IN THE COMPETITION APPEAL TRIBUNAL

Case No. : 1382/7/7/21

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 6th October 2025 – Wednesday 5th 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, DANIEL ALEXANDER KC, DAVID IVISON AND CHARLOTTE MCLEAN (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

Monday, 6 October 2025

(10.30 am)

(Proceedings delayed)

(10.44 am)

Housekeeping

THE CHAIR: Good morning, everyone. I am sorry for the delayed start. I understand that the problem is that the Opus audio is not working but I think it is better that we just start. I think the livestream is working.

I am going to start with the warning at the start. So some of you are joining us livestream on our website so I am starting with the customary warning. An official recording is being made and authorised transcript will be produced, but it is strictly prohibited for anyone else to make an unauthorised recording, whether audio or visual, of the proceedings and breach of that provision is punishable as a contempt of court.

Thank you.

Just as one more timing housekeeping matter. Mr Moser, just to let you know that I have a meeting at 4.30 so we will have to finish by at the latest about 4.20 today. If you foresee problems with that, then I think you should let me know now, especially given that we have had a slightly delayed start. If you are

not able for your side to accommodate your submissions in the time you have today, and have, say, 10 minutes overspill, we could do that at the start of the hearing tomorrow and we could maybe just start a little bit earlier to make up time, if you are going to run into problems.

MR MOSER: That is a very kind indication. It is difficult to indicate right now and I would hope to be able to finish this morning, if necessary, at some stage, when I am effectively just pointing you at documents, giving you something in note form. Then my learned friend Mr Williams is in the afternoon and as a coda on IP law, my learned friend Mr Alexander at the end. So he is likeliest to be squeezed, if he needs ten minutes in the morning, I somehow doubt it, but ––

THE CHAIR: No, just given that we have started late and given that we might need to rise maybe a few minutes earlier than you would have expected, I just wanted to warn you of that now. Obviously we have a few housekeeping points to start off with so, yes, all right, we will see where we get to.

The other timing point is, I think, the confidentiality section and perhaps we should think about confidentiality generally. I understand that at the end of the morning you want a closed session. How

long?

MR MOSER: I was going to raise that. I have decided, I think, I can do without.

THE CHAIR: All right.

MR MOSER: I will just point you to things.

THE CHAIR: Yes.

MR MOSER: That will save time and also is more in the interest of open justice.

THE CHAIR: Okay. I am concerned about the extent of confidentiality. At some point we will just need to have a discussion about how we are going to manage things going forward, because it seemed that some of the witnesses look okay, but there seems to be an alarming amount of highlighting in the evidence of some of the other witnesses and I just wonder if you have any thoughts on how we are going to deal with that.

MR MOSER: There is an alarming amount, I agree. As Class Representative, we have tried to manage as best we can with the requests for confidentiality, of course it is not our confidentiality, we fear a certain amount of witness evidence is going to have to be given in private because of the amount of redaction. That is of course unsatisfactory. It may be that at some moment this week, when there is some time, perhaps before we start witness evidence, that can be revisited.

THE CHAIR: Yes.

MR MOSER: With, Madam, your indication well in mind.

THE CHAIR: Yes. I think maybe we ought to do that. Let us just get to the end of the opening submissions and then schedule in some time to revisit the question of confidentiality because I am concerned. From our point of view, it is going to be very difficult if everything that is highlighted cannot be discussed in open court.

MR MOSER: Yes.

THE CHAIR: So let us not deal with that now in detail but just flag it that we will have to create some time in the timetable for us to review that.

Before we go further, is it me or is it arctic in this courtroom?

MR MOSER: It is arctic.

THE CHAIR: Can we turn the temperature up by a number of degrees. Thank you.

All right. What ––

MR MOSER: We can do our best to generate as much hot air as we can.

THE CHAIR: I'm sure that will not be a problem for your side, Mr Moser! For your side of the bench. Sorry, I am not talking about you in fact specifically.

MR MOSER: Fair comment.

THE CHAIR: Yes, all right. We will try and get the

temperature turned up. It always seems to be either tropical or arctic in these court rooms.

All right. Other housekeeping issues? Mr Moser, why do you not go through your housekeeping points and then I will then indicate a few further points from the Tribunal if you have not covered them.

MR MOSER: My only housekeeping point is one that has been explored in correspondence, which is we are very sorry about the spacing in our skeleton argument. I do not know whether the Tribunal has seen a letter about it.

THE CHAIR: I did. It is not clear to me why it was misunderstood. The other side seems to have understood what was said. Obviously there was a lack of clarity so I do not want to take up a lot of time on this. I think I should just say, then, for the avoidance of doubt, rather than I'm saying 1.5 line space, which clearly was not sufficiently clear, there should be at least a 12 point space over each main text paragraph otherwise the spacing is too dense and it is really difficult to follow. Please do not try and gain space in any other way, such as removing the hanging indents or numbered paragraphs. Just format the rest of the document as you have done, but ensure that there are 12 point spaces after each main text paragraph, because for one reason or another you ended up having a lot more words than the

other side who did space their skeleton in the way that I had thought was clear, but plainly was not clear enough.

Closing submissions length and format. I know that it is the customary practice for people to start drafting their closing submissions at the start of the trial or even before the start of the trial, so should we just have a word about how long those are going to be and what they should cover?

MR MOSER: I think there was an order at the PTR ––

THE CHAIR: Have we ––

MR MOSER: –– as to the length of the closing submissions.

THE CHAIR: Do we already have that?

MR MOSER: Yes.

THE CHAIR: Can you remind me then?

MR JOWELL: From recollection, it was 120 pages.

THE CHAIR: 120, all right.

MR JOWELL: To be a replacement.

THE CHAIR: Sorry, I had not remembered that we had dealt with that. Fine. That is all fine.

I think that was mostly it. Two points that we thought would be helpful for us. First of all, can we have a very short document from either, just a page or two, which sets out your essential case on what the market definition is and the market shares that you get

out of that.

MR MOSER: Yes.

THE CHAIR: Because, strangely, in a case which involves quite detailed submissions on market definition, we do not seem to have that in a handy format on either side. So just set out the market definition that you are contending for and the market shares which follow from your market definition.

Secondly, just for us to consider how the cross-examination of the industry and technical expert is going to work, can we have from each side, by the end of the week, again, in very short format, a list of the areas on which you wish to cross-examination the industry and technical experts, if at all. This is not an encouragement for you to find points to cross-examine them on; we have a day set aside for cross-examining all of the industry and technical experts so it is not going to be long in any event, but if that day can be reduced even further, it seems to us it would be helpful.

Those areas for cross-examination have to be only on disputed points that are absolutely essential to the determination of the case. We do not want them to be cross-examined of issues that are really background and we think it would be good for the Tribunal to be educated on them. The Tribunal has been educated

I think sufficiently by reading the joint statements of the industry and technical experts. So cross-examination points should focus on essential disputed issues and your note on points for cross-examination of those should cross-reference the paragraphs of your skeleton argument which address those issues, again, to ensure that any cross-examination is on absolutely critical points that you have addressed and you will be addressing and not on superfluous points that are on no basis are going to find their way into our judgment.

So can we have that on both sides and let us see if we can get the cross-examination of those down to the bare minimum, insofar as it is required at all. Just to say, in case it is not obvious to you from my comments just now, we are not convinced that very much, if any, cross-examination of the industry and technical experts is required so it is for you to persuade us that any of this is going to be useful.

MR MOSER: That is very helpful. I can say that the parties have been in very constructive discussions about this very point and it is, I think, common ground that not very much, if any, cross-examination is going to be necessary. We have not completely reached a landing yet on technical experts, in particular, but we will of

course do that and that will be done before the end of the week.
THE CHAIR: All right. Thank you very much.
The idea of that is that we can then take stock well ahead of the day that is set for the cross-examination of those experts next week. Is it Wednesday?
MR MOSER: Yes.
THE CHAIR: All right. Thank you.
That was the -- that was all of our housekeeping points that we need to raise right now.
MR MOSER: I am grateful.
Opening submissions by MR MOSER
MR MOSER: In that case, I'll dive straight in, if I may. It seems an obvious place to start with the list of issues. I do not know whether anybody is using the hard copy core bundle? The list of issues in the hard copy is at 40 in the second core bundle. In electronic, it is at {H/74/1}.
THE CHAIR: All right. So for your information, Mr Ridyard is entirely electronic. Mr Turner and I are hybrid electronic and hard copy. We are both using the core bundles, but not very much else, in hard copy. I also have all the authorities in electronic copy.
MR MOSER: I am grateful.
THE CHAIR: Yes, all right.

MR MOSER: The list of issues obviously will be for me. I use them merely as a kind of aide-mémoire to point out the running order today and the issues that I will open on this morning. My learned friend, Mr Williams, is going to be opening on market definition and dominance and market power this afternoon so we are doing it in the order of my learned friends for Qualcomm skeleton argument.
I will be opening therefore on issues 7 and following on abuse --
THE CHAIR: So you are starting your submissions at the abuse end?
MR MOSER: Yes.
THE CHAIR: All right. Then following that with market definition and dominance?
MR MOSER: Yes.
THE CHAIR: All right.
MR MOSER: To some extent there is some abuse in what my learned friend is going to talk about because Mr Williams will also deal more -- in more detail than me with 8(c) which is the alleged RTL Policy.
I will open on issue 7, 8 and -- apart from (c), and, in particular, the question of is it capable of constituting an abuse? Is there departure from competition on the merits? Is it capable or likely to

have an anticompetitive effect? Has Qualcomm taken additional steps, such as not permitting the seeking of third party determinations of whether its royalties are FRAND? Objective justification is really the obverse of some of those points.
I will not open in any detail on issue 10 on FRAND or on issues going to effect on trade and territoriality which are dealt with in the skeleton and, at least for opening purposes, I do not plan to add very much to what we say in the skeleton.
So that is what I will do.
THE CHAIR: Well, I think we do need to understand what your position is on whether you are saying that the royalties were -- ended up being at an above FRAND level or whether you are saying, as your primary case, they were within FRAND, but higher than they otherwise would have been?
MR MOSER: No, our primary case is going to be that they ended up above FRAND, in fact considerably above FRAND, and therefore issue 10 is always going to be academic. That is the primary position. We say that is perfectly clear when looking at the evidence.
We do also say, and partly this is of course only going to become clear in Trial 2 so that is partly for another day. We do also say that merely because we have

ended up within a FRAND bracket does not mean there was no abuse. As I will explain in a moment, the way that the abuse manifests is at the time of negotiation. The negotiations are tainted by the leveraging and by the closing off of an outside option and so the rate that you end up with is reasonably likely. I am tempted always to say "almost certainly" but I don't have to put it that high. I am showing that there is a reasonable likelihood to have ended up higher than it would have been if the negotiations had been undertaken. So if sitting down and negotiating on a figure between 6 and 8, then if you end up with 8 because of the way that the negotiations have been tainted, that is an anticompetitive effect that has led to a higher rate than otherwise, whether it is FRAND or not.
THE CHAIR: But if your primary case is that the royalties were significantly above FRAND, when you were asked about whether you were advancing an anticompetitive pricing case, why did you say that you were not?
MR MOSER: Because that is not how we are characterising the abuse. We say that the nature of our theory of harm is about the way that the negotiations have been tainted. We are not saying that you have to find a particular price and then say that this prices above it. That, in a sense, is how the other side are trying to

characterise it: look at where you end up and if it is FRAND, then it is fine. We say, no, the whole ecosystem within which the rate was negotiated was tainted by anticompetitive actions that were a departure from competition on the merits and where you end up on damages, is a matter for Trial 2.

THE CHAIR: Yes. I mean, I'm still struggling with why you -- it is not part of your case to characterise this as excessive pricing, because it strikes me if your primary case is that the royalties were significantly above FRAND, then surely you are saying that it is an excessive price, because you are saying it is above the fair, reasonable and non-discriminatory price range?

MR MOSER: Well, it is simply necessary, in my respectful submission, for us to use the excessive pricing lens, because we are looking at a form of abuse which I am sure it is not contentious is not a matter of fixed categories. There is no pigeonholing particular abuse. The particular abuse we are talking about is what has been short-handed as "NLNC", no licence, no chips, and that takes hold at the point of negotiation.

The matter for Trial 2 is going to be what is the difference, but in relation to testing whether it is capable of constituting an abuse of a dominant position in law, I do not have to nail my colours to the mast of

excessive pricing because of the way that we have put the case and I will expand on that in a moment.

THE CHAIR: All right.

MR MOSER: I recognise that these points have been put, particularly in my learned friend's skeleton argument. That is why I want to formulate our abuse at the beginning. I have four points that I'd like to discuss and I have flagged them already.

The first point is the nature of the departure from competition on the merits and its likely effect. If I can just very briefly identify where the core case is pleaded.

THE CHAIR: Well, do you want to summarise your four points to just give us a road map for your submissions. The first is the nature of the departure from competition on the merits. What are the other three?

MR MOSER: So the second is the nature of how we define "NLNC".

THE CHAIR: Yes.

MR MOSER: The third is the counterfactual. The fourth is objective justification.

THE CHAIR: All right. So you are starting we the departure from competition on the merits?

MR MOSER: Yes.

If we look at the claim form, at core bundle, tab 1,

{IRA/1/41}, we have paragraph 72, which talks of the NLNC policy as buttressed by RTL and further measures "are likely to have the effect of suppressing the competitive process in both the LTE chipset and LTE SEP markets, thereby causing OEMs such as Apple and Samsung, to pay higher all-in prices for LTE chipsets whether purchased from Qualcomm" or from its rivals than they would pay in the absence of Qualcomm's policies.

Then it concludes and says:

"This harm is ultimately suffered by final consumers."

THE CHAIR: When you say "all-in pricing" you mean the chipsets, plus the SEPs?

MR MOSER: Yes.

Of course importantly for the nature of the NLNC, they are said by Qualcomm to have separate prices and the licence is negotiated first.

Then at 73, we say that it is "a departure from competition on the merits" and they "are not methods of competing to offer customers advantages in terms of price, choice or quality" and "restrict competitive forces that would otherwise ... inure to the benefit of consumers". I have started there because of course we have the Consumers' Association Which? bringing this collective action on behalf of millions of consumers who

purchased Apple and Samsung devices in the claim period and therefore have suffered loss. Even though, as I say, that issue of loss would be a matter for Trial 2, for this trial we will need to answer the question of liability and in relation to abuse therefore is it capable of constituting an abuse and also was NLNC capable or reasonably likely to have had an anticompetitive effect by increasing royalties?

That is all I wanted to say about the basics of our pleading, but the nature of NLNC is defined at paragraph 33 of this claim form which is at page 14 of the electronic bundle. {IRA/1/14}.

THE CHAIR: All right. When are you in your submissions going to deal with exactly how the suppressing competitive process worked in your view? I mean, you just pointed us at the way it is summarised extremely briefly in paragraph 72 of the claim form, but when do we see how that fed into the specific licensing negotiations for the relevant SEP licences that were conducted by Apple and Samsung?

MR MOSER: I can deal with that directly. I will also say that I am going to take the Tribunal to a certain number of documents and some parts of the hearsay which illustrate what we say so that the nature of the abuse, where the abuse manifests itself, as I say, is in the

area of course of the negotiation of the royalty and Qualcomm, instead of competitive negotiation, uses the inherent risk, or sometimes explicitly stated threat, of chipset supply disruption, or software delay, to foreclose a normal discussion of royalties and conditions for the licences. Instead, it is unless you take our package of licences at Qualcomm's rate and on our terms, unless you do that, there are no chips.

Qualcomm's terms include royalty at a rate which we say is likely to be inflated and that is payable on every phone, whether it uses Qualcomm's chips or not, and there are a host of other, we say, egregious terms that Qualcomm has imposed from time to time by the historic practice of requiring OEMs to take the whole package of patents, whether they needed them or not, insisting on using the handset as the royalty base in order to capture elements of value, such as premium casings, nothing to do with Qualcomm's technology.

THE CHAIR: Are you saying that the end device licensing is in itself objectionable? I do not -- I am not sure that that is articulated in your skeleton argument or the claim form and nor does it seem to come out of the evidence.

MR MOSER: Well, the end device licensing is one of the aspects that buttresses the behaviour.

THE CHAIR: So you are saying that that is something that Qualcomm should not have done?

MR MOSER: Not in this context, no. It would have been -- it would have been appropriate for a dominant firm in this context to allow the licensing at OEM-level, because that would have been one way of avoiding the anticompetitive effect. It is the whole ecosystem of measures that we criticise.

THE CHAIR: So you are saying that the end device licensing system which Qualcomm pursued was in itself objectionable as being part of the abuse?

MR MOSER: Yes. But whether there was RTL or not refusal to license, the NLNC policy was in any event abusive. RTL is, as it were, an extra. It is an extra element of the abuse that is present and what it does is it closes off the ability to escape from the consequences of NLNC, because you cannot get the same licence elsewhere.

THE CHAIR: But you are not saying it is a stand-alone abuse?

MR MOSER: No.

THE CHAIR: So you are saying it was abusive in the sense that it was part of the NLNC abuse?

MR MOSER: Essentially, yes.

MR RIDYARD: Just going back to the threat to refuse to supply chipsets, what exactly is it that triggers that

refusal in your case? I mean, if I am an OEM and I say, "I do not like these royalty rates, I would rather pay less" and the way for me to do that is to instigate some kind of litigation or arbitration under the FRAND principles, are you saying that as soon as I say that I am told, "Well, if you commit to a FRAND arbitration, I will withdraw the chips"?

MR MOSER: The way this works is that Qualcomm insists on the sale of its SEPs separately and in advance of the sale of its chipsets and on the terms demanded. So that is what is pleaded at paragraph 33 of the claim form on Qualcomm's preferred terms. The NLNC policy that we object to is not simply a policy of saying: we need you to take out a licence before we supply you with chips. No, it is that Qualcomm uses disruption of supply or the threat of disruption of supply as a tool for leveraging more advantageous, we say supracompetitive, licence terms. In short, when we say about demanded, it does not mean take it or leave it; it means that Qualcomm ultimately got to impose terms that the OEM would not have accepted in undistorted negotiation and absolutely part of that is that the safety valve, the route to a FRAND negotiation, is then not open to the OEM.

MR RIDYARD: So that is the purpose of my question. So I am an OEM, I do not like the royalty rates, I am sure we'd

all like to pay less royalties, but my way to do that is to instigate a FRAND arbitration, say. So I say to Qualcomm, "Well, I am going -- I want to go to a FRAND litigation arbitration and I am happy to commit to whatever happens to come out of that arbitration" and you are saying at that point Qualcomm then turns off the tap on the chipsets?

MR MOSER: Yes. It turns off the tap, or everybody knows in the industry that that is what is very likely to happen to you if you have the temerity to go to FRAND.

MR RIDYARD: So I do not even take the step of saying "I am prepared to commit to FRAND terms" because I know that before I even say that, my chipsets will be turned off?

MR MOSER: Yes, not all negotiations are the same. So sometimes some OEMs say "We want to go to FRAND" and are told "no". Sometimes they just do not even go there because, as you say, they know what the answer is going to be. That is why it is not always an express threat. Sometimes it is.

MR RIDYARD: It is a bit tricky to evaluate that, because it is unobservable, is it not? If you say "Before I even open my mouth you are going to cut off my chipsets", then I do not even ever open my mouth.

MR MOSER: We will observe it in the evidence. Sometimes people do open their mouth and are shut up. Sometimes

we see evidence, internal evidence, that says, "Well, we did not even open our mouth because we were burnt last time. Not going to do it this time, for instance, in a renegotiation of terms." Sometimes they have been trained already not to open their mouth.

THE CHAIR: Mr Moser, are you going to talk us through this morning what you say happened for each of the relevant licensing negotiations for Apple and Samsung to show us that that was the case?

MR MOSER: I will try to.

THE CHAIR: I am not saying that you have to, if it was not your plan, but if you were not going to do it, when were you going to do that?

MR MOSER: It is my plan.

THE CHAIR: All right.

MR MOSER: It is my plan to take you to the documents.

It may be that I can take care of the introductory story more quickly because I think we have really got to the nub of it through the questions. I was going to say I am going to talk about the nature of NLNC. I think I've broadly covered that, without giving you all of the references. We have covered it in, for instance, our reply to further information of 11 September 2023. It may suffice to go to that.

THE CHAIR: All right.

MR MOSER: That is at {B/10/10}, core bundle 9. Then maybe I'll be done we the pleadings and get on with showing you some other things.

