination and it reports that Apple has spoken to MediaTek and Samsung. That may or may not be true. It does not say when they spoke. All sorts of things are reported and there is an irony in the fact that when Mr Katouzian was taken to Qualcomm's own internal documents, he called them extrapolations, but he ——
THE CHAIR: Which document are you talking about?
MR WILLIAMS: 356.3 of my learned friend's skeleton. This is a Reuters article. It says it is public knowledge but it is something that has been reported in the press. We just say there is an irony in the fact that when he is taken to their own documents, he says these are just extrapolations, but somehow this is high authority as to what everyone thought at the time. The Tribunal can do a lot better than this article in deciding what Apple's options were.
356.4 and 5 {EAOS/5/118}, I am just going to tread carefully because these are confidential. Mr Bailey took Mr Noble, so this is an attempt to sort of get the facts up by cross—examining Mr Noble, about some documents from later in time which he said shows other

suppliers were still in the running into 2019. It was —— the Tribunal may recall how these documents are characterised. You can see they were characterised in the same way, towards the end of the second line, how the documents are obtained.
THE CHAIR: Sorry, what are you asking us to look at?
MR WILLIAMS: Do you see the penultimate word on —— perhaps it is easier —— in 356.5 it says "Apple continued to evaluate", in second line, and then there is the word.
THE CHAIR: Yes.
MR WILLIAMS: Yes. So that is how this was characterised. Mr Noble —— it was put to Mr Noble that is what they were and he said, "Well, are they that, because these numbers are in a range? It does not look like that to me". With respect, he was right about that so it was put to him that that is what these were. In fact, the document does not show anything really. What it shows is Apple continuing to benchmark shortly before it entered into a contract but, I mean, the effect of the evidence is not really that that is what they are. It just does not look like that at all, but, anyway, certainly in my submission an unsatisfactory way to try and establish the facts when we can see it is clear from the earlier Qualcomm internal material what they considered the position to be.

I can skip over 357.1 because that is from much earlier in time {EAOS/5/119}.

357.2 {EAOS/5/119}, you can read the first two and a half lines of that just to see what the point being made is. This is a document that concerns Qualcomm's business plans. You see towards the end of the paragraph there is a reference to "baseline planning assumption". We deal with this in our closing at 128 {EAOS/4/35}. The simple point is this is December 2018 when Qualcomm did not have a contract with Apple and it is not surprising if a baseline planning assumption does not include a contract that it does not have, but that is quite separate from what Qualcomm thought that Apple's real options were, as to which you have to read this together with 124 and 125 of our skeleton {EAOS/4/34}, which tell you what Qualcomm thought Apple's options were and what it really thought about the Qualcomm threat —— sorry, the Intel threat.

So the Tribunal has a lot of evidence painting the picture here.

We come back to Ms Mewes. She has given sworn evidence. We do not ask the Tribunal to take that evidence at face value on whether they were over a barrel, whether they needed chips, but we do say that evidence is strongly corroborated by the material the

Tribunal has seen and there is nothing to suggest that it is anything other than honest and accurate evidence about whether Apple really had another option.

So, Madam, that takes me to the end of that topic and I see the time.

THE CHAIR: Yes. All right. Thank you.

MR WILLIAMS: I am running a bit behind because of our discussion earlier. I will look at it over lunch and try and get through what I have got left as quickly as I can.

THE CHAIR: All right.

MR WILLIAMS: What I might do is I will discuss with Mr Moser whether we make any tweaks to the order in which we do things and whether RTL comes later.

THE CHAIR: On any view, Mr Moser will be starting this afternoon?

MR WILLIAMS: It will not be very long before Mr Moser starts.

THE CHAIR: Thank you very much.

Well, do you want us to come back at 1.55 then?

MR WILLIAMS: I would be grateful.

THE CHAIR: Yes, all right. We will do that. 1.55.

(12.56 pm)

(The luncheon adjournment)

(1.55 pm)

THE CHAIR: Yes, Mr Williams.

MR WILLIAMS: Madam, just to let you know. There is a slight change of plan. I am going to deal with the economic issues as they relate to abuse and we are going to postpone RTL until further down the batting order and just use the time in that way.

THE CHAIR: All right.

MR WILLIAMS: We have addressed the main economic issues that bear on abuse in our closing and in fact Qualcomm has addressed broadly speaking the same issues so we have identified the same targets. I am going to just pick up a few points and respond to some of what is said in Qualcomm's closing about those issues.

The first point I wanted to pick up is a short point that is made in paragraph 386 of our closing, which is that Dr Padilla did accept a key plank of our case that in circumstances where an OEM has essentially 100% of the market, then it is able, first of all, to make a credible threat of the withdrawal of chip supply and, secondly, that can lead to inflated royalty rates. We give the reference to Dr Padilla's oral evidence there and in fact our summary of the evidence is a bit compressed because when one reads the evidence, he does go on and say that that situation can lead to inflated royalty rates. So that is a key building block of the

case and we say it is important that Dr Padilla accepted that.

The second point is an issue that was taken up with Mr Noble in the hot—tub by you, Madam, and Mr Ridyard, which is why Qualcomm would seek to take the overcharge on the royalty and not on the chipset. There are two key answers to that which we give in paragraph 393 of our closing {EAOS/4/117}. Part of the answer relates to a point made in Dr Padilla's evidence in the hot—tub, where he said, well, the customer is the same in both markets and that the point we make is that the customers are not always the same because there are customers that pay the royalty who are not chipset customers. There are OEMs who buy chips from Qualcomm, but also buy chips from some other suppliers but they pay the royalty on everything. So this is our point that the royalties operate like an industry—wide tax and Qualcomm has the incentive to tax the industry, rather than just charge its own customers. We do say that that is an important point in understanding Qualcomm's incentives as to where it takes the rent.

The second answer Mr Noble gave is that there is some risk of entry into the chipset market, but no risk of entry into the licensing market and so if Qualcomm can find a way of exploiting its market power in the

licensing market, then that is to be preferred.

Now, Qualcomm offers various responses to this point in its skeleton argument. This is paragraphs 212 through and following. The first point that they make is that Mr Noble's point or his position is inconsistent with his view that barriers to entry are high. We say that is not right. High barriers to entry or expansion does not mean entry or expansion is impossible. The Tribunal has seen the evidence on this, whereby sponsoring Intel was a challenging project for Apple over many years, but Apple did get there so one can sensibly say that the barriers are high but not insurmountable.

The second point that is made is that Mr Noble's argument does not work or his position does not work because the OEM can fix the problem by sponsoring entry either way. We say that argument is missing the point for this reason: if Qualcomm increases chipset prices itself, then it increases the risk of entry without sponsorship. It is creating an opportunity for competition in the chipset market, but if it increases licensing revenues, then chipset rivals have to compete with what is still a lower chipset price and, in that event, Qualcomm's only really likely to face a competitive response in the chipset market through

sponsorship, which is the case study we have seen with Apple and Intel and, in essence, we say it is obvious that the risk of entry is greater in a situation where Qualcomm leaves the goal open in the chipset market itself, rather than in a situation where the customer has those do the hard yards of sponsorship. So we say the two situations are really quite different.

The last point on this issue is that Mr Noble referred to MFNs as a factor which potentially disincentivised sponsorship and, in my submission, this is a second order point because, for the reasons I have already given, entry is less likely where sponsorship is required than where the chipset price is higher. So this is a second order point, but nevertheless Qualcomm says, well, then if MFNs operate, then the whole theory of harm collapses and, in my submission, this point is not right either.

What Mr Noble is saying is that if an OEM were to obtain a lower rate, then that would potentially cascade through the industry and that is something that they will take into account, but with the abuse by Qualcomm, as you know, our case is that they have a market—wide licensing practice which allows it to impose inflated royalties on everyone and there has been no successful challenge to those rates. So there is no inconsistency.

Rates are inflated. MFNs do not operate to take the rates down. All Mr Noble was saying is that an OEM deciding whether to sponsor entry is going to weigh up the fact that it will be affording an advantage to its rivals.

We ——

MR TURNER: Sorry, I am losing context a little bit. Just going back to Mr Noble's first point, you say that the —— so in a classical situation where you have monopoly rights, you keep everyone out of the market and you put the product on the market and you charge an elevated price, as your entitlement under your monopoly right but, as you rightly point out, in this case you are forced to not be a monopolist, if you want to be part of this scheme, the ETSI scheme, whatever, so therefore you have to pull out a royalty rate precisely for the reasons you were saying Mr Noble said so that you can charge not only the people who are buying your chips but charge everyone else in the industry who is not buying your chips, or at least certain —— so I mean that is just the state of affairs. There is nothing —— I am not sure why that is a point in your favour or why that is a criticism of Qualcomm or how it feeds in to the abuse?

MR WILLIAMS: The point is that they charge it across the ——

MR TURNER: Yes, that they pull it out of the price of chip, with the reasons we have just discussed, and then they have a separate royalty that they charge across the industry, including the people who buy their chips. There is nothing wrong with that. That is a consequence of the way the market is structured.

MR WILLIAMS: No, right, I think I made that point in the context of the incentives to do —— why would you do this? Well, one reason you might do it is if you can inflate the royalty and then charge everyone that royalty ——

MR TURNER: Irrespective of whether you inflate it or not ——

MR WILLIAMS: I am answering —— the way the issue crystallised was why would you do this? You have market power on the chipsets and the point is that if you put the chipset price up, your chipset customers pay that, whereas if you can inflate —— if you can increase the royalty, then that is paid by everybody.

THE CHAIR: Your primary response is because if you charge a monopoly rent —— licensing —— at the SEP licensing end, you have less of a risk of a competitive entry —— competitive response to entry than if you extract it at the chipset level, but does that deal with the question that was asked in opening submissions, which is: well, okay, the competitive response might be a bit different,

but, ultimately, if you try to extract a monopoly profit at the SEP licensing end, that is precisely where it is constrained by FRAND. Where is the analysis of whether the different entry position can outweigh the disincentive of trying to get a monopoly profit in a FRAND-constrained market?

There are factors that go both ways so one has to -- you know, the benefit is that you do not have potentially such a great competitive response because it is more limited.

MR WILLIAMS: The disadvantage, Madam, is the FRAND regime.

THE CHAIR: Yes, exactly.

MR WILLIAMS: But of course one then goes back into the theory of harm and the impact of the conduct on the availability of the FRAND regime. So our position is consistent, Madam, because -- and I think Mr Noble said this. What he said is the effect of the conduct is to disable or make less attractive that safety valve. So you are charging the rent in the market where you do not face competition and you are dealing with the factor that is intended to control your market power in that context absent the conduct. So I think it is -- the points all work together, Madam, when it is looked at like that.

