IN THE COMPETITION APPEAL TRIBUNAL

Case No: 1381/7/7/21

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 29th January – Friday 22nd March 2024

Before:
The Honourable Mr Justice Waksman

Eamonn Doran

Derek Ridyard

(Sitting as a Tribunal in England and Wales)

BETWEEN:

Justin Le Patourel **Class Representative**

v

(1) BT Group PLC **Respondent**
(2) British Telecommunications plc

A P P E A R AN C E S

Ronit Kreisberger KC, Derek Spitz, Michael Armitage, Jack Williams and Matthew Barry (On behalf of Justin Le Patourel)

Daniel Beard KC, Sarah Love, Daisy Mackersie, Natalie Nguyen and Ali Al-Karim (On behalf of BT Group PLC)

Jennifer MacLeod (On behalf of the Competiton & Markets Authority)

Tuesday, 13 February 2024

(10.00 am)

THE CHAIRMAN: Good morning. Some of you are joining us via the live stream on our website, so I must start with the customary warning: an official recording is being made and an 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.

Two housekeeping matters for the parties. First of all, we are very grateful for the amalgamated glossary. Secondly, you will have at some point tomorrow questions for limb 2 for next week.

Right, just give us one moment, please. (Pause)

MR DAVID PARKER (continued)

DR HELEN JENKINS (continued)

Questions by THE TRIBUNAL (continued)

THE CHAIRMAN: Dr Jenkins, I just had a question for you, which I hope we can just deal with very briefly, on the question of profitability which we have dealt with yesterday, but I just wanted to ask this: your Table 5, which was in the joint expert statement, was you undertaking what you said was the same sort of exercise that Mr Parker had done, in other words, not simply a gross margin analysis, but you came out that the end result was different figures, or you said, well, put it shortly, even if you do it this way, it shows that the bundles were more profitable.

I do not want to go into the detail of it, but can you just explain to me, what did you do in your exercise that was different from what Mr Parker did in his exercise? Because obviously the ultimate figures that came out were different. If that question makes sense.

DR JENKINS: It makes sense, yes. In Table 5, what I have not included is the benchmark margin on top of the indirect incremental costs. So we discussed that a little yesterday. So my -- the analysis I have done is the direct costs, which is -- which would give you gross margin, and then I have added different allocators of indirect incremental cost, and I have called that a contribution margin.

Then what Mr Parker did in addition was to add a margin on top of those costs and treat that like a cost. So, say, what is the margin left after you have recovered direct costs, indirect incremental costs and a margin on top of those? It was that last step which I said I would not consider useful.

THE CHAIRMAN: Thank you. I follow that. But in relation to the allocation of incremental costs, did you allocate

the same way as Mr Parker had done?
DR JENKINS: One of them is the same way, which is the EPMU basis, which originated as the approach I took in the SAC combinatorial approach. Mr Parker then adopted that for this exercise, and then I added two alternative allocators on the basis of customers and on the basis of revenue.
THE CHAIRMAN: Yes. So that is what ... and just to remind us, on customer and revenue, you still ended up more profitable?
DR JENKINS: On customers you end up with bundles being more profitable. On revenue it is mixed. Some years bundles appear more profitable, other years SFV is more profitable. It is relatively similar.
THE CHAIRMAN: Yes. On EPMU?
DR JENKINS: On EPMU then SFV is more profitable than bundles.
MR PARKER: Is it worth just turning to page 256, a couple of pages on? {E/49/256}
DR JENKINS: Yes, that is the difference in margin.
THE CHAIRMAN: That is the difference in margin.
DR JENKINS: Yes.
THE CHAIRMAN: Thank you.
Then, Mr Parker, it is just a question of the inputs here, really?

MR PARKER: So all the calculations are agreed, and then the question is where do you take account of the margin? Do you put it in as a direct cost, or do you then say, well, I need to make whatever the -- how you define contribution, or do I then need to make my return on that, and then what are the allocators now?

I used EPMU, which is what Dr Jenkins had used in the SAC combinatorial, because that is where the data was on the bundles, and we are trying to compare SFV and bundles here. That is not the allocator that Mr Duckworth and myself think is right, we think cost causality is the right way to calculate incremental costs, but put that to one side. The calculations are agreed if you do it, on EPMU, on customers on revenue, these are the numbers that you get.

THE CHAIRMAN: Yes. So the key difference between you is this question of margin, having to factor in the margin.

MR PARKER: In this context there is a question of where you factor in -- if you factor in the margin at all --

THE CHAIRMAN: If you factor it in at all, yes.

MR PARKER: -- there is a separate dispute between us as to what the appropriate level of margin should be.

THE CHAIRMAN: That much I understand, and then we are into limb 1, full debate on limb 1.

Good, thank you.

DR JENKINS: If I may, I had one item arising out of yesterday, actually, as well, with respect to the core data tables.

THE CHAIRMAN: Yes.

DR JENKINS: That was in Mr Parker's fourth report. It was the table comparing the ARPU of SFV and bundles. {IR-E/5/46}. Yes, Table 1. I think when we were discussing this yesterday, my answer was "I believe so", in terms of agreeing those numbers. They were taken from various aspects of my modelling, so I did check that overnight, and there are two points I wanted to raise with respect to that.

First of all, if you see the note to the table which says:

"ARPU estimates are reported inclusive of VAT ..."

The "BT bundle services", those numbers that Mr Parker has drawn from my profitability model, they do not actually include VAT, so they would need to have VAT added to them to be comparable to the lower line, and I suggest we can do that and supply it to you.

I agree with the base numbers. That has been selected correctly. It may not have been clear from the spreadsheet but they do not include VAT.

Then for the "BT SFV Services" line, you can see that is taken from my CLA model. So that is at the market definition stage. So I have there calculated the ARPU for BT SFV lower-case "services", in my lingo, which means that includes Home Phone Saver in that line.

I can produce the number without Home Phone Saver as well, and I did flag to Mr Parker just before. I am not sure whether -- what is most useful here. We thought without Home Phone Saver; perhaps it is useful for the Tribunal to see both.

THE CHAIRMAN: If you could do the alternatives on the VAT and the Home Phone Saver that would be extremely useful.

DR JENKINS: Yes.

THE CHAIRMAN: Thank you.

MR PARKER: Can I also, with apologies, Mr Ridyard, because there was a question about the Bunt Annex 2 pricing data and the request to check that overnight. I have two queries on it compared to the data that was in my Annex A of Parker 3, both, I think, trivial, but for completeness.

MR RIDYARD: So this is at page 47 of Bunt, is it?

MR PARKER: This is page 47 of Bunt Annex 2. So I have two questions, or there are two discrepancies between these data and my data, both I think are very small. {D/2/47}

On the January '14 price change implemented, so the first one, I get a 54p increase on Line Rental, because I think it went up from £15.45 to £15.99. I am not sure that that affects anything of material in the case, but purely in the spirit of completeness.

Then in the penultimate one, so the price change implemented September 2020, I have a date of 31 March, i.e. essentially April 2021, for that.

MR RIDYARD: His evidence corrected that to April.

MR PARKER: Okay, I have not picked that up. So those are my only two clarifications.

MR RIDYARD: Great.

So just to give you an indication of where we are going today, I have got two more questions to ask first up, and then after that I think we are planning to go into section 1.7 of our questions, because we felt there were a lot of things -- there were quite a few questions which were unasked. Many of them had been addressed either one way or another either yesterday or will be in what we come on to today, but the two questions we do want to ask up-front is first of all I think to Mr Parker in the first instance, and that is about this rebalancing question.

One of the arguments that is made is that because Voice volumes decline dramatically over the period we are looking at, and also the way in which Voice was charged -- it tended to change from being sort of per minutes charging to sort of blocks, you know, call packages -- that particularly the former of those factors could justify an increase or explain at least an increase in Line Rental that was just to do with rebalancing of the way charging was done, you know, taking the emphasis away from the per unit element and towards the fixed element, and that would provide a kind of benign alternative explanation for why Line Rental prices might be going up.

Now, I know in your evidence you were not convinced by that and not keen on that, but could you explain to us why that is.

MR PARKER: Yes. I am a bit sceptical on that. So I can see a rebalancing argument in a world where you are essentially at sort of zero profits overall, and if something -- and therefore if something changes in one part of the product then you need -- you will have to sort of re-organise the other part of the product. This is one of the examples that I think has come up is sort of mobile phone handsets and termination charges when those were a relevant factor. You buy the handset on the anticipation there would be calls on which you would then make termination charges. Competition for handsets means that you sort of anticipate those profits that have been subsequently made. Therefore, if you make lower revenues from termination, the handsets subsequently start to disappear because you are no longer expecting that as part of that package.

I think that makes sense in a world where you have got sort of full competition that drives you down to kind of zero economic profits. I am not sure it makes sense here in that it is not obvious that calls ... So while the volumes of calls are declining, the ARPU on calls has been fairly flat in total. That is in one of Mr Duckworth's reports. We might come back to it, limb 1.

MR RIDYARD: Yes.

MR PARKER: There is no -- other than you have to break even on your service, there is no sort of right to always make the same ARPU collectively across two different elements of the product, unless you cannot function in the market because now you are making sort of less than the competitive market.

MR RIDYARD: I see there is no right to do it. But if you just stay agnostic about whether BT is making too much money or not, whatever it is doing at a point in time, if call volumes fall a lot, is it not a natural counterbalance to that to say, well, I am not making the money on call volumes, that you would expect in any market, whether it was competitive or uncompetitive, this kind of rebalancing to occur, thinking, well, I have got to reappraise the way in which I generate my revenues and it makes sense to increase the fixed element.

MR PARKER: So again, I think it is a question of whether you think there is market power. If you put that to one side, this is actually -- it is something I raised in Parker 1, if we go all the way back to the initial report, and I flagged that there could be a rebalancing point. That is something that is dealt with now in the limb 1 analysis, which, as discussed yesterday, potentially has an application to market definition as well, because we look at access and calls -- we, Mr Duckworth and myself, look at access and calls together, and the question is: is there a rebalancing effect? So do you see -- if you just took the Line Rental price -- do you see that actually any increase in that was sort of offset by the declines in calls relative to the cost of calls? Because obviously if you have a decline in call volumes you also have a decline in the costs associated with meeting those call volumes.

MR RIDYARD: Yes.

MR PARKER: As it turns out, it seems to be what I call a reinforcing effect, so actually there is also an additional kind of further substantial difference between the competitive price of calls and the revenues that you get from calls, which actually means that overall, rather than having a rebalancing effect, so the Line Rental is to compensate for narrower calls being much less profitable, actually you do not see that, you see a higher effect, a reinforcing effect on the difference between the overall cost and the overall price as a result.

MR RIDYARD: Okay.

Dr Jenkins, do you want to comment on that?

DR JENKINS: Yes. I think -- I do think a price rebalancing effect needs to be taken into account here because there is an inter-relationship between having the access line and the calls that are conducted over it. So actually the Voice service that is being provided is the ability to both make and receive calls, and when pricing that -- as well as other types of access being facilitated. So when pricing that at any point in time, it makes sense that BT is thinking about what are the costs of providing this service to a customer, the ability to make and receive calls, and they take into account the revenue they are going to receive from the making of calls, since there would be no charge for the receipt of calls in this environment.

So at the point -- so I think I describe it technically in my first report as like a reduction in the marginal cost of providing that service is the revenue that you get from the calls. It sort of gives the reason why you would do that, and I think that is a very standard pricing dynamic that you see, such that in the event that you see a change in the usage of the product, once it has been purchased, over time, that the provider would look to rebalance, since it is still providing the same opportunity to make and receive calls through the Line Rental, and demand for that is changing.

So I think that inter-relationship -- and that is what makes it different from a pure type of: well, this is a monopoly, there are two products, they are not related, there is no reason to expect that if demand for one falls you can put up the price of the other. I think here, because of the inter-relationship, that is why you do see this recognition of these rebalancing effects in products of this type.

MR RIDYARD: Yes, okay.

THE CHAIRMAN: Can I just ask one supplemental.

Mr Parker, if you factor in here not merely a change or a drop in the volumes of calls made, but the drop in customers, because there is a drop in revenue because of the number of people switching, why can that not feed into a rebalancing exercise?

MR PARKER: It would feed in if there was sort of material economy of scale in providing calls and access.

THE CHAIRMAN: Sorry, can you just ...

MR PARKER: So one way of maybe thinking of that, can we go back to Table 4 of the joint -- so page 253 of the Joint Expert Statement. {E/49/253}

So the revenue and cost of sales numbers there are access and calls combined, so this is (inaudible). You see essentially the same gross margin being seen pretty much across the piece, so about 65%.

Then if you go further up to page 231 of the same statement {E/49/231}, and here if you look at -- this is -- so table B22, you have got the revenue, it is the costs, and I have included the necessary margin. If you look at the SFV services -- if you go on to the next page, sorry {E/49/232}.

So "SFV Services Contribution to Common Costs" per line, you see that is pretty flat over the period. So taking into account the direct costs, the indirect costs and the margin ...

THE CHAIRMAN: I understand that in percentage terms. But putting it very simplistically, if when you get to the end of a given year you have now got 75 customers, not 100 customers, in cash terms your revenue has gone down.

MR PARKER: Yes, so this is revenue per customer, and this is absolute, yes, that is right.

THE CHAIRMAN: Then why cannot -- if you have got less customers, why cannot one way of rebalancing the lack of revenue be to put up the Line Rental so that the remaining customers you have got will be paying a bit more to compensate?

MR PARKER: So this goes to the question of how we deal with the -- what the common costs are, and how we think about the contribution to common costs.

THE CHAIRMAN: I see.

MR PARKER: Which we could get into now, but obviously I am slightly fearful of stealing someone's thunder.

THE CHAIRMAN: No, no. Alright, let me put it this way: if you were simply looking at revenue, nothing else, just revenue, if you have got less customers you have got less revenue obviously.

MR PARKER: Yes.

THE CHAIRMAN: If you were looking at it on a gross margin basis, one way of dealing with that would be to put up the prices.

MR PARKER: In order to get more revenue, yes, that is right. The question is in a workably competitive market, could you put up the prices?

THE CHAIRMAN: I understand that.

MR PARKER: Because prices are based on costs.

THE CHAIRMAN: I understand that.

MR PARKER: So I am sure that firms would want to make more money, but you start seeing some sort of intriguing results, like ... I have done an analysis on broadband, standalone broadband, and if you run the same sort of SAC combinatorial approach on standalone broadband, at some point the number of people on standalone broadband would fall to a very small proportion, and that would involve potentially a price increase of 6,500% in order to get the same amount. Now, I do not think that is consistent with a workably competitive market, and that is the constraint.

THE CHAIRMAN: That is your point. Your point here, if I may express it, that is, as a matter of maths it is obviously right that if your revenue has decreased, one way of making up that revenue would be to increase the charges per customer if that would give you the extra revenue. Query, is that something which could be done in a competitive market as opposed to one that is not competitive?

MR PARKER: Exactly.

MR RIDYARD: I guess it would also depend on what was happening to your costs. Because if your costs were coming down in line with the size of your business, then there would be no rationale for increasing. So that was your point about economies of scale?

MR PARKER: Exactly. If you just get the same kind of contribution per customer, if that is the competitive contribution per customer, then the fact that you have fewer customers just means you make that profitable -- that kind of economic profit on a smaller number of customers, but it does not give you an ability in a competitive market to raise more money from that group of customers.

MR RIDYARD: Then I think -- that is good, and I guess we will come back to some of these points, as you have already suggested, later on in the discussion.

The last question I had before we get on to section 1.7 is to Dr Jenkins, and it relates to the extent to which the way in which the Voice -- the fact that the Voice pricing is set across the board for all customers, the extent to which that itself provides a constraint on BT with respect to the SFV customers.

Now, you are not -- we know that any change in Voice prices applies to everyone, whether you are a bundle customer or an SFV customer, but you are not saying there is an automatic -- just because the price has gone up -- the price of Voice has gone up to a bundle customer, the price the bundle customer pays must therefore go up by the same amount overall, because it is possible to neutralise that effect by adjusting the broadband -- the bundle price, or adjusting the incremental price of broadband over Voice.

So if that is the case, if you accept that it is possible to do this neutralising activity and therefore take away the impact of a Voice increase on a bundle customer, is there a constraint on BT with regard to bundle customers when it changes Voice prices?

DR JENKINS: I think there is still a constraint in that BT is setting its -- a range of prices in response to the competitive environment in which it sits, and when it puts up the Voice price, it is putting that up to all customers, and hence it needs to make a decision about what then happens to its existing bundle customers as well as the new customer acquisition broadband price.