You will see what we said there at paragraphs 3 and 4:

"Through the NLNC policy, the Defendant requires OEMs to enter into a separate patent licence on the terms demanded ... as a conditional or pre-condition of supply ... failing which the supply ... is (or is at risk of being) disrupted."

THE CHAIR: Core bundle, tab 9.

MR MOSER: Tab 9.

THE CHAIR: {B/10/10}.

MR MOSER: {B/10/10}. It is also internal page 10 {B/10/11}.

THE CHAIR: Paragraph?

MR MOSER: Paragraph 3 starting:

"Through the NLNC policy ..."

I will not read it all out to you, but if you cast your mind over it down to:

"The Defendant's practice is intended to, and by its nature does, pressurise OEMs into accepting the licence terms demanded by the Defendant."

THE CHAIR: So are you saying in terms that this pressures OEMs into abandoning or not pursuing FRAND negotiations?

MR MOSER: Yes. So our criticism is not that they seek the licence, nor that they seek it in advance of supply, but that they seek it on non-competitive terms and in ways that therefore prevent the seeking of FRAND determination and leveraging their unique double-dominant position in the SEP and chipset markets and creating this atmosphere of risk of disruption of chip supply in order to do so. The counterfactual is at 4 in the next paragraph:

"... the NLNC policy prevents OEMs from obtaining the supply of chipsets straight away on the basis that they do not agree to the Defendant's terms demanded for the separate patent licence because those terms are not regarded as FRAND, but would commit to a FRAND licence, including a FRAND royalty rate, the terms of which are set by an independent third-party determination (such as by a patents court ...) in default of a mutual agreement. That is a legitimate position on the basis of which an OEM is reasonably entitled to receive the continued supply of chipsets even in the absence of having already entered into a SEP licence on terms set by the Defendant, yet such position is precluded by the Defendant's policy."

That is exactly, Madam, your question, the answer to your question.

THE CHAIR: So you are saying that the counterfactual is that there would be a FRAND determination?

MR MOSER: There would be the possibility of a FRAND determination, yes. Our counterfactual is a world without NLNC, which includes all of this behaviour that I have outlined.

THE CHAIR: So in your counterfactual, how would the licensing work for somebody who's a supplier of both chipsets and has a portfolio of SEPs? Are you saying that the correct counterfactual, what Qualcomm should have done, should have been to license at the chipset level?

MR MOSER: They should have licensed and said, "Here is our licence. These are our terms. If you do not like these terms, we can go to FRAND arbitration or negotiation -- sorry, FRAND arbitration or court determination in due course and here are the chipsets while we do that."

THE CHAIR: So that answer does not suggest that you are saying they should have licensed at the chipset level, because of course at that level there would not have been the FRAND system?

MR MOSER: Well, that is not our particular counterfactual. The counterfactual is that they should have allowed the FRAND determination at whatever level they are licensing with their counterparty. So when they are talking to

Apple, it is Apple who's seeking the chipsets and the FRAND determination would be on that basis. So this is not ––

THE CHAIR: All right. So you are not saying –– so you are not saying that the counterfactual is one in which there was not end device licensing? It is your counterfactual one in which you assume end device licensing but that licensing goes to a FRAND determination?

MR MOSER: What the end device licensing does, in our ecosystem argument, is that it precludes the escape route. You cannot get them any other way. If they follow the proper counterfactual with the FRAND determination open to the customer, then, yes, I agree, Madam. The question of RTL falls away because it is no longer a problem because the negotiations are carried out properly.

THE CHAIR: Okay. But at what point do you say that the –– what does the licence attach to in your counterfactual?

MR MOSER: To the chipsets.

THE CHAIR: Okay. So you are saying that then the licence is then bundled in with the chipsets in your counterfactual? I am just trying to understand what your counterfactual is exactly, because Qualcomm says they do not understand it.

MR MOSER: It attaches –– forgive me, I misspoke. It

attaches to the handset that contains the chipset.

THE CHAIR: So you are saying that there should have been end device licensing in your counterfactual?

MR MOSER: Yes.

THE CHAIR: All right. So your counterfactual is one in which there is an end device license. You are not –– the chipset does not come with an exhausted licence so you do not incorporate the royalty into the price of the chipset, but you then –– you do negotiate that separately with the OEM, but in a FRAND –– on a FRAND negotiation? Is that your counterfactual?

MR MOSER: Yes. I'll take you in a moment to where Mr Noble explains his view of this in his report, but it does tie in exactly, Madam, with what you are saying, because our counterfactual, as I say, is a world without all of this NLNC. They say, well, we are entitled to do what we do for two reasons. One is they say they want a reasonable return on their patents and the other reason they give is they say that they want to avoid exhaustion. Now, those are both perfectly proper aims to which they are entitled, but it does not engage with our abuse for the reasons, Madam, you have outlined because neither reasonable payment nor reasonable steps to avoid exhaustion require NLNC. They do not need to leverage the threat of supply disruption in licence negotiations

or shut off the route to FRAND, because they can achieve their purpose in another way. I promised to show you how Mr Noble puts that. That is in core bundle, tab 35, in Mr Noble's eighth report.

THE CHAIR: Just one moment. (Pause).

Yes.

MR MOSER: So Mr Noble's eighth report, electronic reference {POE/21/103}.

MR TURNER: Sorry, Mr Moser, where in the bundle?

MR MOSER: Tab 35. It will be in the second bundle.

MR TURNER: Thank you.

EPE OPERATOR: I do not seem to have that.

MR MOSER: I do not know why. It is also in core ––

THE CHAIR: Core bundle, tab, 35. Which paragraph?

MR MOSER: Paragraph 6.65. I'll start from the second sentence:

"... from an economics perspective [that sentence], it would seem that there are a variety of alternatives to NLNC that could address this issue: one alternative could be for Qualcomm and the OEMs to sign a licence specifying that absent an agreement over royalties, the appropriate rate would be subject to a third-party determination of the appropriate royalty rate, as part of a broader agreement to supply Qualcomm chipsets."

So when they criticise our case and our

counterfactual, they make it too easy for themselves in my respectful submission. We are not saying you have to sell your chips without a licence. It is not that a patent owner should give away its chipsets without a licence, opening itself up to the risk of exhaustion. It is not that a patent owner should supply chipsets without payment for those chipsets or he is not entitled to cease supply under a contract for a physical good if payment is not being made. That applies, for the avoidance of doubt, whether you are dominant or non-dominant, but what we say, very simply, is that at that stage of negotiation you have to allow the –– you have to allow the possibility of FRAND licence arbitration that Mr Noble explains.

THE CHAIR: Well, so if all you are saying is the effect of the abusive conduct was there was not the possibility of FRAND arbitration, the counterfactual is simply that they had to allow the possibility of FRAND arbitration. If that is what you are saying, I understand that, but I am not sure that that is what Qualcomm understood you to be saying.

MR MOSER: It has certainly always been part of our case. This is what I have identified as being the nub of the abuse.

THE CHAIR: The nub of the abuse is that it was not possible

to go to FRAND and the counterfactual is they licensed at the OEM level, but that the OEMs should have been able to go to FRAND, if they did not agree with the price set by Qualcomm?

MR MOSER: Yes. So that is the safety valve aspect. I've described what we say are all of the aspects of the abuse and they are all there, but, as it happens, there is a key for a dominant company to allow licensing before sale of chipsets and the key is the general law on this matter, which is the FRAND possibility.

A word, if I may, on patents and competition law because although some may think this is a case somehow at the intersection of competition law and IP law, I respectfully say it is not really. IP law just forms the background to this, but it is essentially common ground that the refusal to grant a licence under an IP right more generally does not constitute an abuse of a dominant position. There have to be some other elements to the factual situation to make it abusive.

It is common ground that there is no mention of patents in Article 102 or Chapter 2 and that even a dominant company must be in a position to take reasonable steps to protect its royalties, to get paid for your patents and avoid accidental exhaustion. All of that is common ground, but what you cannot have is

a company in Qualcomm's position, with the products it has, and the SEPs it holds, using its market power to foreclose any FRAND discussion. In other words, that is an abuse of your patent right and that is not competition law somehow trumping intellectual property law, because I say it chimes exactly with what IP law says about SEPs. There is case law on FRAND licensing, recently, that has emphasised two important ways in which SEPs differ from ordinary patents and SEPs, it will be remembered, are the patents we are dealing with, the special -- essential -- standard essential patents that are required in order to practise the rights concerned.

They affect an owner's ability to exercise market power in a competition law sense, but if we look at an authority. It is *Panasonic Holdings* Corporation v Xiaomi Technology. That is authorities bundle 2, tab 42, page 1. If we look at {AB2/42/1}, just a brief glance at the headnote. It is an appeal against the refusal of an application by the Defendants in litigation "relating to standard essential patents, ('SEPs') for a declaration that a willing licensor in the position of the claimant ('*Panasonic*') would agree to enter into, and would enter into, an interim licence of the portfolio of patents which it had declared to be

essential to [ETSI]. [This is for] 3G and 4G standards pending the determination by the Patents Court of what terms for a final licence of its portfolio were fair, reasonable and discriminatory ('FRAND')."

If we turn on to page 23 {AB2/42/23} and look, in particular, at paragraphs 79 and 80, we essentially see how this system works. So, first, we are told that SEPs differ from other patents. That is at 79. "Normal patents are monopoly rights, and the primary remedy for infringement is an exclusionary injunction ... to preserve the monopoly". SEPs "are subject to the SEP holder's obligation to grant licences to any implementer who desires a licence on FRAND terms". That is the key. The obligation to grant licences to any implementer who desires a licence on FRAND terms. An implementer is entitled, in turn, to such a licence as of right. "SEPs are not property rights of the same status as other patents ... the SEP regime is a liability regime" and "the SEP holder's remedy is a financial one". The only role for an injunction is to enforce the entitlement to the money.

"The second point is the implementer is entitled to a licence from the first day it implements the standard provided that it is willing to take a licence on FRAND terms". So an "implementer is entitled to a licence

[and one] which is continuous and not subject to interruptions by injunctions".

So my point is simply that the duty of the dominant undertaking in such situation is exactly the same as the general law already requires. It is an obligation to grant licences on FRAND terms to any willing licensee and that includes, of course, the possibility to assess what is FRAND in the event that the parties cannot agree.

So what a dominant firm is not allowed to do is to say, "If you do not like the terms, tough". You have to say, "If you do not like the terms, we can negotiate, arbitrate or go to court"; in other words, the FRAND route, "And we will supply you with chips while that route takes its course on the understanding that you will pay royalties at whatever rate is found by the court or tribunal to be FRAND".

I noted --

THE CHAIR: So if Qualcomm did continue to supply chips while a FRAND process was proceeding, then you would say that would not have been abusive?

MR MOSER: Exactly. Moreover, I say, it is completely normal. That is what the relevant IP regime dictates.

THE CHAIR: So your case will require you to show that Qualcomm -- that when FRAND litigation was initiated,

Qualcomm withdrew its supply of chips or it threatened that it would do so if the counterparty, the OEM, had initiated FRAND litigation?
MR MOSER: Yes.
THE CHAIR: All right.
MR MOSER: So we want to establish on the balance of probabilities that Qualcomm used its dominance in chips in a manner which was likely to result in a distortion of the negotiation process with OEMs. If we manage that, we have established a prima facie infringement. At that point, the burden shifts to the other side to show objective justification so that the effect of NLNC went no further than was necessary to protect the right to recover FRAND royalty. So a legitimate commercial self-defence to avoid, for instance, exhaustion.
I said my fourth point was going to be objective justification. I can do it very shortly because it is the reverse side of the same coin. For the reasons I have explained, it was not necessary because there was a legitimate SEP holder's right including FRAND that we see in *Panasonic*, that we see in Mr Noble's eighth report, and why the counterfactual --
THE CHAIR: So exactly what was not necessary.
MR MOSER: It was not necessary to foreclose FRAND. It was not necessary to either threaten or imply a threat of

non-supply.
MR TURNER: Mr Moser, I am still struggling with the refusal to license aspect, just how that plays in. I appreciate it is part of the ecosystem and you use the word "buttress" a number of times in a number of places. So how would it work? Let us assume that Qualcomm demand a very high royalty. They cannot demand that of the OEM or manufacturer or they can demand that of the chip supplier. So let us assume they demand an excessive royalty from the chip -- rival chip manufacturer and they are at some form of impasse, maybe they are proceeding slowly towards some resolution or not, they are still supplying chips to Apple and Samsung, the OEMs, and then one -- does not one just shift the problem? They then say, "Well, I am afraid, mate, you are not licensed. Go and speak to your chip manufacturer". How does that all fit in?
MR MOSER: In particular --
MR TURNER: If Apple are supplying the chips anyway -- sorry, if Qualcomm after supplying the chips, I do not see how it all really helps. It seems to be another very confusing scenario. Mr Williams does not trust you to answer this question apparently.
MR MOSER: No, he is very worried about what I am going to say.

I am going to press on. I know that he is going to deal with RTL.
MR TURNER: All right. You can leave it until later. That is fine.
MR MOSER: The sotto voce was "I am going to deal with RTL." I am going to deal with your question as best I can, if I may. White knuckles all round. The point is particularly in focus in relation to the contract manufacturers at Apple and that is a wrinkle I have not come to yet, but that is simply the same behaviour just a step away from Apple. So Apple is then -- until 2019 Apple was getting its chips via contract manufacturers and there was direct supply.
MR TURNER: Yes.
MR MOSER: That was simply the same behaviour between, as we will see in the evidence, Qualcomm and the CMs, NLNC, no FRAND, we say therefore too expensive, at the CM level and then Apple has to pay that to the CMs. So it only becomes -- if your question is --
MR TURNER: I was referring to the chip manufacturers, not the CMs.
MR MOSER: The chip manufacturers, yes. But, as I say, in that case, Mr Williams will deal more with that because that is his department, but I wanted to get in the point about the contract manufacturers because I had not

mentioned them yet and to complete the thought what then happens is that the price is passed on and of course ultimately to the consumers and that is why we are here. So it does continue.
So just to complete on objective justification. While a counterfactual policy, which only secures the right to a fair payment against risk of exhaustion, may be objectively justified, you make sure that you are properly licensed before supply and so on, there are other less restrictive solutions as just explored and as Mr Noble's alternative shows. So I need not repeat it all again, but it is the same thing in relation to -- in relation to objective justification. Just a word on that because in my learned friend's skeleton argument he says, "We have raised exhaustion and we have raised the fact you want to be paid for your royalties so now somehow the burden is now on us [he says] to show that there is no objective justification". We resist that, because we say all they have done is they have rather vaguely raised these concepts. In the end it may not matter very much where the burden sits, but I want to say that also.
It is not simply a question of, well, you know, you are entitled to drive a hard bargain. I do not, to belabour the point, because I think I have made it

several times now, but I noticed that my learned friend had put a last minute authority -- a couple of last minute authorities --

THE CHAIR: Before you move on to that. You say there are less restrictive means. Are you then referring to the suggestion in Nobel paragraph 6.65 of the --

MR MOSER: Yes.

THE CHAIR: -- licence specifying that absent agreement the rate would be subject to third-party determination?

MR MOSER: Yes.

THE CHAIR: Is that basically an arbitration agreement? Is that what you are saying or what do you mean by this?

MR MOSER: What I mean is -- what I submit is the common or garden route by which several licences are generally negotiated as illustrated in *Panasonic*, which is that at the time of negotiation, we say: here is your licence, effectively. If you do not like it, of course we can go to arbitration, but in the meantime we supply. The dominant company is perfectly protected by this as far as exhaustion is concerned.

THE CHAIR: Oh, so are you simply saying that there would be a FRAND determination?

MR MOSER: Yes.

THE CHAIR: I see.

MR MOSER: But there would also be a licence. So what they

say to us is, "You cannot say we have to just give away our chips and we are not allowed to ask for a licence". What we specifically object to is, again, as per the claim form, the licence on Qualcomm's specific terms. So we are not saying that you are not allowed to say, well, I have to protect myself against exhaustion by way of licence. What we are saying is you cannot do all the specific things that I have outlined they do and the answer is Noble 6.65. That is one way of achieving both a fair return for your --

THE CHAIR: So what you mean is that they get a licence, they do not pay at that point, but they defer payment to when it is agreed?

MR MOSER: Either they defer payment or they agree to a payment and there will be an accounting at the end of the arbitration or court determination.

THE CHAIR: But what do they actually pay?

MR MOSER: Well, in that case, they will be paying the inflated rates until it is determined that they are anticompetitive, but that is not necessarily so.

THE CHAIR: Sorry, I did not quite catch that. What are you saying that they would pay?

MR MOSER: They would -- well, either they will not be paying, pending determination of the arbitration, or I suppose they might be paying the inflated rates, we

say "inflated", on the basis that at the end the parties will agree. What is more normal, I believe, and I -- and I probably defer to my learned friend Mr Alexander when he comes in at the end of the day, what is more normal, I understand, is that you agree to the lower rate at the outset, pending determination, and then supplement the rate, if necessary, at the end of a FRAND determination.

THE CHAIR: So you are saying that either you would not pay at all, or you would pay the inflated rate, or you would pay the lower rate?

MR MOSER: What is clear is that the appropriate rate will always be paid by the end of the process. There is no question of the company -- the company in the position of Qualcomm going unpaid for any of this.

THE CHAIR: So your counterfactual is that there would be a payment of a royalty by the OEM, but as long as there is an agreement that this can be subject to a FRAND determination, that would be non-abusive. What is abusive is an explicit or implicit insistence by Qualcomm that it cannot be subject to FRAND? Have I summarised that correctly?

MR MOSER: Exactly. Exactly.

MR TURNER: So it comes down to a very simple point then whether Qualcomm has been preventing Apple and Samsung

obtaining a FRAND determination either at arbitration or in the courts. I mean that is the sole point you rely on. If you do not succeed on that, everything else falls away.

MR MOSER: That is right. It is -- you have the whole issue, but you can screw in that safety valve and if you manage that, you can diffuse the problem.

MR TURNER: You are going to come to the evidence on --

MR MOSER: Yes, so I am going to come to the evidence directly. I was going to go to this on last minute authority that my learned friend put in, just because it, I submit, illustrates the point. I do that as briefly as I can and then I will go straight into the evidence.

So the authority that was put in is in authorities bundle 2 {AB2/12.1}. If anyone has the hard copy, it is tab 20. So it is {AB2/12.1}.

THE CHAIR: What is the page in the bundle, the pdf page?

MR MOSER: 1.

THE CHAIR: No, I need the big pdf page. It could be in thousands.

MR MOSER: Oh --

THE CHAIR: Because that's what I am working off. I have pdf bundles. I have one pdf for each of the authorities bundles and the outline tab on my reader does not have

the tab numbers so I just need the page -- pdf page number.

MR MOSER: Okay. This is where I have to say that is one number I do not have. I have the electronic. I have the hard copy.

THE CHAIR: All right. Let me just see if I can get there by hyperlinking. It is 909, I think.

MR MOSER: I am grateful. We will get hold of --

THE CHAIR: Just before you -- I mean, I do not know how long you want to spend on this point, but perhaps if it is going to be a long time, we could have a break before it. If it is going to be a short time, you could go to this authority and then have a break.

MR MOSER: I will be quite short.

THE CHAIR: All right. Let us do that and then we will have a break for the transcriber.

MR MOSER: Thank you. We will see if we can find a pdf so then Ms McLean, who I should add is not on the long list of people in the skeleton, but Charlotte McLean is appearing here with me and she will be able to whisper to me whatever the pdf pages are.

So the authority that my learned friend has put in is *Humber Oil v Associated British Ports. It* is a rather strange case about negotiations for a rental of a lease agreement, extending a lease agreement at

a port. We see that at paragraph 3 of the judgment. Negotiation for the lease of an oil terminal. The complaint was that one of the parties had sought payment of excessive rent. So it is a case that includes the terms of the Landlord and Tenant Act 1954. If we look at paragraph 10 of the judgment, we will see there set out section 34 of the Landlord and Tenant Act 1954 {AB/2/12.1/4}, which provides that where you have negotiation like that, then in default of agreement the rent "may be determined by the court to be that at which, having regard to the terms of the tenancy ... the holding might reasonably be expected to be let." In other words, a sort of FRAND rental.

In the claimant's submission, if we look at paragraph 19 {AB2/12.1/8}, counsel for the claimant, who was my learned friend Mr Lasok ran a creative argument that said that he:

"... maintained that a proposal by a monopoly supplier in the course of negotiations to charge excessive, unfair or discriminatory prices is, without more, abusive conduct for the purposes of ... Article 102."