MR RIDYARD: Can I just ask about what all this means for

chipset pricing and your view on chipset pricing. So you are saying that -- and I think I understand your answers up to now. You are saying that Qualcomm refrains from exploiting its market power in chipsets, even though it has market power, because it would rather get it from the royalties, for reasons of arithmetic which I kind of understand.

MR WILLIAMS: It refrains from taking all of its rent, yes.

MR RIDYARD: All of it, yes. So you are saying that when we look at the chipset pricing, for example, the CDMA chips, you make a point in your closings about the CDMA adder which is pretty large, what is it, $5 or something, and you characterise that as being sort of monopoly pricing.

MR WILLIAMS: We do.

MR RIDYARD: How do you know -- it is like 30% uplift or something on the normal price. It just seems quite large to me, but are you saying that that 30% uplift, if that is what it is, is not as much as the monopoly price would be? How do we know what the monopoly price would be?

MR WILLIAMS: Well, I do not think I can give you a sort of quantitative answer to that question.

MR RIDYARD: No. But it is more of a conceptual point. I find it quite strange that this was not sort of laid out

in Mr Noble's reports and was not thrashed out between Mr Noble and Dr Padilla before it came to the hot-tub really. It just seemed like a very seat-of-the-pants kind of rationalisation of what might be going on. It is strange to me it was not brought out a lot sooner than it has been. I wonder what you can comment on that.

MR WILLIAMS: Well, I think from memory the question of -- this question of barriers to entry being high but not insurmountable, that issue was ventilated, but I think that has been the subject of debate between the experts. I do not know if the debate went quite one stage further to the extent that it was thrashed out in the hot-tub where this question was, what is the incentive to do this? I cannot give a quantitative answer to your question. But I think the conceptual answer, I think, is that there are -- there is a monopoly rent. There are economic reasons -- rational economic reasons why Qualcomm would choose to extract it in the licensing market, as I have said, and we say that that is what the Qualcomm internal strategy documents say. They say that they are using their chipset market power to obtain inflated revenues in the licensing market so there is a coherence to the whole thing.

MR RIDYARD: But you are also saying that they used their

particular monopoly in CDMA to extract a particular extra price on CDMA chips.

MR WILLIAMS: On that chip, yes. On that chip.

MR RIDYARD: But so maybe they have -- you are saying they have more market power in CDMA chips than other chips and therefore, even consistent with your general theory about them not exploiting their market power to its full potential in chips, because they have more in CDMA than elsewhere, they are able to take more liberties in CDMA than in UMTS?

MR WILLIAMS: The position is more extreme. You have seen the evidence. The position is more extreme in CDMA, is it not, because they effectively owned the technology for many years and that was reflected in their market share and the competition they faced was always pretty minor and then that carried through into LTE-CDMA as well? But I am not sure I can take it any further than I have, sir. If I have further reflection, then we have more time on Monday.

THE CHAIR: So I am still -- just returning to your point about do you think there is no inconsistency between your case and the various competing incentives. One thing that still troubles me is why would Qualcomm engage in this very complex manoeuvre of trying to disable FRAND, establish mechanisms, so in order to get

round that they have to effectively make threats to refuse to supply, explicit or implicit, and that is your case, that there have been those threats, risking serious antitrust intervention, when they could just sit on their dominant position in the chipset market and charge their price which the only way of getting at that would be an excessive pricing case, which would be quite difficult. So instead of just kind of getting the money in that market, where there would not be this complex mechanism of having to threaten people to refuse to supply a product for which there is a licence, you know, they embark on this sort of quite convoluted strategy. Why would they want to do that?

MR WILLIAMS: Well, I think the answer comes back to the point about entry, Madam, which is that if they put the price up in the chipset market, if they really exploit market power to extract the monopoly rent in the chipset market, there is a heightened risk of entry and then the whole thing collapses. They do not have market power in the chipset market. They cannot charge higher prices for chips. They cannot apply the policy to extract the rent in the licensing market and the whole ecosystem collapses.

THE CHAIR: But you accept that there is no economic analysis of how this could actually have worked, as in

what the risk of entry was and how that affected their incentives at the time, given all of the problems on the other side of the equation?

MR WILLIAMS: Well, sorry, when you say there is no economic analysis, I mean, there is —— do you mean there is no sort of ——

THE CHAIR: Well, quantitative analysis.

MR WILLIAMS: There is not a quantitative analysis, but I think what we are talking about is incentives, I think, and I think ——

THE CHAIR: Yes.

MR WILLIAMS: —— I think I have given a number of reasons why the incentives operate as they do and why, if Qualcomm conducted themselves differently, the whole thing might come crashing down.

THE CHAIR: All right.

MR WILLIAMS: So I was just finishing off on MFNs and I was just going to say we deal with MFNs at 395 of our closing {EAOS/4/118} and we say Qualcomm —— although they say MFNs bring the whole theory of harm down, Qualcomm has 20 or 30 years of experience of MFNs and the extent to which there is factual evidence of MFNs dragging royalty rates or being exercised, I mean, there is a total dearth of evidence. We have a couple of examples and we have dealt with them in our closing at

395 and if this really were the killer blow, then one might have expected to see a bit more on the other side about it, rather than sort of abstract theoretical points. We have dealt with the two specific examples that have been given in.

Now, the third point is asymmetry and this is dealt with at 388 and 399. I am afraid I need to clarify something in our closing, for which I bear responsibility so I will deal with that now. There is a section of the transcript where two different issues relating to quantification were dealt with and this bit of our closing mixes them up. The first is whether there is an asymmetry between Qualcomm on the one hand and an OEM in terms of the extent to which it will lose profits if they do not do chipset deal and the extent to which they can recoup some of those profits through other means. This is the idea of Qualcomm displacing chipset sales and being able to make chipset sales to other OEMs. That is one issue.

The second issue is whether an OEM that suffered from the abuse had the incentive to pay the inflated royalty, rather than find itself unable to make chips. I am afraid these paragraphs do not separate out those two points because they got a bit mixed together in the transcript.

So dealing with that second point, paragraph 219 of Qualcomm's closing {EAOS/5/76} says Mr Noble has done a back of the envelope calculation to explain why an OEM would pay the higher royalty, rather than suffer the loss of chips and see its business grind to a halt. This is the point that we say is a non—point. Mr Noble explained in his oral evidence the lost profits for Apple, if it cannot make phones, run to billions. Now, you do not have the make—up of that number. We can give you the make—up of that number on a sheet of paper, if you want. It is a high level calculation, but we can give that to you, but it is a simple calculation. Perhaps it is best if we produce that over the weekend so that the other side can see it, but they say it is a back of the envelope calculation. It is a sort of X times Y number.

MR JOWELL: Forgive me, but we think that the evidence has closed in our submission.

MR WILLIAMS: Yes, the evidence —— Mr Noble has given evidence that number would run into billions. If the evidence is closed, then I can stop there. I am not aware that that is contested.

What we say is it is clear on any view that a number of that order of magnitude is going to dwarf the royalties that —— the extra royalties that Apple would

pay if it pays a dollar, a few dollars, on each of the 200 million iPhones that it makes every year. The numbers are just totally incomparable and that is why Mr Noble says this is totally clear—cut. It is obvious that Apple is going to pay the extra royalty, rather than see its business grind to a halt. So that is why we say it is a non—point. If the Tribunal —— if the evidence is closed, then that is one thing, but we say that number is billions and the numbers are just not even on the same —— in the same ballpark.

Now, the first issue was the asymmetry point and what Mr Ridyard put to Mr Noble was that that was logic, rather than quantification. I should be clear that is fair.

[Fire alarm].

(Pause)

THE CHAIR: I think we should proceed.

MR WILLIAMS: So, yes, Mr Noble put —— Mr Ridyard put to Mr Noble that his position was logic, rather than quantification, and that is fair, but we do say it is a perfectly sound position. I mean, if Apple does not make 5G phones or does not make CDMA phones and consumer demand is displaced, then it is pretty clear that Qualcomm is going to pick up some of that business upstream, given its total dominance in relation to the

chipset markets. So we make that point.

But more generally in relation to this, there is the point that we make in 392 of our closing {EAOS/4/117} that one should not simply focus on the lost revenue in chipset market because that is not the way that Qualcomm thought about this. It is not the way that it ran its business. I put this to Dr Padilla with reference to Apple internal documents and he accepted that for Qualcomm it would make decisions about whether to maintain chipset supply or whether to withdraw the business, having regard to its incentives across its business, and the Tribunal has our submissions about how Qualcomm chose to trade off those incentives. We say it is very clear that Qualcomm were happy to see Apple walk away as a chipset customer and were happy —— they were willing to see Apple walk away as a chipset customer and to lose those revenues because of the importance of sustaining higher royalties rates. That is the way that they operated.

So those are the points I just wanted to highlight.

Just to respond very briefly to a few of the points made in Qualcomm's skeleton argument from paragraph 216. Picking it up 216.1, it says here:

"Qualcomm repeatedly... "

This is about Qualcomm's offers of FRAND arbitration

to Apple and, as you will see from our closing, we say this offer is not disproof of the theory of harm. It was made during the period when Mr Noble finds that Apple had improved bargaining power and Apple then did indeed go on to litigate.

There is a constant refrain that the events of this period undermine our economic theory of harm and that is wrong. Mr Moser will come on to the detail of that.

At 216.2, it says it is not credible that Qualcomm would disrupt or cut off chipset supply to Samsung, but the fact is threats were made to Samsung and indeed if this point were really true, it would mean Samsung was immune from the chipset supply practice which, as far as we are aware, has never been suggested at all.

We deal in our closing with the question of whether Qualcomm would have cut off chipset supply specifically during the period of its dispute with Apple, which was a point which was explored in cross—examination.

THE CHAIR: When you say threats were made to Samsung, the threats that are referred to are long before the relevant period. So we are talking about Samsung's purchase of Qualcomm's chipsets during the relevant period and that is the comment that is made here because they were talking about this particular period of time. What is the relevance of threats that were made ten or

more years earlier?

MR WILLIAMS: Well, this comes back to the exchange that we had earlier on, Madam, about OEMs' understanding of how Qualcomm was prepared to conduct itself. I mean, we say that is —— we had a conversation about Apple and we will come back to that, but we say the position for Samsung is clear. It was on the direct receiving end of threats over a period and we say that those threats were in the context of the practice that is at issue and Samsung would have understood that that was the way in which Qualcomm was prepared to implement the practice.