It does pass through that price change more generally to its list prices, and then makes a decision about how much it is going to pass through that cost to the acquisition price for bundle customers. For those bundle customers who are already on a plan, they will have some contract term associated with it. When they come out of that contract, that customer will make a decision about what to do at that point, and may well persist on the off-acquisition price for some time, will face the increases in Line Rental and broadband prices, and at some point may well call in and say: I am unhappy with my pricing, and may then be offered back on to an acquisition type product, or they may switch away. Those sorts of elements.

So while it is not direct through for a switching customer, so a customer who is currently taking Voice who is then going to take -- is looking at what the broadband price at the time is, that is the analysis that I have done using the pure pricing data to think about that choice. However, when you are thinking about how BT sets all its prices, it is thinking about that across the board, and constraints from rivals in terms of the total bundle price, which will include this Voice and broadband price for its bundle customers, there will be some effect, but it is not one-for-one, I agree with that.

MR RIDYARD: Just to be clear, for bundle customers who are already, let us say, halfway through a two-year contract, so BT changes the Voice price to me as its customer, are you saying that for the next year, the year remaining in my contract, I am therefore stuck with higher prices?

DR JENKINS: I do not believe so but I would have check that. I mean more when you come out of your contract, lots of people stay on the price -- you know, it reverts to the back book price, and at that point, if you are very on top of things, you might call in immediately and say: I am at the end of my contract, please can I look at something else. Lots of people do not do that, and then they revert to the list price.

MR RIDYARD: Then the other part is that you accept that it is possible for BT, in my terminology, to neutralise the impact on the bundle customer, so the constraint then is just in -- by doing this neutralisation activity, I am narrowing the gap between the standalone and the bundle price, so how is that a constraint on BT? Why does BT worry about that gap narrowing?

DR JENKINS: The constraint on BT is it is not automatic that they do not pass on any part of that. They may choose not to do that, but they do not automatically do that. They have to think about that choice.

In thinking about that gap, it is also between what their Voice price is and what their bundle price is and what the bundle price in the market is, and, in a sense, what they are hoping to do is get their customers at the point that they decide to move to a bundle, rather than either purchasing separately or only purchasing Voice, choosing BT as that supplier. The advantage of narrowing the gap is that when they communicate with their customer they can say: hey, have you thought about adding broadband with us to your package? You only have to add X amount more. That incremental price being low helps people move to the next product level.

MR RIDYARD: But the process of neutralising the Voice price increases is to reduce that gap, is it not? So that is -- does not that suggest it is good news for BT, because it makes it easier to do that sell, if that is what they are interested in?

DR JENKINS: Yes, it is easier, but the constraint is they run the risk of losing that customer in general to other providers. So they are seeking to structure their pricing to recover the reduced -- they are doing multiple things with their pricing. It is not just one thing. It is not that you have set this without any regard to what else is going on, and this is at a time where they are seeking to compete and invest where they are facing the reducing call volumes, and they want to give the best chance to retain their customers and encourage them to take multiple products on their line.

So that is a sense in which narrowing the gap is part of the constraint from the bundle market in the sense of wanting to structure those prices to be as attractive as possible for choosing BT.

MR RIDYARD: Mr Parker, any comments on that?

MR PARKER: I think the Voice price and the Dual Play price are essentially two different pricing decisions. While BT sort of -- in the way that it thinks about it, it thinks I am setting a Voice price across the board. The Dual Play price is then made up of that Voice price plus whatever the incremental broadband price is. We saw in Figures 5.5 to 5.7 of Dr Jenkins' first report that incremental broadband prices change around a lot, and this is in terms of the prices that BT needs to set in the market for Dual Play and other bundles in order to be competitive in that market, which the view is that that is a competitive market.

So it seems to me these are -- whilst they are sort of broken down in a slightly strange way, they are two separate decisions. I agree with the point about keeping your incremental broadband price low makes it attractive, clearly it makes it attractive as a proposition, more attractive as a proposition potentially to any Voice customers who might switch, potentially to other people's Voice customers who might switch, potentially to other people's bundle customers who might switch. It seems to me that is the effective way of getting people onto your broadband product -- your Dual Play product is to encourage people to do that through low prices of that product, not through high prices of the Voice product.

So I think, to summarise, I think it is two separate pricing decisions.

MR RIDYARD: Okay, thanks.

Right, let us move on more definitely into the SSNIP test and the approach to the SSNIP test.

Perhaps, Mr Parker, I can ask you this in the first instance. When we are thinking about the focal point for the SSNIP test, obviously we are interested in SFV services as the focal point, but when we think about these hypothetical monopolist of SFV services, should we be taking into account that in reality any feasible supplier of SFV services will also be a bundle supplier as well, and should that be somehow factored into our notion of the hypothetical monopolist?

MR PARKER: So this is an interesting question, and you will have seen the sort of debate in Parker 5 and Jenkins 3.

MR RIDYARD: Yes.

MR PARKER: The way that I thought about this originally is that you should look at SFV services, and you should try and think about whether a hypothetical monopolist of those services, who just sold those services, could raise prices, ignoring, if you like, any potential recapture incentives of -- because the hypothetical monopolist just offers those services.

The way that the US Department of Justice and some subsequent literature has started to look at this is to say, well, it is a bit artificial -- so Dr Jenkins' argument is it is artificial to look at the hypothetical monopolist of SFV services alone where BT is this multi-product firm, and so trying to compare is -- you need to look at this strange world of the hypothetical monopolist, would not benefit from any recapture but BT would.

The way that the debate seems to have gone in the United States but also in the Niels and ten Kate paper, is to say, well, actually thinking about the hypothetical monopolist as only providing the single product, where firms in reality all largely sell multiple products, creates an artificiality in the test that is rather uncomfortable and not very helpful for really getting to the underlying question of interest, which is could you profitably monopolise SFV services?

The way that people have thought about that, seemingly, in the literature, is to say, let us think not of a hypothetical monopolist of a single product but a hypothetical multi-product monopolist of the relative products in -- that all the firms in the market are selling. That allows you to sort of neutralise the effect of any kind of recapture incentive that is there in the real world by saying, well a hypothetical monopolist, multi-product monopolist, can have that too.

MR RIDYARD: What does a hypothetical multi-product monopolist look like? It has a monopoly of SFV, and what position does it have in broadband?

MR PARKER: So it is -- there is a bit of dispute about this, but it is essentially the sum of all of the products offered by the people who provide SFV services. So the hypothetical multi-product monopolist offers SFV, Dual Play, Triple Play, quad play, and other products that are offered by people who also offer SFV services. So it is a very -- it is what Niels and ten Kate call an "inclusive" monopolist, but it is what the DoJ, I think, not very helpfully, calls a hypothetical cartel, but it is the hypothetical monopolist of all these services, and the test they run is to say, well, if you are the hypothetical multi-product monopolist of all these services, could you raise the price of SFV services alone? If so, that is the market.

That then says, well, if there was recapture by the hypothetical multi-product monopolist in other parts of the products that it sells, then that is a factor that leads you to worry more about market power in SFV services, not less. I think that is the -- there was an original Moresi, Salop and Woodbury paper that said you should worry less about it, because in the real world people are recapturing this outside.

The conclusion of the literature I think is that gives you the wrong -- that gives you -- that goes the wrong direction for what you really care about, and what you should do is adjust the concept of the hypothetical monopolist in this situation.

So I have had a look at that in Parker 5. There is not much left over. I had posited that maybe standalone mobile phone services were then the sort of remaining out-of-market constraint for the hypothetical multi-product monopolist. Dr Jenkins has pointed out that there are -- actually BT has mobile phone services, Virgin has mobile phone services, Vodafone has SFV and mobile phone services. There is not -- there is not a standalone mobile constraint. There may be some people who only offer bundles and do not offer SFV or do not have any legacy SFV customers, but that is going to be small.

So the conclusion I think is, on that basis, there is definitely market power, that the hypothetical monopolist could raise prices at an uncompetitive level of SFV, because there is actually not very much -- there is not much --

MR RIDYARD: There is nowhere else for the demand to go.

MR PARKER: There are not many places for the demand to go at that point.

So it is just for market definition purposes, but that is -- that I think is where the new literature has got to.

MR RIDYARD: Dr Jenkins, we have read your report, but can you tell us what your take is on this?

DR JENKINS: Yes, so possibly we could have benefited from talking about it, having a bit more time to think about these issues before the last few days.

MR RIDYARD: Although, I mean, the point about the recapture incentive and so forth has been in there for a while.

DR JENKINS: Completely, completely. The approach I had taken was in the knowledge -- in thinking quite hard about how you deal with recapture incentive.

So what does a recapture incentive mean here? It means that the product is a good substitute for the focal product. That is what it means. It means that when people cease to choose that focal product, they move to this other product.

While I understand the point that Mr Parker is making, which is saying, in some sense, oh, well, what we are interested in here is an ability to raise the price of the SFV service, we have to be really careful about not mixing what is essentially a dominance point and a market definition point here. Because in market definition what you ask is: imagine there is a hypothetical monopolist of the product of interest, which is the SFV services product, and then we are asking the question: what are good substitutes for that product? So, to that extent, for me it was actually correct to say for the case that we have here that you do want to strip out the other potential substitute products and think about it from a hypothetical monopolist's perspective of the focal product.

So this literature that is being referred to has come out very much from a differentiated products merger perspective where you often have this, in fact, mixing of market definition and market power question, and asking the question about whether or not the merging parties, so some conglomeration of providers in the market, will have some power to raise prices. Now, that is not the question of interest here, right, because we are asking the question of whether the focal product for one provider is -- has substitutes that we need to take account of.

Now then, when we go further in the analysis, I mean, absolutely throughout my analysis the competitive dynamics between the SFV product and the bundles product has been absolutely central to the analysis I have done, precisely because it is, in this competitive framework where you have other suppliers of bundles competing, you need to think very hard about what the consequence of that competition is for supplying SFV services. That is how I have framed it in dominance, that is how I have thought about the limb 1 analysis, that is how I have discussed in limb 2.

But for market definition, where our focal product is SFV services, I think the right approach is to consider the hypothetical monopolist with only that product.

MR RIDYARD: So you think we should deliberately be artificial, as it were, because the hypothetical monopolist test is an artificial exercise?

DR JENKINS: Exactly.

MR RIDYARD: So you deliberately put those considerations to one side, even though you know at some point you will need to think about them, but just for this particular question you deliberately blinker yourself to think about an SFV monopolist who would suffer from any diversion to anything else.

DR JENKINS: The reason why I think that is the right way to do it is because, as you say, the hypothetical monopolist test, as Mr Parker and I agree, is a framework of thought. So you have to think, okay, how do I need to apply it here? What is the question I am actually interested in at this point? As Mr Parker has just described, if one is to implement the HMMT, which I would not say -- I am not aware of a situation in which it has actually been implemented ever, right? No one has actually conducted a market definition taking this into account in this way.

THE CHAIRMAN: You mean in the context of a single monopolist, potential monopolist, as opposed to a merger situation?

DR JENKINS: In any situation.

THE CHAIRMAN: In any situation, right.

DR JENKINS: I am not aware of that. I stand to be corrected, but I do not believe it has been used. So it is not as if the world is moving on to think about this, it is that this is something to consider when you are implementing a hypothetical monopolist test in these situations.

Now, as Mr Parker just described, what one would have to do here is effectively say, okay, this is actually a hypothetical monopolist of all bundle products and mobile products, the way -- more or less all of those, because no one does -- there is hardly anyone who does not do these things, offer the full range of these services.

I think as I put in my third report, I would have to find the reference, this is actually like the second step of a hypothetical monopolist test. So when you do a hypothetical monopolist test you start from your focal product and you say: imagine that they divested everything else, would it be profitable for them to raise that price? My answer to that, based on the best evidence that I could find, was, no, it would not be profitable because there is a lot of switching to the bundle product.

Then the next step of the hypothetical monopolist test is, okay, now imagine that my hypothetical monopolist owns both the standalone product and monopolises all the bundle products. That is the next step in a hypothetical monopolist test. Then I ask myself the question again: would they now be able to raise the price of the Standalone Fixed Voice product, and would that recapture that happens, now that they also monopolise all of that, be sufficient to make it profitable?

In this situation, I have not done it formally, but I agree with Mr Parker the answer would likely be yes, that it is then profitable to raise the price of SFV when you also control all of the bundles.

The conclusion of that set of thought process in a hypothetical monopolist test is that the market is broader than SFV and includes SFV and bundles, and that is the conclusion I have drawn from the evidence.

MR RIDYARD: Yes, okay. That is clear.

This may be a completely wrong way of thinking about things, but suppose we go with your, what I might label as blinkered, consciously blinkered approach, just looking at the SFV monopolist, and let us say we could do the hypothetical monopolist analysis and we found that the monopoly price, you know, the above competitive price for ... Let us say the profit maximising price for the hypothetical monopolist of SFV was 100. If in reality, when we come to reality, anyone who supplies SFV will also supply bundles, and there is this -- and bundles are profitable in some sense, at least they provide a positive contribution, then in reality would not everyone who was an SFV supplier factor in the advantages of the fact that losing sales does not hurt them quite as much as it does for the hypothetical monopolist, and therefore they would be a bit more relaxed about raising price, so anyone in that market would actually charge a price of £105 or £110 or something, because some of the harm of losing sales is neutralised by picking them up elsewhere.

So does that mean that we should be rebasing our notion of what the competitive price is in the first place in the narrow market, in the narrow product area?

DR JENKINS: Yes, this is something that came up in the joint meeting between the experts. So just taking that thought experiment as you said it, what we have -- the base price I used for the base of my Critical Loss Analysis was prevailing prices for SFV services. So that is not the price that a hypothetical monopolist of SFV services would set, it is the price that BT currently sets for it, which may or may not be monopolised, that is one of the questions, but I use prevailing prices.

Then I think in the hypothetical monopolist test you say, okay, that prevailing price for BT I agree will include part of the benefit that BT will be thinking about that it is going to recapture. So if BT were a supplier only of SFV, you would expect it to set a price below the prevailing price. That prevailing price captures their pricing incentive of recapture.

So then the question is, okay, what base should we use for a hypothetical monopolist of SFV? The way hypothetical monopolist tests are often thought of is you start from prevailing prices, and then you see would you, could you switch -- or if you tried to raise the prices from current prices, what sort of switching away would you expect to see? But we are interested in thinking about what the competitive price would be.

Now, I did not and have not done a piece to work out what that -- exactly what unwinding the recapture incentive would be for BT. It possibly could be done, I just have not done it. I recognised that there could be some element of that, that that prevailing price includes a recapture incentive, and said: I have already canvassed that thought process with respect to the cellophane fallacy, which has implicitly the same sort of criticism that says because BT is a big supplier of Standalone Fixed Voice, perhaps the prevailing price itself is too high.

So I have done checks where I have reduced that starting point quite significantly, and my view is that that will compensate from any concern that actually the starting price is not right here, and therefore you can be -- you do not need to worry that even -- that just because I have used base prices, the recapture incentive may be masking wider markets than is actually the case, because I still find the wider markets even when I use a lower base price.

MR RIDYARD: Thank you.

Mr Parker, your turn on this.

MR PARKER: Yes, I have a number of thoughts here, but I am sure we will come on to other thoughts on Dr Jenkins'

CLA in a minute.

But at a conceptual level, first, I do not think we need to be worried that this was -- that HMMT was a test-based merger analysis. The original 1984 US Merger Guidelines were the guidelines that introduced the hypothetical monopolist test in the first place. I think the distinction, as Dr Jenkins rightly says, is whether you start your analysis from the prevailing price which might be found in a merger, or whether you start from the competitive price which is an abuse case.

I think the description that Dr Jenkins gives is of the kind of cellophane fallacy and recapture incentive issues. I think those are two completely conceptually separate issues. So the cellophane fallacy is if you have market power then prevailing prices will be above the competitive level. The recapture incentive, I think, if I understand Dr Jenkins' argument correctly, is that the competitive level is higher because BT has a recapture incentive. But neither of those apply -- well, there is then a problem about how you think about the hypothetical single product monopolist here, because the single product monopolist should not have a recapture incentive. So the first thing you need to do is somehow unwind using BT's data, and say what proportion of that is the recapture incentive? Because we do not -- the hypothetical monopolist from the CLA should not have that incentive, so we need to unwind for that.

We also then need to unwind for any market power that BT might have, and that is the cellophane fallacy, and I do not agree with the way Dr Jenkins has done that.

But those unwindings need to have -- need to come in in two ways. They need to come in in both the calculation of the actual loss, because you need to say, well, if you had a different level of prices that was consistent with the level that would have applied for the hypothetical single product monopolist, how many people would have switched away, because those prices would have been lower, because they would not have had the recapture incentive in play, so other products would not have looked as good substitutes, so we need to try and work out what that alternative switching path would have been. I do not think there is any way to do that.