This was rejected by the court., perhaps unsurprisingly, on a number of bases. At 20, the judge rejects the contention that to propose in the course of

negotiations prices which are excessive is of itself and without more abusive conduct:

"Put simply, such conduct cannot constitute any form of 'imposition'."

So, in other words, just driving a hard bargain is not in itself abusive. That is unsurprising.

Putting forward a figure in the course of negotiation, not an excessive price under Article 102, fine. The conclusions are 31 and 32 and 33. What is interesting about this otherwise entirely unsurprising finding is what is said at paragraph 33 {AB2/12.1/13}. At paragraph 33 what the judge says is:

"As I have already held ... the decision of the Court of Appeal in *Attheraces* ... does not establish [such] a proposal."

Five lines down:

"Further, in a case such as this, any element of compulsion which might arise from the dominant position of the proposer is negatived by the jurisdiction of the Court, in the absence of agreement, to assess the rent or price on the basis of a statutory formula which necessarily excludes any ransom element."

So we have, in that interesting little case, exactly the same sort of safety valve. Not abusive in and of itself to say "I want you to pay X", but insofar as

there is abusive behaviour, it is negatived by the safety valve of the court assessment.

THE CHAIR: So you say as long as that safety valve existed here and was not cut off by Qualcomm saying, "If you try to, if you try to trigger that safety valve, we will stop supplying you chipsets", then that was not an abuse and that is your counterfactual case?

MR MOSER: That is the counterfactual. If the port had cut off the route to the 1954 Act, that would have been a different story in our submission.

THE CHAIR: Yes. All right. That is very helpful. Thank you very much, Mr Moser.

So we will rise for a five-minute break.

MR MOSER: Yes.

(11.52 am)

(Short Break)

(12.01 pm)

MR MOSER: Before I dive into the evidential points, my learned friend Mr Alexander has given me a helpful note on this question of what is the level while one is holding the ring in a FRAND situation. Apparently the recent English court's approach, and he will come on to this in the case of *Lenovo*, is that the rate that you pay while you wait for the negotiation is not the top rate or the bottom rate, but a rate somewhere in between

determined at the outset. That is just a footnote to the discussion earlier in relation to what happens in the counterfactual.

The nature of the evidence in this case, as far as the Class Representative is concerned, it is well-known that we rely heavily on documentary evidence and also the admissible hearsay evidence.

The general approach in competition law cases is that it is necessary, very largely, to act by way of inference, whether that is 101 or 102. I won't go now to the authority. It is in the skeleton argument, but in *Phones 4U*, which is electronically at {AB2/39/30}, it is tab 47 of the hard copy bundle, at paragraphs 83 to 86, we have referenced the court's usual approach to competition law cases and, in particular, Advocate General Kokott's advice at the end of paragraph 85 of that judgment.

We say that the necessity of drawing an inference is a fortiori in private enforcement by a consumers' association against a multinational, but of course we do not have any of the direct witnesses.

THE CHAIR: So this is which authority? Authorities 2, tab 39?

MR MOSER: Tab 39.

THE CHAIR: Paragraph?

MR MOSER: It starts at page 30. It is paragraphs 83 to 86. I am just aware of the difficulty with my Ladyship's bundle.

THE CHAIR: It is all right. I will make do.

MR MOSER: It is, in particular, where Mr Justice Roth cites Advocate General Kokott at AG saying:

"... it would be incompatible with the EU principle of effectiveness for national courts to impose on competition authorities or private litigants criteria for proof of an infringement of art 101 or 102 'that are so onerous as to render such proof impossible in practice or excessively difficult'."

That is in the context of saying that the commonsense proposition is that one has to realise that very often in competition cases evidence is done in a clandestine way and one has to rely to some extent on inference.

There is also, as far as hearsay is concerned, no hierarchy of evidence. That is the last authority I will attempt to go to in this section, but in the case of *Welsh v Stokes*, {AB2/9/1}, which is tab 16 of the hard bundle, that was a case about hearsay evidence. We had it at the PTR that there was no rule of law which prohibited a court giving weight to hearsay evidence.

At paragraph 23, Lord Justice Dyson said {AB2/9/10}:

"The decision what weight (if any) to give to hearsay evidence involves an exercise of judgment. The court has to reach a conclusion as to its reliability as best it can on all the available material. Where a case depends entirely on hearsay evidence, the court will be particularly careful before concluding that it can be given any weight. But there is no rule of law which prohibits a court from giving weight to hearsay evidence merely because it is uncorroborated and cannot be tested or contradicted by the opposing party."

Again, we say, that is to some extent a fortiori in this case because it has been corroborated, we say, by documents that we will look at and we have, of course, the hearsay table where it was tested in cross-examination and given under oath in the United States, making it appropriate, we say, to give it considerable weight.

We have, of course, avoided the temptation to resort to inadmissible evidence in other cases after the *Hollington v Hewthorn* decision, although in a slight side-swipe, if I may be permitted, it is surprising that in my learned friend's skeleton there seems to be liberal reliance on inadmissible US and Korean material and I would ask you to ignore that as indeed you are ignoring it in our case.

A few --

THE CHAIR: In relation to the hearsay that you rely on, it would be helpful for your closing submissions to sort of give a ready-reckoner of the context for the various categories of hearsay that you rely on. For example, one of the categories is depositions given in the US proceedings, but it would be helpful to know what the outcome of those proceedings was, because Qualcomm says, well, no weight is to be placed on those because the initial first-instance judgment was overturned.

MR MOSER: Yes. We do that. I will not spend time now.

THE CHAIR: No.

MR MOSER: But the short answer is that we say it was overturned on procedural grounds. There is an issue between us.

THE CHAIR: Yes, but I think it would be good to know what you say about each category of hearsay evidence that you rely on and why you say it is -- that it is appropriate for us to take that into account.

MR MOSER: Yes, that is understood and it will be done.

MR TURNER: When we look at either hearsay evidence or direct evidence in this case, is it right we have to keep in mind two things: first of all, whether Qualcomm is refusing to supply, but we also need to keep in mind whether the purchaser has agreed to take a licence on

FRAND terms, do we not? So there may be circumstances where it is legitimate to refuse to supply and circumstances where it is not? But if a prospective purchaser has not −− let us leave the details −− but has not indicated or said they will take a licence on FRAND terms, presumably, in those circumstances, it would be perfectly at liberty for Qualcomm to say, well, if that is your case, we are not going to −− if that is your position, we are not going to supply you?

MR MOSER: Well, perhaps. To be clear, the way that we present the case it is not our case that I have to show in each negotiation there was an express exchange along the lines of "Can we please have it on FRAND terms subject to arbitration?" and Qualcomm says "No, certainly no, no deal, otherwise we will stop". So we see that expressly in some cases, but in other cases it is implied. In other cases, we say it is no longer necessary to see it three times because we have it the first time.

MR TURNER: But the point I was putting to you is that one also needs to understand the context. So whether it is express or implied or whatever, one still needs to ask the question: has the purchaser of chips agreed to take a licence on FRAND terms?

MR MOSER: Yes, what we tend to see is that the purchasers

of the chips do not think that the terms are FRAND and that is, I think I am right in saying without exception, as far as we have evidence of what they think about the terms, save that they felt they had no option. So it is perhaps not a question I need to engage with, because I do not think we find that situation in the evidence where somebody says, "Oh, well" −−

MR TURNER: Sorry, we may be at cross−purposes. I think this is not an insignificant point to get straight before we look at the evidence.

Do you accept there could be any circumstances under which Qualcomm can legitimately refuse to supply chips and the circumstance in particular I was putting to you is where the purchaser of those chips has not agreed to take a licence on FRAND terms?

MR MOSER: Forgive me, I misunderstood the question. No, that is whatever the appropriate answer is, "yes" or "no", so it has to be a willing licensee.

MR TURNER: Yes, that is point I was putting. So when we look at the specific instances, one of the things we have to ask ourselves is: if there was a refusal, is it in the context of a willing licensee?

MR MOSER: Absolutely.

MR TURNER: Yes.

MR MOSER: My point was simply, I might be corrected,

I cannot think of evidence of people saying, "Well, I am not a willing licensee" and still insisting.

The whole system only works, of course, if you enter into a negotiation with a willing licensee who is in principle prepared to take on FRAND terms.

They are particularly willing in a sense when they already have a licence and they are renegotiating.

Now, we will come to that.

So the admissions first because I just want to set the scene very briefly, again, by setting out what is not in dispute about the evidence. It is admitted that Qualcomm's policy was worldwide. So they call it CSP, we call it NLNC. Whatever it is, the policy is worldwide. That is paragraph 54 of their defence.

It is also common ground that these policies were applied at all relevant times, even if there is a dispute about the effects. It is also admitted that Qualcomm's dual position in the market was unique. That is paragraph 52.1 of their defence.

Fourth, it is admitted by Qualcomm that what it calls a CSP was not applied to other chip products, where it was not dominant, like WiFi. That is Qualcomm's RFI response at {B/12/3−5}, paragraphs 3 and 7.

We see that difference in treatment, if we look at

a presentation which was given by Qualcomm to Apple in 2008. It is an outer ring item so I am not going to read it out, but it is at {POF/135/3−6}. There it is. So if we start at 3, it is −− it should be a series of slides. That is the wrong page, I am afraid. {POF/135/3}. There. We see on the first page the definition of "Purchasers". The first two bullet points. That code name is "Apple". There is −− I hope everyone has discovered the glossary and the chronology in the bundles which gives us the various terms, including the codenames that they each use for each other?

MR TURNER: Just remind me, where is the glossary?

MR MOSER: The glossary is at −−

MR TURNER: I have seen reference to it but I have not actually looked at it.

MR MOSER: It is at {S/6/1}. It is not in the core bundle, I am afraid. {S/6/1}. It should probably go in the core bundle. We will see if we can put in the chronology, the glossary and the dramatis personae.

THE CHAIR: Which codename are you talking about?

MR MOSER: I do not know whether I am allowed to say it out loud.

THE CHAIR: You have something up on the screen.

MR MOSER: Yes.

THE CHAIR: I see. Okay, I see.
MR MOSER: There is a codename in the second one and we see at page {S/6/3}, that is the codename for "Apple" used by Qualcomm.
MR TURNER: I am struggling to find that.
THE CHAIR: Yes, of course.
MR MOSER: So the one product that is being talked about there, that is the relevant chipsets, and non-WAN are things like WiFi.
If we go to the next page {POF/135/4}, we see the two boxes on the left-hand side under the Apple codename, and the difference in treatment to WAN and non-WAN. Finally, at page 6 {POF/135/6} --
THE CHAIR: I do not understand what you are saying about this.
MR MOSER: It is difficult, but I have already said what is admitted by Qualcomm is that it treats other kinds of -- its other licensed products, like WiFi, differently to the way it treats chipsets. So cellular, non-cellular, WAN and non-WAN, are treated differently. We say that this is an important point. It is critical and we say exceptionally telling. If NLNC was required to ensure a fair return to avoid exhaustion, and so on, on chipsets, then it would have been required also for these other technologies and, yet, it was not. These

other technologies where they were not dominant.
MR TURNER: So are you saying there is a reference to no licence, no chips implicitly or explicitly in this document?
MR MOSER: I am not going that far. That is not quite what this document is showing us. This document is showing us for cellular they required licences. For non-WAN they were sold on an exhaustive basis all in one.
THE CHAIR: Well, it does not say -- I mean --
MR MOSER: Separate licences, not separate licences.
THE CHAIR: There is an "or" in the box and we have not looked at the "or".
MR TURNER: But you have not addressed us on separate licences and not separate licences. Why does that matter?
MR MOSER: Why it matters is because that is, again, part of how NLNC works. Apple has -- sorry, Qualcomm has two divisions within its group of companies, one of which is in charge of licensing and one of which is in charge of selling the chipsets. It discusses from time to time -- and we can look at that -- whether or not one should split these and they come to the conclusion that we should not split these because they give us particular market power.
They could be selling the licence and the chipsets

on one. They do not. They sell them separately and they sell the licence first on particular conditions and until you have a licence, no chips and they sell the chipsets second.
MR TURNER: So you can wrap the price of the licence in with the product or you can tease it out? Does it matter?
MR MOSER: Well, that is -- it may or may not matter, but that is what they do for these other products where they are not dominant.
THE CHAIR: But that is not your counterfactual. You have explained very clearly -- and thank you -- what your counterfactual is and that is not a counterfactual in which they are bundled.
MR MOSER: No, it is not.
THE CHAIR: So I am not sure why we are looking at this and why any point is being made about the bundling of the licence with the chipsets.
MR MOSER: It is essentially a defensive point, because one of the points that is going to be taken against me is that they say, well, we had to do a number of things and one of the things we had to do was to sell these separately. We say, no, you did not. You are absolutely right, my Lady, it is not determinative.
THE CHAIR: It is not only not determinative, it is not any part of your case to say that they should have sold the

licence together with the chipset, because that is not your counterfactual. Your counterfactual, which articulates what they should have done in order not to abuse, starts from the premise that they -- the licence was sold separately from the chipset. Your point is simply, as I have understood it, and you have said it several times, is that there should have been a possibility -- the safety valve of FRAND negotiation, which there was not.
MR MOSER: Well, Madam, yes, the reason that I am leading up to this is because one of the things that is said against me is, well, this separation of licence and chipsets was necessary. One of the things that reveals the approach by Qualcomm and reveals the motivation of Qualcomm, the anticompetitive motivation of Qualcomm, is that they kept these things separate. If we look at internal documents from Qualcomm, we can see that they are well aware that their chipset market power gives them a significant advantage in SEP licensing negotiations and that business model is based on leveraging the power in order to extract inflated royalties from OEMs.
THE CHAIR: I am trying to understand what you say. You just said that the anticompetitive motivation is revealed by the fact that they kept these things

separate.
MR MOSER: Yes.
THE CHAIR: But the premise of your counterfactual is that they were separate. That is your non-abusive counterfactual so keeping them separate cannot reveal an anticompetitive motivation, because that is precisely what you say would have been the case in the counterfactual, the non-abusive scenario.
MR MOSER: Well, it is certainly what Qualcomm thought. If we look at Qualcomm document from 2007 --
THE CHAIR: No, I am not asking what Qualcomm thought; I am asking how the fact that the licence was separate from the chipset could reveal an anticompetitive motivation, which is the point that you have just made?
MR MOSER: If you keep the licence separate from the chipset, it assists your NLNC strategy because you are always negotiating only about the licence before you ever come to the chipset and you have two different parts of Qualcomm working, as it were, hand in glove. One of which says, you have to take this licence and the other one says here are the chipsets and there is sometimes some disagreement over whether the customer is actually paying for the royalty for the licence or paying a premium on the chipsets and the customers even disagree on exactly what it is they are being charged

for.
I can illustrate this point by showing you an internal document from Qualcomm because Qualcomm launched its -- an internal review in 2007 where it considered spinning off the licence business. If we look at {POF/122/8}. This is something called, "Project Berlin" and at {POF/122/8} we see the bullet point in the middle of the page that if they spin off QTL, that would hurt QTL's leverage -- that is the licensing company -- to negotiate 3G renewal and 4G OFDMA licensing deals.
If we look at {POF/128/19}, another presentation from Project Berlin, we see at the top, second line, left-hand box, a significant con of spinning off the company would be increase the attacks on QTL, on licensing.
If we look at --
THE CHAIR: Where are you looking at?
MR MOSER: I am looking at the second box -- the second full box of third box down on the left hand side, top, "Increased attacks on QTL". It is significant cons to the spin-off.
It is explained in an internal 2008 email, which is at {POF/134/1}. That is an email from Mr Altman of Qualcomm to various people at Qualcomm. If we look at

the main paragraph toward the bottom of the page, four lines down:
"The Chinese manufacturers, the Korean manufacturers, even Nokia will want and need to supply CDMA ... handsets ... or risk losing market share. Today, [Qualcomm] is by far the leading CDMA supplier. Given the fact that so many companies have viewed CDMA as a rapid growth market, very few chip companies have put resources into ... development. [Qualcomm] is and we expect will remain the pre-eminent leader ..."
And so on.
Then:
"As the CDMA2000 grows and OEMs decide to participate ..."
Sorry, skip that:
"If you consider the fact that the only companies that have attacked us today are companies that essentially purchase little or no [chips] from us, you can understand how the combination of QCT with QTL greatly enhances QTL's success. As CDMA2000 grows and OEMs desire to participate in it to grow their market share, OEMs will remain reliant on us for continued supply and will need to maintain positive relationships with us ... this will help us grow our businesses as one company. If we were two companies, they would rely

entirely on QCT, but would have no incentive not to attack QTL."
So there was an inherent business logic, as far as Qualcomm was concerned, to what I was describing. A similar thing was considered again in something called "Project Phoenix" in 2015. There Mr Wise of Qualcomm -- that is at {POF/616/1}, at the bottom of the page, Mr Wise explained:
"There is a high correlation between our modem (chip) share and licensing compliance and royalty rates sustainability. Where we have low chip share we are seeing challenges with compliance and maintaining the royalty rate ... If its [QCT's] share falls, however, we lose that important element to sustaining our royalties. SO IT IS CRITICAL [in capitals] THAT WE MAINTAIN HIGH MODEM SHARE TO SUSTAIN LICENSING."
In another place, at {POF/629/11}, we have a presentation as to why strategy -- a strategy makes sense. We see the first line that:
"Addresses QTL compliance challenges and sustainability of long-term royalty rate; without risky litigation."
So, in that way, the policy of having this separation, whatever the legal logic, Madam, was that it enabled -- it was one of the enablers of NLNC and it

certainly was what Qualcomm internally appears to have thought and reveals its motivation. It is also, incidentally we say, evidence that they knew what they were doing in relation to NLNC. It was not somehow something that happened to them accidentally.

Now ––

THE CHAIR: But the document, this last document, says: "Drives compliance and royalty rate."

So "risky litigation" could simply mean without Qualcomm having to sue to ensure that the OEM was licensed. It does not –– this does not necessarily mean that it avoided the prospect of the OEM seeking a licence level in a FRAND determination.

MR MOSER: Well, you might think that, Madam, if you had not read the emails or the slides that go before. I say, in the context of the other evidence, it is, on balance, more likely that it reads the way we say.

THE CHAIR: Do you want to show us the most telling point for you from the perspective of the context?

MR MOSER: Forgive me?

THE CHAIR: Well, you said, "I interpret it that way because I have not seen the context" so do you want to take me to the best document for you which provides ––

MR MOSER: I meant the context of the slides we just looked at before. This is the last of this run of slides

I wanted to look at, but what we see in both the Project Berlin and the Project Phoenix slides is that they wanted to keep these companies deliberately separate because they saw that the licensing company on its own was going to be exposed and, therefore, by necessary implication, I submit, exposed to litigation –– risky litigation coming from others.

THE CHAIR: So what do you understand by "risky litigation"? Is it your understanding that the reference to "without risky litigation" means without the possibility of the licensee resorting to FRAND?

MR MOSER: Yes.

THE CHAIR: I should have said without the licensee resorting to FRAND litigation.

MR MOSER: Yes. I should say, generally, I am also guilty of sometimes using shorthand without rehearsing, again, all of the rather fussy points around whether it is FRAND litigation or otherwise, but, yes.

At the heart, of course, of the NLNC conduct is that it made it significantly more costly for OEMs to engage in that sort of litigation because they were dependent on chipsets supply from Qualcomm. To Qualcomm's royalty rates via a FRAND determination was going to be –– was going to be risky or potentially business-ending for the OEMs because, without licence, you do not have any

chips, without chips you do not have a business. That was well understood and, for example, the hearsay evidence from *Motorola*, if we look at this, outside option, I just want to come to the nub of what I have been discussing about FRAND litigation, if we look at the hearsay evidence from *Motorola*, that explains in dramatic terms what the consequences of seeking a FRAND determination might be. I will invite the Tribunal, please, I cannot read it out, but to read the extract at {POD/7/58}. It is in the middle of the page, highlighted in pink.

THE CHAIR: Is that going to come up?

MR MOSER: There it is.

THE CHAIR: Is this part of the hearsay extract?

MR MOSER: Yes, it is.

THE CHAIR: All right. It is going to be difficult for you to tell us which bit of the extract you want us to read without revealing it. Maybe you can just tell –– you could count down from the Qs. So which question number do you want us to look at?

MR MOSER: So if you see a question in the middle of the page that starts "Resisting Qualcomm's".