THE CHAIR: Yes. But a long time earlier in which —— at a time at which the market dynamic which is referred to by Qualcomm here was not the same.

MR WILLIAMS: No, no, sorry, just to be clear, I did go on to say, insofar as this point is made specifically about the 2016 to 2018 period, our case does not depend on the Samsung —— on Samsung fearing disruption to its chipset supply in that period because that is not the period that we say matters for the case. So —— but the other point I make —— well, if this point were really true, it would mean Samsung was effectively immune from the practice and that, in my submission, is not right.

MR RIDYARD: Mr Williams, sorry, you say that period does not matter for the case, but I mean all the periods

matter, do they not? They are all interesting to learn lessons from so is that 16/18 period not interesting precisely because Qualcomm has no leverage over Samsung then? So why did something not happen to the royalty rates? The mechanism that you are relying on to keep the royalty rates elevated too high has disappeared so why is there not something to observe then?

MR WILLIAMS: Well, that was the period when all of the proceedings were going on and it appears, and I do not mean to give evidence, that there was a —— the line was held and at the end of that period there was then a renegotiation, particularly in the Samsung or in the KFTC decision, so that appears to have been the position. So there was a holding of the line until the end of the process.

THE CHAIR: But if there was not any leverage, why did Samsung not exploit the lack of leverage to bring the royalty rates down?

MR WILLIAMS: Well, I think the factual answer appears to be that they were all involved in those ongoing proceedings and that the line was held in the meantime.

THE CHAIR: But if you accept ——

MR WILLIAMS: Of course Qualcomm contested those proceedings so matters were in abeyance.

THE CHAIR: Yes, but the fact that they were involved in proceedings is not a reason why at a period in which there was no leverage being exerted over them, which you accept, and you say as much in paragraph 377, you do not say that Qualcomm leveraged its chipset market power in these negotiations, so at that point why does Samsung not go "Yippee, we are going to now get the royalty rate down to what we wanted"?

MR WILLIAMS: Well, I mean, we tried to shortcut this point, Madam. Mr Noble —— his evidence was that in fact he thought that there was a credible risk.

THE CHAIR: There was ——

MR WILLIAMS: That Samsung would have —— sorry, that Samsung would have —— that it was a realistic possibility that Qualcomm would have cut off chipset supply in that period.

THE CHAIR: But that is not what you are saying. You accept there was not any leverage in the negotiations in that period. That is what you say in paragraph 377. You say that then you invite the Tribunal to find that the amendments resulted in only modest changes which were insufficient to inflate the prior inflation. Fine, but ——

MR WILLIAMS: Well, we say that by 2018, Madam, because that was a point of transition from one standard to the next.

I mean the position is quite different over time. So what —— what paragraph 377 is dealing with is it is dealing with the specific balance of power as at the point of the renegotiation.

THE CHAIR: Yes, but, I mean, to go back to Mr Ridyard's question, why in that period do you not see reduction in the royalty rates commensurate with the lack of leverage?

MR WILLIAMS: Well, sorry, Madam, I did not say that there was a lack of leverage. What I said was our case arises because of the leveraging of rates in a prior period and then what appears to have happened on the facts is that there was then —— there were then proceedings and that during the course of those proceedings the parties locked horns in the course of the proceedings. There were the FTC proceedings, there were the proceedings in the KFTC and it appears as a matter of fact that for all of the OEMs that they got to the end of that process and that the rates were not renegotiated in the meantime. So we see Apple and Samsung, there is a 2013 position, and then we see the next rates that emerge are 2018 or 2019. So that appears to be the position in fact. So I did not say that there was no scope for leverage. In fact, Mr Noble said that there was.

The mere point I was making was that the rates that

we say were inflated were inflated prior to that period and then that was the position through that period.

THE CHAIR: Just before you move on, because we are at this part of your closing submissions, there is a point at paragraph 380 {EAOS/4/113}, at the end of that paragraph, where you say that around the same time, there was —— let me just see —— there was a settlement agreement {EAOS/4/114}, then you say that the provisions of the settlement agreement amounted to an abuse of Qualcomm's LTE SEP market power. So that is a completely different point. It is not a leverage point. It is not about the chipset supply practice. It seems to be a pure abuse of the supposedly leveraged market power, the SEP market power. I do not understand that at all. That does not seem to have been —— bear any resemblance to your pleaded case. I note that Qualcomm does not address this in their closing submissions, presumably because that is as new to them as it is to us.

Where does this come from and am I right in thinking it is not pleaded or is it pleaded somewhere and, if so, where?

MR WILLIAMS: Madam, can we deal with this when we deal with silencing. I hear your question. We think the point is pleaded because we think that the practices that are ——

some of the —— the abuse in relation to the rates is pleaded as an abuse of the dominant position on the chipset market, but that the case is pleaded generally as an abuse of a dominant position and the silencing provisions are not pleaded in the same way and the reason the point is significant is because obviously the point of the FRAND regime is to protect licensees under the FRAND regime and we say that a provision that is —— or an agreement that is entered into between a SEP licensor and a SEP licensee, which seeks to disable that protection for the licensee, is capable of being an abuse in the SEP licensing market, irrespective of whether it is leveraged by chipset market power. That is a submission that we were going to develop.

THE CHAIR: I understand you say it is an abuse in that market, but of course you are saying that the main allegation of abuse is in the SEP licensing market. The point is the mechanism of the abuse, which is said to be an abuse of their SEP market power, because at that time you are not saying that there was a leverage of chipset market power because that was the time at which there was —— there were challenges to the royalties. So it is the mechanism of the abuse that ——

MR WILLIAMS: When you say the mechanism, do you mean the fact that it is an abuse of SEP market power rather

than ——

THE CHAIR: Yes.

MR WILLIAMS: Yes, sorry.

THE CHAIR: I just wanted —— when you get to it, I think you will need to explain exactly where that is pleaded and take us to the relevant pleading.

MR WILLIAMS: Yes.

THE CHAIR: All right.

MR WILLIAMS: No, we understand what you are putting.

THE CHAIR: Okay.

MR WILLIAMS: I do not want to take up too much more time. I will take these last few points as quickly as I can.

217 of Qualcomm's skeleton argument makes a point about the pattern of the results and the indirect mechanism {EAOS/5/74}. I hope the Tribunal has our answer to this. The indirect mechanism does not mean that everyone pays the same rate and self—evidently people do not pay the same rate; it means that the rates that are paid are not independent and they are ——

THE CHAIR: Yes, I do have a question about that. To what extent is that relevant to the case —— this case at all? I mean, where does it come into Apple and Samsung, if they were licensed at all times, one way or the other? It seems to us that, on its face, the Apple and Samsung situations, whatever may be said about others, were not

non—licence situations but were existing licence situations and that seems to be recognised at various points in your closing submissions. What is your position on that?

MR WILLIAMS: So, yes, one way or another they were licensed. That is true. Samsung directly, Apple through the CM perspective, and you will hear more about that, and then there is the 5G position where Apple was ultimately licensed. I mean, Apple was not licensed for 5G in 2019. It was licensed for other things. That is part of the case. But it comes back to the point that we started to debate earlier on, Madam, which is what is the nature of the conduct? What are the risks that exist? In a situation where an OEM had a licence, were they at risk of disruption or not? If an OEM with an existing licence sought to challenge the rate, was there a result —— was ——

THE CHAIR: No, that is a different point. The point that is raised at 217 is the alternative counterfactual. You have two possible counterfactuals: one, direct mechanism, and, two, the indirect mechanism, and the indirect mechanism is a tainted comparator point. So it is not about whether there was a fear of a risk of disruption. That is the direct mechanism. The indirect mechanism is even if you cannot show that there was

a problem in that way, even if there was a negotiation for a licence, that would be based on a tainted comparator. I am just wondering how that relates to the facts of this case?

MR WILLIAMS: Well, it is —— there are two aspects. We say that the direct mechanism is not as narrow as Qualcomm says it is because we say that there is a risk of retaliation if an OEM with a licence seeks to challenge the rate. That is one of the factual issues.

As far as the indirect mechanism is concerned, it is also true that an additional layer of concern would be that if an OEM with a licence sought to bring that sort of litigation that other inflated rates would go into the equation.

As I read the point in paragraph 217.1, in particular, was it would seem to be saying if your indirect mechanism is right, then you would expect to see clustering of rates in the leveraging analysis.

THE CHAIR: Yes.

MR WILLIAMS: That is what I thought that was saying.

THE CHAIR: But my question was not really about what Qualcomm was saying, but what you were saying.

MR WILLIAMS: I am sorry.

THE CHAIR: I just want to know —— you are relying or Mr Noble is relying on his indirect mechanism. How do

you say that the indirect mechanism related to the facts of this case? Are you saying that in some of the licensing negotiations, and which —— and, if so, which ones, given that you accept that Apple and Samsung were licensed, one way or the other, so are you saying that in some negotiations there was a pegging of rates that tainted comparators and then if so ——

MR WILLIAMS: Sorry, two points. We have some factual evidence about the way in which Qualcomm approached the negotiations with Apple and Samsung in which it made —— in which it sought to support its position with reference to rates across the market so that is part of the factual matrix.

[redacted].

THE CHAIR: All right. Are you saying that any particular licence negotiations were affected by pegging to comparator rates and, if so, which ones? I mean, I appreciate this may be a question for Mr Moser but you could answer in the abstract and then Mr Moser can give us the detail.

MR WILLIAMS: There is an issue about the application of an MFN which I think most directly raises the point that you raise, Madam. I think otherwise it is more a factor that is of a general nature in terms of the way in which parties —— the consequences that the parties feared if

they actually were to bring proceedings, but I think perhaps we need to reflect on that a bit more. I do not want to answer entirely on the hoof.

THE CHAIR: All right.

MR WILLIAMS: Sticking in 217, I was just making the short point really that, first of all, this point about clustering is premised on people paying the same rate when that is not just the way it works.

Secondly, if one looks at the graph, and I will not go to it now because of time, {EAOE/12/22}, in fact you can see some clustering, which is what Mr Noble said in the hot—tub. You can see some clustering around the top left of the graph. You can see some clustering of OEMs that have characteristics in common in the bottom of the graph. I am talking in generality. I am not naming any OEM. I am just saying general terms you can see clustering. So, anyway, that is the point.

I think we have dealt with the point at 217.2 and the reference I wanted to give is paragraph 198 of our closing {EAOS/4/55} where we deal with the way in which Qualcomm made reference in licensing negotiations to its portfolio of licences. So that is part of our answer to your question, Madam, about the extent to which this specifically came into the equation, rather than just being a background factor.

THE CHAIR: Yes.