But we would also need to look at the critical loss, because the critical loss that is being used here is on BT, and it is the prices that BT is able to charge, which is a combination of the competitive price plus any market power mark-up plus a recapture incentive. We would need to unwind all of those -- both of those in order to change the critical loss, and we need to change the critical loss for the recapture incentive because, as Dr Jenkins says, BT has a recapture incentive and the hypothetical single product monopolist does not.

So I do not think either of the elements of the CLA are actually doing what they ought to do, which is to compare the critical loss for a hypothetical single product monopolist in this world with the actual loss for a hypothetical single product monopolist. We are using two chunks of BT data which are polluted by this recapture incentive.

THE CHAIRMAN: Just one second, please. (Pause).

MR RIDYARD: I think a brief follow up on this is. I see what you say about the cellophane and the recapture thing being two logically separate things. If we just focus on the recapture point, I think what is behind my question, which may well be misconceived, is if there is a recapture incentive, it is not just BT that suffers from it, everyone would suffer from it, so --

MR PARKER: Or benefit from it, I suppose. Yes, so --

MR RIDYARD: So --

MR PARKER: Sorry, you should finish your question.

MR RIDYARD: Does that mean that it is just -- does that mean it does not make sense to think about the standalone monopolist, because there is no such -- no real life animal will meet that -- will act like that or have those constraints? So everyone in this market is going to be thinking about recapture, therefore the notion of the competitive market price should factor in that recapture effect. Is that wrong-headed?

MR PARKER: No, I think that is the right way to think about it. I think that is where this idea of the hypothetical multi-product monopolist has come from. It is sort of recognising that it is artificial to say we will just have a single -- hypothetical single product monopolist when everyone in the market is offering a set of -- a wider set of products which are potentially substitutes, or indeed complements, but in this case substitutes for each other, and you should start -- it is more sensible for the purposes of what we are trying to do, which is to say: is there a set of products which some hypothetical monopolist could profitably monopolise?

This is then the set up for sort of further -- the remaining analysis, you know. This is not -- this is -- the purpose of the market definition exercise is to try and identify whether there is that -- whether you could exert market power over a particular set of products.

I think it is artificial to say, well, we will treat this hypothetical monopolist as only considering this one product, even when everyone in the market has a different portfolio and different incentives.

On the point about everyone has a -- if everyone has a recapture incentive, if all the markets are competitive and everyone has a recapture incentive, it tells you something about kind of potentially how you recapture your -- the margin you would need to apply on the different services to cover your common costs. But if everything is competitive, you are just covering your common costs, and it will go a little bit to the level of mark-up that you make on different services, and this is the conversation we might come to in limb 1 in relation to the Bliss paper.

MR RIDYARD: Yes.

MR PARKER: But I would probably put that to one side for now. I think what you describe exactly says why you should think about -- why the literature sort of turns to this hypothetical multi-product monopolist. So in these rare cases, and I agree with Dr Jenkins, I am not aware of a case where it has been applied, but in these rare cases where this is a material issue, you should not get kind of some strange result caused by the sort of artificiality of thinking about a hypothetical single product monopolist where in fact everyone in the market is a multi-product firm.

MR RIDYARD: Okay. There is much to think about in that, but I think it makes sense for us to move on to the practicalities, slightly more practicalities of the way the SSNIP test has been done in your reports whilst we think through some of the implications of that exchange.

I think where we would like to go next is -- we have headed this "Mr Parker's SSNIP Test", obviously you will both have views on it, but I suppose focusing on, Mr Parker, your approach in conducting the SSNIP test in your reports, the most basic question is: should we be looking at BT's actual price when we conduct the SSNIP test?

MR PARKER: So I think the risk of focusing on BT's actual price is obviously that if BT had market power, then it would be pushing pricing above a competitive level, and you would see excess -- other products would look more like they are substitutes.

MR RIDYARD: If we knew the answer to that question, we would not need to do the SSNIP test, would we?

MR PARKER: But also to the extent that that tends to lead to wider markets, I do not think it undermines my conclusions, which are that there is a market of SFV services. If anything, it could tell you that the real situation is there is a market even narrower than that, which is for BT's SFV services alone, but I do not take that position. I do not think it makes any difference to take that position.

I think perhaps the easiest kind of way to sort of see this in practice is to look at the SPC Dual Play analysis, for example, Figures 7 and 8, of Parker 3, which is on page 81. {E/3/81}

MR RIDYARD: So this is saying that the sum of the components is much higher than the bundle price.

MR PARKER: Yes, so I have got a Voice component and a broadband component, and then I have got a Dual Play -- equivalent Dual Play product, which is presumptively competitive on the basis that that is a -- that bundles are competitive. I mean, if bundles were not competitive, and that was a bit above the competitive price, then my results would be conservative, but let us assume that is a competitive price. It will be some amalgam of the standard and promotional prices. We know there is quite a lot of promotional activity in attracting customers to broadband, and BT has been able to raise the price of the people who take the components more than the bundle by a very substantial amount, and that suggests to me that a hypothetical monopolist doing the same thing, and I think implicitly there we are thinking about -- we are not thinking about the sort of recapture incentive.

But there should not be a recapture incentive in any event for this analysis, it should not matter, because we are talking about if you push someone off SPC, standalone broadband and Voice, and you push them on to your Dual Play product, it is exactly the same product, you are just making less money on it.

So it seems to me the fact that BT has in reality been able to put prices up very considerably above this kind of competitive benchmark by a lot more than a SSNIP, you can see the numbers on the next page in the -- very substantially above what you would normally think of as a SSNIP test, would -- suggests to me that the SFV component of that is priced well above -- you know, by more than a SSNIP.

That I think tells you market definition. Then because you cannot -- it tells you something about market definition, and because you cannot price-discriminate between SPC and VOC pre-commitments, that tells you that that is true also for VOCs, and I do the VOCs also in a different way, by looking at the sort of change that you get in the Line Rental price versus the direct --

THE CHAIRMAN: Sorry, can I just ask -- sorry, just to go back to that last point. I follow what you were saying in the context of looking at the SPCs and the pricing there as against what you say is a competitive benchmark in terms of the bundles, but then you went on to say that that shows you it is the same for the VOCs, and I am sorry, I just did not understand that.

MR PARKER: Sorry, I am jumping too fast.

So pre-commitments, BT could not separately identify Split Purchase and Voice Only Customers --

THE CHAIRMAN: Ah.

MR PARKER: So a finding -- you can see for Split Purchase, because we are sort of neutralising the effect of any product differences, because Voice and broadband is the same as a Dual Play bundle, you can then apply that result across to VOCs, because VOCs charge the same price -- face exactly the same price for the Voice, for the SFV service.

Then I have looked at it in an alternative way, which is just to say, compared to where things were in 2009, the direct costs of Wholesale Line Rental, which is 90 to 95%, all the direct costs have gone down a bit, and the price of Line Rental has gone up 50% or so. So, again, sort of taking that as a whole, that is consistent with this evidence, and then we have the limb 1 analysis, if you want it, on these examples.

MR RIDYARD: Thank you.

Dr Jenkins.

DR JENKINS: Starting with the figure that we have in front of us, and we did cover some of this ground yesterday, but this is a chart which shows a few particular list price elements, but we actually have very little information on what SPCs are paying for the broadband element that they are not getting from BT. So almost by definition, these SPC customers are taking Standalone Fixed Voice from BT and are taking the other services from someone else in the market.

Now, the fact that these list price additions show big gaps, it is very hard to conclude from that anything about what is actually going on in the market for these SPCs, and in my first report I set out the evidence from customer surveys at around 2016/2017 where Ofcom asked -- Ofcom's provider asked SPC customers: why do you not take your broadband service from your Line Rental supplier? They answered, I think 35/40% answered: because I am getting a better deal on my broadband or better value for money for the other product.

So I think it is very hard to draw any conclusions from this picture that would be relevant -- that would be sufficient to be relevant for a market definition exercise.

The other piece that is -- so that is missing here is what this is saying is, for whatever reason, Split

Purchase Customers are currently willing to pay, even if you take it on its face, they are willing to pay more to split their purchase. Some customers are. There is no assessment of how customers behaviour changed.

Mr Parker said, well, it does not matter because you are selling them two separate products, and then it is going to be a bundle. But no, what goes on here is that BT competes for and wins the bundle business back from whoever is currently providing broadband. So it is a real win for BT. They get the additional revenue for the full bundle when currently they are only getting the Voice revenue. That is the dynamic.

That is why they are putting in place a gap between the two standalone product prices and the bundle, it is in order to consolidate the purchasers to themselves rather than to two separate suppliers.

THE CHAIRMAN: So are you saying that is your conclusion, that that is, as a matter of fact, what was happening?

DR JENKINS: As a matter of fact, where you see customers who are SPCs in BT's database, many of them, a very high proportion of them, switched to a bundle with BT. You can see that in --

THE CHAIRMAN: I follow that, and I understand what you were saying about the reliability or otherwise of the underlying prices here to make the differential. But

I thought you were just saying a moment ago that because this was a big win for BT, this was why they were maintaining relatively high prices on the SPCs.

DR JENKINS: What I am saying is if you look at these list prices on their face, so if it were the case that this was the right prices that people were taking, you still have to take into account how these gaps triggered switching behaviour, because you cannot just look at them and say, oh well, there you go, separate markets. You have to say, okay, so there was this big gap, what happened? Well, actually a lot of those customers switched from taking the separate purchases to becoming bundles.

Now, even that first premise may not be fully correct, and I am not -- and on its face you cannot tell immediately. You have to actually do the analysis and think about, okay, what would be -- is the switching sufficient to say it would not be profitable for someone to maintain those differences?

MR RIDYARD: I think the obvious response to that is that on the face of this graph, the pricing differential has maintained, so whatever dynamics are happening, it is not sufficient to fix the problem. That would broadly be the position that Mr Parker I think would put to you on this.

DR JENKINS: There will be some customers who want standalone Voice and there may be some customers who want standalone broadband. There are not very many in the market who are actually doing that, and over time they have -- that number has fallen.

I think there are many examples where you observe price differences of more than 5% that reflect for whatever reason the different tastes, the fact you are offering a range of services at a range of different prices to customers, that just because the gap does not narrow does not mean that there has not been sufficient switching such that you would not want to raise the price further, which is actually the hypothetical monopolist test.

So here what we are seeing is a level -- a position difference of these things, and Mr Parker here has not looked at, oh, when the price of Voice increased what was the impact on the amount that Split Purchase Customers paid? Which was probably less than a SSNIP. This is maintaining that differentiation of the product offering.

MR RIDYARD: Okay.

Mr Parker, do you want to come back on that?

MR PARKER: Yes. It seems to me the sort of purpose of looking at switching in one of these analyses is to say, would it exert a competitive constraint? But this analysis allows us to look at whether it was sufficient to exert a competitive constraint. Had it been sufficient to exert a competitive constraint, you should have seen these prices for SPCs start to come back down to the Dual Play price and you do not. You see a persistent -- basically it is a pretty constant, probably marginally increasing over time, differential.

I do not agree with the idea that you need to look at -- you take some starting differential and then you have to look at a price above that. You need to look at the competitive price and say, can you raise prices above the competitive level. The competitive level here is the Dual Play price. The SPC Voice Line Rental here, Line Rental and broadband price is the same product as the Dual Play prices. It is a Line Rental and broadband bundle.

So there is not any kind of product differentiation that would seem to be able to justify these sorts of price differentials. My interpretation of this, I think from -- sorry, from a market definition perspective, the fact that BT has been able to maintain such price differentials seems to me to tell you that it is a market, that there is an SFV market because if the switching had been sufficient, you should have seen those price differentials kind of wither away and you would not be able to maintain them.

MR RIDYARD: Is it possible that -- we all make mistakes do we not, is it possible that the consumers who think they are getting a good deal by buying them separately just have not done the maths and there is a good chunk of them who continue not to do the maths?

MR PARKER: I think the first thing is where we are talking about BT Split Service Customers, so they have exactly the same, they have had both products from BT, Ofcom thinks about 20% of these purchase customers are BT, BT Split Service Customers, then that should not apply. Yes, they may not have done the maths but if so, BT is able to exploit the fact that they have not done the maths to be able to raise prices above the competitive level, above Dual Play price quite considerably.

If we are talking about whether these customers are choosing to be split service because they get a really good incremental deal on broadband from someone else, I do not think that is inconsistent with the idea that BT is able to price its SFV service above the competitive level even if the other part of that, the sort of standalone broadband part offered by someone else looks attractive to that customer. I think the question is: can BT raise the price of sufficient services above the competitive level, and that is what I am measuring.

MR RIDYARD: So even if the customers who said they did Split Purchase because they were getting a better deal elsewhere, even though that was motivated by some deal they had done with Sky TV on the Sky TV premium channels, you are saying that would not have influenced your --

MR PARKER: I do not think it would influence the conclusion that BT in this case was able to raise prices very considerably for the Standalone Fixed Voice component of that multi-supplier bundle, as it were, former standalone components.

MR RIDYARD: Dr Jenkins, can you comment on that?

DR JENKINS: Yes, if you thought about Figure 8 that we were looking at and it if turned out that the sum of SFV plus the deal that was being got from the other supplier put it at the same level as the blue and yellow triangles, then I do not think on the face of this you could conclude that there was a separate market. If you have lost the price difference for an SPC customer as compared with the bundle product from BT, then it could be perfectly rational for the customer to have done that.

In this chart what we see is that Virgin Media's standalone product, that is the top line that you have got two sort of maroon coloured blocks, so to your point before, which is: "well, why are people doing that?" Virgin Media is also offering standalone broadband at what seems like quite a high price here for this product. They are not withdrawing that product. The fact that it exists, I imagine if Virgin Media is offering that standalone product, they may also be seeking to ask their customers to consolidate other services along with the standalone broadband product.

So the fact that you offer these standalone products is not in and of itself a sign that the market is not working properly.

MR RIDYARD: Mr Parker, did you want to come back on that?

MR PARKER: Only that the differential between -- so the blue and the yellow sort of maybe average that out to get the competitive Dual Play price, combination of standard and combination of prices. The question I am asking there, in relation to the red square and the red cross is what proportion of the difference is accounted for by the BT's SFV service and then adding in -- so you can see that very large proportion -- whether you include BT's standalone broadband price or Virgin's standalone broadband price you get the same combined price doing it on a components basis, and I conclude from that that the majority of the difference, therefore, in this case the vast majority, slightly lower amount of majority, is from the SFV services price. So it seems to me it leads you to the same conclusion.

MR RIDYARD: What about the general proposition that, I mean, would you accept there are circumstances where products have very different prices and yet be in the same market?

MR PARKER: I mean, it is -- if we go back to the hypothetical monopolist test, it is then can you raise prices 10% above the competitive level? If you have products of very different characteristics, then absolutely you could have very significant price differentials and be in the same level. That is because you have got a quality and features differences that mean that whilst it is 10% in terms of price or more than 10% in terms of price it is not on account of quality adjusted, feature adjusted prices.

Thinking about cars, for example, cars have all sorts of prices with all sorts of different combinations of features and quality and so on at different levels, but you could potentially think of them all being essentially in similar markets, depending on what -- one market or in kind of some quite broadly defined markets with price differences well above that, but that is because the features are different.

But the point of this analysis is that the features are exactly the same, so you have got a Line Rental component and you have got a broadband component and it is the same broadband component. Particularly when it is for BT, it is exactly the same product and so there is not this kind of material features difference that could otherwise lead you to say: "well, we should broaden out the market".

MR RIDYARD: Dr Jenkins, could you comment on that specific point there?

DR JENKINS: Yes, on that point I would say that you can get what is called vertical product differentiation which means there are identifiable feature differences such that -- and people talk about a ladder and the fact that the next more featured product becomes cheaper or more expensive means that your demand for the products next to it on the rungs is affected, so you can definitely have different prices of products that are within the same market.

That is called vertical product differentiation. But you also have horizontal product differentiation, which is where the features are pretty much the same and there are other aspects of the offer that may differ.

Examples of that, something I bought yesterday, paracetamol, right, in a packet. It is actually exactly the same product in that. It has to be because it is regulated but you can buy a 40p packet or probably £2.50, and maybe it is the coating and it is certainly the brand name and those things, the actual product is the same, would we say they are in separate markets? Unlikely. Have not done the analysis.

Then think about a cup of coffee that you buy, whether you go to the corner store, Starbucks, Caffe Nero, you can easily end up that an Americano standard size, a very similar product, will have price variation of more than 5%.

Again, we would say these products are in the same market. You can have differentiation, because customers like some aspect of that service and are willing to pay a little more for that. That differentiation will be different for each customer, it might be different at any one point in time as well.

MR RIDYARD: But are you saying that -- and obviously people can have different views about the reliability of BT versus TalkTalk, which may or may not be well founded, but they could have preferences. Are you saying that that is what is driving some of these differences, possibly, and a belief about the benefits of brands?