THE CHAIR: Yes.

MR MOSER: From there.

THE CHAIR: All right. I just do not understand why this is

confidential. This is what we are talking about. I mean, this is ridiculous if we are not going to be able to discuss things like this in open court because you have been making these submissions all morning.

MR MOSER: Madam, yes. We will have to revisit this.

THE CHAIR: As discussed, we are going to have to revisit this and I say that for the benefit of everyone in the courtroom. We cannot continue if something like this is said to be confidential, but it is precisely what the parties –– both parties are going to need to discuss and the witnesses are going to need to discuss in the witness box.

MR TURNER: Sorry, I do apologise, Mr Moser, just remind me, what is this document we are looking at?

MR MOSER: Oh, this is hearsay evidence from *Motorola*.

MR TURNER: Yes, but what is the document?

MR MOSER: If we go back to page 57, we see Mr Todd Madderom, *Motorola*, from US proceedings in 2016 {POD/7/57}.

MR TURNER: Right. So these are court proceedings?

MR MOSER: These are court proceedings. Generally the hearsay document is court proceedings of examination or cross-examination of the witnesses in US proceedings.

MR TURNER: That is fine. Thank you.

MR MOSER: Sorry. (Pause)

Conversely, *Motorola* explains if it had not been dependent on Qualcomm for chips, it could have launched a royalties challenge and if we look at {POD/7/63} ––

MR TURNER: The date of this is what?

MR MOSER: 2016.

MR TURNER: Remind me, they are discussing what period?

MR MOSER: Well, they are essentially discussing what we are discussing, but they are talking about –– well, I mean, they are talking about why *Motorola* was not –– did not feel able to seek a FRAND determination.

Still I believe with Mr Madderom at 63, this is not redacted. The question at 223:24 is:

"How, if at all, would moving away from Qualcomm chipsets, better position *Motorola* to have a fight with Qualcomm about Qualcomm's royalties?

"Answer: Qualcomm would not be able to cut off our supply in that fight. It's as simple as that. We could create a fight, and we feel like our supply would not be threatened. Perhaps there may be some import/export issues that happen along the way in certain countries, but specifically that would be an aggressive approach to maybe perhaps renegotiate with Qualcomm."

There is an instance with LG where Qualcomm flexed its chipset muscle to dissuade LG from continuing with an arbitration in which LG wished to raise antitrust

complaints about Qualcomm's proposed licensing terms. If we can look at {POD/7/51}, that is Hwi-Jae Cho from LG in proceedings in 2019. If we look down the question:

"How did ..."

Well, start at the beginning:

"How did LG interpret Mr Altman's statements [Mr Altman of Qualcomm] A: Although I feel most confident about my personal interpretation, my recollection was that we internally thought it was a threat by Qualcomm. We thought Qualcomm would use whatever leverage it had because Qualcomm often mentioned termination of the supply agreement. As threatened in the letter, we thought Qualcomm would do something about LGE's baseband around chipset supply."

THE CHAIR: This was not Apple or Samsung, was it?

MR MOSER: No, it was not. This is LG. I am starting with the market more generally where we have evidence of Qualcomm's policy which is admitted to be the same worldwide at all material times.

MR TURNER: But the difficulty is we do not have context.

THE CHAIR: I think that is not admitted. I think that is absolutely not admitted, which is why I did ask you at some point we need to look at each of the points of which licence negotiation occurred with Apple and

Samsung and for you to explain what was going on at that particular time and what the leverage was that you say Qualcomm had at each particular point in time. Sorry.

MR TURNER: Sorry, no.

MR MOSER: Madam, yes, but, as we say in our skeleton argument, we start with other examples of OEMs, which is one of the things that it was agreed we could do at one of the CMCs, to show that this is the ecosystem. It is not just specific to Apple, but I am happy to move to Apple and Samsung, because Apple and Samsung, despite their size, were not immune to this effect of NLNC. Samsung, in fact, if we look at the evidence, set out very clearly why it could not litigate against Qualcomm. If we look at an internal strategy document from October ––

MR RIDYARD: Sorry to interrupt, just to go back to those ones, the LG and the *Motorola*, is it clear that those OEMs were content to commit to FRAND and that that was the context in which the chipsets were being –– they fear that they would be refused?

MR MOSER: I submit generally, and I can make this good by references, though not now, I submit generally that we are dealing with companies that were willing licensees on FRAND terms. There is ––

MR TURNER: But it has to be at a specific moment of this

conversation, whatever it was, interaction between –– were they at that stage behaving like willing licensees or were they not? If they were not, then that provides a very different context.

MR MOSER: Indeed. I mean, I glance at the time because there is only so much I have been able to do, it turns out, this morning.

MR TURNER: Yes, of course.

MR MOSER: If one looks at the evidence, there are clear passages where we see that the OEMs concerned say, well, I was –– you know, we are willing to deal with you on FRAND rates. We see this, for instance, in the passage with Sony which is not redacted. We are willing to deal with you on FRAND rates. Please can you do something. The answer quite evidently is "no".

MR RIDYARD: You think that also applies to *Motorola* and LG because I do not think –– is there something that shows us that trigger point there, where they said, "I want to commit to a FRAND determination"?

MR MOSER: Well, we will look at this in the evidence with the witnesses and we will see the context of this. My submission is that, yes, whether expressly from the evidence or by necessary inference, in each case that I am showing you, I say we are dealing with willing licensees.

I want to finish, if I may, this section of evidence about, in particular, Apple and Samsung resisting and I want to start with an internal Samsung strategy document from October 2013. 2013 is around the time of an important episode in which Samsung sought, unsuccessfully, to renegotiate its royalties with Qualcomm. Can I invite the Tribunal to read the extract at {POF/415/17-18} and that is a 1782 external-eyes-only document, but there it is, and in particular, starting at the red and grey box at the bottom of page 17 reading through to 18 and, in particular, the last bullet point. (Pause)

THE CHAIR: What, in this, says that there was any threat to cease supply in the event that Samsung were to say, "I will go to FRAND negotiation, I will go to FRAND litigation, if necessary. In the meantime, I will -- I will simply pay the medium price or whatever it is the standard holding price to be paid pending a FRAND determination"?

MR MOSER: We see that if we look at another 1782 document, which is the evidence from Mr Injung Lee --

MR TURNER: Just before you move on, do we know what this document is? I have read the words but what is the document?

MR MOSER: Sorry, the earlier document?

MR TURNER: No, the document we are looking at now -- before the one you are going to, so the one at {POF/415} --

MR MOSER: Forgive me, I should have started at page 11. I am taking this as quickly as I can. If we look at page 11, we see the top end of that document {POF/415/11}, it was a Qualcomm response document of 8 October 2013. So this is essentially a plan of what they hope to do.

MR TURNER: 2013, right.

MR MOSER: 2013 is an important time because that is when we say they ought to have been able to renegotiate in time for -- just before the claim period in time for the claim period in relation to LTE, but I was going to take you to the evidence of Injung Lee in 2016 in US proceedings of Samsung at {POD/7/38}. That puts into context what we have just seen. I cannot read it out, but it is the question in the middle which starts:

"I think you testified ..."

Do you see that there? If you can read the three questions and answers in the middle, please. (Pause)

Go to:

" ... as favour of Samsung."

Eight lines down.

I think I can say this in open: our case is whatever they tried to do in 2013, again, it did not work. The

reason is explained.

MR TURNER: Are they saying here that they do not want to go to arbitration because it takes a long time? I mean, they are not talking specifically about not having chipsets, are they? They may be talking about other things?

MR MOSER: Well, it is not how I read it. If we look at those eight lines from "I think you testified earlier" down to "in which direction", answer, I submit it is very clear that that is of course our case.

THE CHAIR: But where does that say that there was any implicit or explicit threat? I mean, the OEM might simply have just taken a view that it was not going to -- actually this is ridiculous.

How am I going to discuss this if it is all confidential? I cannot ask the question I need to. Right.

MR MOSER: Well, we will clearly have to look at this. In the time available --

THE CHAIR: Make your submissions and then I think we are going to very, very soon, maybe even before the submissions tomorrow, discuss what we are going to do. Maybe you can have a word with Mr Jowell and Mr Saunders over lunchtime because this is absurd. I mean, this is the heart of the case. We cannot proceed with the rest

of the trial with all of this stuff in confidential.

MR MOSER: Yes.

THE CHAIR: Make your submissions, Mr Moser.

MR MOSER: Well, if I could just turn to Apple because hearsay evidence in the case of Apple shows the company was also unable to seek a FRAND determination because of the risk of supply disruption. I will cite the example of Mr Blevins, who explained the risks of bringing IP litigation. I am afraid it is another 1782 document at {POD/7/17-18}. So start at the bottom of 17 and about halfway down to 18. If I could invite you to read those passages, please. (Pause)

THE CHAIR: Why do you want us to -- you want us to start at the words "And I am wondering ..."?

MR MOSER: Yes.

THE CHAIR: A somewhat leading question, but anyway. (Pause)

But what about the question three lines up from the bottom on page 17?

MR MOSER: Well, this is part of our case that it was not always necessary for them to say it expressly because everybody knew what the situation was.

MR TURNER: "Imply" is the word used.

MR MOSER: Exactly, it is express or implied.

THE CHAIR: So there was -- so there was no suggestion or

implication of a threat?
MR MOSER: There did not need to be. When I say that everyone in the industry knew, I have not taken you to all of the wider OEM evidence. I do not know -- have you finished reading the passage?
MR TURNER: Again, sorry, the context for this document?
MR MOSER: The context for this document is this is, again, examination in US proceedings and in this case it is Tony Blevins of Apple on 28 January 2016.
MR TURNER: This is a deposition and this is Apple and Qualcomm are the parties?
MR MOSER: It is the FTC proceedings.
MR TURNER: Right.
MR MOSER: The fact that Apple felt constrained by Qualcomm's market power is, we say, illustrated by something that they actually hold against us because they say, "Ah, well, Apple had buyer power. In fact Apple even sued us" says Qualcomm. We say that the company, Apple, was only in a position -- it only felt able to challenge Qualcomm in 2016 and following when it thought that it was no longer going to be dependent on Qualcomm for chips.
MR TURNER: So what date are they talking about here?
MR MOSER: So here we are talking about that period in about 2016 to 2018 when Apple believed that it was going

to be able to escape from the Qualcomm straitjacket on supply of chips and that is the period when -- we have not reached that stage yet of the chronology, but that is the period when Apple was able to -- felt able to sue Qualcomm and in fact launched an all out worldwide assault on Qualcomm's selling system and NLNC, including attempts at FRAND, and assessing the royalty because what happens in the case of Apple is that, prior to 2019, Apple had no patent licence with Qualcomm. Instead, they were broadly dealing with contract manufacturers. I have said that these contract manufacturers, like the whole market, were suffering from the licensing leverage rates. So Apple was forced to pay these, even with limited rebates.

Despite its size, we say that Apple could not muster sufficient bargaining power to reduce the rate further due to its dependence on Qualcomm for chips. That is the context for these answers that we are looking at in the LTE proceedings. Exceptionally, there is a period between about 2016 and 2018 when Apple gradually develops bargaining power because it thinks it has secured another chip option and so, as soon as we say it manages to escape from under the heel of the monopolist, it initiates this all-out challenge to Qualcomm's licensing practices, including NLNC and including

royalties.

In that period, we see these giants fighting it out. The obvious inference is because they thought Intel was going to provide them in the next stage with 5G and Samsung were already there with Galaxy.

We also know, to cut a long story short, the outcome of Apple's version of events is the chips did not arrive and, once again, Qualcomm had them over a barrel and it capitulates on all fronts. Qualcomm says, "No, Apple just bowed to the inevitable that its rates were FRAND anyway" and that will be a conflict on the evidence for the Tribunal.

You see in the chronology that is there is a settlement agreement, but at all points prior to 2016 we say it is clear that Apple did feel constrained. It is only at that one moment when Apple feels, "Oh, no, we are going to be able to get some chips from somebody else" that they suddenly are able to take Qualcomm to court and then they do so with a vengeance.

That is important context for this when you say to me, well, how do I know that Apple even wanted to do this? Well, we know because we can test it against what happened when they thought that they had leeway.

So, I mean, that is the position with Apple. The Defendant tries to hold that against us and says --

THE CHAIR: You say at all points prior to 2016 it is clear that Apple felt constrained, but after that?
MR MOSER: Yes.
THE CHAIR: After that?
MR MOSER: After that, between 2016 and the settlement in 2019, they litigated hard, it will be recalled, against Qualcomm.
THE CHAIR: But that takes up quite a lot of the period of the claim.
MR MOSER: It --
THE CHAIR: The claim starts in 2015 so you are then immediately into a period, or almost immediately into a period in which you are saying they litigated hard and were not constrained.
MR MOSER: Yes. We know what happens with the Mewes evidence, which is that in 2019 we end up back at square one and, in short, there is unmitigated loss which is paid for the entire claim period.
THE CHAIR: Well, what do you mean by "unmitigated loss" because during that entire period they were litigating? Then they settled.
MR MOSER: They were litigating, but when there is a settlement there is a back payment of all the royalty for the time of litigation.
THE CHAIR: But your counterfactual case is the ability to

litigate and they did have that ability during the −− during the period 2016 to, on your case, 2019.

MR MOSER: They briefly felt they had the ability to litigate.

THE CHAIR: It is not briefly. It is three years.

MR MOSER: It is, but there was then the collapse at the doors of the court in the way that is explained by Ms Mewes. In one way or another, I am going to have to go to that evidence. I know that it is 1.00 pm and we are constrained on time, but I simply have not managed to get there. Perhaps if we can rescue some time back at the beginning of tomorrow morning, I can muster my outstanding references and take you there after lunch because what I still need to do, I feel, is to tell the end of the Apple story, explain the Samsung case and give you some references for the documents which at some stage I would be grateful if you could cast an eye over.

THE CHAIR: Well, when we come back at 2.00 you can tell us how much time you want tomorrow morning. It will not be long. We will have to start early and I will have to just discuss with my fellow panelists and everyone whether we can start early.

We are also going to have to have a discussion about confidentiality so just build that in. It looks like we are going to need to be here early tomorrow to do both

those things.

All right. So we can be here early tomorrow and just let me check my own diary. All right. So we could start theoretically at, say, 10.00 or earlier than 10.00 to deal with confidentiality and a delineated amount of time for you to have to finish your submissions.

MR MOSER: Would 9.45 be too early?

THE CHAIR: No, I think we can do that, unless I say otherwise after a discussion over lunch.

So you will let us know how much more time you want tomorrow morning and how much time you think we need for the confidentiality discussion.

MR BAILEY: Madam, if I may, just in relation to confidentiality. Obviously the Tribunal will be aware, it is not simply that Qualcomm is making requests for confidential treatment. There is also the position of the third parties, as the Tribunal will recall from the hearing earlier this month. I just wondered, if the Tribunal is intending to have a discussion about, for example, the 1782 material, does the Tribunal wish to hear from the third parties? They expressed extremely strong views about this at the last hearing.

There is a further complication which I should also raise, just so the Tribunal is aware of it, which is that, in relation to the 1782 material, that is not just

simply within the parties' control; there is a process which also requires the US District Court to be involved because it is its Protective Order that applies to that information.

I just wanted to raise those two matters now in case you had any views about how we should proceed before tomorrow morning.

THE CHAIR: Well, is it possible for them to be here tomorrow?

MR BAILEY: Well, Madam, we can obviously make enquiries over the short adjournment to see if that would be of assistance. It just seemed to me that if the Tribunal wishes to discuss confidentiality and try and arrive at a regime that works for the court and the parties −−

MR TURNER: We would also need to know what documents. We dealt with a handful, but there may be other documents that the parties are going to refer to.

The trouble is at the last hearing it was not clear which documents were going to be referred to actually in the course of proceedings, if you recall. So, yes, it is not just the documents referred to this morning, it is others you intend to refer to.

THE CHAIR: I think there is no way that we are going to be able to deal with this on a document−by−document basis. We would have to deal with it on a category−by−category

basis and then just give a ruling on the broad categories of documents we do not think are confidential.

I mean, I think you need to come up with something which is a way of dealing with this going forward which is not going to involve us spending a lot of time on a satellite issue which really should not be the focus of this trial, but we need to find a way forward because this kind of document that we are being shown, it is going to be impossible −− it was impossible for me to ask Mr Moser the question that I wanted to ask him about something that was blindingly obvious and is the main focus of the submissions of the Class Representative in this hearing.

I cannot see how that kind of thing can possibly be regarded as confidential because it is the Class Representative's essential case.

So −−

MR BAILEY: I do appreciate the concern. It is just that it will not be Qualcomm that is saying to you that that material (inaudible) third party is confidential, it will be the third party. I am only raising, really vicariously on their behalf −−

THE CHAIR: Yes, I understand. Can you just −− put your heads together and propose a process whereby we can make

a determination on broad categories of documents in short order, without spending hours and hours on this, because we do not have the time in this trial, but it is evident that it needs to be sorted out.

So I will let you come back to me after lunch with how you, between you, propose how we proceed so we can actually ask the questions, without having to ping-pong in and out of closed session, on completely obvious points that are central to the submissions on both sides.

All right. Thank you very much. We will come back at just after 2.00 pm.

(1.07 pm)

(The luncheon adjournment)

(2.00 pm)

THE CHAIR: Just give me a moment, Mr Moser.

Yes.

MR MOSER: In I hope no more than 15 or 20 Minutes, I hope to achieve a limited number of things. I want to respond to a particular point in their skeleton argument which I feel I must do and that ties in with what I was talking about immediately before lunch. That will take me to the Mewes evidence and then I will go to our skeleton argument and, with one exception, essentially point you to the Apple and Samsung-specific evidence.

THE CHAIR: All right. How long are you going to need tomorrow morning --

MR MOSER: I of course will need --

THE CHAIR: -- to catch up?

MR MOSER: We might need about half an hour in the morning tomorrow to catch up.

THE CHAIR: Well, I think I can give you about 20 minutes, because we are then going to have to spend the rest of that time first thing in the morning dealing with confidentiality.

MR MOSER: Yes.

THE CHAIR: Unless you have an agreed proposal now?

MR MOSER: I know that Mr Armitage and Mr Bailey have been talking. There is no agreed proposal now, but they are, as it were, the keepers of the redactions and they will continue to talk and it is probably going to be they who will be addressing you on it tomorrow morning, rather than me.

THE CHAIR: All right. Are they going to send anything for us to peruse before tomorrow morning?

MR BAILEY: Madam, Qualcomm can certainly put forward a proposal as to how Qualcomm will request that its confidential information it to be treated during the trial. So we can put forward that as a proposal for that.

We are also notifying Samsung and Apple, in particular, in light of the indication given by the Tribunal this morning, so that they are aware of the hearing and also the Tribunal's concerns. We do not think we are in a position, however, to take matters further than that, because obviously they will need to address the Tribunal as to the position in relation to their documents.

The other thing that Qualcomm were suggesting to the Class Representative is that we can identify broad categories of information because you said you were considering categories and we can put those categories to the third parties so that they are aware that those are the ones that are the subject of tomorrow's discussion.

THE CHAIR: Yes. Your proposal needs to be a mechanism for us to deal with it, which would need to include, so far as appropriate, any representations to be made by Apple and Samsung. So it is not just what you suggest should happen, but how we then address that question in terms of getting necessary submissions from Apple and Samsung. You are the contact with them.

MR BAILEY: Madam, that is not entirely correct. We are not just the contact with third parties. The parties themselves agreed and divided up how they would liaise

with third parties. It depended upon whether or not a particular party was relying on third party information so we are not the guardian, Madam, of third parties and so in that sense, if I may, I would suggest that the parties should co-operate and liaise after court to try and agree the process.

THE CHAIR: Yes, all right.

MR BAILEY: I am grateful.

MR MOSER: I am grateful to everyone.

On my first point, this issue around their skeleton. If I can start with their skeleton at {EAOS/2/24}, and paragraph 37, starts on the previous page, but I want to look at the bit that is on internal page 21 of their skeleton, just before paragraph 38. They say something which they think is a complete answer to this question of whether Apple was even willing, on this question I had about a willing licensee, and my point about that was generally everyone was always a willing licensee and we get what references we can on that in due course.

I pointed out that there was a period when Qualcomm and Apple were at loggerheads. They have chosen a quotation from Apple's legal counsel at that time and they say --

THE CHAIR: What paragraph are we looking at?

