

This Transcript has not been proof read or corrected. It is a working tool for the Tribunal for use in preparing its judgment. It will be placed on the Tribunal Website for readers to see how matters were conducted at the public hearing of these proceedings and is not to be relied on or cited in the context of any other proceedings. The Tribunal's judgment in this matter will be the final and definitive record.

**IN THE COMPETITION**  
**APPEAL TRIBUNAL**

Case Nos. 1238/3/3/15

Victoria House,  
Bloomsbury Place,  
London WC1A 2EB

14 December 2015

Before:

**ANDREW LENON QC**  
(Chairman)  
**WILLIAM ALLAN**  
**PROFESSOR COLIN MAYER**

(Sitting as a Tribunal in England and Wales)

**BETWEEN:**

**BRITISH TELECOMMUNICATIONS PLC**

Appellant

- and -

**OFFICE OF COMMUNICATIONS**

Respondent

- and -

**SKY UK LIMITED**  
**TALKTALK TELECOM GROUP PLC**

Interveners

---

*Transcribed by BEVERLEY F NUNNERY & CO.*  
*(a trading name of Opus 2 International Limited)*  
*Official Court Reporters and Audio Transcribers*  
*5 Chancery Lane, London EC4A 1BL*  
*Tel: 020 7831 5627 Fax: 020 7831 7737*  
*info@beverleynunnery.com*

---

**HEARING - DAY FOUR**

## **APPEARANCES**

Mr. Rhodri Thompson QC, Mr. Nicholas Gibson and Ms. Anita Davies (instructed by BT Legal) appeared on behalf of the Appellant (British Telecommunications Plc).

Mr. Josh Holmes and Mr. Tristan Jones (instructed by Ofcom) appeared on behalf of the Respondent.

---

1  
2 (10.30 am)

3  
4 **MR. DAVID HAMISH CURRY MATTHEW (continued)**

5 **Cross-examination by MR. THOMPSON (continued)**

6 MR. THOMPSON: Good morning sir, good morning gentlemen. Good morning Mr. Matthew.

7 A. Good morning.

8 Q. When we finished on Friday, we were discussing the issue of the constraints that were  
9 applicable to BT, as it were, independently of this debate. I just would like to look now at  
10 the position that would have prevailed as a matter of SMP regulation had this condition not  
11 been applied. You were in court when Mr. Clarkson was cross-examined, I believe,  
12 Mr. Matthew?

13 A. Yes, I was.

14 Q. And you may recall a debate towards the beginning about the position between June 2014  
15 and March 2015 and whether there was any margin regulation in place during that period,  
16 do you remember that?

17 A. In general, yes. I can't remember the full details.

18 Q. Do you recall the consultation process in this case?

19 A. Which one?

20 Q. Both in relation to FAMR and in relation to this particular condition?

21 A. In relation to this condition, then, yes. In relation to the Fixed Access Market Review prior to  
22 that, I wasn't the economic director on the case at that stage.

23 Q. That is helpful, thank you. But you will recall that there were four options considered in  
24 the present consultation and that they went back to earlier options that had been identified  
25 back I think as far as 2013, do you remember that?

26 A. Broadly, yes.

27 Q. Can we look at the FRAND condition itself, which is annex 29 to the FAMR review  
28 document, which is at III/II, tab 8. It's a long document, and if you turn right to the back  
29 and then we can work backwards ...

30 A. Which annex did you say?

31 Q. Tab 8. So if you go to the back of tab 8.

32 A. Yes.

33 Q. Then do you find a pink sheet a few pages in?

34 A. I have several pink sheets.

1 Q. Just go back to the last one, as it were.

2 A. Yes --

3 Q. You should find part 3, "SMP Conditions", and then do you see 1.2 and 1.3?

4 A. Yes.

5 Q. 1.2 says:

6 "The provision of network access by the dominant provider in accordance with

7 this condition ..."

8 Which is (b), and then you jump on to (b)(1):

9 "Be on fair and reasonable terms, conditions and charges."

10 Do you see that?

11 A. Yes.

12 Q. And then 1.3 there is an exception in relation to condition 6 or 7, do you see that, where any of

13 conditions 6 or 7 apply. Do you see that under 1.3?

14 A. Yes.

15 Q. I don't think we have them in the paper, but 6 and 7 are in fact the charge control provisions.

16 So what it says is that 1.2(b)(1):

17 "Fair and reasonable terms, conditions and charges."

18 And then 1.3 is an exception, and if you look at 1.3.1 it says:

19 "Fair and reasonable terms and conditions excluding charges ..."

20 Do you see that?

21 A. Yes, I see it.

22 Q. So I can just explain it to you. The position is that where there is a charge control then that

23 governs the charges position, where there isn't a charge control 1.2 applies. Do you see

24 that?

25 A. I will take your guidance on this. I am not particularly familiar with this.

26 Q. That is fine. If we now go into how the matter was dealt with in the final statement, that is in

27 the previous bundle, III/I, and if you turn to page 68, paragraph 4.68, you see a reference to

28 option A, do you see that?

29 A. Yes.

30 Q. "We consider that option A (which relies on the existing requirement on BT to provide VULA

31 on fair and reasonable terms, conditions and charges, supplemented with guidance on how

32 we intend to undertake our assessment) ..."

33 Do you see that? So what would have happened if option A had been adopted is that

34 the FRAND condition would have been used supplemented by guidance, do you see that?

1 A. Yes.

2 Q. And that is our 1.2. Do you remember that the scope of this investigation --

3 A. Sorry, 1.2?

4 Q. You remember we looked at condition 1.2 just a moment ago which dealt with conditions and

5 charges?

6 A. Yes ... I don't -- we are jumping between a condition in -- that is the FAMR statement, right?

7 Q. Yes.

8 A. And the VULA margin consultation ... they are both talking about fair and reasonable terms,

9 but I ... I am afraid I just don't --

10 Q. I'm sorry about this --

11 A. I'm not really able to offer any opinion on whether this is linked to this or what the precise

12 connection would be. It's not something I --

13 Q. I will try and make it clearer. I will look at the condition that was actually done in a moment.

14 But do you remember that the scope of the exercise you were engaged with was limited to

15 retail consumers, it wasn't concerned with business, do you remember that?

16 A. In terms of the VULA margin connection?

17 Q. Yes.

18 A. Yes, I think that is right.

19 Q. One sees that at 4.116, which is at the end of 4, page 78:

20 "We note that as a consequence of implementing the VULA margin control in a

21 new SMP condition, we are removing the fair and reasonable charges obligation

22 in the WLA market insofar as it relates to the VULA margin with respect to the

23 packages offered by BT Consumer."

24 So that is retail packages, yes?

25 A. Yes, and the footnote explains --

26 Q. Yes, that the FRAND condition would still apply to BT business packages as well as other

27 VULA terms, conditions and charges, yes?

28 A. Again, I will need to take guidance. It looks like it here, but again, that is not at the forefront

29 of my memory.

30 Q. And then when you look at the detail of this, this is at 5.60, page 94, the treatment of business

31 services, and then there's an introductory explanation:

32 "At the wholesale level, the basic connectivity VULA used to support

33 residential and business services is the same."