DR JENKINS: Yes, what I am saying is you cannot infer from price differentials alone anything about market definition, you need to think about what is the responsiveness of customers to price changes in order to capture what is -- whether or not it would be profitable for a hypothetical monopolist to raise prices, and it is not good practice to infer directly from price differentials because there are so many aspects that can influence that.

MR RIDYARD: Okay, thanks.

Why do not we take the break now.

THE CHAIRMAN: Good. Thank you.

(11.22 am)

(A short break)

(11.35 am)

THE CHAIRMAN: Before we move on to Dr Jenkins' Critical Loss Analysis, I just have a supplemental to ask Mr Parker.

On your version of the SSNIP test, just looking at the percentage increases in the prices, a point that has been made against you by Dr Jenkins is that actually if you look at the increase in prices on a yearly basis in percentage terms, they are not much above 5% -- I mean, I am sure the actual figures are agreed between you -- and that simply to say, well, it is a very big percentage if you take five years in a row and add it all up, it is not really the way to do it.

What do you want to say about that?

MR PARKER: For me, the relevant question is comparing the absolute price level against the competitive price level, and if we have had a whole bunch of price increases before the claim period, for example, then you should look at the absolute price difference, not at any subsequent small price changes. So it is that difference between the absolute level and the competitive price level that matters.

So it is not about then saying, well, within the claim period was there a further increase of 5%? I do not think that matters. That would be relevant if you were starting at the competitive level, but if you are not starting at the competitive level, that is not the relevant test.

MR RIDYARD: Dr Jenkins, did you want to come back on that particular point?

DR JENKINS: I mean, just to say it almost presupposes we know what the competitive level -- which is, you know, the element of debate here. So I think, as we will come on to, the way I thought about the market definition stage is what can you infer from what you observe in the market about what the close substitutes are to our focal product to inform the follow-on stages, which ultimately will then inform us about what the competitive price is for that product.

So starting from a position where you need to already say the competitive -- prevailing price is not competitive, in order to have a price difference which is more than 5%, from which you can infer the market is narrow and the price is not competitive. You have to be very careful about what you are assuming and what you are proving at each point in time that you do the analysis.

So that is not to say that Mr Parker has not thought about that, but you have to be very clear in your own mind exactly what your premise is for each piece of analysis.

MR RIDYARD: Just on a related point. Mr Parker, is there -- we were talking earlier about the sort of possible rebalancing rationale for the Line Rental increases, and I know you do not accept that premise, but if there was a rebalancing rationale for the Line Rental increases, would that undermine your reliance on those price increases and increasing gap between the wholesale and retail prices in this analysis?

MR PARKER: I do not think so. So if we go back to Figure 8, which I think we were looking at before, {E/3/81}. I am using here the proxy for the competitive price, which is the Dual Play price charged by other providers in a market which I think we all agree is competitive, I think that is BT's case. I would certainly agree that is probably right. So I think that is a good proxy for the competitive price of Dual Play.

As we have also discussed, any kind of rebalancing incentive would be felt by everyone, because this decline in calls is a sort of market-wide trend, I hesitate to use the word secular, but it is a market-wide trend in which -- so that should not affect the analysis of looking at the BT -- so for split service BT provides a Standalone Fixed Voice service in standalone broadband, versus these Dual Play prices, both of which will include -- you know, those prices will take into account any additional effect of calls.

MR RIDYARD: Yes, okay.

THE CHAIRMAN: Sorry, I now have a supplemental to that which is: I understand your point about if you take any given year and you compare, as in Figure 8, assuming that we can rely on this data, if you can rely on this data, etc. etc., then you see a big percentage difference between the SPC price and the bundle price, if you are right that the bundle is a good proxy for competitive price.

But what do you do in the context of the Voice Only Customers? I think your answer was you first of all still use that analysis, because BT was not able to differentiate between the Voice Onlys and the SPCs, so you still use that percentage difference, which you say fails the SSNIP test.

But you also said: in any event -- this morning, when we started, you said: but anyway, so far as Voice Only is concerned, the Line Rental increases themselves are above the SSNIP test.

Now, were they?

MR PARKER: Well, if we can go to the Joint Statement at {E/49/246}.

THE CHAIRMAN: Yes.

MR PARKER: So we are seeing there the starting price £11/£12, it has gone up to £18.99, I think it is, before the commitments were introduced, so that is 50/60% I think. At the same time, the cost of Wholesale Line Rental, which is the main direct cost, has gone down. I think you have seen in the sort of discussions with BT factual witnesses I think some concerns about: there is no obvious cost justification for the price increases --

THE CHAIRMAN: I understand the point about cost justification, and maybe I am just being a bit pernickety by going back to, as it were, the parameters of the SSNIP test. But if you were applying a SSNIP test, I can see that you say, well, it is 60% across the period from 2009-2018.

MR PARKER: Yes.

THE CHAIRMAN: But if you divide that by the number of years, the percentage each year --

MR PARKER: But in each year you should be looking at whether the prices are above the competitive level, not about --

THE CHAIRMAN: Yes, but how do we know -- if you want to go back to the starting point, 2009, how do we know that the BT Line Rental in 2009 was above the competitive level?

MR PARKER: We do not. We could say it is at the competitive level in 2009, and then what we have seen since is that the costs have come down and the prices have gone up quite materially.

THE CHAIRMAN: In other words, just to be clear about it, in other words, for your purposes here, you do need to take into account what is happening with the Wholesale Line Rental costs?

MR PARKER: Well, this is an alternative way of sort of triangulating to the answer, so it is I think confirmatory of the Split Purchase Dual Play analysis. It gets you to the same point, which is that the SFV component is considerably above, in this case, the direct cost level, you can see from the start of the claim period. There were a lot of increases before the claim period, and then for various reasons those -- there were not that many further increases after the start of the claim period. But the relevant question is not: relative to the start of the claim period, were there additional increases? The relevant question is: from the start of the claim period, were prices more than 5/10% above the competitive level?

As I say, this is confirmatory. I would say this is supportive of the previous analysis where we have a good competitive benchmark, but one would have expected a competitive benchmark here, given that the main costs -- direct costs imposed reduced, so have fallen.

MR RIDYARD: I suppose the sort of hidden assumption here is that the gross margin -- the margin between Wholesale Line Rental and standalone rental is doing the same job year-on-year. If we are looking at a grocery retailer buying in beans from Heinz and selling it on to you and me as consumers, you would say: this looks a bit odd, because they were happy with whatever it was, 20% margin back in the day, and now it has gone up to a 60% margin, so something -- there is an increase in market power here.

But if that is not a good analogy, and if this margin between the Wholesale Line Rental and the consumer price is doing a different job, it is -- that is why I am asking about the rebalancing. If it is now compensating for something else that is going on in the business, then it is maybe too simplistic to compare -- to treat this as a simple sort of resale of something that you buy at wholesale level.

MR PARKER: I mean, to some extent that is what is going on, is it not, because BT is buying a product from Openreach and then it is selling it on to customers.

MR RIDYARD: Yes, but a Line Rental is one element of a more complicated package of things that is being sold to the consumer, is it not?

MR PARKER: So that is true. If we go to {E/49/228} -- the same chart will come up multiple times, I think -- again, we are seeing this is the ARPM for calls. So rivals are facing the same calls -- the reduction in calls is a trend across the market. There is no reason to think it is different for rivals. So you would expect to see that affecting ...

MR RIDYARD: So you are saying: in my knowledge, Sainsbury's has not increased the margin it is earning for selling these baked beans, but Tescos has, and therefore there is something funny about Tescos, market power in Tescos.

I understand that point, but that then presupposes that these ARPM numbers are reliable, and obviously --

MR PARKER: So the pink line is out of BT.

MR RIDYARD: Yes. We had a discussion yesterday about some questions over these numbers, but, yes.

MR PARKER: Yes, but the blue line is right -- is other operators' submissions --

MR RIDYARD: Yes.

MR PARKER: -- Ofcom analysis. We do not have the underlying data for those, so we have to rely on Ofcom having done the analysis correctly.

MR RIDYARD: Yes. I am not rejecting your analysis, I am just pushing at it to see where it might raise some questions.

MR PARKER: That is fair enough.

MR DORAN: Just one little question. You said that the decline in calls is a market-wide trend. Is it something that would affect BT exactly the same way as everybody else? I am just wondering about the legacy base of customers that you have mentioned in your reports.

MR PARKER: I am not sure I have looked at that, and possibly -- I am not sure whether there is data on that available and I am not sure whether we know. It could be that BT customers are more likely to use calls. It could be they are less likely to use calls, I must admit. I am not sure.

Can you remember at all, Dr Jenkins?

DR JENKINS: Not off the top of my head, but there is possibly a chart somewhere that would answer that question.

MR DORAN: I am sure it is a small point.

DR JENKINS: I just make two small points. The figure that we have in front of us now, I just continue to make the point that that is for all Voice customers. So these -- if we take BT data on its face, which says average revenue per minute for Voice calls was increasing, and my concern with this chart is the comparison, because my list price assessment showed that all call prices were going up through this period also for BT's rivals. So it is not that I dispute that average revenue per minute point, it is that comparison, because list prices were going up more generally.

This is for all Voice customers, so these are the packages that are supplied also to the customers taking bundles in the market which everyone then chooses what call package they are going to add. So to the extent we think there are good competitive pressures more broadly in the market, they will be constraining the calls element as well that we are looking at here, which

I think undermines the premise that you can infer from these price rises that there is something untoward going on just for BT.

If we could go back to Figure 8, the Dual Play comparison.

MR PARKER: Parker 3, Figure 8.

DR JENKINS: Yes, that one. Maybe this is completely obvious {E/3/81}. The difference between the top price and the Dual Play price is an implied discount on both standalone broadband and standalone Line Rental, and kind of obviously, because the gap between them I think is more than the standalone rental price. So you cannot infer that difference as only being related to the Voice element of that. That is probably completely obvious but I just thought I would say that.

THE CHAIRMAN: Sorry, just one supplemental to Mr Parker.

Correct me if I am wrong, but in fact the Line Rental prices for all the suppliers were going up --

MR PARKER: Yes.

THE CHAIRMAN: -- over this period by the same sort of margin, not exactly, and not the same each year. So why -- you say you have done your competitive benchmark in the case of Voice Only Customers as a proxy, or a supportive way of looking at it by reference to the costs, but why not look to what those competitors' pricing is?

MR PARKER: I have looked at that. I think there is an element of price leadership going on --

THE CHAIRMAN: Yes.

MR PARKER: -- prices pre-commitments, which means that BT was largely the first to set its Line Rental prices and other people used that as headroom to float up. I think in the pre-ASA world that was attractive to them, because by being roughly where BT was on Line Rental, they could look very aggressive by only advertising the incremental broadband price, so I can see how that situation might have arisen. I think that is a sort of price leadership thing. That is the conclusion Ofcom came to as well.

THE CHAIRMAN: That has to be your answer to it because, if it is not, then on the face of it prima facie they should be regarded as competitive benchmarks, unless you say there is something -- you have got to say there is something wrong with their pricing as well.

MR PARKER: Yes, exactly.

THE CHAIRMAN: Yes, thank you.

MR RIDYARD: Let us move on then, Dr Jenkins, to your Critical Loss Analysis. Perhaps we could just start by -- if you can just remind us what is the rationale for what you have done, and briefly what have you done?

DR JENKINS: In my Critical Loss Analysis I have sought to take the evidence base that we have to implement what is a standard quantitative application of the hypothetical monopolist test, and the difference between a formal hypothetical monopolist test and a Critical Loss Analysis is a Critical Loss Analysis is just asking whether a monopolist of the focal product could raise prices profitably from prevailing levels, as a starting point; not necessarily would they, which in a sense requires one to work out what the profit maximising price would be.

So it is a breakeven test. It is saying: let us have a look, on the basis of the market evidence we have, starting from prevailing prices, increase them by 5%, and assume you have monopolised the focal product, look at what the evidence tells you about where customers would switch to in response to that price rise, and then assess whether that would be profitable for the hypothetical monopolist. That trade-off is the monopolist will gain 5% extra margin on the customers it retains and that it will lose the entire margin on the customers that it loses. So there is a balance for them about whether or not it is profitable to raise prices at this point in time.

So that is the logic of a critical loss. It is implemented in order to say what are the products that are sufficiently close substitutes to your product of interest that they would form that constraint on a monopolist of that product.

THE CHAIRMAN: So building on that, then, and looking at the building blocks for what you have done, you have then got two measures, you have got critical loss and you have got actual loss, and if the actual loss comes out at more than the critical loss then it is not profitable, obviously.

Now, just to be clear on the datasets that you have used. When it comes to critical loss, which is effectively, as I understand it, what number of customers do I need to lose before it becomes unprofitable, it is done in terms of numbers of customers?

DR JENKINS: That is right, and it is related to the idea that I am going to lose all the margin of those who go, but I am going to gain 5% on the ones I retain, so how many do I need to lose to just break even and say that is no longer profitable for me?

THE CHAIRMAN: The data you have used on that is BT's gross margin data.

DR JENKINS: That is right. I have started from saying, okay, what is BT's gross margin at prevailing prices, and I have said that is how much the hypothetical monopolist would lose if it loses someone, and then 5% additional price, how much is that worth from that prevailing price?

THE CHAIRMAN: Once you have got the prevailing price, which is BT's prevailing price, and once you have got what its own gross margins are, it is just an equation, effectively, which tells you when you hit the tipping point of you cannot lose any more customers.

DR JENKINS: Yes, that is correct.

THE CHAIRMAN: So that is using BT data, and that will give you the figure of how many customers you can afford to lose before it becomes unprofitable.

Then when it comes to the actual losses, you are then going to the actual switching from BT?

DR JENKINS: That is right.

THE CHAIRMAN: Right. I do not want to go back on what we talked about this morning, but at that point you are again using BT's actual losses.

DR JENKINS: I start -- the dataset that I look at is indeed the exits from BT. BT's -- the exits from the focal products, so exits from BT's SFV product, and I look at where people went in a 12-month period after price rises. So what I am trying to do is calibrate for a 1% change in price how many customers leave from the focal product, SFV, and I do that by looking at what happened to BT's customer base when BT changed the SFV price.

THE CHAIRMAN: In relation to that, this is where you have then depressed the number of customers somewhat to take into account various sensitivities.

DR JENKINS: Exactly. So as we had the discussion yesterday, as best as possible I want to take price and competitive factor-related churn away from SFV, but I am also thinking about this as a hypothetical monopolist. So I do not include anyone who switched to an alternative supplier's SFV product, because in the thought experiment it is hypothetically monopolised. So you say even though the evidence says BT lost around 20% of its customers to alternative SFV, I do not count those in my Critical Loss Analysis, because a hypothetical monopolist would keep them in the thought experiment.

I also strip out what I agree is a sort of secular demographic trend, which is the people who are dying, moving -- certain of the moving categories, moving overseas or moving to care homes, all those sort of things. But what I do include are the moves to other suppliers' bundle products as best I can estimate it from the information that I have, or other suppliers' unspecified other products where I have made an adjustment to try to strip out those that might include SFV.

Then I have included where people have switched from BT's SFV to BT's bundle because, from the hypothetical monopolist's perspective, that is someone who has moved to a substitute product away from SFV to Voice sold in a bundle.

THE CHAIRMAN: Thank you; and I know we will come on to it later on, you have got a sensitivity for cellophane fallacy as well.

What you do not factor in is what BT was actually doing with the prices at the time. You do not -- and I do not want to go back over yesterday, but that just brings back in: yes, but why were they increasing the prices, and all that sort of stuff.

DR JENKINS: Yes, because at this market definition stage, while I am basing it on the observed behaviour of BT's customers, I am inferring something about price responsiveness of customers, which is actually you do not need to know why someone was doing that, you are just trying to calibrate how responsive a customer would be to a shift in the relative prices of SFV services and bundles, regardless of who is supplying it, in the sense that that is the hypothetical monopolist test, is abstract from the actual pricing incentives of the individuals in the market, and think about it from a product level, so monopolising the product, and asking what other products are constraining that product?

I still think a useful piece of evidence for consideration in this case, is what is the relationship between the products of SFV and bundles.

THE CHAIRMAN: The upshot of your analysis is in fact that I think, although there are variations on it, the actual losses are considerably above critical loss.

DR JENKINS: That is correct.

THE CHAIRMAN: Right.

MR RIDYARD: Mr Parker, do you want to comment on the --

MR PARKER: Yes, a number of points I think. So the first one is Critical Loss Analysis should be a comparison of the losses made -- the actual losses made by the hypothetical monopolist and the actual losses made -- the critical loss made by the hypothetical monopolist.

Dr Jenkins used BT data essentially for both of those, one just directly unadjusted, that is for the critical loss, and one with various adjustments for the actual loss.