MR MOSER: This is at the end of paragraph 37, just above

38, internal page 21, and it is therefore {EAOS/2/24}. They say Apple was not truly interested, look at what their counsel said:

"If Qualcomm makes a motion for a worldwide FRAND determination, we are going to oppose it in any jurisdiction."

Said Isaacson.

That is not probative of anything for a number of reasons. The first is that, fundamentally, what Apple was saying in that submission was they did not believe the royalty rate could be set without scrutiny of Qualcomm's portfolio. It is worth looking at where this quotation comes from. It is at {POD/8/24} at 31:4. On that page, we have Bill Isaacson for Apple and he says -- if we are there, he says:

"At the outset, Your Honour, what I would like to say ... Apple, as master of its complaint ... is that Apple is not seeking a worldwide FRAND determination in this court or any other court. In fact, when you look at our pleadings, we are seeking FRAND determinations on 18 specific patents, as well as other determinations about those patents. In fact, it is Apple's position that if someone -- [and here comes the quote] -- if Qualcomm makes a motion for worldwide FRAND determination, we are going to oppose it in any

jurisdiction.

"THE COURT: Why? A: Couple of reasons. First of all ... no authority."

I skip then down --

MR JOWELL: I think if you read on --

MR MOSER: That is the first reason. If it matters, you can read it to yourself. They say there is a negotiation that is unsuccessful referenced in pleadings, but there is no obligation to enter into a licence with Qualcomm. However, the fact that those negotiations broke down was not because the court has the authority to step in and say we will determine what is fair. It is a jurisdictional point.

The other problem starts four lines up from the bottom. The other problem is:

"The patents, which would be the subject of the worldwide FRAND determination, are not before this court. They are not in any of the pleadings. They are not -- there's no one asking you to review those. In fact, it is the opposite. Qualcomm very much want you to set a FRAND rate without actually looking at the patents; in other words, to have this Court set a royalty for licensing of a patent without knowing what the patents are. They are not in the pleadings."

So fundamentally this is part of an ongoing argument

between Apple and Qualcomm at this time when, for reasons I've explained, Apple felt able to bring proceedings, where Apple objected to arbitration on Qualcomm's terms, as they saw it, without a valuation of the actual SEPs.

It is also, as we will see in evidence from Mr Watrous and other places, it is an objection to arbitration in the NLNC world where FRAND arbitration or court determination will use comparators that Apple said were equally tainted. Mr Williams will address this. This is the poisoned well argument.

So Apple had to raise the antitrust points, as well as doing FRAND arbitration, to expose the inflation of the underlying rate found across all of Qualcomm's portfolio of licences.

Again, this is at the time when they are fighting each other around the world. No one is agreeing to anything. So that is the exception that proves the rule, as it were, when Apple was not willing. In that context, I submit Apple's actions actually tell a different story because, far from not seeking a FRAND determination, Apple issued proceedings, including in the USA and the UK, which sought a range of reliefs, including FRAND determinations. I will just give you the references but there are pleadings for the US

proceedings in the file at {ORI/116/65}, at paragraphs 243 and following. In the US proceedings we see that they sought declarations that certain patents were non-essential, declarations of FRAND royalties on the basis the royalty base should be the smallest saleable unit and all of that.

The claim also raised exhaustion. That is {ORI/116/84}, paragraphs 113 and following.

Apple also issued proceedings in the UK {POF/765}, including a competition claim, paragraph 90, {POF/765/29}, and following, a claim that a breach of ETSI obligations and the claim of the patents were invalid -- so across the board.

THE CHAIR: So {POF/765}.

MR MOSER: Page 29 and following and at paragraphs 90 and following of the pleadings we see all of the different claims that were brought. If we look at -- we perhaps should glance at this more than just for your note {POF/765/10}, at paragraph 32 and following of the UK pleadings, we see a description of Qualcomm's licensing practices that Apple complained about which are fairly similar to what we say in this claim. That is at paragraph 32 to 40.

At paragraph 61, at page 20 {POF/765/20}, they say:

"Apple is currently challenging Qualcomm's fees and

practices in connection with sale of chipsets and licensing of associated SEPs through competition law challenges in multiple jurisdictions. Ultimately, the terms of the licence between the parties will have to be determined, whether through litigation or negotiation."

So it is certainly not an indication that they were not willing to have FRAND negotiation or litigation. They were actively seeking FRAND litigation. It is just that in that time of perceived bargaining power they had brought a general litigation trying to break the NLNC business model. We say actually that is strong evidence that dependence on Qualcomm had been what was holding Apple back from litigating up to that point. That being said, the fact Apple did not want to arbitrate on Qualcomm's terms is not a good point when it comes to willingness and when one looks at what Apple did ultimately litigate on in its own terms in the US and the UK.

THE CHAIR: What do you mean by arbitrating on Qualcomm's terms?

MR MOSER: Well, what counsel for Apple was saying in his submissions was, "We are going to oppose worldwide FRAND arbitration at any cost". That is because they perceived that what Qualcomm was after in the US court was, without looking at the individual SEPs, determining

some sort of worldwide FRAND rate and they objected to that, not least because, they said, these patents are not before you, you do not have the jurisdiction and that is what I mean by "Qualcomm's terms".

How it ended is in the evidence of Ms Mewes, which we see at {POD/7/72}. The parties have competing narratives about this, but Ms Mewes, we see, is very clear in what she says. This is in her -- this is in her third witness statement, given in the *Optis* v Apple proceedings here in 2022 in the United Kingdom. We see paragraph 10:

"Qualcomm's a key component supplier for Apple products, including the iPhone. At the time the Qualcomm deal was negotiated, (and to this day), Qualcomm had a 'no licence, no chip' policy, that as far as I know is a practice unique to it and through which it required any customer purchasing Qualcomm chips to also take a royalty bearing licence. During the negotiation period prior to April 2019, Apple had no other supplier from which it could purchase suitable 5G chips for its iPhone products to be released starting in 2020, and Apple was therefore 'over a barrel' in its negotiations with Qualcomm -- I understand that Apple was two days away from the date at which it expected it would miss the 2020 launch date of its 5G-enabled WiFi

when the deal with Qualcomm was finalised. For this reason, I also do not consider the Qualcomm licence to be a comparable licence."

We have seen in other places that what happened to that period of perceived bargaining power was it all ended with the settlement in 2019. I have described it as "back to square one". Slightly constrained again by confidentiality as to what I can say in relation to the details of the settlement, but, as far as, Madam, your question, you know, what is the money consequence, it was a settlement back. So there was no -- no saving achieved at any time by all of that effort and Apple was back, in the colourful language, under the heel of the monopolist in 2019 and at all times since.

MR RIDYARD: Are you saying there that it just ran out of time to get what was due to them or -- because there is two ways of looking at that, is there not? One is they would have got a much better settlement but then they ran out of time and they thought they were also going to be non-dependent on Qualcomm for 5G chips, in which case they could have carried on the litigation, but they had to stop because they suddenly found they did not have any 5G chips, or maybe they went to the litigation process and they did not get a better price because the price they were already getting was the right price? So

how do we distinguish between those two hypotheses?

MR MOSER: Well, the second is their hypothesis, Qualcomm's hypothesis, which we say it is inherently unlikely that suddenly they have lost faith in this thing that they have been litigating with all guns blazing for two years. In fact, what we say is on the balance of probabilities the case is what Ms Mewes actually says, which is --

MR RIDYARD: But why should we favour your view over their view on it?

MR MOSER: Because we say by obvious implication, it is the more natural interpretation of what went on. They wanted to have the 5G chips. We know that the expectation was dashed. We know the 5G chips did not arrive in time and it is, for instance, in Mr Noble's report, his ninth report, at paragraph 233, and they had to do something. Samsung's Galaxy was already on the market with its 5G and they were driven back to the arms of Qualcomm.

MR RIDYARD: So it is miscalculation by Apple? They thought they had five years or whatever to do the litigation and they ended up with only three and, therefore, there was not enough time.

MR MOSER: It is a disappointed expectation. From about 2015, they thought this thing was going to be

developed by another company.
MR RIDYARD: Yes, so that is what you are saying?
MR MOSER: It was.
MR RIDYARD: Yes.
MR MOSER: So we will see what they say about that, but that, we say, really fits entirely with the explanation, with respect, given by Ms Mewes under oath in *Optis*.
So, as briefly as I can then ––
THE CHAIR: Yes ––
MR MOSER: –– the evidence. It is going to be most convenient to take it from our skeleton argument.
THE CHAIR: Well, you will have to be extremely brief because we are already 20 minutes into the afternoon.
MR MOSER: Yes. Madam, I am going to go almost entirely now to Apple and Samsung evidence. I do want to touch on one bit of other OEM evidence. That is the only one that I am going to go which is at paragraph 189 of our skeleton argument, because it puts into context what I say about what is to be expected from the evidence and what is not to be expected.
So, as I said right at the beginning in my opening, sometimes we see direct threats to cut off chip supply. One of those occasions is in the negotiations with *Motorola* in 2015. There –– I will not go to it –– but the reference is there and it is hyperlinked in the

electronic version. We see a handwritten note from Mr Amon of Qualcomm about his own Qualcomm colleague, Mr Reifschneider, and he says, in that negotiation, licensing –– Mr Reifschneider "constantly threatening to cut off supply". So there we have a handwritten note, specifically example of withdrawal of supply.
I would say immediately the evidence is that not good for every negotiation. If you are looking for an email or a note of every negotiation that says, "And we will cut off your supply", you will not find it. As I have also said, in competition cases, it is not always necessary. You have to draw an inference and you have to draw, on my submission, if you are with me, that there was an ecosystem and an atmosphere of risk that everyone appreciated. That included the contract manufacturers in the case of Apple and I think I have taken you to the example of Pegatron.
I will just go to one further actual document and that is going to be Mr Sewell in the hearsay document at {POD/7/28}.
THE CHAIR: Is this in the skeleton again, because I thought you were giving us skeleton references now?
MR MOSER: Yes, I was giving you skeleton references.
I just want to supplement this one point in relation to the contract manufacturers. Then I do not have to come

back to it when we get to it in the skeleton. As the last one, if we look at –– it is a 1782 argument –– document, but if we look at Mr Sewell's evidence in a 2018 deposition, starting at 82.24, this describes the NLNC situation in relation to the contract manufacturers and what Apple had to say about that. If one just reads to the end of that page to where it says 97.9. (Pause)
THE CHAIR: All right.
MR MOSER: That is because a point is made against me that says, well, contract manufacturers protected Apple from this problem. No, they did not, for that reason.
Skeleton argument, in particular, in relation to Apple at paragraphs 218 and following, I will not read it all out, not because it is redacted, but because there simply is no time, but each of these documents, at paragraphs 218 through to 241, is highlighted. I would ask, please, that the Tribunal at some point in these weeks have a look at the documents that are connected electronically to those paragraphs, please {EAOS/1/63}. That, again, deals also with the case of whether Apple just sort of gave up on its litigation or not.
Similarly, in relation to Samsung, if we look at paragraphs 243 to 249 {EAOS/1/70–72}. That deals with the Samsung case. It is a bit different because Samsung's rates had been set back in 1993 and, in

Samsung's case, we are dealing with the variation that we are always talking about renegotiation and an extreme reluctance, we say, to exercise the outside option, including in 2013 when they could have done just before the claim period. We say it is easily understandable if you look the previous experience of negotiations that are highlighted here in the documents, in which Qualcomm repeatedly threatened to cut off Samsung's chipset supply. In the Samsung case, it is more overt than in the Apple case where they said they did not have to because we knew. In Samsung's case, you will see the evidence. They repeatedly threatened to cut off their supply and Samsung was given to understand the potential costs of disputing royalty terms with Qualcomm.
Our case is that the sting of those lessons and Samsung's resulting fear, reasonable fear, of chipset supply persisted throughout those later negotiations. So you have a licence entered into in 1993 when none of the 3G, 4G, 5G were even a twinkling in anyone's eye and somehow it is said: that is all fine and that is all fair for the rates that were being paid in 2015 to 2018, the claim period. We say, no, it was all tendered into at a time of total CDMA Qualcomm dominance and total Samsung dependence and never effectively changed.
There was a change in 2018, you will see that in the

chronology, when Samsung was permitted a sort of renegotiation as a result of the Korean Fair Trade Commission decision, but it did not benefit them much because they simply got the prevailing market rate again and they were, it seems, more interested in being pegged to the Apple or Huawei rates. That does not change our case, but it is consistent with Which?'s case that these hiked rates were passed on to consumers and there were no effective renegotiations of the leveraged rate at any time. That is the Samsung case that carries on through to paragraph 270 with the documents hyperlinked.

I am sorry that is all a bit rushed, but that brings me to the end of what I wanted to show you.

THE CHAIR: Thank you very much.

Opening submissions by MR WILLIAMS

MR WILLIAMS: Madam, members of the Tribunal, I did not have any voice last week. I have a bit of a voice this week. I will try and keep my voice up, but if you could just bear with me and if I am not clear at any point, please do tell me.

THE CHAIR: Have you tried Vocalzone?

MR WILLIAMS: I do not even know what Vocalzone is.

THE CHAIR: I will bring you some in tomorrow.

MR WILLIAMS: I am very grateful.

I am going to address three aspects of the economics

in the case and along the way I will deal with a few matters of law and some of the factual issues as they feed into the economics. The three topics are market definition, dominance and abuse.

The third of those topics has three elements. One of them is Mr Noble's bargaining model and how that fits into the case. Then I also want to say a bit about RTL, as promised, and then, finally, leveraging, although I do not propose to say very much about that.

We are obviously a bit squeezed on time? I am going to keep making points. I will take you to documents here and there, but if you need me to slow down at any point, Madam, then please say. Otherwise, I will try and keep the submissions coming.

The legal framework for market definition and dominance is set out in the *Cabo* judgment, Madam, which obviously you are very familiar with. I was not going to spend time on that. I think it is mostly common ground. I will pick up one or two legal points relating to this bit of the case along the way.

You will have seen our position on the definition of development markets from our skeleton and from Mr Noble's evidence. I will show it in just a minute. The basic idea is that OEMs need chips to make devices of different types and models and one of the fundamental

criteria for producing a device is compatibility with a given standard and if an OEM wants to make a device that complies with that standard, they need the right sort of chip and there is no substitute for that. You cannot make a 4G phone with a 3G chip. So if I can show you how that shakes down in Mr Noble's evidence. It is core bundle, tab 35, page 12 or it is {POE/21/12}, paragraph 2.5.

So what you see on that page and the next page are five relevant chipset markets defined with reference to standards and the complication is that some of the markets involve backwards compatibility with other standards because in jurisdictions where one standard is used rather than another, there are variants and so what one sees there is both an LTE CDMA standard and an LTE UMTS standard. The basic concept is compatibility with relevant standards.

The way that plays through into dominance is that on Mr Noble's analysis, Qualcomm is dominant in all of those markets, except the first one. You get that from paragraph 3.3 of Mr Noble's report a bit later on.

There are two real world scenarios that kind of bring this to life. One is that as a new standard emerges, OEMs want to make devices that conform to the latest standards to offer the functionality that the new

standard offers and, for example, 4G was roughly four for five times as fast as 3G. One gets that from footnote 38 in Mr Noble's eighth report, just for a reference.

If I could bring up {POE/21/108}. This is in part confidential evidence from chipset -- from OEMs provided in the context the European Commission investigation, essentially to the effect that chips complying with one standard or specifically chips complying with an older standard, 3G, are not a substitute for chips that comply with the more recent standard, for commonsensical and obvious reasons. One sees that in Apple and Samsung and there is also evidence from *Lenovo* to like effect.

If I can make the same point using a different sort of evidence, if we could bring up, please, {ORI/153/5}. Sorry, page 1 {ORI/153/1}. So this is a Bloomberg commentary from April 2019. So it is very close in time to the Apple settlement and it is, we say, relevant market context for the Mewes evidence which Mr Moser was just addressing. It gives colour to the market's perception of the pressure that was on Apple at that time. You can see the heading, "Apple's rival see 5G as a golden opportunity to beat iPhone". And you get the flavour of it from the first page down to "5G future" on page 2 {ORI/153/2}. (Pause)

So it is market commentary. There is pressure on Apple to get a 5G phone to market, a 4G chip is not going to cut the mustard. So we note, if you move down and look at the bottom of that page, there is speculation, we say, accurate speculation, that Apple's feud with Qualcomm was going to end up putting pressure on it to do a deal. So this is the perception of the market. It is obviously not internal evidence but it is market perception.

If we could just turn on to page 3 {ORI/153/3}, there is -- it says at the top of page 4:

"The need for 5G chips may give Apple reason to quickly settle the case ... currently works with chipmaker Intel Corp., which doesn't expect to be able to sell 5G components at scale until 2020."

So the sort of speculation about difficulties procuring chips for Intel.

A bit further down there is a quote from Cristiano Amon from Qualcomm saying: we are a leader and we are very keen --

THE CHAIR: Yes.

MR WILLIAMS: You get the flavour.

Just to complete the picture over on page 4 {ORI/153/4}, you can see at the bottom of the page:

"Apple's iPhone rivals aren't wasting any time."

Top of the page:

"This is a golden opportunity for us."

Says LG and so on.

So that is the imperative for an OEM to get hold of the newest chips, chips complying with a particular standard, to bring them to market and it brings to life, in my submission, why older chips are not a substitute.

So that is one real-world scenario.

The second real-world scenario you have probably picked up from the skeletons, which is that OEMs may want to make devices for use on certain networks and the Tribunal has seen, I think, that in the US, in particular, and in other jurisdictions, there were competing 3G standards, UMTS and CDMA, and if an OEM wanted to make a CDMA-compatible device for use on a CDMA network, they needed a CDMA chip and UMTS was not a substitute for that. That was true at the time of 3G and it was true at the time of 4G, because of the backwards compatibility issue.

There is a lot of evidence of Apple's particular need for CDMA in that context. We have set out some of it in paragraph 215 of our skeleton. You will see a bit more, I hope, in the course of my submissions.

So that the basic logic underpinning Mr Noble's market definition.

His approach is in line with the *Predation* decision. I will give you a reference. That is {POF/919/44}, recitals 178 and 179. I won't go to it, given the time. As I have shown you, his evidence is also in line with what OEMs were telling the Commission in the context of that investigation and in the context of the Commission's investigation into exclusivity -- Qualcomm's exclusivity provisions.

So defined in that way, the markets do not include self-supply, which means particularly the supply of chips internally by Samsung and Huawei, and that is because at least until 5G -- I am sorry, there is an exception for 5G, but at least until 5G the proportion of sales made by those companies externally was minuscule. It was very small indeed. Mr Noble -- if you would like to see the reference, it is {POE/21/24}, paragraph 2.35, page 24, footnote 58. You can see the very small percentages.

MR RIDYARD: So you are excluding self-supply from the market, but when it comes to looking at Qualcomm's market power over Samsung, you do --

MR WILLIAMS: Anything that does not come in at these stages comes in at some stage, yes, I accept that.

So that is Mr Noble's approach. There are three main differences on Dr Padilla's approach. First,

Dr Padilla identifies what we describe as Apple and Samsung-specific markets. Secondly, on that basis he finds that self-supply is in the same market, particularly for Samsung and, thirdly, he finds that chips complying with different standards are in the same market.

So this is very, very different in precedence and it is a reinvention of the wheel, if I can put it that way.

This idea of Apple and Samsung-specific markets, it is front and centre in Dr Padilla's analysis because his analysis of self-supply depends on that. His analysis of substitutability across standards is all based on Apple and Samsung's own devices and his analysis of dominance is all based on these markets. So a lot turns on this point in terms of the shape of the case.

In my submission, the clearest way to see the problem with what Dr Padilla -- with his conclusions is to jump straight to the end and to look at what is covered by his market definition in the final analysis. We have set this out in our skeleton, but I hope you do not mind me repeating it. Although Dr Padilla conceptualises these markets as Apple and Samsung-specific, they are not actually Apple and Samsung-specific in any way we can understand, because the markets Dr Padilla defines include all chips that

complied with any standards for which Apple or Samsung were buying chips at any point in time, not just the chips that Apple and Samsung were buying, but all chips that complied with the standards for which Apple and Samsung were buying chips from time to time.

So his LTE markets include all LTE chips that are bought by any OEM at the time Apple and Samsung are buying LTE chips.

THE CHAIR: So on the one hand, he narrows it to be OEM-specific and, on the other hand, he broadens it to include all of the chips, including multiple generations?

MR WILLIAMS: Well, he calls it Apple and Samsung-specific but it is very, very similar to what Mr Noble does.