34 A. Sorry, which?

1 Q. The fourth line down:  
2 "At the wholesale level, the basic connectivity VULA used to support  
3 residential and business services is the same."  
4 Do you see that?  
5 A. Yes.  
6 Q. Then there is a distinction drawn about the different conditions. And then there was  
7 a question about whether or not the VULA margin approach should also apply to businesses  
8 and Vodafone was arguing in favour of that, if you see that at 5.63?  
9 A. Yes, I see that.  
10 Q. Then at 5.68 is the conclusion. Ofcom says:  
11 "We don't believe it would be appropriate or proportionate to consider an  
12 extension of the VULA margin assessment to include superfast broadband  
13 services supplied by BT business at this time ..."  
14 Then it goes on:  
15 "The fair and reasonable terms, conditions and charges, VULA obligation, will  
16 continue to apply to BT business services as set out in section 4. As such, if we  
17 were to observe behaviour in relation to the margin on VULA-based business  
18 services which raised concerns, or indeed any other pricing concerns, we could  
19 consider intervention on the basis of this condition to address such behaviour."  
20 So what that is saying that the FRAND condition still applies in relation to business and  
21 controls margins, is that right?  
22 A. Again, it seems to read that way, but it is really not my area.  
23 Q. But you were the economics director for this so presumably this analysis was put past you, is  
24 that not correct?  
25 A. In broad terms, but I am afraid I just can't recall this. It is not what I have been preparing for  
26 this --  
27 MR. HOLMES: Sir, I hesitate to rise, but none of this cross-examination appears to relate to the  
28 evidence that Mr. Matthew has given. All of these points can be made by way of  
29 submission rather than by putting questions to Mr. Matthew.  
30 MR. THOMPSON: Sir, I'm --  
31 THE CHAIRMAN: I'm not quite sure where this cross-examination is going, but Mr. Thompson,  
32 what you do say?  
33 MR. THOMPSON: The point was put to me by Mr. Clarkson effectively without any warning,  
34 and so we have an Ofcom witness here. If Mr. Clarkson wanted to come back and discuss it

1 with me that would be fine. But Mr. Matthew was fully engaged with this matter, he was  
2 the economics director for this, and presumably he had to sign off on these --

3 THE CHAIRMAN: What point do you say was put to you by Mr. Clarkson?

4 MR. THOMPSON: Do you remember the issue about whether or not the FRAND condition  
5 actually applied between June 2014 and March 2015 which seems to be -- it appeared as  
6 a submission in the Ofcom skeleton argument which took us by surprise, it had no source,  
7 and then Mr. Clarkson made the point on legal advice, as he said, which we haven't seen.  
8 So I am simply going through the point so we understand where we are coming from.

9 MR. HOLMES: Sir, this is a legal issue that can be canvassed in closing submission.

10 THE CHAIRMAN: It does strike me that it is a legal point, Mr. Thompson. I'm not sure  
11 Mr. Matthew is going to be able to help very much.

12 MR. THOMPSON: Okay. Can I simply for the Tribunal, since we have got this far, give you the  
13 references to where it caches out, as it were. It's the second annex to the final statement  
14 which you find towards the back. I think it's the last of the pink sheets towards the back of  
15 this same tab, and in particular it is page 9, paragraph 24.

16 Do you want to turn this up, Mr. Matthew, so you can follow what is going on? Turn to the  
17 last pink tab.

18 A. Sorry, I was -- where is it?

19 MR. HOLMES: Again, sir, I don't understand why it is relevant to show this to Mr. Matthew.

20 THE CHAIRMAN: Just give us the list.

21 MR. THOMPSON: It's page 9 of annex 2, paragraph 24, and the amendment is to 1.3, and it  
22 extends the exemption in relation to the VULA margin which is defined in the following  
23 page, page 13, so that it is limited to retail services.

24 The point that I am putting to you is had option A been adopted, which presumably is  
25 something you considered because you were the economic director in relation to this matter,  
26 then the FRAND condition would still have been the margin squeeze control without any  
27 need for a legal change. That must be correct, that is what it says here.

28 A. Yes, option A was FRAND plus guidance.

29 Q. Exactly. So the FRAND condition would simply have stayed unchanged. I am simply putting  
30 it, perhaps in a slightly cumbersome way, that that is the position in relation to business  
31 customers, so that is the point.

32 A. Business I don't know about, but in terms of the FRAND condition with guidance, obviously  
33 we were concentrating on what the guidance ought to be, and for me the substantive  
34 question is what should the nature of the constraints on BT be in terms of what costs it

1 ought to recover, et cetera. The precise way in which that is implemented by condition  
2 wasn't my particular focus.

3 Q. No, but you were presumably cognisant of the business debate and the point that was made by  
4 Vodafone, to that extent you were aware of it?

5 A. Sorry, I was speaking about consumer. As to business, I have already said I just cannot  
6 immediately recall.

7 Q. If we move back to more home ground for you and look at the issue of incentives. Would you  
8 accept that if an incentive exists independently of any question of a margin squeeze then  
9 that is not an incentive to engage in a margin squeeze?

10 A. Could you put the question again? If an incentive ...

11 Q. Exists independently of margin squeeze, so it's something that arises in the market anyway,  
12 then it is not an incentive to engage in a margin squeeze?

13 A. So in logic there are two different reasons why I may wish to do something --

14 THE CHAIRMAN: I am afraid the Tribunal doesn't understand that question. Can you rephrase  
15 it?

16 MR. THOMPSON: Perhaps if I make it more specific and we will see how we get on.

17 Would you accept, in relation to Sky and TalkTalk, that if they have reasons not to move to  
18 superfast broadband independently of any pricing by BT, then that is not a reason why BT  
19 might engage in a margin squeeze, at best it's neutral and you might say it was converse in  
20 that why should BT do that if they are not going to get it anyway?

21 A. I suppose -- an analogy might be let's suppose, by assumption, Sky or TalkTalk had just  
22 decided for completely different reasons they are simply not going to be involved in  
23 superfast broadband, then I would agree that on that assumption there would be -- well,  
24 essentially what BT does would make no difference to their conduct because, by  
25 assumption, we have said they are not involved in superfast broadband.

26 Q. For example, if Sky and TalkTalk were making greater margins on standard broadband than  
27 on superfast broadband, then that would be a reason for them to stay with standard  
28 broadband rather than to move to superfast regardless of any conduct by BT?

29 A. It wouldn't be regardless of BT's conduct, because the choice you have just set out would  
30 depend on the VULA margin and the VULA price.

31 Q. Yes. But if there were independent reasons, and I discussed it with Mr. Clarkson, for example  
32 regulatory choices by Ofcom which made standard broadband more profitable than  
33 superfast broadband, that is independent of anything BT might do?

34 A. Yes, so I agree with you that TalkTalk or Sky, when they decide how far they should promote

1 superfast broadband to their customers or in acquiring customers, obviously they will take  
2 into account other factors as well, such as when they are thinking about how much should I  
3 put into upgrading my customer base? They will take into account the profitability of  
4 standard broadband subscribers and also superfast. The latter of course would be affected  
5 by the VULA price.