But the whole of Dr Jenkins' main critique of my approach is you need to take into account this recapture incentive. It was different for BT to the hypothetical monopolist, there is a difference between the single product monopolist and BT. But if so, you cannot use BT data in a Critical Loss Analysis which ought to be looking at the hypothetical monopolist. You need to find some way of stripping out the recapture incentive that is there in the BT data, and Dr Jenkins does not -- cannot do that at all -- does not do that, cannot change the critical loss, she is just using the critical loss for BT, and does not make any attempt to adjust that for what the critical loss would be for the hypothetical single product monopolist who does not benefit from the recapture incentive.

MR RIDYARD: I am not sure I follow that, because Dr Jenkins does focus on the hypothetical monopolist in the sense that losses, so-called losses from BT SFV to BT bundles are counted as losses in her view, even though in BT's reality they are not losses.

MR PARKER: That is from an actual perspective. But from a critical loss perspective, which is just looking at BT's --

MR RIDYARD: I see, yes.

MR PARKER: So that is completely unadjusted if we are just looking at BT here.

So then the question is you should not be doing it at prevailing price levels, you should be doing it at competitive price levels. That is very difficult to do.

I do not think that Dr Jenkins -- this is the cellophane fallacy type point. To adjust for the cellophane fallacy, you would first need to control for this recapture incentive, so looking only at the hypothetical monopolist. Then you would need to work out what the competitive price level was. Then you would need to work out -- and this is the critically important bit, because you can obviously adjust the price level -- you would need to work out what level of switching would have been observed at the critical price level, and that is not measurable, nor is I think this controlling for the recapture incentive measurable.

So for those reasons, I do not think this tells you really anything about market definition, to be honest.

Then another way of thinking about this is if BT's critical loss was really -- BT's critical loss is 7% to 8%, but when it puts up its prices it is seeing this very high demand elasticity response, even taking out some of the losses that it is making, why is BT's actual loss above its critical loss? Surely BT's own pricing behaviour is not making sense here, because this is essentially BT data and BT data, so I think that is also problematic. But I would say for the CLA, it is sort of the first two points for me are critical.

THE CHAIRMAN: Could I just come back on that. Are you saying in this context that it is actually impossible to do a Critical Loss Analysis as a matter of principle, or are you just saying effectively that Dr Jenkins is using the wrong inputs?

MR PARKER: I am saying she is using the wrong inputs, because she should look at the hypothetical monopolist inputs, not the BT inputs. I do not -- Dr Jenkins has only made an attempt to adjust her -- the actual data, BT data, to try and approximate the hypothetical monopolist for the actual loss. She has made no attempt to adjust it for the critical loss. It is not obvious to me how you could adjust for this recapture incentive, but whatever -- whether it is possible or not, it has not been done.

THE CHAIRMAN: How would you do it then? If she has the wrong inputs and if -- are you saying it is an impossible test to actually do? Or, if not, you did not try this test yourself, you have gone for the prices -- and we have been through all of that, we will not go through that again -- how would you do it?

MR PARKER: Yes, so I would not do it this way. I did not do it this way, I would not do it this way. I think also if you think about the sort of hypothetical multi-product monopolist approach, you should not be trying to make this distinction between the single product monopolist and the incentives for BT as a multi-product firm, you should be looking more widely --

THE CHAIRMAN: No, I understand that. Put that to one side for a moment. Are you just saying it is not actually possible to do a Critical Loss Analysis here?

To put it another way, you are saying you should not look at what BT was doing, it is a hypothetical monopolist. What figures do you put in for your critical loss and your actual losses?

MR PARKER: I do not think you can do it in this circumstance.

THE CHAIRMAN: That is what I wanted to try and get at. Thank you.

MR RIDYARD: That is because of the cellophane problem primarily, is it?

MR PARKER: It is first the recapture problem, so you need to try and get the data for a single product monopolist, which is what Dr Jenkins is trying to measure. So first you need to do the recapture incentive, and then you need to do the cellophane fallacy, and I think both of those are -- they are certainly problems which have not been solved, and they may be problems that in this context that are not solvable.

THE CHAIRMAN: What is wrong with putting a sensitivity in,

as Dr Jenkins has done, to cater for these?
I appreciate these things will always be a bit rough around the edges when you have to discount something by a percentage, but what is wrong in principle with doing that?

MR PARKER: This is from the cellophane fallacy perspective.

THE CHAIRMAN: Yes, yes, but it could apply to the recapture element as well.

MR PARKER: Well ...

THE CHAIRMAN: Because the ultimate product of this calculation is going to be the number of customers beyond which they cannot go in terms of losses.

MR PARKER: So I think the problem -- let us start with the cellophane fallacy. The problem with the cellophane fallacy I think is you can reduce price and get to a lower price with a lower margin. What I think is very difficult is working out what the switching would have looked like had that control happened, and I think there is a question of how much do you change the price, what is your competitive benchmark. But if we knew that, we could just do the price analysis directly. I say we do know that, because we can look at the Split Purchase prices versus Dual Play, and we have got a competitive benchmark, and we can look at whether BT itself has managed to maintain prices more than 10% above a competitive level.

Ultimately what we are trying to look at with the CLA is could the hypothetical monopolist raise prices 10% above the competitive level or would it lose too many customers to do so? But my view is that you can look at the pricing data directly to tell you, well, BT can do that, and that seems to be -- I would say that is sufficient to demonstrate that a hypothetical monopolist could also do so.

So I do not think -- I do not see how you can control in this context for the cellophane fallacy. I think any adjustments that you make to the path of switching -- so Dr Jenkins says, well, I will use the lowest elasticity that I observe in reality. But that -- there is no way to tell whether that actually relates to the real -- to the level of switching that the hypothetical monopolist will face acting --

MR RIDYARD: Let us put that to Dr Jenkins.

How do we know whether you are being conservative enough in your sensitivity analysis?

DR JENKINS: I think, as the discussion says, I am not saying it is perfect, that is for sure, but what I am saying is I think it is useful evidence to consider in terms of the question of what products are substitutes for SFV, and in that I have done a number of things in a conservative manner so as to be able to address these concerns, and I find that even having cut out quite a lot of the switching for various reasons, if you take a number of the sensitivities I have done, all will capture to some extent that reduction in -- potential reduction in switching. So you can see the shift from 20% being cut out to 40% being cut out as another sensitivity in terms of my actual losses overstated and taking the minimum point that I observe.

I do not have a good counterfactual switching data, I do not have that and I am clear about that. But I have done what I can to do that, and even then you do have some headroom even there. So one could go even further down and still find that the bundles product is a substitute to SFV such that it would not make sense for a hypothetical monopolist to raise the price of it.

I think, just going back to what is the difference between Mr Parker and myself with respect to this, and the reliance on BT, I would say that Mr Parker is taking a straightforward inference from the behaviour, the strategic behaviour of BT in terms of its price setting and saying you can infer from that what the hypothetical monopolist would do, and I say I do not agree with that.

What I have done is use the actual data we observe in the market about switching behaviour, which comes from BT's customers, and is therefore influenced by BT's strategic pricing, but I have then adjusted it as best I can to make it as applicable to the hypothetical monopolist question I am looking at.

So I do think there is a difference between how the two of us are thinking about the use of the hypothetical monopolist -- the use of BT data, sorry, in order to implement a hypothetical monopolist test.

MR RIDYARD: But the question of the amount of switching you observe is still subject to the discussion we had yesterday about whether what you are picking up is switching that is caused by the pricing or switching that would have happened irrespective, because of things that were happening in the market anyway?

DR JENKINS: Yes, I mean, it is sort of paradoxical, is it not, to say there was so much switching happening generally to bundles that we cannot include it as price-related switching to bundles in our hypothetical monopolist test to tell us whether bundles are a substitute for Standalone Fixed Voice, so --

MR RIDYARD: Is that paradoxical? I think -- again, I am just thinking aloud here, it is always dangerous. But would you not want to find some kind of -- some sort of test, really, for how to distinguish these things, and one place you would look for that would be a sort of natural experiment, such as the 2018 commitments, and when Mr Parker looks at that he says maybe the 2018 commitments affected switching to some degree but not by enough. It affected the path of switching a little bit, but the fact that it was just a little bit and not a dramatic reversal of switching I think he would argue shows that the switching was not primarily caused -- obviously price is always important, but it was not primarily caused by small relative changes in pricing, it was caused by something else.

How would you respond to that?

DR JENKINS: That event study that I conducted, what I show is that for Voice Only Customers the path of switching -- the rate of switching reduced after the commitments. Now, that was going directly to the point that the price of SFV affects how Voice Cnly customers respond to whether or not they move to bundles. Because the position that Mr Parker had put was Voice Only Customers, you can just reject bundles as a substitute for those customers because they do not want bundles. Whereas -- so what that is showing is there is -- when you widen the difference between the Standalone Fixed Voice and the bundle price, Voice Only Customers do react to that and fewer of them switch.

So there is a link between pricing and switching for

Voice Only Customers. That is the conclusion I drew from that evidence.

If you then want to try to infer something more generally about elasticities of the Standalone Fixed Voice customers, you have to be very careful about extrapolating what happened there to the other periods, and there are two reasons for that. The first being, as we already discussed, it is a price fall, not a price rise. So some of that, what you might expect, would not happen where it would require people to cease taking the broadband product to take up the Voice Only product.

But also you are now looking at a different set of customers. So prior to 2018 and the commitments, you have SFV customers overall, and that is what my analysis is based on, Voice Only and SPCs, and the evidence I am looking at is the mix of those two. I think it is a matter of agreement that from a levels perspective it is likely that Voice Only Customers switch less than SPCs, but the evidence I have shown is the mix of those two, which is what would be relevant for our hypothetical monopolist test which is about Standalone Fixed Voice together.

So I do not think you can extrapolate from what seemed to be the elasticity of these Voice Only Customers that are left post-commitments and say, oh, because that looks low it is completely wrong; the higher elasticities we observed for the whole group. Especially as you see that for the SPC group that is left, their switching increases post-commitments.

So you definitely see there is a difference between these two groups which you are then having a mix of in the pre-2018 period.

MR RIDYARD: Mr Parker, quite a few points for you to chew on there.

MR PARKER: So there is a point about asymmetry. I am not sure why we would think there would be an asymmetry between the elasticity in price changes --

MR RIDYARD: We discussed that yesterday, earlier.

MR PARKER: I think if the point is that SPCs must be really, really switchy if VOCs are not switchy at all, the question for me is why was BT able, if we see the Split Purchase Dual Play analysis, able to maintain prices -- chose to maintain prices so much higher than the Dual Play price?

It seems to me the price -- it would not make sense for BT to do that, given that the apparent critical loss that it faces, and the apparent actual loss that Dr Jenkins estimates for BT as a resulting from those price increases, why was it able to do that? If it was really losing all these customers by maintaining prices at that level, why would it not start cutting those prices back to competitive levels in order to reduce the level of switching away?

I think, for me, that is the sort of fundamental tension in a lot of this, but from the market definition perspective I think none of this solves the problem that the data is based on BT -- BT and BT, basically. It is BT modified and BT unmodified, and neither of those is the single product hypothetical monopolist.

MR RIDYARD: Okay. To the specific point about the issue showing the impacts of the commitments on behaviour, the natural experiment, do you accept the proposition at least that -- I mean, you say there you do not think there was enough of a change in 2018 to justify Dr Jenkins' conclusions, but do you accept the proposition that that does show that VOC customers do place some value on broadband even if they have not yet decided to buy it?

MR PARKER: Yes -- well, strictly speaking, it shows that they are less likely to switch away to something by a small amount. So I am not saying the elasticity of VOC customers is zero. I measure minus 0.7, which would suggest that the price increases would not be profitable for BT, even from prevailing price levels.

MR RIDYARD: Yes.

THE CHAIRMAN: Can I just go back to Dr Jenkins.

I am just curious about the general use of Critical Loss Analysis. I mean, this is perhaps unusual in a sense; you have got a lot of data about actual switching, you have got data about prices, which you say, well, that is just BT's behaviour and it should not be taken into account for the purpose of this test.

But if there was ever such a thing as a typical CLA in the context of SSNIP, as a tool for SSNIP on market definition, what do you normally do? You take your critical loss presumably from -- although it is a hypothetical, you take the critical loss from the firm in question?

DR JENKINS: Yes.

THE CHAIRMAN: That, as you say, if you have enough financial data you can do an equation and you can work it out. But how do you predict the actual loss if they were to increase prices -- if you do not have some sort of loss figures to work from, what do you do?

DR JENKINS: So, as you say, it is very standard to use the prevailing evidence of the companies in the market to give you your critical loss estimate. For actual loss, I mean, you can see it in the market definition guidelines, whether it is European Commission or the OFT, they say where do we get our evidence from on this?

One place you get it from is precisely the place I did get it from, which is exit information from the participants in the market.

Now, in this case we have just got the BT information. In other cases you may also have that information from other market providers. So looking at where do customers divert to when they go, and a lot of businesses, as BT did, want to know where are my customers going, because it is good information for your competitor analysis, and so many businesses have that type of monitoring.

You can ask customers directly, and in many cases you will have a survey that you say to people, well, what would you do if prices went up? What would you do?

The other thing would be where you have captured that information. So, for example, in a case that might involve supermarkets, they actually have quite a lot of information on pricing and volumes of purchasers, you might get multiple datasets and then do something quite elaborate to try to model the responsiveness to price changes across the market.

THE CHAIRMAN: Right. But in fact here you have taken your data just from BT's switching?

DR JENKINS: Yes.

THE CHAIRMAN: You could have looked at what was happening with their competitors in terms of switching.

DR JENKINS: Had that information -- you need to get that information disclosed. So often in merger cases the competition authority can force people to disclose that information. It is not something that is generally in the public domain --

THE CHAIRMAN: I see.

DR JENKINS: -- that exit analysis.

In this case, I think one might have considered a survey to inform this question, but obviously we cannot go back in time to ask the people who were these customers in 2016: how are you going to respond? In other situations, where it is something that is happening at the time, survey evidence is more generally used.

THE CHAIRMAN: Thank you.

MR RIDYARD: I think that probably covers the critical loss questions.

DR JENKINS: We did not talk really about the adjustments to the critical loss, but maybe we are going to come on to that in the next topic.

MR RIDYARD: Sorry, in which context?

DR JENKINS: The fact that I have used BT's margin, and then the sensitivities I did around that, but perhaps we are going to come to that in due course.

MR RIDYARD: Let us do it now. So this is to deal with the cellophane fallacy.

DR JENKINS: Cellophane fallacy and the recapture rate. So my base case that is in my first report, and indeed in my second report, uses the prevailing price while I am aware there is a recapture incentive going on. I think part of the reason for that was to say, okay, this is the competitive dynamic in this market. This prevailing price does capture the fact that everyone in the market is supplying both those products, so actually the prevailing price is this one, and then let us look at a hypothetical monopolist who does not supply bundles.

It was then in the JES process when, discussing that with Mr Parker and going, okay, actually I see that criticism, that if you do the second part saying the hypothetical monopolist does not have the bundles, then one ought to consider that in the first part, which is to say, the competitive price determined by a set of market participants who supplied both Voice standalone and Voice in a bundle may not be the right starting point for the hypothetical monopolist test.

But where I disagree with Mr Parker about saying how difficult it is to make that adjustment is there is also a criticism that says BT has priced this product too high just generally because of market power. Both those effects lead to higher margin than would otherwise occur. So you can address both of them by starting from a lower price point, and as long as that price point is sufficiently low that you think it is what a competitive party would do that only supplies Standalone Fixed Voice, then I think it does -- it is a sensitivity that is relevant for both the consideration of the cellophane fallacy and the recapture incentive.

THE CHAIRMAN: That is what you did?

DR JENKINS: That is what I did.

MR RIDYARD: How do you know that, that it is low enough?

DR JENKINS: In HJ2 I used the commitments price, so that has been put in place precisely almost in a mindset which is saying: imagine this is a separate market and these are the people we care about and let us find the right price for them. So I think that is not unreasonable to say that is one that covers both of those scenarios.

In HJ1 I used the Home Phone Saver home benchmark, which at the time I understood the CR thought that was a reasonable benchmark, and again that is a product that is designed for customers which are not thinking about bundles in the marketplace.

Now, obviously BT still has a recapture incentive. So those are the choices that I made for my sensitivity.

MR RIDYARD: So what specifically is wrong with those, Mr Parker?

MR PARKER: I do not think either of them deals with recapture incentive, because obviously if you change the equipment price for BT, then BT still has all these other products, so that is not being adjusted for. Similarly, if you think about Home Phone Saver.

So I think these are partial, somewhat arbitrary adjustments for the cellophane fallacy, because I think you need to look at not just Line Rental, you need to look at calls as well to deal with the cellophane fallacy, and you need to look at the proper competitive benchmark for that, which may or may not be the commitments price as we have demonstrated in the limb 1 analysis. So, say, it is an unbound but actually, I think it is not above the competitive level.