THE CHAIR: Well, you say because the chips overlap, they were the same chips.

MR WILLIAMS: Yes. I mean, I will unpack it a little bit, but, yes, that is right.

In fact, the Apple market includes chips that were bought by Samsung and vice versa. So it is curious, but, in my submission, it becomes harder -- even harder to understand when one looks at why Dr Padilla says that the market should be Apple and Samsung-specific. He makes two points.

One is that Apple and Samsung had their own specific

requirements and, secondly, he says there is pricing dispersion.

Now, these are obviously features of many markets. In our skeleton we refer to the *Churchill Gowns* case where a similar issue arose and the Tribunal unhesitatingly found that the market for the supply of university dress covered all universities, even though every university had its own particular requirements. So it is quite clear that differentiation is not enough to establish an OEM-specific market.

Can I bring up, please, Noble 9, Mr Noble's ninth report, paragraph 216 {POE/23/9}. If the Tribunal could read at the bottom of the page:

"There is considerable overlap in the chipsets ..."

Then read that and then over the page {POE/23/10}. (Pause)

It is quite a stark piece of evidence and we say a very unpromising basis on which to say that Samsung has such bespoke requirements that its chips are in a different market.

Now, the Tribunal may have seen there is one respect in which Apple did buy different sorts of chips, because it buys what are called "slim modems" which do not include the application processor, but it is common ground that those chips are in the same market as the

system honour chips so that is not a point of distinction.

We really do struggle to understand how Dr Padilla starts with this idea of bespoke requirements and differentiated pricing and then ends up with a market which includes all chips supplied to everyone at what are presumably a whole range of prices. If the market includes chips that are supplied to everyone, in what sense does Apple have such bespoke requirements that its chips are in different markets? When it comes down to it, for as long as Apple is buying, say, LTE UMTS chips, all LTE UMTS chips are in that market and we say that is simply not a bespoke requirement. That is just a chip that complies with the standard.

So if one stands back and looks at the chips that are actually in Dr Padilla's market, you can see there are various suppliers, predominantly Qualcomm, but some others, using their resources to supply OEMs with a range of chips that comply with a given standard and from there it is a small step to see that if the hypothetical monopolist supplier to Apple or Samsung were to put up their prices, there is capacity in the market that would be diverted to supply chips at a more competitive price and in fact the Tribunal may have seen from Mr Noble's evidence that actually this is a market

where there are not capacity constraints because the chipset manufacturers tend to use foundries so they do not tend to have internal capacity difficulties. Mr Noble makes that the point at 2.42 and 2.43 of his eighth report.

So, having made those points, I just want to come back to the beginning of Dr Padilla's analysis and the issue of the focal product which is a point of difference between the experts. Dr Padilla says he has picked the narrowest possible focal product in line with, you know, first principles and he has used that to test the boundaries of the market, but the reality is that his focal market is not really very different to Mr Noble's market and in fact the key difference is that he includes self-supply so, in that respect, it is wider. So we say this idea that Dr Padilla has picked the narrowest possible focal market is really an illusion. For the most part, he has picked a different description of a product that is supplied to the whole market, as Mr Noble has.

THE CHAIR: Yes. Well, that is part of what we are hoping to tease out by the request for the market definitions and market shares. We wondered whether they were ultimately very different.

MR WILLIAMS: Well, we say that analysis ends up in similar

places, but obviously then Dr Padilla launches off his analysis in other respects, in other directions from this Apple and Samsung-specific framework so it is an important point even if the markets look the same in terms of the shares and data.

THE CHAIR: Yes, understood.

MR WILLIAMS: So that was my next point really, which is that the Tribunal is aware that it is Qualcomm's case that there has to be this exclusive focus on Apple and Samsung and Mr Moser has made submissions about why we do not accept that is the case, but here we are at the stage of defining the market and dominance and we say you cannot squeeze the whole of the analysis into this nominally Apple and Samsung-specific framework when what you are actually looking at is the supply of these products to the whole market. So it is a big point of departure in terms of the economic framework.

If I may, at this point I want to divert from market definition to dominance before coming back to market definition and deal with countervailing buyer power because it bears some relation to the topic I have just been addressing.

Countervailing buyer power is a dominance topic so let me explain why I am dealing with it here. It is often said that market definition is a means to an end,

it is not an end in itself, and in the *Cabo* judgment you I think quoted the Commission saying it is an intermediate step. Obviously it is well established that dominance can be counteracted in principle by countervailing buyer power and there is an issue in the issues for this Trial, issue 6, which is: were Apple and Samsung able to exert countervailing buyer power?

So, looking ahead, Dr Padilla says we are interested in Apple and Samsung here so does it not make sense to define the markets in these ways? Well, I have already made the point that in fact his markets are not focused on Apple and Samsung so that point does not go anywhere.

But on countervailing power buyer, the question of whether an undertaking's potential dominance is counteracted by CBP, it is not a customer-by-customer assessment. The existence of some large customers on a market with a number of other customers does not mean that the MT is not dominant and I want to show you two authorities going to that point.

The first is *Irish Sugar*, which is authorities bundle 3 {AB3/5/1}. It is 5226. I think we want to go to, Madam, in the pdf. This was a case in which the monopoly provider of sugarbeet in Ireland and Northern Ireland was held to have abused the dominant position because of rebates and pricing practices. Can

we please look at paragraph 93 and paragraph 94 on pages 30 and 31 --

THE CHAIR: Authorities bundle 3.

MR WILLIAMS: Have I got that wrong? {AB3/5/1}.

THE CHAIR: You gave me the reference of 5226, but there are not that many pages in it. I have around 3,000 pages.

MR WILLIAMS: I am sorry. I checked it on a pdf I had.

THE CHAIR: Let me just look. In AB3 --

MR WILLIAMS: Tab 5.

THE CHAIR: -- tab 5. All right. Yes, pdf page 254. Thank you.

MR WILLIAMS: So I wanted to just pick it up at 93 and 94 {AB3/5/30-31}. The Tribunal can see the argument there being made by *Irish Sugar* that it was not dominant because, in particular, there were two very large customers in the market.

The court deals with that at 97 and 98.

THE CHAIR: I am just trying to figure out what page of this --

MR WILLIAMS: It is page -- well, in the report, it is 139. 93 and 94 set out the issue.

MR RIDYARD: Where does all this sort of take you in substance, because suppose we found that Qualcomm had market power over *Lenovo* and so forth but did not have market power over Apple and Samsung because Apple and

Samsung had -- did have leverage, it would still be dominant in some sort of legal sense, but ultimately we are interested in whether bad things happened to Apple and Samsung, are we not?

MR WILLIAMS: Can I answer that question in a few minutes, sir?

MR RIDYARD: Yes.

MR WILLIAMS: I understand the question completely and I am going to deal with it. I just want to take us through the analysis and then I will get to that point.

So 93 and 94 set out the issue. It is dealt with at 97 and 98 and the point that I rely on in particular is in the middle of 98. This is then picked up in subsequent cases. In 98 one sees:

"The applicant can therefore hardly maintain that the Commission committed an error of assessment by stating that 'despite the presence of two large customers, the demand side is composed of a number of buyers which are not equally strong and which cannot be aggregated to conclude they may constrain the market power of the supplier ... '"

So not equally strong, cannot be aggregated, a number of other buyers.

So that is the principle. We see that principle carried through.

The second case is the Commission Decision in *Motorola {AB3/18}*. *This* case is actually much closer to home. It was a case involving a finding of an abuse of dominance by *Motorola* in seeking and enforcing an injunction on a SEP against Apple. So much closer to home. If we could turn to page 52 in the report {AB3/18/52} -- in the decision, I am sorry, here we see the *Irish Sugar* principle being applied in this context. You see from 237 and 238, *Motorola* contends that Apple constrains its market power, in essence because it is Apple, and one sees echoes of the arguments being made in this case.

Then just moving through reasonably quickly. 240 sets out the principle we saw in *Irish Sugar. I* am sorry, Madam, have I lost you?

THE CHAIR: Yes.

MR WILLIAMS: In the report we are now on page 46, in the decision, I am sorry. It is internal page 46, bundle-page 53. It starts at 52. 237 is *Motorola*'s argument about Apple. 240 sets out the principle we saw in *Irish Sugar. Then* if I could ask you to read 241. (Pause)

So we say that is the correct approach. Importantly, if the Tribunal looks at 243, you will see a principle that we drew out in our skeleton which is

the distinction between bargaining power and buyer power, "buyer power" being a factor that counteracts dominance and "bargaining power" simply being a factor in the mix of the assessment of the competitive effects

THE CHAIR: But at 244 it says:

"... even if one or more potential licensees ... were to enjoy bargaining power with regard to their own SEPs or non-SEPs, this would ensure that only a particular or limited segment of customers is shielded from the market power of *Motorola*."

That implies that there is an acceptance that on this premise a particular segment of customers is shielded from the market power of *Motorola*. So is it not that the point that Mr Ridyard was making, we are looking at Apple and Samsung and whether Qualcomm exercises market power vis-à-vis those customers?

MR WILLIAMS: Well, it certainly is a question of -- I really I am going to come to it in just a moment, which is that the bargaining position of Apple and Samsung undoubtedly comes into the assessment and, in my submission, it comes in at the stage of assessing likely effect, and that is point I am going to come to in a minute. Maybe I should make the submission now.

It is that -- I mean, what we say is Mr Noble's framework sets out the right way to analyse the case,

which is one is analysing the likely effect of the NLNC policy first of all as a general matter, because it is a market-wide policy. It is not a policy which is targeted at Apple and Samsung. Dr Padilla says you have a theory of harm that is about Apple and Samsung. We do not have a theory of harm that is about Apple and Samsung; we have a damages claim that is about Apple and Samsung, but we have a theory of harm that is about the likely effects of the policy. So we say that the damages claim does not dictate the definition of the market.

The policy applied to Apple and Samsung, along with the rest of the market, and the Tribunal has started to see that their concerns were echoed by the rest of the matter. There are concerns about the policy.

THE CHAIR: But what point is there in us going down a rabbit hole of looking at what the market power might be in relation to a different customer when the claim is only concerned with the -- with what may be claimed in relation to Apple and Samsung by way of damages? That will be pointless, a waste of time for us.

MR WILLIAMS: Well, I am not inviting you to waste time, Madam; I am simply saying one has to step through the stages and ask the question: well, is Qualcomm dominant on the market as defined? The question of -- one sees

quite clearly from the authorities that the question of dominance is not to be answered on a customer -- countervailing buyer power is not to be answered on a customer-by-customer basis. So the Tribunal has to decide if Qualcomm is dominant on a relevant market and, given that legal framework, the answer, in my submission is that it is dominant and I will show you the evidence shortly.

THE CHAIR: But is there any statement in here saying that one can never look at CBP on a customer-by-customer basis, because were these cases where -- where what was in issue was damages due in respect of one customer and not others?

MR WILLIAMS: Well, if we go back to where we were, I was about to show you 245, which says:

"... *Motorola*'s interpretation of countervailing buyer power would lead to the existence of a dominant position being dependent on the bargaining position of each potential licensee relating to any patent *Motorola* may need access to ... "

That is dealing with -- saying dominance is not a customer-by-customer assessment, dominance is a market-wide assessment, and the point I was going to make in answer to Mr Ridyard's question is if this was an individualised course of conduct, one could

understand, possibly, looking straight through everything, and looking at the position of the two particular OEMs, but this is a market-wide policy. We say that the likely effect of the policy is in some ways intrinsic to the policy in the way in which it operated generally and for the Tribunal to understand that the Tribunal needs to look at the policy in its market context, which is the whole of the market.

Now, having done that, the Tribunal will have a picture of the likely effect of the policy as a general matter and of course that will include the evidence relating to Apple and Samsung, but, of course, we accept the Tribunal is ultimately going to focus on the question of the likely effects on those two OEMs, but, in our submission, one has to step through and say what are the likely effects of the policy for which the whole picture is relevant? With that picture, one can then say, well, is there some distinction about Apple and Samsung, either because of who they are or what we see in their dealings with Qualcomm?

In my submission, that is the right way to look at it and that is consistent with the legal framework, which is that you start with the market, you start with the dominant position in that market, you look at the conduct as a market-wide policy and then ultimately get

to Apple and Samsung. That, in my submission, is the right way to analyse it, but it is consistent with the law.

So that is --

THE CHAIR: So you accept, if we were to conclude there was something distinct about the relationship between Qualcomm and Apple and Samsung, we might be able to carry out a dominance assessment on a customer-specific basis, but in this case you say that there was not anything specific about them and therefore we should look at it on a market basis?

MR WILLIAMS: No, I do not say you could look at dominance on a customer-specific basis, because I say the market is the market, as I've defined it. Qualcomm is dominant on that market, for reasons I have not got to yet, and the question of countervailing buyer power should be examined in the context of the market, not certain customers on the market. I do not accept you could find against me on dominance on that basis.

I do accept that when you get to the issue in the list of issues for trial which is about the likely effects of the policy on Apple and Samsung of course you have narrowed your focus down there, but in my submission one answers that question having looked at the policy as whole, having looked at the policy as

practised in the market generally, because the policy was not different when applied to Apple and Samsung as when it was applied anywhere else. It was the same conduct. It had the same objectives. It had the same potential effects and the question you are ultimately going to have to ask is: was there something different about Apple and Samsung which meant that they were immune from those effects? That is the way we put the case, Madam.

So that is what we say about CBP. I do not have time to go to them all, but 256 at 257 reinforce the points I have just been making about CBP.

So while we are in *Motorola*, can we just jump ahead to recitals 324, 326 and 327 and I am really sorry, I do not have a page reference for this. I thought I had the correct pdf reference, but I do not. Can we scroll through it, please {AB3/18/75}. Back further, sorry {AB3/18/65}. Can I just ask you to note 324 and perhaps read to yourself 324, 326 and 327. This is page 58 in the decision or 65 in the bundle. (Pause).

THE CHAIR: Yes.

MR WILLIAMS: So this abuse involved seeking an injunction on standard essential patents. The point I wanted to make is it is said against us our theory of harm and our case is novel and unprecedented, but here one can see

that the core of our case in some ways is expressed through these paragraphs, which is that it is abusive for a SEP holder to use its market power to prevent an implementer, even in this context Apple, from taking its products to market. We do say, well, what one sees in this case is Qualcomm achieving the same ends through a different means, but the mischief and the theory of harm is very similar.

So I made my overall submission about the approach to the case in response to Mr Ridyard's question. That was my overall take-away from this part of the case, but there is a narrow point which is, in my submission, because he has wrongly zoomed in on Apple and Samsung from the get-go, Dr Padilla's legal framework -- his economic framework is in no man's land for this part of the case, because there is no analysis of dominance, other that on the basis of the markets as he defines them, and there is not an assessment of countervailing buyer power on that basis either. So, in my submission, there is no alternative. There is no proper alternative to the framework Mr Noble has provided the Tribunal with.

So I hope you can see now why I wanted to take that the issue together with Apple and Samsung-specific markets precisely because of Mr Ridyard's question to

me.

I am now just going to go back to market definition and finish that off. If the Tribunal rejects the idea of Apple and Samsung-specific markets, then, as I have said, the question of self-supply being in the market falls away. That is common ground. It also blows a big hole, in my submission, in Dr Padilla's analysis on the third issue, which is whether chips compatible with different standards are in the same market because Dr Padilla presents that analysis solely with reference to Apple and Samsung devices.

This is another bit of the case where Dr Padilla does something unconventional. It is common ground that the framework for analysing market definition is the SSNIP test as applied to the supply of chipsets and the Tribunal has evidence of the pricing of chips in Mr Noble's eighth report. If I can just bring that up, it is {POE/21/19}, figure 2.3. If we just read 2.22 and then look at the figure over the page, please {POE/21/20}. (Pause)

If we can look at 2.3 if the Tribunal is ready, please, over the page. So obviously one sees average prices plotted on the left and different chips plotted and, in my submission, that makes the good point that Mr Noble makes in 2.2 about differentiation in chip

prices for different standards.

Now, Dr Padilla does not do a SSNIP test on the chipsets. He moves downstream to the devices and he says there is substitutability between devices compatible with different standards at a particular price point. His logic is basically this, I think: customers with £500 to spend on a phone in 2020 might have bought a 5G phone or they might have bought a 4G phone and OEMs make phones according to consumer demand and so it follows that because the customer may switch from a 5G phone to a 4G phone, there must be substitutability between the chips that go in the phones, such that the chips are in the same market. I think that is the logic.

THE CHAIR: Yes, and it would drive demand.

MR WILLIAMS: Yes. One can start to see what -- well, in my submission, one can start to see what is wrong with the example, if I adapt it. Assume I drive a Mini with a petrol engine and I have been intending to replace it with another petrol version and I go to the showroom and the petrol version starts at £25,000 and the electric -- and the salesman says, "Well, in fact we have now got an electric version. It is only £26,000" and I am persuaded to get the electric can so I switch my demand and my price point from petrol to electric.

If one follows Dr Padilla's logic, then a petrol engine is in the same product market as a car battery, because a consumer may switch from a petrol car to an electric car and that will affect what components Mini needs to build the car. In my submission the correct way to analyse the example is Mini makes petrol cars and it makes electric cars. It needs petrol engines and it needs car batteries and of course when Mini decides whether to continue to make petrol cars, it has regard to consumer demand for petrol cars, but once it has decided to make a petrol car, it needs a petrol engine and the same is true for mobile phones and chipsets.

When Apple started to sell phones on Verizon, it needed CDMA chips. The fact that a consumer might switch from Verizon to AT&T does not mean that Apple could also switch because it wanted to make phones for Verizon so one thing just does not follow from the other.

MR RIDYARD: I think -- I am sure Dr Padilla will speak for himself at some stage, but, as I understand it, what he says is that if you look at the phones out there, there is lots of 3G phones and lots of 4G phones out in the market at any point in time and so the phone maker could -- if something happened to make it more

attractive to sell 3G phones than 4G phones, then the phone makers could adapt and adapt to that incentive by switching between the two phone types. He is not saying you can make a 4G phone from a 3G chip, but he is saying that they just want to sell phones and if it means selling a 3G phone with a fancy screen, that is just as good to them as selling a 4G phone with a standard screen and it is still a phone sale so they are prepared to trade off those two types of phones.

MR WILLIAMS: The consumer is, that is right.

MR RIDYARD: No, they are saying the phone maker is prepared to do that, because Apple or Samsung, they just want to sell phones ultimately. It has to be phones that someone wants to buy, of course, but I think he is saying that they are prepared to trade-off the proportion of 3G to 4G phones that they sell at any point in time according to the costs of doing so.

MR WILLIAMS: Yes, of course we accept there is an interaction. Of course there is an interaction between downstream demand and what the chips that the manufacturers have to do, but that cannot answer the question. One still has to ask the question of what is the definition of the market upstream and of course Dr Padilla does not do anything like a SSNIP test. I have shown you the pricing data. He does not do

anything like the SSNIP test. As Mr Noble points out, if one actually thinks about the way a SSNIP test would work in this context, if you have a SSNIP at the chipset level and then it moves downstream, it is a tiny price increment. So of course there is a price interaction, but that does not get you home on effectively the substitutability being effectively the same at both levels or there being an inevitable switch from one to the other −− it transposes in that way.

So we do say that it is, as I say curious that Dr Padilla relies on this very indirect framework for looking at it, rather than looking at, as I have said, the actual price information or what OEMs say about their ability to switch from one chip to another. I showed the Tribunal some of that evidence. We say that is far more relevant evidence and no doubt all of these issues will be explored in the hot−tub in due course.

I am about to move on to dominance. I do not know if you want me to pause there?

THE CHAIR: That is a good idea. Let us have five minutes and let us come back and then you will be going through until about an hour.

MR WILLIAMS: I will be going through until 4.20. I will try to get through as much as we can −−

THE CHAIR: Does that mean we have Mr Alexander's bit

tomorrow?

MR WILLIAMS: I think that is where we have ended up, yes.

THE CHAIR: Thank you.

(3.10 pm)

(Short Break)

(3.21 pm)

MR WILLIAMS: So, Madam, as we were discussing before the break, the parties take different approaches to market definition and that leads to different approaches to dominance and different −− the evidence of dealings between Qualcomm and the OEMs being considered in different boxes, if I can put it that way. So I am going to deal with two issues in parallel now. I am going to say what we say about dominance based on Mr Noble's market definition, but as we go through I am also going to deal with points that Qualcomm makes about interactions between Apple and Samsung and Qualcomm based on Dr Padilla's market definition and the balance of bargaining power in that framework.