6 Q. In relation to BT, would you accept that BT could have a legitimate first mover advantage in  
7 superfast broadband given that it has invested substantial sums in order, in part, to meet  
8 competition from Virgin who obviously led off with superfast broadband, would you accept  
9 that?

10 A. I certainly agree that BT could do very well early on with superfast broadband by pursuing  
11 legitimate commercial and competitive objectives, and the evidence we have before us is  
12 that they are doing exactly that, they have a very strong early position, it is expected to get  
13 stronger over the next couple of years, and that has been in conditions where they haven't  
14 been implementing a price squeeze.

15 Q. Yes. You refer in various places to a strategic focus that BT has had on superfast broadband,  
16 and in itself you wouldn't have any objection to that?

17 A. No, quite the contrary. BT promoting superfast broadband is good for consumers and in  
18 particular many of the investments it has made in doing that, sports rights and so on, have  
19 been a significant addition to the nature of competition in the modern marketplace.

20 Q. Yes. I think the first thing you said on Friday, it is right at the beginning, page 62, for the  
21 note, you said:

22 "The fact that they are vertically integrated ..."

23 So BT is vertically integrated with Openreach:

24 "... leads BT Consumer to have quite strong incentives to drive sales of superfast  
25 broadband and that may lead to quite a low superfast broadband price as a  
26 consequence."

27 So that is all pro-consumer, is it not?

28 A. Yes, so if that is leading them to set low prices, that helps consumers. And the issue  
29 is of course whether the VULA price goes with it to allow others to also pursue the same  
30 ends should they wish to.

31 Q. Yes. In terms of BT's downstream investments, and I think you heard Mr. Petter's  
32 cross-examination, is that right?

33 A. Yes.

34 Q. And he talked about the launch of the Infinity brand as a premium product, that is a legitimate

1 initiative in itself, is it not?

2 A. Absolutely.

3 Q. And it would further create incentives for BT to drive superfast broadband. There is no point  
4 in having a premium product and then hide it in a cupboard, is there?

5 A. I presume it is all part and parcel of the same agenda.

6 Q. Insofar as it is -- you accept it as a premium product, for which one would hope to have  
7 a premium in price, a margin squeeze would make no sense for such a product?

8 A. I do agree a premium product would typically have a premium price. Your second comment  
9 seems to me a complete non sequitur though.

10 Q. It is not a complete non sequitur, is it? Normally you would think of a margin squeeze as  
11 bearing some form of sacrifice, if I can put it that way, in the short-term which would  
12 normally I think involve some form of sacrifice of profits at the retail level, wouldn't you  
13 accept that?

14 A. I think we think of a margin squeeze as a margin that would allow a similarly efficient  
15 operator to match the dominant vertically integrated firm's prices. It doesn't presume that  
16 we have to establish a profit sacrifice as part of that. If a margin squeeze happens for  
17 reasons that don't involve profit sacrifice I think that can still squeeze out rivals and  
18 undermine their ability to compete in the short- and long-run.

19 Q. We will come to the detail of the mechanism I think you are putting forward in a moment, but  
20 you will recall Mr. Petter's evidence about the profit-shifting effects and I think what you  
21 are saying is it might be a premium product and profitable but BT might shift the profits  
22 upstream. But Mr. Petter's evidence, and I don't think there is any basis to reject it, is that  
23 that would itself be a bad strategy because it would push profits into an area subject to  
24 regulation and damage the BT share price. Did you hear that evidence?

25 A. Yes, I heard it. Sorry, what do you want me to comment on?

26 Q. You said all things being equal or something, but that is a reason why having launched  
27 a premium retail product it wouldn't make much sense to shift the premium price into the  
28 wholesale price because it would damage the BT share price?

29 A. So, sir, I think the suggestion is that if BT raises the VULA price, relative to its retail price,  
30 then Mr. Petter observed that that will in accounting terms move profits between  
31 BT Consumer and Openreach and his evidence was that the City will tend to place more  
32 weight on BT Consumer profits and less on Openreach.

33 Q. Yes.

34 A. So by raising the VULA price, that would damage the BT share price, if I understood it

1 correctly.

2 Q. Correct.

3 A. Because in accounting terms it would look like BT Consumer was less profitable and

4 Openreach more profitable.

5 Q. Yes. I can see you may not be an expert in corporate finance or value or anything of that kind,

6 or maybe you are, but it may be not what you are here for. But the underlying rationale is

7 not just some quirk of the City, it reflects reality and it in fact reflects your own evidence.

8 If we can look at paragraph 59B of your statement.

9 A. Remind me where that is.

10 Q. Tab 12 of bundle II. In the middle where you say:

11 "BT may perceive a risk that Ofcom will introduce cost plus regulation of the

12 wholesale VULA price at some point in the future --"

13 A. Sorry, you will have to give me the paragraph.

14 Q. Sorry, page 29.

15 A. Yes.

16 Q. "BT may perceive a risk that Ofcom will introduce cost plus regulation to the wholesale

17 VULA price at some point in the future which could require a drop in the VULA price and a

18 corresponding reduction in the wholesale revenues earned."

19 That is the very point that Mr. Petter is making, is it not?

20 A. I think there is -- yes, I think it is, because -- well, in particular what Mr. Petter says, if I recall

21 correctly, was essentially the reason why analysts put more weight on BT Consumer and

22 less weight on Openreach is because when Openreach makes money they expect that to

23 essentially fall into the regulatory pot and the returns on it will therefore be capped

24 essentially by Ofcom, whereas BT Consumer is a free commercial business and profits it

25 makes are potentially liable to last for longer.

26 So I think essentially he is making a similar point to the one I make here, which is by and

27 large where BT Group has a choice that might affect how much value, how much money it

28 can make out of Consumer compared to Openreach, it will tend to shade that choice and

29 say, well, I would actually like Consumer to do a bit better and Openreach do a bit worse,

30 all else equal.

31 That is consistent, I think, with the general conclusions of my report which are that

32 BT Group has incentives to favour its consumer business potentially to a large degree. So

33 to give an idea, if BT faces a choice -- suppose it sets a higher VULA price and perhaps

34 makes -- let's just take an example. Let's assume that 100,000 TalkTalk customers decide as

1 a consequence, well, we are not -- we were thinking of upgrading to TalkTalk's fibre  
2 products but now we are not going to, perhaps because TalkTalk has raised its price or  
3 stopped sticking leaflets through their door, then the question arises what do they do? Some  
4 will stay with TalkTalk and take standard broadband and others will switch over to  
5 BT Consumer and become BT Consumer customers probably for quite long periods, five  
6 years, maybe longer.

7 One can look at the margins associated with those decisions and how large the diversion  
8 might be, but the general observation that when that choice is evaluated BT would think,  
9 well, actually I quite like getting more customers for my consumer business, even if there is  
10 a bit of a cost -- a bit less revenue for Openreach because some TalkTalk customers don't  
11 upgrade. According to Mr. Petter's observations and the observation here, they are liable to  
12 shade that towards Consumer.

13 You also asked -- I'm not sure if you asked. You passed remark on the observation that,  
14 well, obviously if BT does raise the VULA price, then in the short-run there will be  
15 a transfer of profits from Consumer to Openreach, and on the same logic I have just  
16 explained it might seem that this would result in BT Group not looking so good in the City  
17 because there is a short-run shift in profits.