MR WILLIAMS: I think the rest of these points are mostly questions of fact. We were a bit surprised to see Sultan of Brunei making a comeback at paragraph 218.4. Mr Noble gave convincing evidence, in my submission, that none of the examples that were put to him cast doubt on his evidence, in part because they materially changed the fact pattern by suggesting that these were existential scenarios. When it was put to him that this was an existential scenario for Qualcomm, Mr Noble gave robust evidence about that too.

That only leaves leveraging, which is dealt with from paragraph 221. I suspect you have our case about the leveraging analysis, but I will try and give it to you in a couple of bullet points.

It is positioned in paragraph 221 as a cross—check on whether there is an abuse so it is not now suggested that it is capable of showing that there were no effects or that conduct was incapable of having effect. It is now just a cross—check. In my submission that is a downgrading of the case that has been advanced following the evidence and understandably so.

It is also suggested, and was suggested by Dr Padilla, that the point of his analysis was not really about the all OEMs analysis but just the Apple

and Samsung analysis and that is not how we read the evidence at the time. That seemed to us to be downgrading the all OEMs analysis too. In my submission, the all OEMs analysis suffers from serious flaws because of the weakness of the controls. We dealt with that in our skeleton argument and so we are not surprised to see that being downgraded as well.

Then when it came to Apple and Samsung, I put to Dr Padilla, I said, well, if this is the case, that is consistent with your graph, is it not and he said, well, that is not what I have tested for and I do not criticise him for that. That is not what he was testing for. He was testing for correlation between dependence and royalty rates, but, in my submission, it is not testing for our case. There is no virtue in doing an empirical analysis if it does not test for the right thing and plainly we say this is not a case where one can just simply eyeball numbers on a graph and expect the theory of harm to jump off the page. Obviously that is why one normally applies controls in a regression. So the question is: is the conduct capable of inflating rates relative to the counterfactual? It is not about this relationship between dependence and the rates that are payable and, in my submission, that all clearly came through the evidence in the hot—tub.

So I have overrun and I will stop there, Madam.
THE CHAIR: All right. Thank you very much, Mr Williams.
Closing submissions by MR MOSER
MR MOSER: If I can just re—arrange myself or, rather, things, for a minute. (Pause).
I know I only have until 4.30 because it is Halloween and then I will turn into a pumpkin. I do have sometime on Monday morning so what I am proposing to do this afternoon is essentially deal with all those things that are not about taking you through the documents on Apple and Samsung and use the time on Monday most usefully to do the negotiations with Apple, the negotiations with Samsung and the other OEM points and then ——
THE CHAIR: Yes. When are you finishing on Monday?
MR MOSER: At 12.30.
THE CHAIR: So you have two and a half hours on Monday?
MR MOSER: Yes. It seems to me that that is a decent amount of time for those things. There will then be some sweep—up of myself and the team dealing with things like silencing and objective justification, territoriality and so on.
THE CHAIR: That will need to come within the two and a half hours.
MR MOSER: It will.

THE CHAIR: If you are confident that you are going to be able to get through all the negotiations in, say, around two hours on Monday.
MR MOSER: Yes. It is not just that because I do also have a number of things on my list. If I can reach the negotiations with Samsung this afternoon, I will definitely start. So it is not a deliberate —— I am not going filibuster.
THE CHAIR: No. Do you want to give us an overview of what issues you propose to cover this afternoon?
MR MOSER: I do. I am going to start with a short responsive section on the law on abuse. My learned friend Mr Williams has dealt with part of it, but there are parts that he has not reached. Then a recap of the counterfactual and what Qualcomm in their closings call "the FRAND context", which will be mainly about FRAND. A very brief recap of what we say is the conduct, literally a minute or two. That is the third thing.
The fourth thing is the internal evidence. It is an important part of the evidence we have not touched on today yet, what Qualcomm intended, the intention of Qualcomm, which goes to abuse, but also goes to objective justification.
The fifth point is what we say is a new case founded on what Mr Gonell said on product licences and patent

licences.
Then sixth is going to be Samsung and Apple. Seventh the other OEMs and my learned friend Ms McAndrew will be dealing with silencing separately and that will be on Monday. Then we will sweep up on objective justification, the FRAND defence and territoriality, I would hope in less than half an hour at the end.
So coming first on further responsive submissions on the law of abuse. Three main points of dispute on the law arise from the written closings. One, the relevance of the conduct in question not falling within a recognised category of abuse. Two, the question of the interaction between our case and excessive pricing, which my learned friend Mr Williams has already dealt with. I will just briefly touch on that. Three, the requirement for actual or potential effects, and a few miscellaneous points I will explain at the end.
So theme 1 about the categories of abuse. It is a theme, of course, running through the submissions of the class representative that the categories of abuse are not closed and Qualcomm pays lip service to this and says, "We agree", but actually they say: oh no, but you must not create any new abuse. It is not actually in dispute between us what the law is. The principle was discussed, for example, and I am not going to turn up

many of these, but just because it is the basics, by the CAT in Royal Mail v Ofcom at {AB2/29/107} and in the pdf version it is page 2334. That is paragraph 339 about what is settled case law:
"It is settled case law that an authority or court may rely on the principles underlying Article 102, rather than [on] the narrower scope of the examples of abusive conduct it lists ... "
THE CHAIR: Yes.
MR MOSER: The point is at all times, and that is at the end of that extract in 79:
" ... at all times an eye must be kept [the last lines] on the basic wrong itself ... "
Over the page, at 347 {AB2/29/110}, the finding that —— sorry, maybe a few pages on. Anyway:
" ... 102 is concerned with the effects of the conduct of dominant undertakings, and not its form... "
The same point is one that you have made, Madam, of course, in the Cabo case at paragraph 307.
Despite saying that they agree with all of that in their submissions, both in opening on Day 2 and also, for instance, paragraph 201 of their closings they say: ah, but you must not create new or sui generis categories.
Now, we do not understand that, with respect. That

contradicts the legal principles that they accept apply. On the logic of their case, which is there is no need to depart from the existing categories, no new abuse could ever be identified.

It is an argument that simply goes too far, because you could always argue that the existing categories must adequately protect consumers and therefore stifle any argument brought by a class representative.

We are certainly not saying the categories are unlimited. We have put forward a case on entirely conventional principles, starting with the objective standard of abuse, as we have described in our closing at 148 to 150 {EAOS/4/41}.

So we reject this idea that you cannot have a new category, but we can also say that what you see in the authorities supports us because, first of all, the first point made against us is if there is a similarity or a potential overlap between our abuse, as we allege it, and an existing category, then you should not expand it. A similar argument was run in Google Shopping. That is the authority at {AB3/28}. It starts at 2112 of the pdf. It failed in Google Shopping. Just to foreshadow that, I want to go to this decision because it makes the point that even if conduct looks a bit similar in some respects to an established form of abuse, that does not

mean it must be argued that characterising it as another form of abuse is wrong or creates legal uncertainty, as is also suggested.

THE CHAIR: What were the abuses in question there?

MR MOSER: In that case the Commission found that Google's treatment of its comparison shopping services, as compared to competitors, amounted to an abuse of dominance. Google argued the Commission was required to show that the conduct satisfied the conditions in relation to refusal to supply and especially the Bronner case law on essential facilities. If we look at {AB3/28/63}, that is 2174 of the pdf, at paragraph 199, that is what they argued there. If you look at the part starting "The second part of the fifth plea ..." And then down a few lines:

"[Cannot run it] without satisfying the conditions identified in the case law and, in particular, those applicable to infrastructures qualifying as essential facilities."

So that is Bronner.

The General Court acknowledged, yes, it was a bit like an essential facility. However, it concluded the conduct could be distinguished and the General Court approved of the Commission's approach and that is summarised at paragraph 223 on page 68. 2179 of the pdf

{AB3/28/68}. At 223 one goes down to the second line:

"... the Commission did not refer, or at least not expressly, to the conditions set out in Oscar Bronner in finding the abuse had to have been established. On the contrary ... the Commission relied on the case law applicable to abusive leveraging in order to conclude that the anti-competitive practices at issue were established. The Commission found ... Google was leveraging its dominant position on the market for general search services in order to favour its own comparison shopping service on the market for comparison shopping services, such favouring leading to the potential or actual foreclosure of competition ..."

THE CHAIR: I think that is an exclusionary abuse, leveraging leading to the exclusion of competitors on a leveraged market.

MR MOSER: Yes, but we say nothing turns on whether it is an exclusionary or an exploitative abuse for the basic principle, but just because something is a bit like one abuse does not mean that you have to prove it as such. So they did not have to prove it as Oscar Bronner.

THE CHAIR: All right. So what category is this then or how do you characterise it?

MR MOSER: It was a new category, which is self-preferencing.

THE CHAIR: No, in this case.

MR MOSER: Oh, in our case, well, you can give it a name. We used to call it NLNC. That was found to be an unhelpful label, but it is leveraging conduct of, you know, a kind which Qualcomm has engaged in and we say it sits ill in their mouth to say: look, we have engaged in this particular kind of conduct, for the reasons Mr Williams has explained, where we do not take the rent on the chipsets, which will be subject to excessive pricing, we take a different approach and then say to us, but, therefore, it is not open to you to run a convoluted case of abuse. We are running the case on abuse to match the conduct of the abuse.

THE CHAIR: I am a bit lost. So you describe Google's category of abuse very concisely, self-preferencing. What is this? It is not refusal to supply. It is -- because you say that would be an established category. It is not, you say, excessive pricing. What is it? If it were to be written up in Mr Bailey's textbook, what would it be?

MR WILLIAMS: Ask Mr Bailey.

THE CHAIR: No, I am asking you. I think Mr Bailey would say "Not an abuse". What are you saying it is?

MR MOSER: Well, he would today because he is paid to say that.