But in both cases neither of those adjustments, the responses you see and the margin change that results, still incorporate BT's recapture incentive to bundles, because that is -- Dr Jenkins has started from BT's margins and said: let us reduce some revenues that you get from -- some margins that you get from Line Rental, for example. But that still -- that lower level still includes all of whatever the recapture incentive was.

So I do not think those sensitivities tell you anything about getting -- or stripping out the recapture incentive. They might tell you something about partially stripping out a cellophane fallacy problem, but you would then have other issues that you cannot deal with about what would the switching have been at such -- at lower price levels.

MR RIDYARD: Let me make sure I understand that. With the commitments pricing, you accepted that taking the commitments pricing level takes out -- is a reasonable approximation to taking out the monopoly pricing on the Line Rental?

MR PARKER: I think it is an upper bound. I think actually if you look at the data fully, you find --

MR RIDYARD: It would go even lower.

MR PARKER: It would be a little bit lower even than that, but then there is also an issue of the calls as well.

MR RIDYARD: Yes, but let us put calls to one side. On recapture then you are saying you should go even further down to neutralise the recapture point.

MR PARKER: You have to neutralise the recapture if you really believe the way we should look at that is the single hypothetical monopolist. Then you have to say: I have to strip out from the data any part of this that is -- could be related to a switch, an internalisation of the switch between SFV services and bundles. That is -- that is the sort of fundamental point I think that Dr Jenkins makes in her criticism of my approach.

MR RIDYARD: On your view on recapture, though, you are not terribly impressed with the recapture incentive in the first place, because you do not think the bundles generate much or any profit to BT?

MR PARKER: That is right.

MR RIDYARD: So is that really a problem, in reality?

MR PARKER: Then I think that the issue is, well, why, if BT is losing more customers than its own critical loss, why would it be putting prices up to such a high level? I think this is what Katz and Shapiro have called in another context the sort of critical loss fallacy. You would need to kind of -- you would then need to track back to really what is the competitive level in kind of hypothetical monopolist prices, more than 10% above that.

For me, the most direct way of getting to that question is looking at BT's pricing. I think the CLA is an indirect way which says, well, what would this tell you about the pricing constraint that would be faced?

THE CHAIRMAN: Just a second.

Can I just bounce a couple of those points back to Dr Jenkins, just on what Mr Parker has said, and obviously you will have dealt with in this detail in your report. But he says that when it comes to adjusting the starting point on the price, he says, well, you might have dealt with cellophane fallacy, or there was an argument about how much you would need to deal with it, but for sure you have not dealt with the recapture incentive on how you set your starting price, and you have not dealt with any question about cellophane fallacy in relation to core prices.

DR JENKINS: The commitments price was set. It is correct that Ofcom did not feel the need to reduce call prices and those call prices as set were also the same prices that were being paid by all Voice customers including in bundles. But I think the analysis was pretty much conducted on ARPU so in a sense it is like, okay, what -- it is almost like the waterbed effect. What do we do to Line Rental price given this is the revenue we are going to be getting from calls. So I do not think it has not been incorporated. It is just you moving one price to affect what Ofcom wanted to achieve in that process. So I do not think it is right to say calls are not considered in that.

I think the commitments price is definitely a low price. I was just looking for it. I would probably need to do it in the break to find -- the commitments price had within it a sort of inflation cap with it and so in order to use that I had to extrapolate backwards taking out inflation and by the time you have done that you end up at a rate that is below I think even the 2009 price. So I think this idea that it is still too high there is not a lot of evidence of that.

I think I just disagree that it does not account for the recapture incentive in there as well because how does the recapture incentive manifest? It manifests itself as an additional margin that is on that price. So if you have got a regulator coming in and agreeing with you a price for a product thinking about in a sense just that product on its own, it is not clear to me that -- BT does not have the freedom there to say, oh well, I would prefer to price it a bit higher because I have got this recapture going on.

So I think that by reducing the price point that I am using -- what I actually do is I just reduce the margin in the Critical Loss Analysis for whatever reason that is done. That means it increases the critical loss that is required in order to still find that it would not be profitable.

So I think it does actually correct for both those factors if you think the price is suitably low.

THE CHAIRMAN: You just said at the end there, it increases the critical.

DR JENKINS: So what happens if you reduce the margin, then that means you lose less when people go and the 5% that you gain is worth sort of relatively more, so the lower the margin the higher the critical loss is. The more customers you need to lose before it is unprofitable and therefore that is why for any given actual loss reducing a margin will make it more likely you find a narrow market. It is quite confusing. I absolutely grant you and often I have to think about it very carefully to get all of those points.

THE CHAIRMAN: This was where there was a debate around paragraph 87 I think of the Class Representative's skeleton arguments where there was a change made where they said it was greater or less. I do not want to go into it now because we would prefer to deal with it directly with you. But what that meant. So it is a higher critical loss.

DR JENKINS: Yes, lowering the margin leads to a higher critical loss and given your test is that your actual loss needs to be higher than your critical loss in order to find wider markets, then the higher --

THE CHAIRMAN: Yes, it would lead to a narrower market which is what intuitively you would expect by catering for these markets.

DR JENKINS: Yes, exactly.

THE CHAIRMAN: Because if it was a lower critical loss then it is easier for your actual losses to be above it.

DR JENKINS: Yes.

THE CHAIRMAN: Right.

DR JENKINS: Then to one of the last points Mr Parker made which is to say he then says, yes, but if you do that then why do we see BT doing something different? In my mind yes, that is the recapture incentive. If you have stripped out the recapture incentive in the analysis you have done that can explain why from a hypothetical monopolist perspective it is not profitable to do this. But that BT finds itself doing that and --

THE CHAIRMAN: That is going back to why are the prices --

DR JENKINS: Why are the prices the way they are. It is not just about this static thing as if BT is sitting there saying, oh, I will move someone from here to here. They are needing to cover costs and do all the other things that one does in a commercial business. So when they are setting their prices they are doing that in their holistic way. It is not purely in this hypothetical test that we have set up.

MR RIDYARD: Thank you. That is very useful.

So let us just, we have touched on the cellophane fallacy several times because obviously it is quite hard to avoid the topic when you are dealing with market definition and excess pricing in the same case.

I mean, I suppose, maybe almost a heretical question, but is there any point in the SSNIP point and market definition in the context of a case where we are dealing with excess pricing? Mr Parker, shall we just abandon this or ...

MR PARKER: I am nervous of what the lawyers will say if I say yes.

MR RIDYARD: Do not worry about them.

MR PARKER: It is a legal requirement, right, so we have to do something, but I think there is a fundamental issue of if you cannot control for the cellophane fallacy. I think my analysis, my approach does not suffer from the cellophane fallacy in the sense that a cellophane fallacy leads you to excessively wide markets.

MR RIDYARD: So it is Dr Jenkins' problem not yours.

MR PARKER: That is essentially where I have got to is, yes, it is possible that there could be a market for BT SFV's services by itself but I do not think that makes any difference to anything. But ultimately because it is a legal gating item you could go on, I think we will go on and examine all the limb 1 analysis, and ultimately that will tell you, also tells you something about market definition. I think the two things are inextricably linked but to the extent that I think my analysis would tend to find overly wide markets I think it supports the view that there is a market for SFV services and then we can proceed from there and we can go and look at the rest of the analysis.

MR RIDYARD: Dr Jenkins, do you want to venture on this one?

DR JENKINS: Yes, I think the hypothetical monopolist test, as we said, it is a framework of thought that needs to be applied in the context of the competitive question that we have and I think it is a counsel of despair to say: "oh, that is it, throw it out, do not do it". We understand what the challenge is with the cellophane fallacy quite well and then one can make adjustments for that.

As Mr Parker says, it is relevant to assist the Tribunal to answer the question what products are good substitutes for the product of interest, and this is the accepted framework to help understand that. So I have done a carefully thoughtfully in my view -- I mean I have done it thoughtfully, whether I have sufficiently addressed all of those elements such that one can say for absolutely sure they are all nailed down, probably there still remains some area of debate, as we have seen from this morning.

But I still think that it is valuable for actually thinking through this question of how important are the products when thinking about the choices that customers of Standalone Fixed Voice services are choosing.

MR RIDYARD: I think it has been very evident that the process of thinking through the SSNIP test questions is revealing thoughts about how competition works, so in that sense I am very convinced that we have not been wasting our time.

But I mean, sorry, there is a serious point about the kind of classic approach to market definition. It is a staging post, it is a sort of halfway house towards doing the full assessment, particularly of a merger assessment. Whereas when you are dealing with excessive pricing, an excessive pricing claim does market definition still have that staging house status or is it all, as I think maybe Mr Parker was implying, sort of simultaneously determined and therefore it does not quite have the same sequential sort of role as it would do in a different case?

DR JENKINS: I think abstracting from anything about precedent and all the rest of it but just from the economics perspective of it, I do think it is useful, as I have said, to think about, especially in this particular case, to think about the products and what products are substitutes for them and that is a first thing that you do in order to consider dominance.

Dominance is a prerequisite for abusive dominance in the sense that we all agree that there are practices that if undertaken in a workably competitive mark would be considered fine and may not be if they are implemented by a dominant firm.

So you know, you cannot infer from a practice just say, okay, that is it, job done. You have to establish dominance, and market definition is a very important aspect of that dominance analysis.

So I would say there are not bright lines in all of this but what we are learning about is how the market operates but you cannot reject this information and say, oh well, it is just impossible, let us just flip to the next step and just assume something about market definition. You have to think carefully about the substitution, this substitution behaviour.

THE CHAIRMAN: I just want to check this with both of you. I will start with Dr Jenkins. It seems to me that both of you have accepted that there is a cellophane fallacy element that needs to be catered for here. It is just a question of how much or whether in fact it is possible to do it. You say you can cater for it and you say you have catered for it because of the way you have set your price by reference to either the commitments price or the Home Phone Saver price. Is that right?

DR JENKINS: Yes, so I just say I just maybe nuance the beginning of that. I do not think I have accepted there is a cellophane fallacy because that requires accepting that the prevailing price is not competitive, which ultimately is: no, the prevailing prices are completely consistent with workable competition. But what I have agreed is given that we are in a case that is going to involve testing that question, that it is relevant to look at whether my market definition based on prevailing prices is robust to an alternative where the price would be much lower than prevailing prices which would address a concern that there was actually a cellophane fallacy.

THE CHAIRMAN: Which if when we come to limb 1 we were to find the price was excessive, for sure you would leave this sensitivity in if we have not already answered the question, and that is the debate we have just had. Right, so that is your --

So far as Mr Parker is concerned, obviously invokes the cellophane fallacy but the difference between you is that you do not think it has been catered for enough.

MR PARKER: So I do not think from my purposes it needs to be catered for because it will tend you to wider markets than I find so that is always the problem. You have prices that are higher than the competitive level and that leads to excessive switching and things start looking like substitutes when they are not really.

THE CHAIRMAN: Yes.

MR PARKER: But given that I have found a market for SFV services, it makes no difference if that market is too wide because it could be BT SFV services, for example, alone. So it makes no difference to the conclusions.

THE CHAIRMAN: No, but you do say that any analysis in this context here has to take account of the cellophane fallacy.

MR PARKER: I think that is right and I think that then applies to Dr Jenkins' analysis. I think the problem is, putting aside the single product of the BT issue, is that the adjustments I think that Dr Jenkins makes are essentially arbitrary and you would need to -- if you like you need, to do the full in one analysis to work out how you would then treat the cellophane fallacy because you would need to do it on access, you would need to do it on calls and work out the proper competitive benchmark. Then you would need to try and work out what the switching patterns would look like for the single monopolist in respect of those prevailing prices.

This is where I would certainly agree with you, Mr Ridyard, that it ultimately all comes together. I would also say market definition is a staging post.

It is a staging post that allows you to carry out the analysis. It seems to me -- well, I think it probably just involves we need to sort of take it all in the round but I feel comfortable from the analysis that I have done that I think it would be sensible to look at a market for SFV services.

THE CHAIRMAN: Thank you. I just want to ... (Pause).

MR RIDYARD: Thanks for that. Some of that was a bit philosophical but I think it was still useful nonetheless.

Just going to the other extreme in a way and that is just looking at the sort of functional characteristics of the products. Are there any insights we can get just by looking at the nature of the products, whether we look at Voice Only Customers or Split Purchase Customers, just look by looking at the products that they buy and thinking about the very characteristics of them, what kind of choices they might make. Is there anything sort of on the fundamentals that we can glean that will help us to understand market definition in a way that has not already been revealed in the discussions this morning? Dr Jenkins, would you like to go first on that?

DR JENKINS: I think at the core of this, the functional characteristics of the Voice service, however sold, is predominantly the same and I think from that perspective that is an element that mediates towards saying that the way in which you purchase the product can all be in the same market because it is the same product that you are purchasing.

THE CHAIRMAN: The product being?

DR JENKINS: The Voice service element of it.

THE CHAIRMAN: The line.

DR JENKINS: Yes, the Line Rental and the calls over it.

Obviously that is certainly true for SPCs because we are saying they are purchasing Voice from BT and then they are purchasing their broadband and any other services likely from another supplier, possibly also from BT in a separate contract for whatever reason. So then the bundle is clearly the same -- well, if they have switched from another supplier there will be some differences to the products' features and things most likely but overall they are combining the same products into a bundle purchase. For Voice Only Customers they are adding another product as they move into the bundle but the underlying Voice product is the same in those.

In a sense we see that the way BT managed the different products, it just had the one Voice line and all of these Voice services were considered within that. So it is that idea of: we are providing a Voice service to all our customers across the line that they have with us.

MR RIDYARD: Yes, but for SPCs we are talking about not buying anything different but just changing the way in which they buy them really, whether they bundle them or not. But for VOCs we are saying -- obviously the Voice product is the Voice product but when we are talking about substitution we are talking mainly about substitution into bundles and we are saying the closest substitute for buying product A is buying product A plus B which is -- is there anything sort of -- there is nothing wrong about that but is there anything sort of unusual or nonstandard about that that we should be thinking about?

DR JENKINS: I do not think there is anything nonstandard about it. I think many times where these questions have come up about standalone products and bundle products, precisely the questions we are debating, come up which is you actually look at what the switching behaviour is in the market and how customers do actually make choices and what products they choose.

MR RIDYARD: Sorry to interrupt, but for VOC, for a bundle to be any sort of substitute it will have to have some desire to own the broadband service. If I was a customer who genuinely did not care about the internet or something, then --

DR JENKINS: Yes, that is correct. That the nature of bundling practices is encouraging customers to add products to the service, the one service they currently have with the supplier. It is obviously easier to do that where you are asking someone to consolidate purchases they are already making just to you, that is one less hurdle to get over. But I think generally that bundling practice, whether you think about it in the supermarket of, say, buy one get one free or whatever, it is the way in which you bundle the products encourages the demand for the bundled product from just buying the single original product.

MR RIDYARD: But you have to have some desire to have the other thing.

DR JENKINS: You have to have some desire obviously but there can still be a substitute.

MR RIDYARD: Mr Parker, anything to say on this?

MR PARKER: Not a massive amount. I think I would agree on Split Purchase. I do not think -- it is essentially the same product being bought in through two separate bills rather than one compared to Dual Play and I think that is what is helpful from looking at the sort of figures 7/8 analysis we were looking at earlier in terms of why that might be a relevant comparison.

VOCs, there is clearly some difference between just buying a Voice service and then buying a bundle which includes broadband or other products. I think to me, there seems to be quite a bit of evidence that when you ask the people on VOCs they say that is because I want to be Voice but there is clearly also a trend towards taking bundled products over time. I think one of the ways to look at that is the kind of post-commitment price elasticity point which is you cut the price quite a lot. There is still a drift away but it is probably just because there is this secular trend.

MR RIDYARD: I do not want to delay this too much but in your evidence one sort of point you made more than once was that the VOCs were customers who reveal themselves not to be interested in bundles. I mean --

MR PARKER: So at any point what we are seeing at any point we have got remaining VOC customers and BT is putting the price up. People are leaving but BT is thinking -- seems to be thinking, well, I can still put the price up to those VOCs because for whatever reason the amount of switching away that is going on is not sufficient to stop me doing that.

MR RIDYARD: So they reveal themselves not to be as interested in broadband as other people but they are still interested to some degree or some of them are anyway.

MR PARKER: To some extent that must be true because we do see overall there is a reduction in the size of the Class and the size of the SFV base over time but it could be happening I think for lots of reasons not necessarily related to price.

THE CHAIRMAN: Good, thank you very much. Until 2 o'clock then.

(12.59 pm)

(Luncheon Adjournment)

(2.00 pm)

MR RIDYARD: Okay, so we are now looking at the questions on demand side substitution and some of these I think we have already covered in the discussion to date. I think the first one I would like to raise is item (d) on this list in 1.12, which is when we are looking at the demand side constraints from Voice to bundles, that the bundles might exert on Voice customers, how should we deal with the distinction between access and the call charge elements?