18 You asked whether I am an expert on being an analyst et cetera and absolutely I'm not. I'm  
19 certainly not an analyst and I have never worked as one. But speaking as a -- my  
20 recollection of things such as the efficient market hypothesis and other aspects of the  
21 economics of financial markets, one point does strike me and that is essentially markets are  
22 expected to take account of public information. So when they see public information that  
23 tells them, well, this company is likely to do better, this company is likely to do worse, they  
24 should take that into account. There are many very clever, very highly incentivised analysts  
25 out there whose job it is to seek out that information, analyse it and turn it into company  
26 evaluations.

27 At this point I do reach the limit of my expertise, but I would just observe that if the VULA  
28 price changes and that were to result in a significant short-run shift in the accounting profits  
29 of Consumer and Openreach, it would surprise me that analysts wouldn't pick that up and  
30 recognise that Openreach is, yes, it's doing a bit better now but that is not going to last,  
31 Consumer is doing a bit worse now but actually in future it is going to do better in  
32 accounting terms because that VULA price may come down if Ofcom regulates.

33 So I would be surprised if the overall valuation of BT Group was seriously affected by  
34 a relatively transparent move in the transfer price.

1 PROFESSOR MAYER: Can I just ask a supplementary question to that? So you are saying that,  
2 equally, the City should not take too short a run of view of the profits of the consumer  
3 business. But could it not be said the effect would actually go the other way, namely, if the  
4 price squeeze succeeded in driving out competition downstream, then that would increase  
5 the profits of BT in its consumer division in the long-term, and thereby, by this very  
6 reasoning, actually increase the share price of BT? So if the margin squeeze succeeds  
7 essentially in raising the profits of the consumer business then that is beneficial, not  
8 detrimental, to the share price of BT.

9 A. Yes, I would agree with that, and again that is -- for me, the primary inference I draw from  
10 Mr. Petter's remarks is essentially that, that real gains, real substantive gains for the  
11 consumer business will get more weight than real losses to Openreach, and I do agree that  
12 in the long-run if BT Consumer makes more money than BT Group shares will go up on  
13 that analysis.

14 Of course, it might also be in the short-run. It is entirely possible that even in the short-run  
15 BT Consumer, even in accounting terms, will appear better off, well, will be better off,  
16 because if the VULA price goes up and enough people switch over and start purchasing  
17 from BT Consumer at quite high margins, that could easily outweigh the accounting loss  
18 associated with the VULA price although I wouldn't want to overstate my position on that  
19 because I have not conducted what the accounting picture would look like in that scenario.

20 MR. THOMPSON: Yes, and I think to some extent we are moving a little bit outside your area of  
21 expertise, I think by your own admission, and I have given you quite a long time to respond,  
22 and indeed you have answered a question from Professor Mayer on a slightly different  
23 hypothesis.

24 I will just take you back to the place we started with, which I think you accepted, which is  
25 that BT has launched a premium product and would expect to charge a premium price.

26 I think you accepted that?

27 A. Yes.

28 Q. The point I made by reference to Mr. Petter's I think uncontested evidence is that it wouldn't  
29 make sense for a price premium to be pushed into the regulated area because, by definition,  
30 it would be vulnerable to being taken away by Ofcom by means of regulation, and that is  
31 what the City thinks, and I think that is what you think too, is that not correct?

32 A. I'm struggling to follow the point because Infinity is a premium retail product, so I think the  
33 City's expectation isn't that Infinity or other BT retail products will fall into the regulatory  
34 pot.

1 Q. No, precisely not, but --

2 A. They are considering the VULA product is what goes into the regulatory pot.

3 Q. I don't want to create a disagreement. We are saying precisely that, that there has been no

4 finding or any expectation that BT is or may be dominant or to have significant market

5 power in relation to the retail sector. The concern is in relation to Openreach and indeed

6 FAMR itself makes it clear that it will review the need for a price control as early as 2017.

7 So any shifting of profits into VULA, if I can put it that way, or into Openreach, would be

8 vulnerable to regulation as early as 2017.

9 That is the point which I think you have made yourself and Mr. Petter made.

10 A. Sorry, yes, we just discussed that. Sorry, I was just making the point that I don't understand

11 the relevance of BT's retail positioning of Infinity as a premium retail product in

12 the analysis you have just given --

13 Q. If I put it very simply. Supposing BT has a bag of gold, and Ofcom could take that bag of

14 gold away if it was placed in one cave but not if it were placed in another cave, then BT

15 would be more likely to put the bag of gold in the cave where Ofcom couldn't take it away,

16 which is Consumer. Would you accept that?

17 A. If I understand the analogy, Infinity is a retail product. Unless Ofcom reintroduces retail level

18 regulation, Infinity will not fall into the regulatory camp.

19 Q. Correct.

20 A. So you are not shifting gold in that sense. If it is a general observation about does BT Group

21 place significant weight on acquiring subscribers and profits for BT Consumer, and there I

22 mean real profits, not those that arise simply by virtue of movements in the transfer price,

23 and places less weight on those accruing to Openreach, then I do agree with you for, firstly,

24 the reasons in my report and, secondly, the reasons Mr. Petter gave last week.

25 Q. I think the issue has been fairly well aired, I will move on.

26 The next thing is that I think you will have heard Mr. Bishop's evidence, and indeed we

27 started with this yesterday, about whether you agree about there being a balance of costs

28 and benefits, and I think Mr. Bishop thinks that falls out of various guidelines issued by the

29 EU Commission. And we thought it was agreed but you were somewhat reluctant.

30 If I could just take you to paragraph 13D of your statement, you say:

31 "There are other factors that may influence BT's VULA pricing."

32 And then in the middle you say:

33 "Some of these would add to the incentives to set higher VULA prices, others

34 would moderate ..."

1 Which I assume means take away or reduce those incentives:

2 "... and in other cases it is unclear whether the factor concerned is likely to add  
3 or to reduce BT's incentives to margin squeeze."

4 So quite a complex picture. Some in favour, some against and some ambivalent, is that  
5 right?

6 A. Yes, I would agree with that.

7 Q. I think the critique that Mr. Bishop makes of you is that you have made no real attempt to  
8 undertake that, what looks quite a complicated analysis of positives, negatives and  
9 ambiguous. Do you understand that is the criticism?

10 A. Yes.

11 Q. For example, you set out some considerations of that kind towards the end of your report and  
12 also at paragraphs 58 to 60. For example, at 58 you basically restate the sort of  
13 ambivalence of the whole situation, pages 28 to 29. Then you make some points about  
14 reasons to doubt the costs at 59. Do you see that?

15 A. Yes.

16 Q. I think another criticism Mr. Bishop makes of you is that it is not a balanced analysis, you  
17 don't look at the other side.

18 A. Well, just give me a second to check back ... So 58 is in a subsection that is looking at the  
19 factors or some of the factors that Mr. Bishop emphasised. But in the preceding section  
20 from 48, paragraph 48 onwards, there is what I thought was a fairly extensive discussion of  
21 BT's retail market position and how that might be influenced by BT setting a higher  
22 wholesale price.