THE CHAIR: All right.
MR MOSER: It is the Qualcomm —— it is the Qualcomm royalty abuse.
THE CHAIR: No, I mean, that does not make sense. That is just a sort of what you label it, but what is the kind of abuse substantively? I mean leveraging is not an abuse itself. The leveraging in Google Shopping was leveraging from one market into the other leading to an exclusion of competitors, self—preferencing.
MR MOSER: Yes.
THE CHAIR: So what is this kind of conduct? Leave aside the label you put on it as a headline.
MR MOSER: Yes. You can label it NLNC.
THE CHAIR: No, that is not a description of the abuse. What is the substantive abuse akin to self—preferencing or refusal to supply or excessive pricing? What substantively is this abuse?
MR MOSER: Well, I will see if I can think of a snappy nickname either in the course of this afternoon or by Monday.
THE CHAIR: We have had kind of a few years to think of that.
MR MOSER: The essence of the abuse is that the threatening to cut off chipset supply without the safety valve of FRAND is unlawful. So that is the essential part of

what we are alleging.
Qualcomm calls its conduct CSP and suggests that that is equivalent to what we are criticising.
THE CHAIR: Well, okay, that is a threat of refusal to supply.
MR MOSER: Yes, a threat of ——
THE CHAIR: Is that it?
MR MOSER: Well, a threat of refusal to supply without the safety valve of FRAND in the context of the royalty space.
THE CHAIR: Okay. Threat of refusal to supply without the safety valve of FRAND.
MR MOSER: Yes.
THE CHAIR: So it is a particular kind of a threat of a refusal to supply?
MR MOSER: It is a particular kind of threat of refusal to supply. It is also a particular kind of leveraging, because you are leveraging your chipset power into the royalties.
THE CHAIR: Okay.
MR MOSER: For a number of straightforward reasons that have just been discussed and also because, as we heard from Mr Gonell's cross—examination, when they were talking to the IRS, you cannot charge $10 on a $5 chip in the chipset market. They found another way of doing it. It

is not as straightforward as that. We would be happier to bring an excessive price case on conduct that was as straightforward as that. The conduct is more convoluted and so, you know, give it the label ——
MR TURNER: A measure of certainty is perhaps required. Is it a threat of refusal to supply, the motive being because you do not want someone to go to FRAND proceedings, or is it a threat of refusal to supply if you go to FRAND proceedings? They are two different things. One is it is the going to the FRAND proceedings part of the threat.
MR MOSER: I think you are right it is the latter, because what are people reasonably apprehending? They are apprehending that if they challenge the rate, the chipsets are going to be cut off —— the supply is going to be cut off. So, yes, it is properly ——
MR TURNER: It is a quite specific threat in that respect.
MR MOSER: Yes. It only works in this unique situation where you have dominance really in both of these two markets.
MR TURNER: I understand.
MR MOSER: So it is not perhaps surprising that it has not arisen before and therefore the siren call for formalism from the other side should be rejected.
That really deals with the first part of the case

law aspect.
The second part has already been dealt with by——
THE CHAIR: If you are describing it as a refusal to supply case or a threat of refusal to supply case, I understand that. That is a fairly classic type of abuse, but not very far away from —— I mean, a classic type of abuse is a refusal to supply. You say it is the threat of a refusal to supply so it is not very far away from that.
MR MOSER: No.
THE CHAIR: The question is whether that is what you characterise the abuse as, but, I mean, we have noted that that is how you put it.
MR MOSER: Well, we have described it, if you look at, for instance, paragraph 162, I think, of our closing submissions {EAOS/4/45} ——
THE CHAIR: I mean, 162 is not a Whish and Bailey bullet point. 162 is a whole load of facts that you rely on. What I was trying to get at was how would you characterise this if you were writing this up in a textbook so we can understand the essence of the substantive conduct that is alleged. It is all right. I have written down the threat of refusal to supply if you go to FRAND so we can proceed on that basis.
So that is, you say, it is a more —— Mr Williams

said that is an —— he accepts that it is an exploitative abuse.

So what I wanted to ask about that, now you are talking about the legal test, is where does the test of capability of producing an anticompetitive effect come in, because that is a test that is applied to exclusionary abuses and that is the sense it was used in the Cabo case? How is this relevant at all, because if you make a threat of refusal to supply, either you make it or you do not? One does not normally then start talking about capability of producing an anticompetitive effect because it is quite obvious what you are doing, in the same way that if you apply an unfair trading term, you do not then ask, well, is that capable of having an anticompetitive effect, you just ask, well, does the dominant company apply —— enforce an unfair term or not?

MR MOSER: If I had a footnote to what my learned friend Mr Williams said, it would be that the boundary between an exclusionary and an exploitative abuse is not hard and fast. It is not always particularly helpful. For instance, our citation from Bellamy & Child at paragraph 155 of our skeleton, which is at {AB4/1.1/3}, and in the additional authorities it is {AB5/10/432}. What that shows is that there may be —— I will not read

it all out, but there is no clear—cut or absolute distinction in practice between the two categories of abuse. Some abuses, such as refusal to supply, and the imposition of time, may be both exploitative and exclusionary.

THE CHAIR: But you have already at numerous points in this trial confirmed that you are not alleging an exclusionary abuse.

MR MOSER: Well, no, but in this case the conduct is not easily described as one or the other. The RTL is an exclusionary abuse which often buttresses the main abusive conduct.

THE CHAIR: No, it is not. No, it is not. You have said repeatedly you are not saying it is an exclusionary abuse. It is not an abuse at all on its own. At the most, it buttresses whatever that may mean, but we will get on to that. So you have said that —— you have confirmed that you are not alleging an exclusionary abuse for the RTL. Repeatedly in the course of this trial it has been confirmed that it is not alleged that there is an exclusionary abuse so we are down to exploitative abuse.

My question was: what is the relevance of the capability of the anticompetitive effect test in the context of the abuse that you are alleging?

MR MOSER: First of all, I am trying to get across the point, perhaps unsuccessfully, that these are not neat categories into which this abuse can fit.

THE CHAIR: No, you have made that point, but in relation to —— in relation to the abuse, as you have described it, where do we need to ask ourselves whether it is capable of producing an anticompetitive effect?

MR MOSER: Well, the main abusive conduct is the leveraging of chipset dominance to cut off access to the FRAND regime and that concerns distortion of the competitive process in the form of cutting off the FRAND safety valve, but otherwise ——

THE CHAIR: Yes, all right, but why do we need to conduct a test of capability of producing anticompetitive effect? I mean, if it is essentially a kind of refusal to supply case, either there is a kind of refusal to supply, as you described, or there is not.

MR MOSER: I do not want to get too hung up on the label of refusal to supply. The classic refusal to supply would involve establishing an essential facility, for instance, just like the classic excessive pricing case involves establishing the price. Our abuse involves a disablement of a framework that is intended to govern the bargaining position of the parties in the FRAND context.

THE CHAIR: I understand that, but where does the capability test that you have articulated at 152 come into that? How does it fit in analytically to the question of whether the abuse is made out? One can see —— you know where it fits in in an exclusionary abuse case.

MR MOSER: It is because of the distortion of the negotiations over the rate. We can go right back to Hoffmann—La Roche, the classic exploitation is the exploitation that means it becomes directly harmful to consumers because of the effect on the rate. There is no particular magic in this and that is why it is exploitative. It is not the other competitors. The disablement of the framework, which governs the bargaining position of the parties, is exploitative in its effect because it affects in the end through pass—on to the consumers. So it is an exploitative abuse that occurs between competitors. That is why the descriptions are not always helpful. I do not know whether that has answered the question, but that is the way that we put it and that is the way that this abuse works.

It sits ill in the mouth of the dominant company to say, well, we have set up a rather, if we are right, complicated system that has this effect and you cannot —— you cannot touch us therefore because there is

not already a neat category of abuse that deals with it. I mean, in their closing submissions they make all sorts of points. They seek, for instance, to rely on the recent case of Gutmann, just because that is a recent authority on exploitative abuse as far as I can see. That was a completely different case. I do not know whether you want me to address it at all, but I can dismiss that easily. That was an argument about the information provided to consumers about rail fares and the distortion of the OEMs' negotiation process by cutting off access to FRAND was a completely different situation. I do not think Gutmann informs matters at all. They have referred to the cases that were cited in Gutmann, Deutsche Post, DSD and Meta, but none of these cases are of assistance. They concern completely different abuses and, in particular, the end point of the competitive process. So their ways of meeting this, we say, are entirely inapt.

So I mean that concludes my submissions on, you know, these —— on sui generis and also on it is not an excessive pricing case.

The final substantive point in relation to abuse is the extent to which we have to establish anticompetitive effects in order to show a case on abuse. This is of course the trial on liability. We do not say that we

have to demonstrate, let alone quantify, effects beyond the threshold required for an infringement and, again, we have relied on an entirely standard point that we have to establish capacity or capability to produce anticompetitive effects, as recently established again in Cabo.

The question of the level of effects which must be demonstrated for an abuse, and, again, I want to go sparingly to authorities but I want to show you, if I may ——

THE CHAIR: I am still struggling. That was the question I was just asking you about, the relevance of Cabo to this case. What are we looking at when or what do you say we have to look at in applying this capability test in the present case?

MR MOSER: Well, shall we have a look at paragraph 325 of Cabo.

THE CHAIR: Well, no, I just want you to answer the question as to how we concretely apply this in this case. What are we looking at in terms of capability?

MR MOSER: Well, what we have to show is that the conduct was capable of hindering the maintenance of the development of competition in the relevant market.

THE CHAIR: That is the test, but how do you say that applies to this case?

MR MOSER: Well, that was —— that development was foreclosed or prevented by precisely the abuse that we criticise.

THE CHAIR: What development was foreclosed or prevented?

MR MOSER: Well, the setting of the royalty price was distorted by the negotiations that led to the inflated rates.

THE CHAIR: That is just about the setting of the price. In what respect —— how do you say the capability of producing an anticompetitive effect applies in this case? What is the anticompetitive effect that you say was —— we have to apply a capability test to?

MR MOSER: The anticompetitive effect is that the OEMs were unable to negotiate freely with Qualcomm and therefore unable to reach a freely negotiated and fair royalty rate.

THE CHAIR: All right. But that is nothing to do with the capability test. You are saying we have to apply a test of capability, rather than actual effects, so what do we have to conclude that Qualcomm's conduct was capable of doing, even if we do not go down an actual effects analysis?

MR MOSER: Well, Qualcomm's conduct was capable of affecting the level of the royalty.

THE CHAIR: Okay. So you say that insofar as the capability test is relevant, it is that it could affect the level

of the royalties.

MR MOSER: Indeed, and we say it was likely. We do not have to go that far. The authorities speak of "reasonably likely", "capable". All these seem to be synonyms, if you look at the authorities. There is some caviling over whether we have to show a "positive likelihood", but, you know, I do not think I have to take you back to the authorities that, for instance, in British Airways, at 293, "capable of having", "likely to have", those are all synonyms for the same thing. "Capable of producing the effects", as you say, and the effect is as I have described.

Mr Justice Roth in Streetmap called it the test for being "reasonably likely to harm the competitive structure of the market".

THE CHAIR: I am not talking about harming the competitive structure here. You have just articulated that the capability test in this case, insofar as you understand it, is simply that it was capable of affecting the price.

MR MOSER: Yes.

THE CHAIR: I am not talking about competitive structures. You are just talking about the output of the royalty negotiations.