The starting point is market shares. The authorities establish that markets shares are central to the assessment of dominance and there is a presumption of dominance if markets shares are above 50%. There are authorities cited in the skeletons for that. We say that threshold is met so we are in the territory of

a legal presumption of dominance. Dr Padilla does play down the market share evidence, but in my submission, they cannot be played down because there is a legal presumption.

There is a question about whether market shares should be primarily considered by value or volume. Mr Noble prefers to calculate market shares by value because it is a differentiated market. Can I just show you one authority on this approach, which is the decision in *Warner−Lambert/Gillette* {AB3/3/7}. It is paragraph 22 which deals with value versus volume.

(Pause)

THE CHAIR: Yes.

MR WILLIAMS: So we say that has echoes of this case and of course value−based shares are particularly informative where one of the reasons we say Qualcomm is in particularly strong position is because it is in a unique position at the premium end of the market and obviously that is captured in the value−based shares, rather than volume−based shares.

Obviously the market shares are different according to the parties to market definitions, but they are not actually as different as you might expect. Mr Noble picks this up in his ninth report. I will just give you the reference. It is footnote 39, where he says: if

I calculate market shares for Dr Padilla's markets, he comments on how the figures correlate to thresholds. You will see that. So the results are not as different as you might expect.

The clearest way, in my submission, to see Qualcomm's market power against other players is to look at some of the graphs which Mr Noble −−

THE CHAIR: Yes, when you are doing your short note on the market definition and market shares, if you think it is relevant for us to consider different bases, then just set those out.

MR WILLIAMS: I will.

THE CHAIR: Because I think it will be helpful for us to see the spectrum of market shares that are produced on different assumptions, which you consider we ought to be looking at.

MR WILLIAMS: Okay. We will think about that, yes. Thank you.

So if we −− I am going to show you some of the graphs showing market shares. Because these involve share data, they are treated as confidential. I can make the points I want to make by saying: look at how high the line is, broadly speaking, and look at how low all the other lines are. That is basically the submission I will be making many times over. So if we

could start with 3G-CDMA, which is Mr Noble's eighth report {POE/21/36}.
THE CHAIR: Is that figure 3.1?
MR WILLIAMS: I cannot see it yet, I am afraid. Yes, okay, we can see it now and one can see that Qualcomm's share is somewhere between extremely high and extremely high and one can see that there is one competitor in this market, VIA, and you can see where it is in the early years which are the years that matter for 3G-CDMA and indeed even at its peak you can see where it ends up.
THE CHAIR: Yes.
MR WILLIAMS: It never sold to Apple. It never sold more than a small percentage to Samsung in line with the shares that you see there. So we say the position for Apple and Samsung was no different from the market generally and in 2009, which is the only year for which this matters, Samsung bought 100% of its CDMA needs from Qualcomm, Apple was buying CDMA for 100% from Qualcomm as well.
THE CHAIR: Yes.
MR WILLIAMS: What we see in Qualcomm's case is one example of Samsung making reference to VIA in negotiations which we say is a really a drop in the ocean compared --
THE CHAIR: Why do the graphs stop at 2015?

MR WILLIAMS: Well, the technology stops being used. So 3G-CDMA --
THE CHAIR: So you say it is not even relevant to look at anything after that?
MR WILLIAMS: No, there is no issue in the case where you need to know what 3G-CDMA is after that year.
THE CHAIR: I see.
MR WILLIAMS: Now, Qualcomm -- I am going to digress a little bit here. Qualcomm's strength in CDMA, it is an important point, because Qualcomm used Apple's dependence on it for 3G-CDMA and its desire to reduce the royalty burden as a means of tying Apple into exclusivity which then has further impacts on the market which is a dominance issue. I think the Tribunal has the point. Apple started on AT&T. Once it decided to expand to Verizon, it needed CDMA and that was when it started to need Qualcomm chips and I am now going to show you three pieces of evidence in the hearsay extracts. If we could start at -- this evidence from Jeff Williams of Apple starting in 2016 -- the first two references I think 2016 and then the last one is 2019 from the trial.
MR TURNER: This is to establish what?
MR WILLIAMS: This is to establish how Qualcomm got to a position of exclusivity with Apple and what was going on

in that negotiation which I know is something the Tribunal is interested in.
So if we start at {POD/7/3}. There is an extract starting 49:1. You can see about halfway down -- this is all commentary on the MIA, one of the agreements, and then it picks up:
"Do you nevertheless consider ..."
Could you read from there on, please. (Pause)
I should say this is all 1782 material. I am not reading it out because it is all subject to those restrictions.
Then I think you need to just go over the page {POD/7/4}. (Pause)
The point is in 2007 Apple has come to a deal with Qualcomm, but this is how it feels about the deal that it has done. So if we can then move on to page 9 {POD/7/9}, another confidential extract starting with the number 238. Then if you could just read down to the end of that extract, please. This is Apple's need for CDMA chips, broadly speaking. (Pause)
The point there, Madam, is this is how Apple perceived the interaction between the need for chips and the discussions around the royalty which is obviously central to the case. Then over the page, we are now in open testimony and I can be a bit more explicit

{POD/7/10}. There is an entry that starts 874. You can see at the very beginning of that you have Apple commenting on what it thought about VIA, which we saw in the graph. They say VIA were not technically ready or capable so the only option was Qualcomm. That is what Mr Williams, the chief operating officer of Apple says. If you can just read the evidence there and I will -- down to 890 on the next page and I will explain what we say in context with that.
THE CHAIR: Where do you want us to start reading from?
MR WILLIAMS: From:
"Can you tell us about the origin ..."
Down to --
THE CHAIR: Sorry, on page 10?
MR WILLIAMS: On page 10, down to the middle of page 11 where there is a new number.
THE CHAIR: Yes, got it. {POD/7/11}. (Pause). Yes.
MR WILLIAMS: So the basic story is Apple has rebates against the level of the royalty, but now it needs CDMA chips and it wants -- this open evidence, I can say this, Mr Williams said: we want to get the rebates on CDMA as well, because we need those phones in order to sell them and essentially the price of that was exclusivity. So the effect then was this attempt to -- this dependence on Qualcomm for chips and the imperative

to reduce the level of the royalty burden, that is what leads to Apple agreeing exclusivity terms to secure those rebates and that is obviously an important point then in terms of dominance. It is an important part of the factual story, but it is also important in terms of dominance in terms of explaining how Qualcomm has shored its position up, shutting other suppliers out from supplying Apple.

One does not need to be pejorative about it. The fact is there was an exclusive agreement and that had an impact on other suppliers in the market.

So that is an important part of the factual story I wanted to show the Tribunal.

In that passage Mr Williams talked about LTE. Now, that takes us back to the next graph in Mr Noble's report, which is {POE/21/38}. Now, this is a different picture from 3G-CDMA. In fact, these figures include both LTE-CDMA and LTE-UMTS, the two different variant standards, and I will come back to that in a minute. One of the key years in the case, as Mr Moser says, is 2013 for a couple of reasons. It is the year when Apple negotiated the BCPA, one of the agreements the Tribunal is interested in. It is also the year when Samsung sought to renegotiate the LTE royalty rate. We can see where Qualcomm's market share is in 2013.

MR TURNER: Figure 3.3, is it?

MR WILLIAMS: 3.3, exactly, yes.

At the time Samsung's share was in line with the market and we know Apple's was 100% because of the exclusivity provisions.

What Mr Noble then does is he tries to break that down into LTE, UMTS and CDMA, which is not very easy because of data constraints, but if you turn over to the table under paragraph 3.16 {POE/21/40}, Mr Noble then sets out his attempt to calculate LTE-UMTS shares excluding CDMA on that table and you can see where they are. I do not know if you are looking at a hard copy or waiting for the EPE?

THE CHAIR: So this is table 3.1?

MR WILLIAMS: That is right, yes. That is breaking out CDMA. That is breaking out UMTS.

MR RIDYARD: And this because we know that CDMA is much smaller than UMTS so it cannot have the limit to how much --

MR WILLIAMS: I have jumped through, but that is the logic, sir, yes.

So it is part of Qualcomm's case that the market shares are not representative of market power because there are low barriers to expansion but, in my submission, that is really just not what the data shows

for any of these markets and if we go back to page 38 {POE/21/38}, we can see what happens to MediaTek over time and we can see what happens to Qualcomm. It is not just a story of low barriers to expansion, not until one gets past the point where 5G certainly is of primary significance.

So that is the quantities of aspect of MediaTek, in particular.

Now, there is also a qualitative aspect of MediaTek versus Qualcomm and you will hear about this from Mr Grubbs and Mr Blumberg so I will not spend time on that now, but can I give you some references so you have them. Mr Moynihan of MediaTek gives some very candid evidence about -- sorry, did you have a question?

THE CHAIR: Sorry to interrupt, Mr Williams, just because you were talking about the figure 3.3 and you made a point about Qualcomm's market share at least until 5G came on.

MR WILLIAMS: Sorry, I made a point about MediaTek.

THE CHAIR: Yes. But so you were talking about Qualcomm's market share --

MR WILLIAMS: Yes.

THE CHAIR: -- sorry, in LTE until the point at which 5G in impacted.

MR WILLIAMS: Yes.

THE CHAIR: What is your theory as to what then happened to Qualcomm's market share after 5G? Why did it behave in the way that is shown on this diagram?

MR WILLIAMS: Well, I can just comment on what the graph shows. You can see there is a crossing over of two lines.

THE CHAIR: Yes.

MR WILLIAMS: So the premium end of the market is shifting to 5G at that point.

THE CHAIR: Yes.

MR WILLIAMS: Someone else is taking up the LTE and I think there is evidence -- Mr Noble gives evidence about how MediaTek focused on servicing the less premium end, as in LTE, because 5G is premium at that point.

THE CHAIR: I see. So Qualcomm kind of loses interest at that point.

MR WILLIAMS: We are going to see 5G in a minute.

THE CHAIR: Yes, all right. Thank you.

MR WILLIAMS: Yes.

So that is quantitative evidence. MediaTek, there is candid evidence from Mr Moynihan of MediaTek, and I will just give the references {POD/7/69-70}. He basically says we could not serve the premium end of the market. We just could not.

Now, in that graph on 36 -- I am sorry, can we go

back to that graph. In the graph we can also see -- 38, please {POD/21/38}, we can also see Intel. The position of Intel is a key focus in the case. I will just summarise what we say about Intel. We say that fairly early in the life of LTE, Intel had emerged as a potential technical alternative to Qualcomm, but did not enter until it did a deal with Apple in 2015 coming into 2016. The reasons are summarised in 233 of our skeleton and I am afraid they are all in the confidentiality bucket for the moment. I tried to work out how to make this submission without breaching any embargo and I could not do it so I am just going to have to ask you to read 233 again.

Have I given you the wrong reference? I am sorry, I think I have given you the wrong reference. It should be 223, I am sorry {EAOS/1/64}. (Pause)

This is why I wanted to get into the exclusivity to some degree because there is a plan to try and get Intel on-stream, but it is just not economically viable, the terms of the exclusivity arrangement. That is why we see in that graph that Intel's share does not take off until 2015 and that is, as Mr Moser was saying, the start of the period when we recognised that Apple started to gain bargaining power because it had broken free from its dependence on Qualcomm. Mr Moser has made

the point about how telling it is that once liberated, Apple chooses to litigate, but, more generally, we say the idea that Intel's eventual emergence in 2015/2016, after many years of trying to penetrate, the idea that this somehow shows that there were not barriers to entry or expansion, we say does not get off the ground. It was an absolute battle for Intel to get to where it got to.

So moving finally to 5G. Now, the Tribunal has already heard the key significance of 5G is its impact on the Apple settlement and our case is as Mr Moser has explained this morning. If we could look at page 42, please, in Mr Noble's report {POE/21/42}. So it is -- we are looking at the top line again. One can see where it is. At the start of this period, one can see that there is also Samsung in the market and at this point Samsung is mostly supplying itself we understand and one can see then one supplier slopes down and another supplier slopes up, but the top line stays pretty much where it is, which, in our submission, is an extremely high level.

Now, in relation to this part of the case, 5G, we have gone down a bit of something of a rabbit hole as to whether Qualcomm held "prospective market power", to use that the phrase, which is used in the reports, and this

comes from something Mr Noble said in his eighth report. I am sure that will be explored in the hot-tub. I am not going to say too much about it. The submission we have made in the skeleton is that this is more terminology than it is substance. One can see the market position in 2019. The point we make is Apple was negotiating with Qualcomm at that point in time, April 2019, and it was looking for supplies in 18 months' time. So the question is: where was Qualcomm then? Where did Apple think Qualcomm was going to be down the road? Was it still going to be the premium supplier in the market? What were Apple's other options? In our submission the graph tells us. Qualcomm was in an overwhelmingly strong position as at April 2019 and overall and generally.

So what are said to be Apple's alternatives, which mean that it was not dependent on Qualcomm for 5G chips, there are three candidates. One is Intel, which never made it to market with a 5G chip. There is also MediaTek and Samsung, who are in the graph, as you can see, to suppliers from whom Apple never bought a chip. If we could look at {POF/886} just to get a snapshot of Qualcomm's perception of MediaTek. This is not confidential, I do not think. If we look at page 16, {POF/886/16}, this is an internal messaging brief

prepared by Qualcomm on the current status of 5G. You can see, I think, page 16 says "Competitive messaging." So this is the third section of an internal document dealing with how they are positioning themselves relative to the competition.

If we turn on to page 19, please {POF/886/19}. Sorry, this January 2019 so it is really quite proximate to the negotiations with Apple. One can see sort of a third of the way down "MediaTek 5G" and it is a bit technical, but one can see on the right-hand side there is a bullet which says:

"MediaTek highlighting [first half of 2020 commercial supplies] for an integrated 5G mobile chipset. This is expected to be their first commercial 5G solution versus Qualcomm 5G significantly ahead on 5G generations."

So their own internal assessment is they are well ahead of MediaTek in the months approaching the negotiation with Qualcomm.

MR RIDYARD: I am a bit unclear of what you are saying, not just here but generally, about this quality differentiation. I can see that some people's chips may be better than others and Qualcomm's may be better than some of its rivals in some categories, but on the market definition you are not seeking to say there is

a separate market for high quality 5G chips as opposed to low quality ones.

MR WILLIAMS: No.

MR RIDYARD: Therefore, the consequence of that is you are saying that they are effective -- they compete effectively with one another. So, in that sense, what conclusions are you drawing here? Let us say we all agree that Qualcomm's 5G chips are better than the rivals, but there are alternatives. You said or implied that there at the effective substitutes even if they are not perfect substitutes, so why is it not good enough to Samsung to buy a few more of the lower quality ones in order to, you know, keep Qualcomm on their toes?

MR WILLIAMS: So there are a few aspects to that question, I think. One is that Mr Noble says there is not a clear delineation between premium and non-premium, but there is differentiation and that differentiation is relevant to how people compete. For example, Apple is a premium device and Apple buys premium chips. Apple does not buy the same chips that you might find in a cheap phone, perhaps another Chinese model. So the fact that they compete on a spectrum in one market does not mean that all chips are equal or all equally substitutable for all purposes. That's one point.

Another point relates to leadership in the market.

I have not taken you to one of the documents I was going to take you to. I will give you a reference, if I may, {POF/851}. This is one of many documents you will see, we will probably see some in cross-examination, with Qualcomm trumpeting its leadership in 5G. I think it trumpets its leadership in many standards. There is a kind of confidence in it. So one sees certain suppliers tending towards certain ends of the market and other suppliers tending towards other ends of the market. We saw it a bit with that MediaTek shifting into LTE. So there is substitutability but not effective substitution for all purposes is partly what we say.

Yes, this is very early days. This is Apple making the decision right at the very beginning of 5G. In a sense, Qualcomm has proven technology, and other suppliers -- we have just seen MediaTek -- are not proven. So there is a sort of interaction between quality and leadership and reliability.

MR RIDYARD: Yes, but if your economic expert is saying that Qualcomm -- within 5G, I mean, obviously there is a differentiation, we understand that, but it is saying that a high end 5G supplier is not able to act independently of the lower quality 5G suppliers, so why is it then that they are not -- I know they are not

doing exactly the same thing and there are compromises involved, but why is there not effective substitution between them if you said they are in the same market?

MR WILLIAMS: Sorry, so, first of all, we define the market as 5G chips. I have shown you the market shares. We are now talking about slightly, on our case anyway, a nuance within that, which is what is the bargaining position of, for example, Apple and Samsung when dealing with Qualcomm in particular and so we say in that context it is important to have regard to what their particular needs were because we are talking about balance of bargaining power and, as I said, Apple uses premium chips. It only ever uses Qualcomm and Intel chips after a certain point in time. It never uses a MediaTek chip. Samsung is more a mixed picture, because it has its self-supply business, but very heavily dependent, we will see from the evidence, on Qualcomm for flagship devices across the globe.

So one sees that within the question of is there dependence, is there -- is Qualcomm an unavoidable trading partner to some extent for those customers? We say that it is for a constituency of its supply, because it absolutely does want those chips for Apple's purposes across its portfolio and for Samsung in at least some of its flagship phones.

MR RIDYARD: Thank you.

MR WILLIAMS: So that is MediaTek. I mean, I have slightly foreshadowed what I wanted to say about Samsung which is Samsung was supplying itself but Samsung was itself heavily dependent on Qualcomm for chips in premium devices. You will see the evidence in due course. It is common ground that Samsung had the incentive to supply itself as much as it could so it could not even meet its own supplies. The idea that it was in a position to supply Apple's needs as well, we say, that is not realistic, not in April 2019.

So Qualcomm has this argument, well, this is a case of competition for the market, not competition within the market, but that depends on there being effective competition for the market and we say this degree of dependence in the relationship at all times for at least a proportion of the supply, that means that is not effective competition for the market because there is this element of ongoing dependence.

I'll just sweep up a couple of points on dominance. It is common ground that there are material barriers to entry. The debate is about barriers to expansion and I have made my submissions largely about that when we saw the story told by the market share data, but we say obviously entry and expansion are related. Mr Noble

developed that in his evidence. There is a good illustration in the Intel story, which is Intel having finally penetrated LTE, never made it in 5G, which shows that it is just not that easy to transition. The markets remain difficult to penetrate.

As well as expert evidence analysing the market, the Tribunal has contemporaneous evidence of how market participants felt at the time. I am just going to give you a couple of examples. One document I need to open for another purpose. I will show you that. This is an external-eyes-only document so we need to be careful with this one. It is {POF/415}. Mr Moser went to this. It is a Samsung internal document from 2013 and I do not have a page reference {POF/415}. Well, I will give you the reference I do have and then perhaps I will give you the other reference in the morning when I come back. The reference I have, if you look at page 18, this is Samsung's reliance rate on Qualcomm in 2013 {POF/415/18}. At the top of the page, it says:

"LTE reliance rate."

You can see that is the LTE that Samsung was buying from Qualcomm at that time. Mr Moser says he showed you that. I am sorry if I am taking up time.

So maybe we will just move on to another document, sorry.

{POF/425}. This is an Apple internal email in 2013, December 2013, looking ahead to 2016 {POF/425}. I will not read it out. There is a codename. If you look at the paragraph starting:

"In talking with Aaron ..."

It says "ops", operations I think, and then you can read to yourself. You know who Eureka is, I think.

THE CHAIR: Yes.

MR WILLIAMS: It is Qualcomm anyway and that is -- but I will not read the rest of it out.

Then you can see they are basically talking about their options to avoid that situation and you can see who the suppliers are. One of them exited the market and the other one we know what happened in terms of one of them is Intel.

That is the concern. At that point in time, 2013, correctly, consistently with the evidence I showed you, that is Apple's assessment of Qualcomm's -- their internal assessment at the time of Qualcomm's market power.

So, finally, on dominance, chip dominance, anyway, we refer in our skeleton to *Genzyme* for the proposition that behaving in a way that is contrary to the wishes of customers is the hallmark of dominance. That is paragraph 73 of our skeleton, which brings me, finally,

to the two policies. I am going to deal with RTL when I deal with abuse which might be now or in the morning, but just dealing with the --

THE CHAIR: I thought Mr Alexander needed the morning.

MR WILLIAMS: I might be a few minutes. We understand what our time limit is.