23 Q. I will come to exactly that analysis in a moment, but I think you will have heard the question  
24 from Professor Mayer, I think two questions, about what might have been done to look at  
25 this issue on a more empirical basis. Do you remember those two questions?

26 A. Yes.

27 Q. The various suggestions were made, I think Mr. Bishop described it as an excellent question  
28 and I'm sure he thought the second question was excellent as well, and he identified  
29 a number of empirical surveys that could have been undertaken of various kinds, or  
30 empirical analysis if I can put it that way. You would accept I think that you didn't carry  
31 out those surveys and analyses, that is correct, isn't it? There is nothing about it much in the  
32 final statement?

33 A. No, we didn't -- well, I -- certainly in the final statement we did not carry out any specific  
34 survey. I think Mr. Bishop did talk about a survey, he didn't say precisely what, but

1 I presume he means something like a survey of customers to try and assess diversion,  
2 destinations, the likelihood and things such as that.

3 Q. Yes. A table was put to Mr. Bishop about what might or might not happen, and we have tried  
4 to tidy the table up. I don't know if I can put it to you and we can discuss this issue in  
5 slightly more concrete terms. (Handed)

6 I think I made a couple of points to Mr. Bishop in -- do take time to have a look.

7 A. Yes, I think the A to E are comparable with the notes that Ofcom put up.

8 Q. Yes, and this obviously isn't all the possibilities because a rival might be Virgin, in which case  
9 it might be pleased, and in principle BT Consumer will also face the same price so there  
10 will also be issues for BT Consumer. But just looking at the VULA customer responses, if  
11 they respond to an increased VULA price in one of the five -- sorry, if they respond to the  
12 increase in the VULA price by increasing their retail price, then there are in principle five  
13 customer reactions which will have knock-on effects for Openreach and for BT Consumer  
14 and here, as we see it, even on the assumption that on an end to end basis it is at least  
15 neutral, there will be losses to BT Consumer in all the circumstances except -- sorry, it will  
16 be neutral in all the circumstances except one, there will be losses in one, whereas the  
17 position on Openreach is ambivalent and the overall effect is ambivalent.

18 The only two cases where it's clearly beneficial will be if the consumer stays with the rival,  
19 so for example Sky, and pays a higher price, in which case there will be higher VULA  
20 revenue as well and no effect on BT Consumer. Or alternatively if the consumer stays with  
21 the rival at a stable retail price, in which case BT will get higher VULA revenue but no  
22 effect on the consumer price. Do you accept that?

23 A. It's quite a long statement. On the latter two points I agree that where -- if BT raises the  
24 VULA price where the customer takes superfast but stays with TalkTalk, then obviously  
25 Openreach will make more money because it is getting a higher price for that sale than it  
26 otherwise would have done.

27 Do you want to work backwards and go through the others? Where there is -- where there  
28 is a higher price and the customer switches to BT Consumer to take superfast broadband,  
29 I'm not sure why you have incremental losses on the immediate impact on BT Consumer.  
30 I would expect BT Consumer to make a positive margin where that happens.

31 Q. I don't know what assumption you are making there because if it is going to be anything that is  
32 even recognisably a margin squeeze, how can that be the case for BT Consumer?

33 A. I think probably what this comes down to is whether we think of a price squeeze as solely  
34 about BT being able to cover its short-run incremental costs or whether it is conceived as

1 BT being able to cover its LRIC or its LRIC plus. The relevance of that is that if it is the  
2 latter then there will be still significant gross margins where BT Consumer acquires  
3 a customer, they will make money out of it, even if the amount of money they make in  
4 principle isn't sufficient to cover the fixed incremental costs associated with the business.

5 Q. The assumption is that the VULA price has gone up --

6 A. Yes, but --

7 Q. Wouldn't that necessarily reduce the Consumer margin?

8 A. It would reduce it, but if we start off from the situation today, which is BT Consumer will  
9 have quite high gross margins. BT's essential argument in the price control matters is that  
10 they earn quite high gross margins and that therefore the rules we're putting in place are too  
11 inflexible, we're making them recover fixed costs in a too inflexible way, but the  
12 implication is the gross margins are there.

13 To put concrete observations around this, in the case of for example BT Sport, which is  
14 an important part of the Consumer offer, BT's essential point is, well, if we sell more  
15 broadband customers at the retail level that doesn't increase our sports costs, because the  
16 sports costs are mostly content and those are fixed, they don't vary according to how many  
17 subscribers you have.

18 BT have also made other observations about other elements of their costs, so things like  
19 bandwidth costs often have some economies of scale, some marketing costs can have  
20 economies of scale. There is -- obviously we have adopted a LRIC plus model so that  
21 entails allocation and attribution of some common costs, clearly those won't vary either with  
22 the number of subscribers. So all told, BT Consumer will currently be making quite high  
23 gross margins I would think on its retail business.

24 So where somebody --

25 Q. Yes. All I am saying is if the wholesale price goes up, those margins will go down. It's not a  
26 totally controversial point, is it?

27 A. If we start off, let's suppose BT Consumer's gross margin is something like -- I'm making  
28 numbers up here, but let's say it's £12 a month, that is the gross margin over and above  
29 the Openreach charges that we'll assume they pay. If you raise the VULA price, say, by £2,  
30 that might be sufficient to lead TalkTalk and Sky to start focusing far less on superfast than  
31 they otherwise would do, but in terms of the transfer price, yes, BT Consumer's transfer  
32 price charged would have gone up by £2 but that would still leave £10 of margin, and when  
33 the customer moves across from Sky and TalkTalk, that transfer price movement won't  
34 make any difference anyway, they will just get £12, and that might be quite a good trade-off

1 for them.

2 Q. It's an interesting example you give because it sounds very unlike a margin squeeze because  
3 BT is still making substantial profits at the price.

4 A. As I said, the discussion is premised on their existing significant gross margins in the retail  
5 business and our view is that a price squeeze would occur where BT is failing to cover its  
6 long-run incremental costs and allowing a plus as well.

7 Q. I will come to that in a moment but it does sound a bit as if you think any sort of retail price  
8 competition is a margin squeeze but we will come to that in more detail in a moment.

9 Can we look at retail competition generally. You would accept that it was good in itself?

10 A. Yes, absolutely.

11 Q. And would you accept that differentiation was good?

12 A. It certainly can be and in particular competition to achieve differentiation can be very  
13 powerful in delivering benefits to consumers.

14 Q. With a vertically integrated firm you can have investment upstream or investment downstream  
15 for the purposes of differentiation, yes?

16 A. Yes. Let's just think though ... (Pause) To the extent that -- well, let's just be careful about  
17 what we mean by differentiation upstream. Certainly investing to differentiate BT from the  
18 Virgin network is highly desirable, i.e. we like BT to compete and by offering better  
19 wholesale products, such as VULA, it can compete better with Virgin and that is obviously  
20 desirable. But the general premise once it comes to differentiation between BT, TalkTalk,  
21 Sky and other users of the VULA products, the concept is that there should be a level  
22 playing field and BT shouldn't get significant advantages in retail competition by virtue of  
23 its integration.

24 So if your comment is: is it right that BT should be investing in Openreach products to  
25 favour its retail business, differentiate them? Then I think we would say that is not the  
26 general model of regulation we have here.