Dr Jenkins, do you want to go first on that.

DR JENKINS: Is this the general question or specifically with respect to bundles?

MR RIDYARD: It is in general, I suppose. Just thinking about, yes, what ...

DR JENKINS: Because there are sort of two elements to it. The first element is the choice -- when you are making the choice about which access service to buy, whether you are going to buy a standalone one, or one bundled with broadband, standalone broadband, standalone Voice, if you are an SPC, then the calls packages that you might additionally purchase, and the out-of-plan call prices that you might be faced with when you are making that decision, are basically the same across all those choices from BT's perspective, so that is one situation where there was like one-for-one pass through in terms of, you know, when they changed the price for anytime calls or the call packages, that passed through to all their customers at that time.

So from the perspective of thinking about customers who are buying their Voice services in a bundle with others and what constraint those calls would put on them, I think it is just -- it is the same factors which will influence BT when they are selling that aspect of their Voice offering to their customer base. It will be across all Voice, as BT thought about it, because those prices did affect all Voice.

The second point I have raised with respect to the calls element is to say that if you are actually thinking about the market dynamics about the usage of calls, then that comes as almost a second decision after you have decided what access product you are going to take. You then -- at that point you now have your line, whether it is standalone or in a bundle, and then you have the decision about how you are actually going to communicate with someone, and because the very large majority of the people in the Class multi-homed with, certainly with mobiles, also for those who were SPC, they did have the internet as an access route, so other forms of communication, mobile calls, messaging, emails, all of those options would have been relevant.

So when you are thinking about BT's ability, it is probably -- I have dealt with it more in the dominance side, but -- so BT's ability to act independently when it is setting those Voice calls, which it is doing so for its whole Voice base, will be constrained by these other communication modes.

MR RIDYARD: Okay. So in terms of market definition, though, does that mean that -- is your position that, when we are looking at the Voice elements, that the market goes beyond fixed line communication?

DR JENKINS: I think I have agreed that the focal product for what we are looking at here is SFV services, which is access and calls together, because I do think that when someone is making the decision about what to adopt, they do think both about the cost of the access but also the ability to make and receive calls. It is one package of services that they are buying, and I have done my analysis on that basis.

I think it is more when you come to thinking about the evidence on how to treat calls either in dominance, in limb 1, or in limb 2, that ability to behave independently on that component I think is not straightforward.

MR RIDYARD: Mr Parker.

MR PARKER: So I think access and calls should be in the same market primarily for supply side reasons, although I think there are some demand side reasons as well, because if you can supply access, you can supply calls. The point of access is to provide the service over which you get calls. I think it makes sense to look at them jointly.

I think one area that puzzles me slightly is I think Dr Jenkins, if I understand correctly, is saying the existence of bundles provides a competitive constraint on SFV services, Voice, access and calls. But at the same time she is saying: "but there is a recapture incentive, so actually the existence of bundles makes you want to put prices of SFV services up". I do not know how you can think about both of those things at the same time or which of those she is necessarily kind of prioritising, as it were.

My view on the point about there is an overall -- BT sets one price for everything, it seems to me -- I do not think that applies either for access or for calls when it comes to the bundle prices, the reason being -- so for access you can always change the incremental broadband price around on the basis that you have got some notional price for access, but people are buying the bundle.

But I think the same is true for calls, because even if you are applying the same calls prices across everyone on a per package basis, which seems to be the case, in setting your Dual Play price, for the reasons we discussed earlier, you are going to be thinking about the revenues you might get from calls. So because that Dual Play package is in a competitive market, bundles being competitive, you will change your incremental broadband price to set the Dual Play price at the competitive level, anticipating whatever profits you are going to make on calls.

So I see these as very much they are different and separable pricing decisions.

MR RIDYARD: So just as before we were saying -- I was using the phrase you could "neutralise" the impacts of the

Line Rental price increase by just reducing the incremental cost of broadband, you are saying you could neutralise a decision to charge excessively high call charges by giving some money up-front in the form of a further reduction in the premium between the Voice and the bundled proposition?

MR PARKER: Exactly, yes.

MR RIDYARD: Actually I had not necessarily thought about it that way before.

Does that make sense, Dr Jenkins?

DR JENKINS: I think the take-up of the call package options is probably not -- I do not think it is correlated by whether you are in the SFV category or the bundle category, and the customers are making that decision and may change that decision once they have already made that choice.

So you -- I do not think there is any evidence that the way BT thought about that and thought about the way they discussed the bundle pricing, it was: here is your bundle price, of which £18.99, £19.99 is your Line Rental charge. It is not also: oh, and you get unlimited anytime calls with that, or something like that. If you were going to do it that way, it is like you would be saying, oh, the customer needs to take the package that you are doing that with. Alternatively, you would say, oh, they have passed through on all of these packages in some way the same additional charge but we have -- you know, some prices were zero most of the time, other prices changed.

I think that the dynamics of the call pricing were seen, across all Voice customers, as allowing those Voice customers to make a selection, and to do that effectively, so that you neutralise, you would almost have to have specific bundle prices that matched with the types of call packages that you were taking.

MR RIDYARD: Yes, I see that, yes.

MR PARKER: Perhaps I could just give a further response, if that is all right.

MR RIDYARD: Yes.

MR PARKER: There are two ways you could further think about this. One is that BT would take into account the expected profits arising from the suite of call packages that are available, on the basis I get a new customer in, I do not know which they are going to take, but I know they are going to take, or there is a chance they will take one of them, and that will be ... and then on average, you know, what is the expected profitability of that that I might want to ... Then competition drives me to give that away.

The other way of thinking about it is I need to be competitive in the Dual Play market. Other people, other competitors in that Dual Play market are setting competitive prices also affected potentially by the same situation, which is that they are expecting they will make some money on a calls package and they are setting their incremental broadband price or their Dual Play package in anticipation of those extra profits that they might make, because they want to get those people in through the door as well.

So I think even if that is not how BT was kind of explicitly thinking about it, it seems to me the market pressures would lead you there in a competitive market, and we see the evidence on incremental broadband prices is that they are very much detached from the standard Line Rental price, because we have seen that directly, but since the list prices of these packages are also going up, they are sort of detached from those as well.

MR RIDYARD: They certainly move independently but whether they are completely detached I guess is a ... Yes.

MR PARKER: If they move independently then it seems to me there ... It is a separate pricing decision for the bundle.

MR RIDYARD: Yes. The next question we had was about the propensity to switch from Voice to bundles across time. We put the evidence up on that on the screen yesterday which seemed to show that there was about a 25% risk of losing, a 20-25% risk of losing an SFV customer, or 25% were lost in each year throughout the whole period, more or less. There did not seem to be much change in that over time. So should we just infer from that that the threat of losing these customers has been the same throughout the whole period, or is there a significant change over time?

Mr Parker?

MR PARKER: I think -- well, perhaps the right way to look at it is if we look at Dr Jenkins' report in ... I think it might be Figure 4.1.

THE CHAIRMAN: Of the first report?

MR PARKER: Of the first report, yes. {OR-E/17/76}.

So this is just showing the decline in the number of SFV customers overall. It is not talking about the extent of whether these are leaving BT or within BT, it is just as a whole.

It is not entirely -- there is not -- it is fairly close to being a kind of constant presented reduction. It is a little bit steeper at the beginning of the period. I only take from Q1, 2014, but it is a little bit steeper at the beginning of the period and it flattens out ever so slightly after the commitments. But by March I would say the starting point is there is a fairly constant reduction in the SFV base.

MR RIDYARD: Yes, so the market definition does not -- because in principle you could have a better case on market definition in one year -- or one set of years than another, but you think it is fairly constant for that period --

MR PARKER: I do not think I would kind of change the market definition on a year-by-year basis for these reasons.

MR RIDYARD: Dr Jenkins, would you ...

DR JENKINS: Yes, I agree.

MR RIDYARD: So that in itself, there is just one answer to the SSNIP test question for the whole period --

DR JENKINS: Sorry to interrupt. The only thing I would add is obviously post-commitments that we both agree you then can look at the two groups differently, which you have not been able to do at that point. There are multiple reasons to then think about whether Voice Only Customers look different from the SPCs at that time. I have not dug into that in a lot of detail because those Voice Only Customers are not part of the Class at that point. But it is not so much just a time -- the passage of time there, it is also the fact that you now are able to differentiate between the different types of customers.

MR RIDYARD: Okay, they are not part of the Class anymore, but is there nevertheless something useful there that we might learn from that? If you have not done it, you have not done it, but is there anything ... by comparing the VOCs with the SPCs post-2018?

DR JENKINS: I mean, I think the evidence suggests that the VOCs are less price responsive than the SPCs after that point in time. That is the evidence I found from my event study. Obviously the commitments process itself lowers the price to one group, and Ofcom or BT introduce some more engagement measures for the SPC category, and those are likely -- both of those can affect the customers such that the SPCs become even more price responsive post that commitments process, and VOCs become less price responsive.

MR RIDYARD: So we cannot really make any sort of confident guesses, then, about the differences between the two groups?

DR JENKINS: I think it is hard to work backwards from that and infer something to the period before 2018, and, indeed, I think at some point I say I do not do it precisely for that reason, and I do not split any of the reason exit analysis trying to make some estimate of what it would be for SPCs, because I think it is very hard to untangle those effects prior to 2018.

MR RIDYARD: Yes.

Mr Parker, would you agree with that?

MR PARKER: I agree with that. Perhaps it might also be worth looking at page 246 of the JES one more time, possibly not for the last time, because we have mostly looked at ...

MR RIDYARD: Page number again, please?

MR PARKER: Sorry, {E/49/246}. It will be a familiar graph. We have mostly looked at the pre-commitments period in the discussions so far. What you see in the post-commitments period is you have the standard Line Rental price for Split Purchase Customers, which is the blue dotted line, and then you have the commitments price for the VOCs. It seems to me that if there was a lot of switching as between SPC and VOC, then you would not be able to maintain the significant price differential and indeed the --

MR RIDYARD: So if there was a lot of switching between -- do you mean from VOCs -- from SPCs?

MR PARKER: I mean from Split Purchase to VOCs, so it is suggesting that there is not a lot of switching going on -- not enough switching going on from Split Purchase to Voice Only to take advantage of the commitments, which is suggestive to me of a market for Split Purchase alone from that period.

MR RIDYARD: So how would -- sorry to be slow, but how would

a Split Purchase Consumer switch to be a VOC?
MR PARKER: You would give up your broadband.
MR RIDYARD: Yes, okay.
MR PARKER: Because you are not eligible for the --
MR RIDYARD: You would not be eligible for the lower price. Any comments on that?
DR JENKINS: My market definition post-commitments is Voice sold to SPCs on a standalone basis and Voice sold in bundles. So I agree that it is not likely that people will switch down to the Voice Only product at that point in time. I think some of them did. As Mr Parker mentioned, there was some switching to people just taking Voice Only at that time. But it is still the case that I think that the SPCs would have -- would be in the same market as bundle services.
MR RIDYARD: Okay. Fine. Then we had a question on selection bias, I know it is a point that, Dr Jenkins, you made in your reports at various points. Is there anything on that topic that we have not covered already in the discussion that you would like to raise here?
DR JENKINS: Do you mean with respect to the migration bias?
MR RIDYARD: Yes.
DR JENKINS: I think the point I would make here is just to say that given that you are seeing a lot of switching to

what is considered this alternative product, and so when information is gathered and reported it is often gathered at the product level and therefore the characteristics of a customer get attributed to the group for the current product they are purchasing. So where it is the same customer that has made a change, you have to remember that the fact that that person has changed means that their engagement levels, their switching levels, considering them inert. Of changing is what is seen to make them less inert, they probably still had that character just before they left.

So the way I describe that is to say you have to be careful about extrapolating from what you observe today about what you might expect to see in the next year. So there is a lot of evidence that says they have been with the product for a long time, they say they are not interested, but yet what we observe is that if you look 12 months later a lot of them have then made the switch.

MR RIDYARD: So you would say the answer to that would be -- the other way of addressing that would be to go back a year or two years and say: would you have made the same prediction about those people who then, it turned out, actually left?

DR JENKINS: Yes, and find that -- yes, if you said, oh, well, no one will leave because they have all been here for a long time, and then you look and you say, oh, look, another 15% of them left. Oh, look, another 15% of them left. But when you ask them, they say, oh, yes, I am not interested, or, actually, I have not switched in the last 12 months, and that indicates inertia, but it is actually not necessarily a good prediction of whether they will switch in the next 12 months.

Then because they move out of your product, you do not capture them the next year. Because normally if they were switching to just another supplier of the same service they would be captured in those types of surveys, because they would say, oh, yes, I switched in the last 12 months. But because they move potentially to another supplier and another service, they are not -- that switching is not captured when you look at the group that they started from. It gets attributed to the group they end up in.

MR RIDYARD: Mr Parker, is there anything more to say on that?

MR PARKER: Only that I think switching is relevant to the extent that it influences pricing decisions, and I think you can look at the pricing decisions and see what that shows you, and say this is one version of that story. Therefore the kind of -- the measurement of the level of kind of switching away seems to me of sort of secondary importance, because the primary importance here is what did BT think about the extent to which people would switch away if it put prices up?

MR RIDYARD: So you are back to judging them by their conduct, which is the choices to keep prices high or to raise prices?

MR PARKER: Yes, exactly.

MR RIDYARD: We talked yesterday about non-price factors and the part they play in substitution. I felt as though we had covered that reasonably well, but are there any other points you would like to make about the importance of non-price factors in this ... Maybe, Dr Jenkins, you go first if ...

DR JENKINS: I think we did cover it yesterday, so ...

MR PARKER: Agreed.

MR RIDYARD: There is a question of the internal BT documents, and I appreciate you might not have a completely comprehensive understanding of all of the internal documents, but is there anything from the factual witnesses or indeed the other parts of the factual record that you have looked at which adds further insights to the discussions we have had about switching, or are there things which should have been said that have not been said that would lead you to support or reject the different theories on substitution?

Mr Parker, would you like to go first on that?

MR PARKER: I mean, the impression I have from the pricing documents particularly around sort of Line Rental price increases is that there was a kind of target to put the price up by £1 most years, and that seems to be what happened, and that addition -- to the extent that there were discussions around what price increase should be put in place, it was not so much about should we put the £1 in, but might we put £2 in or might we put some other number. Then the issues that tended to come up in the documents from my reading and understanding, and, as you mentioned, I would not say my reading is comprehensive necessarily, but they seemed to be more around concerns about media adverse comment, what Ofcom might say, not so much about: we will lose lots of customers if we do this. There are isolated references I think occasionally to the Post Office, at the time when the Post Office had a particularly aggressive -- a much cheaper SFV price, which was I think 2012/13/14, that sort of time, but the Post Office gradually floated up its price to the prevailing price level, I think, towards the beginning of the claim period.

So it seems to me that you do not get much of a message from those documents about the constraint being placed on the Line Rental price as a result of potential switching to bundles, or indeed SFV --

MR RIDYARD: So when you see references to worrying about what Ofcom might think and worrying what the PR consequences might be of price changes, do you see those as evidence that the things constraining BT were not competition in the way that we normally associate it, but the threat of regulation or something non-competitive?

MR PARKER: I think if it was competitive you would see more responses to competitors, you would have more kind of gaming of what happens if people do not follow us up? What happens if someone else becomes more aggressive on such-and-such a price? You do not really see any of that. The concerns that are had seem to be more around: we do not want to draw too much attention to these price increases if we can avoid it, because that creates all sorts of headaches for us. Not necessarily to do with competitive switching, but to other kind of management challenges, for example, to deal with journalists, to deal with the regulator.

MR RIDYARD: Dr Jenkins, I am interested in your perspective on that.

DR JENKINS: Yes, so I would not say that I have certainly covered reading all the documents or --

MR RIDYARD: No, and we do not want to be asking you unfair
questions. But to extent that you have something ...

DR JENKINS: Yes. What I understand from the £1 price assumption is, as you said, that BT was having to make choices in quite a complex environment, would be how I would interpret what is going on. So they have got falling call revenues and they have got increased investment needs through this period, so as a business they are trying to work out how best to manage their business in the face of that.

So some of that process of deciding where you are going to increase price, so there is -- and that inference from the fact that they are thinking about increasing prices, meaning they have market power, as opposed to they are competing across the board by having to improve the quality of the services that they offer and they have to find a way to actually make that work. So I think that aspect of it is relevant to thinking about the competitive dynamics.

Then in terms of this -- how they set the Voice price through this period, so I think it can be quite confusing, depending on which documents one is looking at. I mean, a lot of the times they are thinking about Voice as one product, so they do not actually think of it as a switch when a customer moves from Standalone

Fixed Voice to Voice sold in a bundle with BT, because that remains in their P&L in the same place with the same revenue attached to it, whereas there was actually a sort of dynamic change for that customer in that they brought their bundle product in to -- the broadband or other products in to BT, or they were upsold into broadband.