So NLNC policy. Now, perhaps the most striking thing about Qualcomm's skeleton is that between all of the discussion of its contributions to research and development in the industry and its hypercompetitive behaviour is that there is not any reference to the absolute tidal wave of objection to the NLNC policy that one sees in the evidence. Can I show you one document which is a 1782 document {POF/493}. Now, the context of this is an acquisition by Qualcomm of another company. If you just read the first -- the context does not matter but just read the paragraph. (Pause)

It is internal Apple commentary on the policy.

This is pretty strong stuff and, as the Tribunal has seen, that is really the tip of an iceberg. There is a wealth of evidence from across the industry from OEMs expressing their objection to the policy, but Qualcomm has managed to maintain it for 20 years.

Now, that does not tell us whether it is an abuse of a dominant position, but it does tell us a lot about

Qualcomm's dominant position on the market, its ability to maintain this policy in the face of industry opposition.

So that is what I wanted to say about chipset dominance.

SEP dominance, very briefly. There are only two points to make. Obviously any SEP holder is 100% market shareholder, whether the market is the market for a single SEP or a portfolio of SEPs. There are monopolists. There are two questions: is that somehow negated by cross-licensing and is it negated by the FRAND obligation? Now, in terms of cross-licensing, not every OEM can offer a cross-licence as a bargaining chip, but, even if they can, they need Qualcomm's licence more than Qualcomm needs them because Qualcomm does not make phones. So we say that does not go anywhere in terms of equalising up the bargaining power.

The more conceptual point is about the significance of the FRAND commitment and I am not going to make detailed submissions about it. Qualcomm refers to the *Apple v Optis* decision where Mr Justice Marcus Smith found that the FRAND commitment did negate dominance in, I think, three short paragraphs in that decision. We would recommend to the Tribunal the somewhat more detailed and developed analysis of Mr Justice Birss, as

he then was, in *Unwired Planet* which is -- I will not going to it -- {AB2/22}, paragraph 630 to 670. It is a 40-paragraph discussion. The punchline --

THE CHAIR: Where does it start?

MR WILLIAMS: Paragraph 630 to 670. The punchline is that in the context of 100% market shares, the FRAND commitment just is not enough to counteract dominance.

So we say that is the position, but there is another point to make in this context, which is back to the NLNC policy. We say the NLNC policy has an impact on the bargaining position of the licensee. I am not here asking you to accept our case on abuse to decide dominance, but it is a fact that Qualcomm has a chipset supply practice which means that licensees cannot get chips until they have signed a licence and it is common ground that that means that, at a minimum, they need to commit to the terms on offer and comply with them in order to obtain the supply of chips at all. We say that arrangement, by its nature, reduces the degree of protection afforded to a willing licensee who under the FRAND framework could not be prevented from obtaining chips. So we say that, on any view, rebalances power in favour of the SEP owner.

So in the time I have left, I will say a few words to introduce the bargaining model of Mr Noble's

economics as they relate to abuse. The point I want to make really --

THE CHAIR: Are you going to cover the RTL and non-assert agreements?

MR WILLIAMS: Yes, I am going to cover that. It is whether I steal some time from Mr Alexander in the morning to finish that off, but I want to get to the end of this section.

So the point I want to make really is the theory of harm -- the economic theory of harm in this case is very simple: I think it is recognised that the FRAND framework should in principle mean that a willing licensee does not face business interruption because they do not agree to the SEP owner's terms and Mr Moser has covered this in submissions this morning. Our case is that the effect of NLNC is that a willing licensee, who is not prepared to agree Qualcomm's terms and who would otherwise want to avail themselves of the regulatory regime, may face a business interruption cost or at least a potential business interruption cost and Qualcomm only has that leverage because it is dominant in the supply of chips as well as the licence, and therefore it can take steps that it cannot take using only its market power in the SEP licences given the FRAND framework. So we simply say the NLNC policy

creates additional and illegitimate downside risk for an OEM that cannot agree a licence with Qualcomm. It puts them at risk of a business-critical interruption and so increases the cost of failing to agree a licence.

The crux of it is that an OEM faced with that downside risk, that risk of business interruption, will rationally be willing to pay a higher royalty to avoid that risk rather than suffer it and that is a simple and logical theory of harm. It is intrinsic to NLNC, as we put it, that it creates this risk of business interruption for an OEM. That is what it is there to do. It is there to create that implicit threat. We say it is logical that it increases the OEM's willingness to pay to avoid it.

In fact, what the Tribunal sees is that although Qualcomm disputes the theory of harm, most of the disputes in the case are around questions of fact, rather than questions of economics. Qualcomm makes nine points in its skeleton argument about why the theory of harm does not hold and they are basically all factual points more or less.

But Mr Noble has not rested his case -- his position on that intuition. He has developed the bargaining model and really that serves two useful purposes. One is to stress-test intuition in the same way that writing

reasons for a judgment makes you -- causes the court to give confidence in its intuitive judgment and the bargaining model does that too. Importantly, it allows one to identify the assumptions that need to be met for the model to hold. So there are two valid purposes in the model.

THE CHAIR: You say he is stress-testing it, but the model is no good if it is not grounded in facts.

MR WILLIAMS: No, sorry, that is true, but that is the second point, which is that it gives visibility to the factual assumptions that mean that the model needs to hold and a large part of the battleground will be those assumptions.

Just one other framing part in this part of the case. One of the criticisms that is made of the bargaining model by Dr Padilla is that it does not establish causation of the inflated royalties, but it is not the purpose of the bargaining model to demonstrate causation of inflated royalties. Economic models do not demonstrate causation anyway, because causation is a question for the Tribunal. Even a regression model shows correlation, rather than causation, but the point of the bargaining model is to provide insights into the expected outcome of a negotiation carried out under different conditions and to assess what the likely

outcome is. We are not deciding causation in quantum; we are assessing if that is what a theory of harm is, identifying the likely effect of a course of conduct.

Now, I just want to make two more general points before I deal with a couple of the assumptions. It is, of course, part of our case that NLNC give Qualcomm the ability to impose more disadvantageous terms on an OEM than it would otherwise, but is it not our case that these are take it or leave it terms. Mr Noble is very clear that his theory of harm is about the distortion of a process of competitive negotiation and the distortive effect that an NLNC has on that negotiation and specifically what it does is it takes what should be a negotiation about the value of the technology and skews it by adding in, as I have said, this additional business interruption cost. That is an element which would not come into play in an ordinary competitive negotiation. An important point flows from it -- a couple of important points flow from this.

One is that it is not an objection to the theory of harm that the impact of the policy varies from OEM to OEM or that Apple and Samsung may not have paid the same as other OEMs. It is not part of our case that NLNC means every OEM ends up paying the same rate or that there is a straight-line relationship between dependence

and royalty level. What we say is that there is this factor in the mix which distorts the negotiation which increases the level of the royalties which an OEM is willing to pay and there is a directional effect, but it does not mean that everyone ends up paying the same.

The second point is that Mr Noble's theory of harm applies where there is a credible threat to chip supply. It requires a threat which puts the OEM in genuine fear of business disruption, but it does not depend, for all the reasons that have been canvassed, on Qualcomm saying in terms if you challenge our rate, we will cut off chip supply. If the OEM reasonably fears disruption, then it will rationally be prepared to pay more and that is an important point because of the way the policy operated in practice. The Tribunal has heard sometimes Qualcomm's behaviour was more overt than on other occasions, but if the implicit threat is there, then it will tend to inflate the level of the royalty that the OEMs are prepared to pay.

So I just wanted to deal before I come to RTL with a few of the assumptions which one sees set out in Qualcomm's skeleton, paragraph 120, page 68. I will just outline our position in relation to these or at least some of these so the Tribunal has a picture of the battleground.

121, there is -- it makes an assumption there is a credible threat of disruption to chip supply. I have just dealt with that point. It does not make that assumption and that is a point which -- a point of fact which will be established in the course of the trial.

THE CHAIR: Which paragraph?

MR MOSER: Paragraph 120. I am sorry, perhaps I took it too quickly.

THE CHAIR: 120. You mean 120, subparagraph 1?

MR WILLIAMS: I am sorry, so 120, bargaining model will be explored. It makes a number of assumptions. Then there are nine subparagraphs. I am just going to pick some of these up. So 120.1 assumes there is a credible threat of disruption. Well, as I have said, the model does make that assumption. That is right and it is a question of fact really whether that credible threat existed.

(2) is a point more in the nature of economics and the point is that if Qualcomm withheld chip supply, it would recover at least some of the profits it would lose by selling more chips to other OEMs or, to put the point in my own language, the OEM needs Qualcomm more than Qualcomm needs any one OEM.

One can illustrate the point by considering one of the scenarios which arises on the current facts. One of

the things Qualcomm says about the 2019 negotiation with Apple is that Apple could have chosen not to buy 5G chips and just chosen not to sell 5G phones for longer. We say that is not plausible but let us follow that logic. If Apple had made that decision in 2019, then consumers who wanted 5G phones would have needed to go elsewhere. They would have needed to buy a Samsung phone or a *Motorola* phone or whatever else. In that scenario, the likelihood is that those other OEMs would have taken market share off Apple, because Apple cannot offer a 5G phone to some degree and so there would have been scope for Qualcomm to capture 5G's chip business for the OEMs who switch their demand from Apple to another OEM. So that is a good illustration -- practical illustration of why it is that Mr Noble assumes that if Qualcomm cuts off supply to one OEM, it will be able to recapture some of those lost profits.

What Qualcomm says in 120.2 is we are ignoring the facts for a couple of reasons. One is the bespoke requirements. I have already dealt with that point {S/2/69}. The second reason is said to be that Qualcomm simply could not replace its largest customers. We say the problem with that point is we have seen what happened between Apple and Qualcomm in that extended period. Qualcomm was perfectly happy to see Apple walk

away for two years as part of this dispute and it played the long game and it held out and in the end Apple came back and the Tribunal knows how that ends. So we say it is an abstract point that Qualcomm could not afford to lose Apple. It is really not consistent with what we see in the factual narrative.

I will skip over 120.3 and 120.4 and I will go to 120.5. Now, this relates to a secondary way in which NLNC undermines an OEM's outside option, which is that it creates a pool of licences across the market at inflated rates. Those licences would obviously be part of the evidence base in any litigation or arbitration and obviously in any one case licences with the same licensor relating to the same technology are a very relevant source of evidence in principle. The point that is made here is, well, the risk here is you end up with a vicious circle where inflated rates across the market are excused to justify other inflated rates and the Tribunal will hear about this in the course of the trial. I will show you one evidence reference, if I may. It is {POD/7/24}. Then there is a reference that starts at 296, if you just read from there down to the bottom of the page. (Pause)

In particular, it is the bottom of the page.

THE CHAIR: Where it says:

"And the second reason ..."?

MR WILLIAMS: Yes, exactly. So a very real concern for Apple.

Now, Dr Padilla says attaching weight to this point involves making the irrational assumption that the court is going to get it wrong. In my submission, that is a simplistic perspective from an expert as experienced as Dr Padilla. We all understand litigation risk. We all understand the difficulties establishing cases in the face of countervailing evidence. The existence of a large number of licences with the same licensor at inflated risk will necessarily increase the risk for an OEM seeking to litigate FRAND and indeed one has already seen in relation to Apple that they took on the challenge of not only challenging the rate, but establishing the anticompetitive practice that they say was inflating the rate and that obviously complicates the litigation and increases the challenge for a party seeking to get to the bottom of this. So we say this is a very real point and it is a factor which is relevant in understanding the theory of harm and the obstacles that the OEM exercised in their outside option.

I will -- I think I will leave those assumptions. There is more I could say, but we have another five weeks so I am sure we will get through the points.

I will start dealing with RTL now because I know the Tribunal wants to hear about it, not to keep you in suspense any longer.

So when we deal with RTL, we are assuming, as a starting point, that Qualcomm licences at the device level and the question is whether it should be offering licenses at the chipset level as well. I think some of your questions to Mr Moser were, "Your theory of harm, Mr Moser, does it assume licenses at the chipset level or at the device level?" We accept the distortion is at the device level, but the question is: what is the impact of whether there is licensing also at the chipset level? I hope that helps to frame the discussion.

So when we criticise RTL, we are not shifting all of the focus to licensing at the chipset level; our theory of harm remains distortions in the process of licensing OEMs at the handset level.

The principal significance of RTL, as Mr Moser said in that context, is it means there is no alternative to taking -- I think this was your point, sir, which you put to Mr Moser. There is no alternative, if there is not a licence at the chipset level. There is no alternative for the OEM than to go to Qualcomm and get a device-level licence.

The point we make is if there were a regime of

licensing at the chipset level as well, then that might put competitive pressure on the royalties because you might end up with a competing product of licensed chipsets, but there is not because there is not any licensing at the chipset level.

So that is why Mr Noble says one consequence of RTL is that there is no bypass. There is no plan B. You have to go to Qualcomm for the licence. You have to pay the prevailing royalty rates. That is the first point.

The second point is that RTL is a barrier to entry for chipset manufacturers and therefore it is a factor which tends to reinforce Qualcomm's dominance in the chipset markets and that is because, absent RTL -- the same point really -- chipset manufacturers would find it easier to compete with Qualcomm which has the advantage of being able to offer a licence to its SEPs alongside the sale of its chipsets. So rivals to Qualcomm cannot offer the same benefit and the customer needs to go and deal with Qualcomm as well. So that is a factor which, as a barrier to entry, reinforces dominance.

THE CHAIR: They would be able to have -- they would find it easier to compete with Qualcomm because they would then be able to license Qualcomm's SEPs and then -- and that would then be exhaustive?

MR WILLIAMS: It is an all-in product, yes, exactly. It

would be interactive.

The principal response from Qualcomm to those points -- I should be clear, this is not a freestanding abuse case. I am making all of these points in the context of the NLNC abuse. They are all factors which come back to the NLNC case.

The principal response from the other side to those two points is to say, well, end device licensing is the norm, it is the norm in the industry. We have two responses to that. The first is that an otherwise conventional practice may be anticompetitive if practised by a dominant entity. That is clear as a matter of law, see 108 of our skeleton. We do not say, as I said, RTL is an abuse in itself, but we do say it is part of the abuse when conjoined with dominance in the supply of chipsets and the NLNC policy. So that is point 1.

Point 2 is that a practice can reinforce dominance or it can reinforce the restrictive effects of another practice, whether or not it is objectionable in itself. We say it is self-evident that RTL creates the no bypass mechanism and it creates a barrier to entry. Whether or not it is inherently objectionable, it does have those reinforcing tendencies.

MR TURNER: I still do not quite understand how it can make

a difference if it was licensed to the chip level. Let us assume that Qualcomm asked a non-FRAND rate from the manufacturers and let us assume that Qualcomm was the supplier, it could still refuse to supply chips and how -- I do not quite see how these problems go away. You have a differently structured market but the refusal to supply and the overcharging of licence fees could still remain in that alternative model.

MR WILLIAMS: Yes, but two points, sir. The first point is NLNC involves leveraging the need for chipsets to obtain higher FRAND rates. Of course Qualcomm can always seek a non-FRAND royalty.

MR TURNER: Well, there are lots of permutations and combinations. You could have the manufacturer refusing to pay the royalty or you could have Qualcomm encouraging the manufacturer not to pay the royalty -- sorry, Apple encouraging the manufacturer not to pay the royalty. There are all sorts of permutations.

MR WILLIAMS: The two points really are, first of all, NLNC involves leveraging chipset dependence and, by definition, a chipset manufacturer is not dependent on Qualcomm for chips. So that leverage could not be exercised against the chipset manufacturer. So that is point 1.

MR TURNER: Well, the chipset manufacturer still has the

challenges of being able to have the technology. That does not change. So they may not be able to produce chips of the right quality. They may not be able to produce 5G chips because Apple is the only -- sorry, Qualcomm is the only manufacturer with the capacity. That all still remains.

MR WILLIAMS: Yes. I do not think the submission is that if you take out NLNC, it is plain sailing to overtake Qualcomm. I think the question is: is there a distortion of competition in the market?

The submission I am making is that NLNC creates the distortions I have been identifying, or at least it creates the effects I have been identifying, and of course in the counterfactual there would not be an NLNC so you would not have that inflationary mechanism; you would just have competition with fair rates from Qualcomm.

MR TURNER: It depends what you mean by the counterfactual.

MR WILLIAMS: Yes. Sorry, I was talking about the narrow counterfactual. I was talking about the NLNC counterfactual because I think your point to me was, well, you could still have Qualcomm -- I am sorry, you could still have Qualcomm charging too high a royalty at the chipset level and I said one thing we do take out is distortions of NLNC.

So there is a third aspect of this, Madam, but I have run out of time. Shall I just tell you what the point is?

THE CHAIR: Yes.

MR WILLIAMS: It is the exclusionary impact of it, which is effectively it is the barriers to entry point put higher. What we say is Qualcomm used RTL to suppress -- actively to suppress competition at the chipset level. I will give you a document -- we quote this in our skeleton, but I will give you a documentary reference. It is really important one but I have just timed out, I am afraid. It is 207, slide 41, and it is a presentation on pricing which --

THE CHAIR: What is the reference?

MR WILLIAMS: It is {POF/207/41}.

THE CHAIR: Is the abuse that you are alleging exploitative or exclusionary?

MR WILLIAMS: Well, now I am on to the potential exclusionary impact of this. I am not making a freestanding case. The point I am just going to make, I am going to bring it back to NLNC. I am not going off on some total --

THE CHAIR: So you are not making a freestanding case of exclusionary abuse?

MR WILLIAMS: No, I am only making this point to the extent

it feeds back in to the NLNC.

This is an internal Qualcomm slide.

THE CHAIR: You can give us the reference and we will look at it.

MR WILLIAMS: Okay. It is 207/41. We say one can see from that Qualcomm has the objective of using its dealings with chipset manufacturers to exclude them from the market, to make life difficult for them, and we say that then feeds back in-to the assessment of dominance.

Now, Qualcomm says this arrangement with MediaTek, which made it difficult for them to sell to unlicensed customers, only endured until 2013 and the simple point we make is that a practice which has exclusionary effects until 2013, it will obviously affect the state of the market thereafter. It is going to affect structure of competition in the following years. Many of the negotiations we are interested in occurred in 2013 so we say all of this comes back to reinforce Qualcomm's dominance. It all comes back to reinforce the theory of harm where we say Qualcomm has been able to deploy market power in the chipset markets to inflate royalties.

THE CHAIR: All right. Thank you. I just want to just ...

(Pause)

I asked Mr Moser this morning if he was going to get

into the details of each of the separate negotiations with Apple and Samsung and what effectively, at each time point, you say were the constraints on Apple and Samsung that meant that they could not seek a FRAND determination. I think that it would be useful just to have that set out in writing. It might save you time having to go to all of this tomorrow, but could I -- rather than you taking us through that in the time that you do not really have tomorrow, could we just have that on a very short note, a couple of pages, what you say at each point in time, specifically given what Qualcomm have said in their skeleton argument about the different situation of each of the licence negotiations, what you say for each of the relevant negotiations were the constraints operating on Apple and Samsung which meant that at each of those specific points in time there was an abuse of Qualcomm's dominant position.

If you are relying on the RTL or the non-assert agreements, for example, the agreement with MediaTek, which agreement are you relying on and what are the terms of the agreement because you do say that -- you reference this in your skeleton argument.

MR WILLIAMS: Yes, I am sorry, I just ran out of time.

THE CHAIR: No, it is all right. But the point is made in sort of quite general terms at paragraph 15 of your

skeleton argument. Insofar as you say that feeds in to each one of the specific licence negotiations,which is the agreement -- which is the non-assert agreement that you are talking about, is it MediaTek or is it something else, and what are the terms of that agreement? Because 15 is put at a quite high level of generality.

MR WILLIAMS: Yes.

THE CHAIR: Now, please, can you just set out the specifics and the same in relation to the abuse of dominance. Rather than making a sort of general point, I would like to see what you say about each specific licence negotiation.

MR WILLIAMS: Okay. On that last point -- sorry, you need to go, Madam.

THE CHAIR: Yes, I do.

I am not expecting a sort of closing submission-style document but, rather, at an even higher level than a pleading, really a sort of set of bullet points as to what is your case on each of the licence negotiations. I am not expecting it to be more than a couple of pages.

MR WILLIAMS: I think I understand.

THE CHAIR: Could you do that by at some point on Wednesday because it would be desirable to have that before we get into the meat of the evidence.

MR WILLIAMS: Yes.

THE CHAIR: Thank you very much.

9.45 tomorrow.

(4.25 pm)

(The court adjourned until 9.45 am on Tuesday, 7 October 2025)

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