27 Q. I think I understand what you are saying. Insofar as BT is investing upstream to create  
28 a differentiated retail product open to all, that is good. And insofar as it is investing  
29 downstream in relation to creating differentiated product for BT, that is also good?

30 A. Yes.

31 Q. And profitable revenue growth, is that good if it is based on investment and differentiation?

32 A. Often it is. But as a general observation, this is about what the VULA price should be, and to  
33 the extent you are achieving that through manipulating the VULA price that is a different  
34 matter.

1 Q. But in principle there would be a benefit to the firm and to consumers even if there is harm to  
2 their rivals, that is correct, isn't it? If you have a differentiated product, it may be slightly  
3 more expensive but it is a better product and the firm will benefit and consumers will  
4 benefit, that is correct, isn't it?

5 A. I'm sorry, you are going to have to spell out the scenario more clearly.

6 Q. I think Apple can probably take it. When Apple puts out the iPhone or the iPad, that is  
7 an expensive product, it's a product with investment and branding and everyone benefits,  
8 Apple makes a lot more money and consumers get something they want.

9 A. Yes, so when firms compete at the retail level by cutting their prices, investing in  
10 differentiation et cetera, that certainly can be very beneficial for consumers and that is what  
11 we like to see.

12 Q. And that is not a margin squeeze strategy in any shape or form, is it?

13 A. It could be part of it, because the problem we have in the margin squeeze is, yes, we would  
14 love -- we do like to see BT Consumer competing aggressively in the superfast segment and  
15 across broadband overall. But the problem obviously in the vertically integrated situation  
16 we have is that is only half the story. The problem is BT Consumer has -- it may go out  
17 there and think, yes, I have got to invest in sports rights and other things to drive my sales,  
18 that side of the ledger is very good. But by exactly the same token it may also think, well,  
19 over here I have got my VULA price that my rivals depend on, and as well as investing in  
20 sports rights I might be better off if I used that lever to undermine the effectiveness of rivals  
21 to compete.

22 Indeed, part of the concern would be that if they do that, that will actually undermine BT  
23 Consumer's incentive to do the good things we want because it will have a different and  
24 possibly cheaper weapon to achieve a stronger retail market position by undermining rivals'  
25 ability to compete rather than itself cutting prices and investing in good things.

26 Q. Yes. I think again you are saying there are some ambiguous features here. But you yourself,  
27 as it were, looked behind the curtain to some degree by appending some strategic  
28 documents as an annex to your witness statement. That is at tab 13.

29 A. Yes.

30 Q. You quote a number of items in this area of investment and differentiation. So, for example,  
31 at 2 you say -- I should perhaps say this is confidential so I had better proceed with caution.  
32 Item 2 relates to sports investments. Item 3 towards the bottom raises issues of  
33 differentiation, do you see that?

34 A. Yes.

1 Q. Then item 4, and in particular the long-ish paragraph, the second half of that.  
2 A. Yes.  
3 Q. And 10, another reference in relation to sports, fibre and differentiation.  
4 A. Yes.  
5 Q. 11, you see the strategy in relation to growth?  
6 A. Yes.  
7 Q. At 14, the focus of BT. I don't think that is confidential, there is profitable revenue growth.  
8 A. Yes.  
9 Q. Likewise at 18. In fact throughout 18.  
10 A. There are a lot of themes on this, because the purpose of this annex was to show that BT does  
11 see significant focus on differentiating its broadband business.  
12 Q. Yes --  
13 A. In particular using fibre as a mechanism for that.  
14 Q. These are not legal submissions, these are -- this is BT speaking to itself. If I could  
15 summarise it, it appears to be exactly the strategy I have described: investment upstream,  
16 investment downstream, differentiation and profitable revenue growth. You have exhibited  
17 this?  
18 A. Yes.  
19 Q. So does Ofcom have any problems with any of those strategies or objectives?  
20 A. No. On the contrary, what is described there in many respects, as I said earlier, is  
21 BT Consumer looking for -- looking to differentiate itself, to grow, and it has been very  
22 innovative in the way it has done that.  
23 Q. And it grows profitably?  
24 A. Well here, if you are asking me does this imply that they did not have incentives to price  
25 squeeze? Then no, I wouldn't, because what this doesn't cover is incentives in relation to  
26 the VULA price, this is talking about their retail business's priorities.  
27 Q. Yes. You're an economist rather than a lawyer but I suspect you are aware that the courts in  
28 relation to abusive pricing have basically looked at strategic issues and they have looked at  
29 costs issues, and so far as strategic issues goes, this looks like a policy of investment,  
30 differentiation and profitable revenue growth at the retail level, is that correct?  
31 A. Yes, that is exactly how I see it.  
32 Q. Can we now look at the market shares analysis and it appears in two places. First of all at  
33 paragraphs 3.55 of the final statement.  
34 A. Can you remind me which one that is?

1 Q. Bundle III/I, tab 1. And it's page 30, it runs on, it is quite a long paragraph, 29 through 31.  
2 I'm not sure what bundles you have open, but also in your statement you address it in  
3 section D, figure 4 of your statement, and it may be helpful to have both. Page 20?  
4 A. Yes, I have it.  
5 Q. I'm not sure it positively says this, but am I right in thinking the graph and the figures in 3.55  
6 should reconcile to one another? I am assuming they do. You were the economic director  
7 and this is the statement?  
8 A. Can I just read 3.55. (Pause) Figure 4 in my statement is essentially based on the forecasts of  
9 CPs --  
10 Q. Yes.  
11 A. -- that we got, I think it was October 2014.  
12 Q. Yes.  
13 A. Off the top of my head -- sorry, it may be in the footnote references I just can't recall precisely  
14 whether --  
15 Q. Again this was meant to be just to sort of clear the ground. What I was really getting at was  
16 the first bullet point you give various figures, on page 30, and then over the page you give  
17 various other figures at the last bullet point, the third bullet point. And they look to, broadly  
18 speaking, correspond to the end of the continuous line in your graph and the end of the  
19 dotted line in your graph. Does that seem right to you?  
20 A. Broadly speaking, I just think it may be that some of the figures in 3.55 will be not precisely  
21 the same set of forecasts as these, that is all.  
22 Q. Yes, what you see from the graph, it's quite vivid, isn't it, is a movement between 2008 and  
23 2010 between Virgin and BT but presumably until 2008 Virgin had this part of the market  
24 pretty much to itself. Then there was a quite rapid change between 2008 and 2010, and then  
25 a more gradual process from then which is projected to go through to about 2017 as  
26 between Virgin and BT?  
27 A. Yes.  
28 Q. That is what one sees there?  
29 A. Yes.  
30 Q. Presumably that is -- as the VULA footprint expands, the effect is to bring the two together.  
31 And I take it that within Virgin areas, if I can put it, the graph would look very different.  
32 Virgin would still have upwards of 75 per cent in many of its own areas, is that right?  
33 A. Yes, I don't have the figures for the Virgin areas but clearly, since they only cover less than  
34 half the country, these figures would translate into a substantially higher Virgin share in

1 the Virgin areas.

2 Q. I had thought it was a very easy calculation but the more I tried to do it, I found it wasn't so  
3 easy. But broadly speaking, it seems to equate to Virgin having market shares of between  
4 70 and 85 per cent in the areas where it's present?