MR MOSER: Yes, that is correct, but it has to be borne in

mind that that is done by distorting the negotiating process. That is our abuse case. So it is, I am afraid, not only but also. The negotiating process is, in my respectful submission, the competitive structure in question and that is then capable of affecting the royalty.

THE CHAIR: No, in that case you are saying nothing about capable, you are not saying it was capable of affecting the negotiating process. You say it did affect the negotiating process, because it did put Apple and Samsung in fear that if they invoked FRAND, they would be cut off.

MR MOSER: Yes, to that extent I am overachieving on my test and we have put it conservatively because the test is "reasonably likely".

THE CHAIR: So are you saying that it is sufficient that Qualcomm's conduct was capable of making Apple and Samsung fear or do you say that they did have to fear because that is the way I understood Mr Williams to put his case, that they did actually fear that if they invoked FRAND, they would be cut off?

MR MOSER: "Capable" is the test. So we can meet that test amply. It is of course our case that they did actually fear it.

THE CHAIR: So are you saying the test is whether they were

capable —— Qualcomm's conduct was "capable" of making them fear?

MR MOSER: That is the test, the legal test that we have to meet: was it capable? As I think I said a few moments ago, I think the way I put it was capable of distorting the negotiating process and you will see from documents that we are going to go to, now probably on Monday, they did fear the conduct. The capability was to distort the negotiating process and the outcome was that it was reasonably likely that it would increase the royalty rate.

So we say we easily surmount these tests as far as the conduct is concerned and I do repeat that the conduct is the conduct in its entirety.

THE CHAIR: Were you going to go on to the counterfactual?

MR MOSER: Yes. Just before I go on to the counterfactual, I mean, I am being asked whether we need to take a break? I have a couple more points about the law before I come to the counterfactual.

THE CHAIR: All right. Yes, we can take a break now.

MR MOSER: Okay.

(3.14 pm)

(Short Break)

(3.26 pm)

MR MOSER: Next, I would like to address the counterfactual,

but in particular what Qualcomm calls the FRAND context. Qualcomm's position has consistently been, as we understand it, that the CSP, as they call it, is something that is effectively forced on them by the law on patent exhaustion and implied licence so if it does not get SEP licences in place before the chips are delivered or sold, then there is a risk that the SEP licence may never be agreed and the customer will later argue that it is not obliged to pay or not obliged to pay FRAND because the patent rights have become exhausted in the meantime.

At paragraph 250 of Qualcomm's closing, it is asserted that we accept that the CSP is commercially justified and reasonable. That is a misleading characterisation to this extent, because we do not dispute that it is commercially justified and reasonable for a SEP owner to take steps to guard against patent exhaustion or implied licence that may prevent them from obtaining FRAND remuneration for their patent rights, but we absolutely do not accept that the conduct as applied is a commercially justified or reasonable way of doing so. I have already addressed you on the conduct as applied, nickname pending, but it is as described, the threat to cut off chipset supply if there was a FRAND challenge. We have had that in a nutshell from

Mr Williams and then, as best I could, with assistance from Mr Turner this afternoon.

But there is a straightforward and practical solution to the problem of exhaustion, such as it is, and that is consistent with what Mr Rogers told us in his cross—examination, where he said you can contract around exhaustion and still can. That is referred to in our closings at paragraph 226. So Qualcomm ——

MR TURNER: Just back up because I find this confusing. So we just need to be clear about what we mean by "exhaustion" and these may be questions as much for Qualcomm as they are for you, but, as I understand it, if you —— the argument goes if you sell chips without a licence, then the person who purchases those chips may say, "Well, I can now sell them on to other people. The rights are exhausted or other people can use that as a defence if they want to buy them, to be precise".

MR MOSER: Yes.

MR TURNER: As a general matter that principle of exhaustion of rights, insofar as it applies generally under European law, and big question mark whether we are talking about European law, but let us assume we are for the moment, under European law you cannot contract out of exhaustion. You cannot, at least not generally. Maybe there is an area of law I am not familiar with,

but there is a —— but there is a different thing which may be if you sell —— if you sell your chips to somebody and there is not a licence in place, the issue, as I understand it, and I may have got this wrong which is why I am asking the question, the issue, as I understand it, is you have not yet been paid your royalty on those because you have not agreed a price. So you have sold the chips and if you want to later come along and obtain your royalty payment under your patents, it might be said it is too late but you say, no, in those circumstances, you can contract out and say, well, you pay the royalty later.

Is that —— those are the parameters or have I got it completely wrong?

MR MOSER: I respectfully understand it the same way that you do.

MR TURNER: Right.

MR MOSER: As far as I understood it until the most recent new explanation in relation to product licences, which I will come back to, that is how I understood the other side to be running it. I thought there was nothing between us on how exhaustion works.

What I understood Mr Rogers to be saying was not that you can contract out of exhaustion but you can contract around it, by which I take it that he meant

that you can agree, for instance, on what a FRAND royalty is upfront, in which case that is fine, but, if you cannot, certainly what we would say is the contract can then provide for a dispute resolution mechanism that allows chips to be supplied while the dispute is resolved.

MR TURNER: I understand.

MR MOSER: That is really all we say about the FRAND context. There has been a lot of ——

MR TURNER: An alternative way to that would be to say, well, look, pending our resolution, I am going to charge you double for the chips or triple for the chips or something and then we can sort out the balance of payments in due course. That would be another way of doing it.

MR MOSER: Absolutely. In a nutshell, that is all the counterfactual involves.

MR TURNER: Yes.

MR MOSER: What has been said against us is a variety of things. They have said, well, you are relying on recent English jurisprudence, the details of that are not clear. It has not been explained whether the same applies in foreign law and all the rest of it, but my respectful submission is that the fact that our proposed counterfactual complies with recent English case laws is

grist to our mill, but it is by no means essential to follow exactly the solution reached in this case or that. The case law clearly establishes it is consistent with FRAND that a willing licensee should make available interim licences, pending a final determination of FRAND terms, should not attempt or threaten to enforce its SEPs to obtain injunctive relief to secure leverage in negotiations over FRAND. The English Court of Appeal was prepared to make declarations, but we do not look only to recent English case law. What we say is there are ways of dealing with this, plainly, in the FRAND regime.

One of the examples we have cited were the commitments given by Samsung, as it happens, in 2014 to the European Commission to resolve the proceedings where it was alleged that Samsung behaved anti—competitively by seeking injunctive relief in respect of its LTE SEPs. The decision was in the bundle. We have added a copy of the commitments actually given by Samsung. These can be seen ——

MR TURNER: Just remind me, which decision is this?

MR MOSER: This is the decision —— I do not have the reference it to now. Somebody will give it to me. But it was the Commission investigation which alleged that Samsung had behaved anti—competitively. The decision

reference is going to be given to me. I was going to show you a copy of the commitments which were given by Samsung as they are at {POF/434.1}. This was a framework which the Commission and Samsung clearly considered workable. That is something else. Ah, there. So at A.1, bottom half of the page, Samsung undertakes it will not file a claim seeking injunctive relief in the EEA for infringement of it SEPs against any potential licensee who signed and returned an invitation to negotiate and who thereafter complies with the framework for determining FRAND terms for a licence for SEPs as the means for determining FRAND terms.

There is —— if we go over the page {POF/434.1/2} —— a simple scheme. At 1.a.i the parties are to negotiate for a mandatory negotiation period of 12 months. B, if the agreement is not reached in that time, they will submit the matter to arbitration or court determination. Then there is a scheme for mandatory determination set out at page 4 of this document from paragraph 5 {POF/434.1/4}. It is essentially that the parties can choose arbitration or court if they do not agree, then court determination is the default. That is at 6. The rules for arbitration are set out at 9. Over the page, the procedure for court determination is set out at 10.

It was the English Patents Court or the United Patents Court, UPC.

That is one possible solution for how to hold the ring.

A similar framework was imposed it may be recalled ——

MR TURNER: Sorry, where was the bit on what to do about the exhaustion and the royalties that have not been paid in the —— that is in there somewhere, is it?

MR MOSER: Forgive me, I do not think so. The point is that it sets out the scheme for the FRAND determination in the event that they do not agree.

MR TURNER: Well, was Samsung supplying chips? Not in this case?

MR MOSER: Not in this case.

MR TURNER: So one needs to keep in mind —— yes. I mean the problem of exhaustion which we were on only arises if you are selling chips, as I understand it. It does not arise if it is a mere FRAND negotiation as a licensor/licensee.

MR MOSER: That is correct. There are ways to hold the ring.

MR TURNER: But you say, in any event, there are contractual ways to hold the ring, even in those circumstances ——

MR MOSER: Yes.

MR TURNER: —— which would involve having to —— a final reckoning as to all outstanding royalties that are owed once you have established what FRAND is.

MR MOSER: Exactly. There was a similar situation discussed in the Motorola case, where the US FTC imposed a similar structure in the Motorola v Google situation in 2013 and I can get you the reference.

Now, we say, in our written closings, that the discussions in opening about implementation, so whether it has to be the mid—point or otherwise in the interim, that is beside the point. It really does not matter. There is a whole range of possible options. You can have no interim payments.

THE CHAIR: Yes, it is clear we do not need to make —— reach a decision on exactly where in the range that would have fallen, but just to set this in its context. This point is made, your paragraphs 221 to 226, that is dealing with the counterfactual and no licence situation.

Can you tell me which negotiations in this case that would have been relevant for?

MR MOSER: It would have been relevant in any negotiation where the counterpart would have been left without a licence.

THE CHAIR: No, but which ones for Apple and Samsung, because you are going to be dealing with the facts?

Mr Williams accepted that for the most part, at least, there was not a no licence situation so can you tell us which are the exceptions on the facts where the no licence would have been a counterfactual?

MR MOSER: Certainly, as we understand the facts, the situation involving Apple, when it had to move to 5G, I know there is the new case being run, but at that stage they did not have a licence, it seems, for 5G chips, multi—mode or otherwise, and reasonably apprehended a problem. So that could have been such a situation.

Samsung ——

MR TURNER: I mean, there is an issue around that, is there not, whether they were covered under the (inaudible — overtalking)?

MR MOSER: There is, and I will come back to it.

THE CHAIR: Leaving aside that. So if you are correct about the correct —— the interpretation and accuracy of Mr Gonell's point, then you say that the Apple 5G licence was a situation where there was not an existing licence that would have covered them. What else? Any of the Samsung negotiations or any of the other Apple negotiations?

MR MOSER: Well, not any of the other Apple negotiations while they were using the CMs. [redacted].