So sometimes I think when they talk about churn from Voice it can be a bit confusing about what they are talking about there, and in that they are balancing two aspects, as far as I can understand it. So the first is the recapture incentive, as we already discussed, which is there is some upward pressure on the Voice component of that to make the upsell to the bundle attractive. Having done that, while that may not pass through, and certainly may not pass through in full, to the customer acquisition price for their bundle product, it will pass through, along with other price changes, to the overall price of the bundle when you come off your acquisition price.

So at that point, what that does is for their installed bundle base, when they come off their 24 months or 18 months, whatever it was, at the time, you may have given them an extra push to consider an alternative, because now they are going to come off that price and then the overall price for their bundle is going to go up.

So you have got -- and there, when they look at that, that is when maybe they leave BT and go to someone else for bundles. They may call BT and they may be saved, but they may just go and take a different offer.

So they are setting Voice prices -- the standalone Voice prices, they are setting acquisition prices for bundles, and they are setting post-acquisition prices for bundles. So the documents, depending on what angle on that they are looking at, that might be -- you might get all sorts of different discussions, depending on those things.

I think all of those competitive dynamics are relevant such that you cannot immediately infer from price rises that the main explanation for those is market power, as opposed to responding to the competitive dynamics that were actually facing all of the market participants who all had very similar pricing policies with respect to their Line Rental, their acquisition bundles and their post-acquisition bundle pricing.

MR RIDYARD: Thank you.

The question that comes out of that, which I might put to Mr Parker, is, as Dr Jenkins just said, whatever else you might think about the documents about price rises for Voice, they do appear to be talking about Voice customers as a whole, when the internal documents talk about the £1 increase and all the other things.

If the true policy here was to be focusing in reality on the SFV customers, because they were the ones who were going to bear the incidence of this, and the effects on other people could be neutralised by adjusting the incremental price of the bundle, do you not think you would have seen more explicit reference to the fact that when we are talking about Voice price changes, the people who are really going to pay the bills -- be paying this would be the SFVs, or was BT just very careful not to show a paper trail?

MR PARKER: I mean, that is obviously a question for BT. I mean, it seems to me that BT may well have thought that, you know, where it is setting a single price, but at the same time their actions are clearly demonstrating that they are setting a different incremental price for bundles, for the broadband part of the bundles, in order to make the overall Dual Play package competitive, and similarly with other packages.

So I think -- I do not see that there is a sort of inconsistency from their kind of perspective. It is just the outcome of that is that the incidence is essentially felt by SFV people who are only taking Voice, and people who take bundles will end up paying the competitive price, and BT clearly recognises that it needs to do something with the incremental broadband in order to maintain its competitiveness for those products.

So I do not know, I am not sure I would draw a huge amount from the way they describe it as opposed to what you actually see going on in the pricing.

MR RIDYARD: Okay. Was there any other part of Dr Jenkins' last answer that you wanted to comment on?

MR PARKER: No.

MR RIDYARD: I think then we are on to the question of supply side substitution. I think it is kind of clear to everyone that anyone who produces bundles could produce Voice Only, or anyone who is producing Voice can do bundles as well, because everyone is geared up to do everything.

So the question of supply side substitution, does that come down to the ability to price discriminate on the demand side and price independently despite the ease of supply side substitution?

Mr Parker?

MR PARKER: Yes, I think that is the answer. Most people in the market are providing SFV service and a bundle, and those who are not are already providing SFV service, it is easy to take something away from the bundle to only provide one element of it. But that constraint exists throughout the period, either because people are already on SFV or because they could easily do so.

I do not -- you do not see it coming through in -- as a constraint on prices sufficient to prevent the sort of price discrimination that is facilitated by the difference between bundle customers and SFV customers.

MR RIDYARD: So, Dr Jenkins, does supply side substitution give you any ammunition that you do not already have from your analysis on the demand side, or is there any --

DR JENKINS: I did not factor in an additional element to supply side substitution in my base market definition analysis. It is based on the actual demand side substitution to the substitute service which is bundles.

In the event that one rejects that, then, that is not relevant, the demand side substitution, I think then the supply side substitution questions come more into play, because here -- I mean, you know, there is evidence that sort of says that the other players say, oh, we did not really target these Standalone Fixed Voice customers, right.

I think this sort of goes to the other point that we have discussed, which is if you can supply multiple products over a line and you are targeting a customer, then you are going to very much target them to take multiple products over your line, because at that point your acquisition costs, everything that you have done to attract that customer and serve them, you are going to prefer to get the revenue from supplying multiple products rather than say, oh, I am just going to target you with one product. Then the question is: does that mean they avoided some customers, actively avoided them, versus they just made offers which were to encourage people to switch to bundles?

In the event that there were very high margins on these Standalone Fixed Voice customers that were being served by BT, and these suppliers are actively targeting customers in the market with their services, it does not make sense then to say they would not also add on to their marketing: come to us just for Voice and we will offer you a good deal.

So I think if you are going to separate these out then someone supplying bundles could be caught into -- if you have narrowed the market and said: I am not going to include the demand side, the fact that these suppliers of bundles could offer the fixed Voice services would bring them back in at that point through those types of channels.

MR RIDYARD: Yes, okay.

When we talk about dominance, we have got some questions about some customer acquisition costs. I think it probably makes best sense to deal with these questions then, because we are organised on that.

So I think we are just on to the last topic which is the role of mobile phone telephony as a constraint. Clearly at some level use of mobile phones is an alternative to Voice, fixed Voice calling. Mr Parker, is this something that you acknowledge, but saying it is just not enough to come into the market definition debate or ...

MR PARKER: Yes, essentially. There is obviously a slightly different kind of set of competitive issues going on, access versus calls. I think I am with Dr Jenkins on the access side, that people may be treated more as complementary rather than as substitutes and that they would have both.

MR RIDYARD: Sorry, but that is not quite a definition of a complement is it?

MR PARKER: Sorry, it is a lay complement rather than an economic complement but it is not an economic substitute, shall we say.

MR RIDYARD: But even ex-post. I suppose, are we clear on

the facts about how many of the SFVs had mobile phones?
MR PARKER: I think it is a very large proportion. You may --
DR JENKINS: Yes, I think it is over 80% in the early part of the period for SFVs. When you start to get just the SPCs then it is over 95% or something, so ...
MR RIDYARD: So then.
DR JENKINS: I think even on SFV it is increasing through the period but I do not have stats for the whole period.
MR RIDYARD: So in an ex-post sense everyone has the option using their mobile of instead of the landline if they wish to, assuming they get a mobile signal at home, which I know is not true for everyone.
MR PARKER: Yes, absolutely. I mean I suppose I would say the pricing evidence shows you the sum of all the constraints BT were facing were not enough to put prices back down again, so for me it is another dimension of the constraints that was not sufficient. I think we have actually agreed that mobiles are not in the market and that --
MR RIDYARD: They are competitive.
MR PARKER: -- potentially you might put them in or think about them in the dominance assessment.
MR RIDYARD: Last word on this. Then is there anything more to say on that, Dr Jenkins?

DR JENKINS: I think not from the question of fixed access decision at the time, at the beginning, certainly the beginning of the claim period I think the evidence is pretty clear that people did not see -- were not giving up their fixed line access for mobile phones. I think towards the end of the period, which I have not presented a lot of evidence on, but you are seeing now increasing fixed line contracts that are broadband only, so people are not taking Voice services any more over their landlines and they are just using mobiles for the Voice element of what they do.

But for the key period of interest here, which is in the past, I think the evidence from 2015 through to 2017/18 is that the proportion of mobile only homes is staying fairly fixed through that period. So I did not think that looked like good evidence to include that in the market.

But because we are talking about the decision about whether you have a fixed access line. As we have already touched on earlier, if you are then going to make a claim about calls themselves being excessively priced, then I think that needs to be founded on an understanding of what the dynamics of call pricing is as opposed to this access, the decision about which access product you take.

MR RIDYARD: Yes.

THE CHAIRMAN: Just one moment. (Pause).

Thank you, that then completes our questions on the first topic, market definition. So now is the time if counsel for either party want to ask any clarificatory questions, so I will start with Ms Kreisberger and see if there is anything that she would like to ask.

MS KREISBERGER: Could I just have one moment, sir, to take instructions. Would it be a convenient moment to break?

THE CHAIRMAN: Either way we are probably going to finish earlier today, so why do we not take our break now.

MS KREISBERGER: I would be very grateful.

THE CHAIRMAN: All right. Let us do that.

(2.47 pm)

(A short break)

(3.00 pm)

Cross-examination by MS KREISBERGER

MS KREISBERGER: Thank you, sir, I am very grateful for the break.

I have just got one short point of clarification. Could we please call up Figure 8 in Mr Parker's third report, which is {IR-E/3/81} which we have now looked at a number of times.

Now, Mr Parker, I am just going to read to you ...

Sorry, I am speaking to the back of Mr Parker's head because of our positioning.

Do not feel the need to turn around.

I am going to read to you a point you made from yesterday's transcript on this Figure 8. If it helpful we can call it up on the screen, but I think it might be more useful, could we have Figure 8 up entirely so Mr Parker can see the note underneath it. I think you have it there in hard copy in any event.

Now, yesterday -- it is at page 156 of the transcript. {Day9/156:7}

THE CHAIRMAN: Are we able to have this widened or will we lose the note?

MS KREISBERGER: It might be helpful to see the note.

THE CHAIRMAN: We have got it, but if it can be widened?

MS KREISBERGER: So zooming in on the bottom of the page might be useful.

THE CHAIRMAN: Yes.

MS KREISBERGER: Thank you, sir.

Now, Mr Parker, yesterday you were taken to this figure and you said:

"So this is BT SPC, so Standalone Fixed Voice and standalone broadband versus rival Dual Play pricing."

Then you said again at line 13:

"The SFV price for BT against the Dual Play price for rivals."

Could I just ask you to confirm whether that is right or you need to clarify that?

MR PARKER: So the Dual Play prices -- I had forgotten the note -- also include BT and Plusnet. So there are some BT products in the -- the blue diamonds and the yellow triangles are the standard and promotional prices for these products, and they are across lots of providers in the market, including BT.

THE CHAIRMAN: Just a moment.

MR PARKER: Which is the last two sentences I think of the note. We see on the list different providers there.

THE CHAIRMAN: I see, yes.

MS KREISBERGER: Mr Parker, if I just ask you to look at Figure 7 on the previous page, page {IR-E/3/80}, do you want to comment on what that shows in the same respect?

MR PARKER: Sorry, that would be the same point, that those -- the blue and yellow dots also include BT.

MS KREISBERGER: If we go forward to figure 10 on page {IR-E/3/98}.

MR PARKER: The same issue there, and indeed for 11.

MS KREISBERGER: Sorry, I did not catch that?

MR PARKER: I said and indeed for figure 11.

MS KREISBERGER: Figure 11 on page 99?

MR PARKER: Yes.

MS KREISBERGER: I have no further questions, thank you.

THE CHAIRMAN: Thank you.

Mr Beard, do you have any questions? Clarification?

MR BEARD: Plenty, but ...

THE CHAIRMAN: It is for clarification only.

Cross-examination by MR BEARD

MR BEARD: It may just be useful for the Tribunal, because there was a discussion about the CLA and the sensitivities that were run. Obviously Dr Jenkins in her second report deals with these things in appendix -- Annex 2, and there are some useful tables there, 2.1 and 2.2.

But actually there is a sort of further iteration which is in the joint expert statement, so that is {E/49/251}. We are joining the conversation several stages down the line. I think probably it is sensible if Dr Jenkins first explains what this table is in the context of what she has done before, and then obviously Mr Parker has an opportunity to comment on it, but I will perhaps leave it then to Dr Jenkins, and then I do have one other question.

THE CHAIRMAN: Thank you.

Yes, Dr Jenkins, if you just want to talk us through what is described there as the new one of CLA.

DR JENKINS: Yes, so this is responding to one of the criticisms that Mr Parker made of my CLA, which was that some of the categories that I had included as potentially price related switching should not have been included. So this was me stripping those out and re-running them and finding that that did not change the results of my CLA analysis.

THE CHAIRMAN: Right. Just a moment. (Pause)

Thank you.

Anything you want to say on that, Mr Parker?

MR PARKER: No, I do not think so. This is -- this was one of the concerns I had, but I have some more fundamental concerns which continue to apply.

THE CHAIRMAN: Yes, I have that point.

MR BEARD: Sir, I am going to trespass, if I may, and ask for two questions.

There was a discussion earlier about migration bias and switching, and obviously there were a number of questions answered by both experts in relation to the extent of switching and the cohort, and that was covered in part yesterday. It may be something which is coming on to in relation to dominance, but I wonder whether the experts thought that the level of switching we see has any implications for our considerations of barriers to entry or expansion on the demand side in relation to these matters?

DR JENKINS: We do cover that, I think, in the joint expert statement as one of the issues. So the fact that you have increasingly fewer Standalone Fixed Voice customers may be seen as creating challenges to serving those customers, but in my view the fact that those customers are engaged and engaging with the market, both switching at times to alternative SFV suppliers but frequently to other bundle products, means there is not evidence of barriers -- significant barriers to entry that would prevent a supplier of Voice services from serving those customers.

THE CHAIRMAN: Anything you want to add on that?

MR PARKER: I think only one point, which is the extent of sort of switching away, which is obviously a matter of debate, but switching away from SFV services into bundles I think might tell you something about the ease of acquiring customers in bundles, but I am not sure it tells you a lot about the ease of acquiring customers in SFV services.

THE CHAIRMAN: Just a moment. (Pause)

MR RIDYARD: I think we will revisit this topic anyway tomorrow.

MR BEARD: Yes. I was not sure, given the questions for tomorrow, so I just thought it was worth picking up.

The last one I had was whether or not we had any sense of the number of switches who were switching not just to a Dual Play bundle but to a bundle with sport in it, and I do not know whether the data exists on that?

DR JENKINS: Yes, the data exists on that in my annex to the joint expert statement. Let me just find the relevant chart.

So that is Figure 2 on page 264 of the Joint Statement {E/49/264}. So I had prepared charts to show -- for those customers who leave BT's SFV services but remain with BT, I had provided some breakdowns which show whether they went to a Dual Play or a Triple Play service or quad play including mobile.

But here what I did was cut the same data but show whether or not, when they left SFV services and moved to another BT product, that product included the sports product in the bundle. You see that in the early part of the period that is very high, 56%, 47%, going down to 23% on the ones that we can see and in the -- falling further in the later periods that are confidential.

THE CHAIRMAN: I follow that. You say you had prepared charts to show who leaves BT's SFV but remain with BT. You provided some breakdowns whether they went to Dual Play, Triple Play etc. Is that in your report as well?

DR JENKINS: Yes, that is in my second report. I would have to just check to get you the reference for that.

THE CHAIRMAN: If you can give us the reference at some point, just so we know where they are.

DR JENKINS: Yes. But what that was is it could be Dual Play or Triple Play, but they may or may not have taken sport, so you could not tell from those charts whether or not they had sport. So I did this cut as well to show -- to inform the question of the purpose of the investments in sport and whether they were of relevance to the SFV group, which shows that for many of those customers when they switched within BT they were being attracted to bundles that included sport.

THE CHAIRMAN: Thank you.

MR BEARD: If you turn back a page, I think there is a reference to figure HJ2, Figure 3.8. I am just reading what is there. I am guessing that is probably ... {E/49/263}.

DR JENKINS: Yes. Thank you, Mr Beard.

THE CHAIRMAN: Thank you very much.

MR RIDYARD: So the fall in the number that were switching to sport over this period, is that because the sport was getting more expensive, or it was very cheap or free was it at first?

DR JENKINS: Yes, so early on I think it was sometimes free, sometimes cheap, and they started to increase the price through that period. It may also be a composition effect, such that the people who are remaining in SFV at the later part of the period are the ones who are less interested in sport, which is why they are still there at the end, and did not switch at an earlier point in time.

THE CHAIRMAN: Thank you. We are going to stop today now. The experts have worked very hard the last couple of days, so has the transcriber, so I think we can afford to take a little time off from sitting.

Just one point about tomorrow. We will start at 10.30. Of course the context for tomorrow on dominance is: suppose we were to find that it is the narrow market, because the Class Representative accepts that if it is the wider market then that is the end of it. But BT's position is: even if it is the narrow market, dominance still is not shown.

So, Dr Jenkins, the questions will be directed principally to you in the first instance, and then there will be opportunities for Mr Parker to comment.

So 10.30 tomorrow, please.

(3.13 pm)

(The hearing adjourned until Wednesday, 14 February at 10.30 am)