5 A. In terms of the roll-out, though, my understanding is most of the roll-out is close to complete.  
6 There are still areas where they are rolling out. So I don't think -- I'm not sure if the growth  
7 later down the line is likely to be significantly influenced by roll-out particularly.

8 Q. Roll-out of VULA?

9 A. Yes. I may be wrong but --

10 Q. I think that is more sort of filling up the can, if I can put it that way?

11 A. My understanding is they cover about 90 per cent of households now.

12 Q. Yes. Can we look at footnote 117 on page 31. It's a footnote to the statement which appears  
13 at the end of 3.55, that is not a confidential statement or confidential footnote, and it says:

14 "The forecast data thus suggests that operators are predicting that the retail  
15 supply of superfast broadband would be more concentrated than has historically  
16 been the case for broadband."

17 Then it says:

18 "To illustrate, the HHI index, which provides an indicator of the degree of  
19 market concentration on a scale of 0 to 1 ..."

20 I think it is sometimes done in thousands but here you have done it in 0 to 1:

21 "... of the superfast broadband segment could be approximately 0.32 in 2016/17  
22 based on the individual forecast data of BT, Virgin, TalkTalk, Sky and EE."

23 Then you say it hasn't included the smaller CPs.

24 And then it says:

25 "This compares to an HHI of approximately 0.22 for all broadband subscribers  
26 in Q2, 2014 which suggests an expected increase in concentration."

27 Do you see that?

28 A. Yes.

29 Q. Can I just ask you about HHI or the indexes of this kind. I think they are taken as changes in  
30 concentration or a proxy for lack of competitiveness of a market or changes in the  
31 competitiveness of a market, is that right?

32 A. The way I think of them, and I don't think it is really necessary to put an HHI in, I just think of  
33 them as a particular metric for describing shares in markets. Personally, and I didn't write  
34 this particular footnote, but personally I prefer just to see what the shares are. It's just

1 simpler that way, to look at them.

2 Q. Yes, but since it is in the decision and you are the economic director then I think I am entitled  
3 to ask you about it.

4 A. You are. All I am saying is that would correspond presumably to the fact that the shares we  
5 observe in figure 4 look like a more concentrated structure of shares than is the case for all  
6 broadband which is plainly the case.

7 Q. Yes, but for the index you need to compare like-with-like, don't you? There is no point in  
8 comparing an index for sausages with an index for pork pies, it wouldn't make any sense.

9 A. Sorry, so when you are thinking of an HHI calculation?

10 Q. Yes.

11 A. Yes, I would agree. Market shares and their distribution, they give you a picture of what is  
12 going on in the market, they are not in themselves determinative of how competition in that  
13 marketplace is operating. So I have a set of shares for pork pies, and what was the other  
14 one, sausages --

15 Q. It's not a particularly good example. I think it would be better to have a subset, but there you  
16 go.

17 A. I would not, for example -- it wouldn't necessarily be the case, just because I observed slightly  
18 different shares for sausages and pork pies, that that necessarily corresponded to  
19 a difference in competition. What I would have to do is look at sausages and pork pies and  
20 make my decision and I probably would move past the HHI fairly quickly.

21 Q. It was an unfortunate example, but anyway, all I am putting to you is it needs to be on  
22 a properly defined market for it to have any real significance, would you accept that?

23 A. Shares are simply a record of who is making sales of a particular market or product.

24 Q. In particular, if you had shares on a submarket, that could give distorted results. So again,  
25 a sort of colloquial example, I can recall the Renault Espace being launched and perhaps  
26 being the leading vehicle but it might have given a distorted picture if you compared that to  
27 the total car market. And that is particularly true where you have a new market segment, is  
28 that not the case? If you compared the one with the other, that wouldn't give a very clear  
29 picture?

30 A. So clearly figure 4 gives a picture of who is doing well in selling superfast broadband retail  
31 products, and the overall share of who is doing well selling broadband will look somewhat  
32 different than that figure because this is a segment of the market, not the whole market.

33 Q. Yes, and that was the point I was going to put to you. That is what Ofcom found in the  
34 Wholesale Broadband Access Market Review. It looked at it again in FAMR, it looked at it

1 again for the purposes of this decision, and in each case it found it was a single market for  
2 broadband.

3 A. I agree. If the question is essentially does the picture of shares in superfast broadband tell  
4 us -- give us a complete picture of how strong BT Retail's position is either in the market  
5 overall or -- then clearly it doesn't.

6 Q. Yes. We have talked about this, this is a premium product, BT has launched it as Infinity,  
7 Virgin has their VIVID brand, so it's a submarket.  
8 But anyway, footnote 7 says there is an expected increase in concentration. Do you see  
9 that?

10 A. Is that 117?

11 Q. Footnote 117.

12 A. Yes.

13 Q. That is based on a comparison between the HHI of all broadband in Q2, 2014, as against the  
14 projected HHI for superfast in 2017. That is the basis for it, isn't it?

15 A. Yes, that is fair.

16 Q. That is what I -- perhaps sausages and pork pies is a bad example, but it is a subsegment  
17 compared to a full market, isn't it, so it doesn't really make much sense?

18 A. I think it is a useful metric for two reasons: firstly, it is a subsegment, but it is a differentiated  
19 subsegment, so it is well known that where you have differentiated products, there may be  
20 closer competition within that segment than the shares of the overall market might suggest.  
21 I think more importantly for me, this is not just a subsegment, this is really the future, and  
22 what we are looking at here is essentially how competition is playing out in a segment that,  
23 well, as I say in my reports, in principle it may become a separate market at some point in  
24 the future, but that is not really critical because even if it doesn't, what is going to happen is  
25 this segment is going to emerge as the preponderance form of broadband in the not too  
26 distance time.

27 So while these shares don't tell you how broadband overall is going to develop in terms of  
28 overall shares, this picture, if it continued, would inevitably, if you were to have a graph of  
29 what the shares of all broadband looked like, and those dotted lines continued at the sort of  
30 level they are at in sort of 2016/17, what that is going to point to is BT gaining a very  
31 substantially larger overall share in broadband than it has at the moment.

32 Q. Can we look at the superfast broadband position in slightly more detail, and again we have  
33 tabulated your information which I hope is a useful format, so if I could hand that up as  
34 well?

1 THE CHAIRMAN: Would that be a convenient moment to have a five-minute break?

2 MR. THOMPSON: Yes, sir. I will hand this out. (Handed)

3 (11.45 am)

4 (A short break)

5 (11.50 am)

6 MR. THOMPSON: Mr. Matthew, what we have done in these two little documents is first of all  
7 taken the figures in the first bullet point on page 30 and the third bullet point going over  
8 onto 31 and merged them with your graph as best we can. That gives actual shares at the  
9 end of your continuous line in the left-hand column of the documents, actual and forecasted  
10 shares of SFBB connections, do you see that?

11 A. Yes.

12 Q. And I think some of them are confidential but I will -- or have not been stated in the  
13 document, but Virgin and BT at 51 and 37 is stated in the published version. And then there  
14 is an accumulative sum for Sky, TalkTalk and the third operator whose identity -- I'm not  
15 sure whether it's still confidential but I will keep it confidential. Then there are projected  
16 shares which, again, I think those are treated as confidential in the documents so I won't  
17 state them but you will see the movements of those shares.