THE CHAIR: All right. But on the facts as we have them, you say the only actual no licence situation was —— on Apple's side was the 5G licence. What about Samsung? Was there any situation where you say there actually was a no licence situation?

MR MOSER: I am being told something. Just a second.

(Pause)

So Samsung 2008/2009, that was a new licence for LTE. They had to bring LTE within scope.

THE CHAIR: So Samsung 2008 to 2009. So you say that was not covered by the earlier Samsung licence?

MR MOSER: For LTE, yes.

THE CHAIR: LTE.

MR MOSER: Because, again, it was a generational shift.

THE CHAIR: Right. Is that it then? Apple 5G and Samsung 2008 to 2009?

MR MOSER: Yes. Apple at any time if their CMs had been pressured to cut them off.

So my point is simply there are a number of options, interim payments at preferred rates subject to repayment, intermediate interim payments, no interim payments but compensation for delayed receipt, a number of ways of holding the ring in a FRAND situation. One should not, in my respectful submission, become fixated by the particular implementation.

The point, as far as the abuse and objective justification eventually will be concerned, is that what they call the CSPs therefore were not the only way to achieve Qualcomm's stated objective, which is avoiding the problems caused by exhaustion, at least as we have understood the case so far.

We know, of course, that eventually, [redacted] and there is even Mr Gonell's evidence, and that was at —— it is in his statement at paragraphs 17 and 18 that Qualcomm was willing to subject disputed terms to binding arbitration process after an impasse has been reached on agreed terms. So it cannot be a big step to offer arbitration before or prospectively, if the parties cannot agree.

So that really is all I wanted to say about the counterfactual and the FRAND context.

I will skip over definition of the conduct because we have dealt with it and I will go to my fourth point, which is the first substantive evidential point and that is Qualcomm's intentions.

THE CHAIR: Well, could we take this the other way around? Can you deal first with the new case on product patent licences and then go to the internal evidence because I think once you are done with the new case, that ends the sort of high level points and then you are getting

into the detail?

MR MOSER: Of course. That makes perfect sense.

So the new point. As a general comment, the terms of licensed products versus licensed patents are not terms that you are going to find in the licence agreement or in the CM SULAs. So that came up in cross—examination towards the end of my cross—examination of Mr Gonell. I will come in due course as to what I did or did not put to him, but I submit that is not the —— that cannot be the decisive issue.

THE CHAIR: Are you saying that we need to —— I mean, on your case, do we not need to look at the licences and see what they said?

MR MOSER: Exactly. It is not really a matter for the witness evidence. It is a matter for what the licences clearly say.

THE CHAIR: So you have referenced one of the CDMA SULAs.

MR MOSER: Yes.

THE CHAIR: Do you have a reference for one of the UMTS SULAs?

MR MOSER: Not immediately to hand. I was going to use the Foxconn SULA.

THE CHAIR: All right. Do you say that the UMTS ones were the same or effectively the same?

MR MOSER: Effectively the same. So, for instance, the Samsung SULA was effectively broadly the same, just with a different effective date. That was brought in line in 2009 to include LTE, but we say did not include LTE before 2009, but can I take it in stages and take you through the CM —— the Foxconn SULA which is the one that was actually raised in evidence?

THE CHAIR: Yes.

MR MOSER: Maybe it helps, before that, if I say just some very obvious things about licences.

You can limit your licence contractually in different ways. You can have a patent licence which is limited in terms of the kind of products which it permits the licensee to make and sell so, say, mobile phones. Then you can use the licence to make mobile phones but if you use it to make laptops, you are in breach. Or you can have a patent licence that is limited in terms of the patents which it covers, so patents A, B and C, and you can use those in your products, but if you use X, Y or Z, then you are in breach. Or you can have a licence which is limited in terms of the products and the patents which it covers. So it says the licensee is licensed under patents A, B and C only to make mobile phones. Then the licensee can rely on the licence as a defence if it makes mobile

phones and is sued for infringement of patents A, B or C. It cannot rely on that licence if it makes laptops and is sued for infringement of any of the patents and it cannot rely on that licence if it makes mobile phones and uses patents X, Y or Z.

We say that the CM licence, and to all intents and purposes licences that matter, fall into this latter category. So if we turn to the CM licence {POF/95}, the SULA, originally entered into in October 2005 ——

THE CHAIR: This is the Foxconn SULA?

MR MOSER: It is. Foxconn 2005. 5.1 is the operative provision. That is at page 10 {POF/95/10}. You will see it is a licence. I went through this with Mr Gonell. "Grant of Licence From QUALCOMM." Then, over the page at 11 {POF/95/11}:

"Qualcomm hereby grants ..."

MR TURNER: Hold on. Do we need to read 5.1 or not? Do we just need to note it?

MR MOSER: Well, if we can have both up:

"Grant of the licence ... Subject to the terms and conditions ... "

Grants an upfront licence :

"Qualcomm hereby grants to the licensee a personal, non—transferable, worldwide and non—exclusive licence under Qualcomm's Intellectual Property solely for

Wireless Applications to [(a)] make and import and use Subscriber Units, [(b)] sell (and offer to Sell) such Subscriber Units."
MR TURNER: But we need to keep in a mind the definition of "Qualcomm intellectual property" which probably does not matter for present purposes and "subscriber units"?
MR MOSER: Exactly. Just before we go to that, just note at the end of 5.1, about four lines up, it says:
"No other, further or different licence is ——"
THE CHAIR: Yes, all right. It is what we say it is here. So then the definition of subscriber units.
MR MOSER: I am told that the another reason it is UMTS as well is because UMTS is CDMA—based.
THE CHAIR: So Qualcomm's intellectual property is defined on page 7.
MR MOSER: Yes {POF/95/7}.
THE CHAIR: Qualcomm's technically necessary IPR and commercially necessary IPR.
MR MOSER: Yes.
THE CHAIR: It does not define that by reference to a generation.
MR MOSER: No, but it then says "Qualcomm's Technically Necessary IPR" which is at —— I am afraid one has to leap around a bit —— at page 9 {POF/95/9}:
"... includes only each claim of any patents ...

issued on, prior to or after the Effective Date..."
THE CHAIR: All right.
MR MOSER: "[By] which [(i)]the Party and/or its Affiliate has the right to license to the other Party ... "
THE CHAIR: So that means?
MR MOSER: The effective date?
THE CHAIR: No, no, what do you say the effect of the technically necessary IPR definition is? What does that mean in terms of the generation? Does that mean anything about —— does it restrict it to a particular generation?
MR MOSER: We say that it must be clear that it ought to be beyond dispute that 4G SEPs and 5G SEPs do not satisfy the definition of Qualcomm intellectual property because ——
THE CHAIR: Which particular terms?
MR MOSER: Because of the effective date. So the effective date at the time was 2005. Eventually it goes to 2009. If they were issued after 14 April ——
MR TURNER: It says "issued on, prior to or after". That seems to imply any time between the ——
THE CHAIR: Any time whatsoever.
MR TURNER: Are we misreading that?
MR MOSER: But Mr Gonell accepted that ——
THE CHAIR: No, you just told us that it is not for

Mr Gonell to give evidence and we should look at the licence so we are just doing that for the moment. So you say —— what is it that you say excludes 4G in this definition or 5G, sorry?
MR MOSER: You have to read on. Sorry, I was reading on.
"... the Party and/or its Affiliates has the right to license to the other party without payment of royalties or any other consideration to any third party and (ii) are essential to the manufacture, use or sale of Subscriber Units and/or Components which comply with the specifications of the CAI..."
THE CHAIR: But what bit limits this in terms of the generations and what is the limitation?
MR MOSER: If you then go to the CAI, as Mr Gonell did ——
MR TURNER: Which page is that?
MR MOSER: Page 3 {POF/95/3}. We see what is included. The TIA's IS—95 digital cellular standard.
MR TURNER: (Inaudible).
MR MOSER: You can read it. (Pause)
MR TURNER: So that —— sorry, without wrapping a towel round my head and interpreting this, your point is that does not include, for example, 5G?
MR MOSER: Exactly, or LTE.
MR TURNER: Or LTE. So then where are we if you have a chip which includes these patents but does not —— sorry, it

is very inconvenient looking at these on a screen where you cannot get pages up more than one page up at a time.
MR MOSER: Well, I say that under this SULA, that chip is licensed for CDMA patents, but not for any of the later patents.
THE CHAIR: That then goes against the —— what I understand to be accepted which was the CMs were licensed for 4G.
MR MOSER: I am sorry, that —— what is it that we accepted?
THE CHAIR: I thought the CMs were licensed for 4G. I thought it was accepted that the CMs were licensed for 4G. So under what, if that means what you say it does?
MR MOSER: I think what we accepted is that Apple understood that. Apple of course never saw the licence, as we have explained in closing. In fact, it appears that they were not so licensed because ——
MR TURNER: I see, Apple never saw this?
MR MOSER: No, and the licence always remains a licence under Qualcomm's intellectual properly, as that term is defined in the agreement. So it is not a general licence to all of Qualcomm's portfolio and the licensee does not get a licence to 5G SEPs just because it happens to make, for instance, a 5G multi—modal device that meets the definition of "subscriber unit" in other ways.
MR TURNER: I wonder what Apple's interpretation of this

document was, not —— Apple's interpretation of the position was? We do not have any evidence on that. It is a question of statement.
MR MOSER: Well, Apple must have been of the view that it could not get 5G chips because that is what we know from Ms Mewes' evidence they felt they needed to renegotiate.
MR TURNER: Yes, Ms Mewes.
MR MOSER: Leaving that aside, the rather strange position appears to be that at all material times the CMs and OEMs were left under the impression by Qualcomm that they did have a full portfolio licence and I do not know whether Qualcomm is going to argue that, for instance, included commercially necessary IPRs somehow could include 5G or 4G, but the reality appears to be that that was not so and, yet, Qualcomm was quite happy to flex apparently non—existent muscles when it came to upgrading generations in order to extract higher royalty rates. It is a very odd situation.
MR TURNER: Sorry, could I ask for a hard copy of this document, not now, Monday is fine?
MR MOSER: Yes.
THE CHAIR: You say that the other SULAs, which refer to UMTS, were in the same form?
MR TURNER: Thank you very much.
MR MOSER: Well, we will have to check whether there is any

that actually refers specifically to UMTS, but UMTS its CDMA—based so it is my understanding that, yes, all relevant SULAs are in the same form, but we will go back and check that.
So ——
MR TURNER: So in terms of Apple's understanding of the position, all you have is the Mewes hearsay ——
MR MOSER: Yes.
MR TURNER: —— for better or worse. Sorry, that is not a pointed criticism.
MR MOSER: And what Qualcomm says in its evidence.
THE CHAIR: So Qualcomm's evidence is Mr Gonell and Mr Gonell says this covered 4G and 5G. His evidence is that at all times Apple was covered through its CMs.
MR MOSER: [redacted]. There was then the extrapolation that said, yes, but if it is multimodal, you can go back, but that is not what the licence says.
THE CHAIR: I looked at that section of the transcript. He agreed with you that this did not specifically licence 5G SEP, but it said —— he then said the point is that it licensed the product and if the product was a multi—mode product, it was licensed under this.
MR MOSER: Yes, but that is what we do not understand, because although we disagreed with it and said it was an abuse, we at least understood Qualcomm's position, as it

was originally pleaded and presented, which is that if an OEM wants to implement a cellular standard lawfully, it needs a licence to all of the SEPs for the standard and that the devices will implement. They are entitled they say in their original case to insist that the technology protected by SEPs is not implemented by those who are not licensed and to obtain FRAND for granting licences.
So it is reasonable to refuse the chipsets, they said. That is the CSP, as we understood it.
We said the way they did that was a contravention of the law, but at least we knew what they were getting at. We do not understand the logic of their new position. The new position appears to be licences agreed covering a limited subset of Qualcomm SEPs. Qualcomm then allows the licensee to sell products which implement technology protected by a completely different subset of SEPs, which are not formally licensed without attempting to agree an updated licence and it does so because the original licence, as well as being limited to a subset of Qualcomm's SEPs, was also limited to a particular description of product.
MR TURNER: So what was the —— sorry, I may be getting very confused. If you forget 5G for a minute and then focus on the LTE, what was the —— the same arguments bite, do

they not, that you have to interpret this contract broadly, otherwise the contract manufacturers would have been unlicensed with respect to the sale of backwards LTE chips?
MR MOSER: Yes.
MR TURNER: So whatever the black letter lawyers might end up concluding, if we go through this contact carefully, the fact is in practice it is understood this contract covered more than 3G, it covered LTE and therefore, by parity of reasoning, the same would apply to 5G, 6G, 7G, 8G, and so forth?
MR MOSER: Indeed. I mean, what Mr Gonell was essentially doing was giving an opinion of how he thought this might work, but that is not what the contract says.
MR TURNER: No, but that is how the parties were behaving.
MR MOSER: That is the new allegation, but if they were ——
MR TURNER: Well, no, I am sorry, it is not the new allegation. This is the only licence in place, as I understand it, for the supply of 4G chips which I understand Foxconn is providing.
MR MOSER: If that is so then, as a matter of black letter law, it was an extremely risky undertaking because either, because we are taking the 4/5G example, the implementers are then infringing the 4G and 5G SEPs because they are not covered in the licence or they

become exhausted or the subject of an implied licence.
MR TURNER: So what is the applicable law for this contract? Californian, is it?
MR MOSER: Yes, Californian.
THE CHAIR: So Mr Gonell says in his second witness statement Apple was covered by the CM's licences; paragraph 10, I think. If you took issue with that, why did we not have anything in the opening submissions saying, you know, Mr Gonell is not right, here is the relevant licence, this is what the terms mean, and that is going to be put to Mr Gonell as a matter of evidence? I mean, you did take him through it, he gave his answer and there was no pushback on the point that he made in the cross—examination that there is a distinction between a product and a patent licence and that distinction meant that this licence applied not only to 3G products, but to multi—mode products that incorporated the 3G standards?
MR MOSER: Well, I certainly disagreed with him by saying this is not —— it cannot at all be the case that given everything we have heard. Maybe I could have repeated that. I say nothing turns on the sort of formality of whether I disagreed with him again after he gave the next answer. The case, as we understood it, was that an OEM that has concluded a licence for an individual SEP,

but not the remainder of the SEPs, would infringe those non—licensed SEPs when it sends the end devices and the contract appears to us to be clear.
THE CHAIR: I am sorry. I may have misunderstood something. Has this trial or has it not proceeded on the basis that the licences covered 4G? Because when I asked you which were the negotiations for which —— for which there would have been the no licence situation, you did not say Apple's LTE negotiation. You said Apple 5G presumably because, and that is the way I understood it, you accepted that CM licences covered 4G.
MR MOSER: As I say, it appears that Qualcomm and Apple proceeded on that basis, Apple, without really knowing or without knowing at all the terms of the CM SULAs.
THE CHAIR: It is not about whether Qualcomm and Apple proceeded, but whether in these proceedings, is there something in the opening submissions or in the pleadings which —— by which either side articulated its position on this and in particular you took issue with the licence as covering 4G?
MR MOSER: In the case of Samsung, the position was rectified. In the case of Apple, we took issue with the 5G aspect. We did not take issue with the 4G aspect simply because at that stage they were proceeding under the CM's licences and, you know, no party has said

before that such a distinction was going to be drawn.
MR TURNER: But presumably it suited parties to —— insofar as there is a question of construction here, it suited the parties to behave as if this was covering LTE. It meant the contract manufacturers were licensed. It meant Qualcomm was getting its money. Just looking at this for the first time, it is not entirely clear what it all means, but this does not look like a self—evident point. This looks like potentially a very difficult point of construction, if there is merit in it, and in order to —— for us to reach a view on that, first of all, we need to be invited to do that well in advance of closing submissions and, secondly, it is a Californian contract. We are not in a position to, without evidence, deal with a difficult nuance which it may be. As I say, we will hear from Qualcomm whether they say it is clear against them, clear in their favour or a difficult point of construction. But just to say at the moment that this means that everyone was harbouring under or had a misapprehension of what this contract meant is difficult to invite the Tribunal to reach that conclusion.
MR MOSER: There are a number of points there. As far as the construction of the contract is concerned, nobody has alleged or brought any evidence that Californian

contract law is different from English contract law for these purposes.
Secondly, the interpretation of the contract ——
MR TURNER: This point of contract had not been lined up. You had not lined up this point of contract in order to give Qualcomm an opportunity to do that.
MR MOSER: Well, we ——
MR TURNER: You had not said that it did not cover 4G and it did not cover 5G and this is why. This is all new, is it not?
MR MOSER: I mean, we raised it in written closing in relation to Mr Gonell's cross—examination. We can address you in greater detail on that point on Monday, if you would prefer, but my overall point on this is that it is not, with respect, we say, a matter of complex interpretation of the contract because the contractual wording seems fairly clear.
THE CHAIR: No, I think Mr Turner's point was that if you had taken issue with what was said in the evidence by Mr Gonell, this would have had to be set up much earlier than the closing submissions. We would have had to be alerted, I think, from the opening submissions that you took issue with the assertion that there was —— that these contracts covered Apple and we would have needed to be shown, at some point before now, the licences for

you to make that good. That is Mr Turner's point.
MR MOSER: Yes. Well, I did put these matters to Mr Gonell. It is said that I did not challenge him on paragraph 54 of his witness statement. I did. That was the point of my cross—examination on paragraph 5.1 of the licence. So these matters were put to Mr Gonell. He made his point about the difference between the product licence and patent licence, which, as far as we were concerned, was a new way of putting it, which they have seized on. There was nothing we could pre—advertise about that because he had not said it until he was in the witness box.
MR TURNER: He said it in his second report, paragraph 10, did he not?
MR MOSER: Yes, paragraph 10, I think, of his second statement, which I did put to him.
MR TURNER: Yes.
MR MOSER: He said what he said and we disagreed with him.
So that is the way that it emerged. Until it emerged in this way in cross—examination, we had not understood it to have been put like that at all because, as I say, that did not seem to us how the case had been pleaded or run hitherto.
MR TURNER: In practice, you are inviting us to reach a conclusion that Mr Gonell was wrong and that the

contract manufacturers have been unlicensed during LTE production and that Apple somehow knew this and that just seems —— that is a big, big, big point.
MR MOSER: No so, I mean, perhaps the liberating thought on this is the following: as far as our case in relation to 2019 is concerned, we do not say that Apple knew about the contractual interpretation. It is plain, we say, on the evidence that Apple thought in 2019 it needed a new licence, as Samsung thought in 2009 it needed a new licence. That is the basis on which both parties were negotiating. So there is this oddity about the facts and the underlying contract that it appears Qualcomm may have been content, perhaps so as not to disturb the existing royalty arrangements, to let matters go with the CMs and perhaps others, but the liberating thought is that whatever —— whatever the correct answer, Apple was clearly under the impression in 2019 that it needed a new 5G licence and Apple of course did not know the terms of this contract. So I am not saying that Apple proceeded on any understanding of the law.
So ——
THE CHAIR: It needed a new 5G licence or it wanted —— it wanted some kind of rebate or whatever in relation to the CMs? Which?

MR MOSER: Well, it was negotiating on the basis that it needed to obtain 5G chipsets from Qualcomm and also it felt it could not fall back on the CMs.
THE CHAIR: All right. When you take us to the facts on Monday, you do need to take us to the documents which you say show that Apple thought that it could not fall back on the CMs for the 5G and that it needed itself to be licensed.
MR TURNER: Needed its own licence so it could go out into the market and source chips from other places.
MR MOSER: Well, indeed. It is consistent with what we have said about the Mewes evidence all along.
THE CHAIR: Well, no.
MR MOSER: But I will come back to it on Monday.
THE CHAIR: I think we need to see the documents which you say show that Apple thought it actually needed its own 5G licence in order to go into the market with 5G phones.
MR MOSER: Understood.
So there is much more I could say about how it has been pleaded and put and so on, but that is the essence of it.
THE CHAIR: All right.
MR MOSER: I think that is as far as I want to take it today.

THE CHAIR: Did you want to —— so that is what you want to say about the product patent licences?
MR MOSER: Yes.
THE CHAIR: Do you now want to start on the internal evidence because we have some —— we have 20 minutes?
MR MOSER: Yes, absolutely, if that is convenient?
THE CHAIR: Yes, of course.
MR MOSER: So the internal evidence of Qualcomm. As you know, we contend that in order to understand the nature and the purpose of Qualcomm's conduct, as well as its capacity to produce anti—competitive effect, we want to look at Qualcomm's own intentions and understanding and it is already addressed in paragraphs 165 to 178 of our written closings. We go through various categories of Qualcomm internal documents.
Importantly, you will recall Project Phoenix and I am afraid I believe I need to go into closed for Project Phoenix. I think it is outer ring confidential.
THE CHAIR: All right. So we are now in closed session.
(4.12 pm)
In Private
(4.34 pm)
(The court adjourned until 10.00 am on Monday, 3 November 2025)

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