18 Then in the separate document, we have followed through the logic of footnote 117, and  
19 done what seems to have been the HHI calculation that appears in footnote 117 although the  
20 figure we reach in the bottom right-hand corner is slightly higher than the figure that  
21 appears in the document but I think that is because of some either rounding effects or  
22 because of the discounting of the smaller operators because if you just take the larger  
23 operators it comes to roughly that figure. And then we compared it to the position at the  
24 latest actual date that appears in the first bullet point on page 30.

25 Since they are taken from your own decision in your own evidence, I am assuming that you  
26 will accept these figures subject to the arithmetic that has been carried out in relation to the  
27 projected HHI figure for the current position or the position at October 2014. Do you  
28 understand what has been done and do you agree with it?

29 A. Yes, they look like the right sort of magnitudes.

30 Q. I think I can say this without breaching confidentiality, but you will see that the concentration  
31 ratio for the SFBB segment, insofar as that is a legitimate exercise at all, shows a marked  
32 decline on the projected figures reflecting primarily the decline in the projected share of  
33 Virgin and the increase in the projected shares of the smaller operators, is that right?

34 A. Yes, that is correct.

1 Q. And in particular the two principal protagonists in support of you are projected to see very  
2 substantial increases in their market share. Do you see that?

3 A. In -- yes, so their share is going up proportionately, yes.

4 Q. Very substantially.

5 A. You mean the fact that it's -- I won't give the figures, but you mean the share is ... for example,  
6 we might say for one of them the share for example doubles, whereas BT's does not.

7 Q. Exactly.

8 A. That sort of comparison, yes. You will tend to find that in a growing market anyway.

9 Q. Yes. I'm only going against footnote 117 which looks at presumably these same statistics and  
10 describes them as showing an increase in concentration, whereas in fact there is a marked  
11 decrease in concentration, isn't there?

12 A. Yes, I agree. And -- yes, so the structure of the shares is going to be the case that there is an  
13 increase for BT's competitors in their share. I just observe that in a growing market that  
14 might not translate into them actually winning more volumes than BT, it's just simple  
15 arithmetic of percentages.

16 Q. They are coming from a smaller base?

17 A. Exactly. So, yes, they start off with a very small percentage share, and then fairly modest  
18 increases in their volumes might lead to a really quite large jump in their percentage share,  
19 say from 2 to 6 or something, it is a trebling. That doesn't imply that they are actually  
20 winning more volumes than BT.

21 Q. No, but I think we have discussed already, and I think you have accepted as legitimate, that  
22 BT had made major investments, had a strategic focus on this area in response to Virgin's  
23 initiative, and branded itself, so you would expect it to do well in the first instance?

24 A. Yes, and these shares are, as we have said before, not reflective of an actual price squeeze.

25 Q. And the position -- we looked at the historical position with Mr. Clarkson, under the old  
26 regime, of TalkTalk and Sky's position between 2013 and 2015, showing very rapid  
27 increases, and we are now looking forwards and finding the same pattern, is that correct?

28 A. Well, we are seeing significant increases in the -- significant proportionate increases in the  
29 shares of BT's rivals, but that is not translating into a large share for those rivals.

30 Q. No. What I don't understand is either why you say there is an increase in concentration or  
31 why you say that there is a risk, which is how 3.55 starts. Because this looks like the  
32 smaller operators are now moving relatively rapidly into this new market segment, does it  
33 not?

34 A. As I said, I think the proportionate increase in the shares doesn't tell you that much given that

1 they are starting off from a very small base. The inference I drew from figure 4 is not that  
2 Sky and TalkTalk are unable to match BT's offers or that the picture we see there reflects  
3 a price squeeze in operation, I am merely observing that when we get to the end of this  
4 period, which is still some way off, and well after the period when some of the early reasons  
5 why they might not have concentrated on superfast as much as BT did, it is still not a very  
6 high share for them and it is not comparable to where they are in broadband.

7 It's not my view that this reflects a competition problem, for me this is very much just  
8 context, which tells me that if BT were to engage in anti-competitive conduct or implement  
9 a price squeeze, that is something we should be very mindful of and worry about because  
10 the picture doesn't look that strong compared to the way things have been in the past.

11 Q. That is not what the decision says. The decision says:

12 "There is a risk that the future structure of the superfast broadband segment  
13 could be very different even in three years' time to what we observe today in  
14 broadband as a whole."

15 So you are seeing these projected figures as somehow risky, that they don't look right to  
16 you. But what I am saying is what they show is that the small competitors are increasing  
17 rapidly, doesn't it?

18 A. It shows their proportionate share is increasing. For us and for me, it shows this is a market  
19 environment where one should be concerned if there was the prospect of a price squeeze  
20 because their starting point does not look as healthy as things had been for standard  
21 broadband in the past, and that is the only point I would make on this.

22 Q. But we have looked at the expected increase in concentration point in footnote 117 and that is  
23 not right. Can we look at 35 --

24 A. Of my report?

25 Q. Yes, the previous page just before the graph. At the end you say:

26 "On current projections by both BT and the other main competitors, the  
27 provisions of SFBB would appear to be closer to a duopoly by the end of the  
28 current review period."

29 When you look at the graph, that is just not right, is it? Because until 2012 it was  
30 a duopoly, whereas what appears is that it is no longer going to be a duopoly on the  
31 projected market shares. There is going to be quite significant growth and quite  
32 a significant competitive force from two very well-established competitors, namely, Sky  
33 and TalkTalk. That is what this shows, doesn't it?

34 A. Just to be clear, I wasn't suggesting it was a duopoly in the sense there would only be two

1 competitors. Clearly Sky and TalkTalk, including through these shares, will be -- are  
2 expected to be there competing. So there are not just two competitors, I was merely making  
3 an observation about the structure of shares as they would pan out at that time. That is all.

4 Q. When you say "closer", that is ambiguous. It is actually further away from a duopoly in one  
5 sense, isn't it?

6 A. You mean literally if I look at the position as it was in 2010 where -- well, no, I agree. So if  
7 one wants to look at the shares and ask yourself what shares do the top two providers  
8 account for? Which might be one way of measuring it, I would agree, that that -- yes, the  
9 words "closer to a duopoly" is a reference of relativities with other broadband I think, not  
10 with the past, where clearly at one point BT and Virgin were the only games in town.

11 Q. What I really understand, and it appears in various places in your statement, for example at 36  
12 but I think also at 90, is that Ofcom seems to see some problem if the outcome in superfast  
13 broadband is not exactly the same as in standard broadband. That is what seems to be the  
14 underlying concern, that it ought to be the same. Is that right?

15 You say in 36:

16 "The SFBB segment is not developing as effectively as has been the case for  
17 retail broadband overall."

18 Then in 90 you say the same:

19 "Concerns that competition in the SFBB segment is not developing as  
20 effectively has been the case for retail broadband overall."

21 It looks as if the word processor has been at work there, but it's the same point.

22 So is there a sense in which Ofcom wishes to achieve an outcome of basically the same  
23 market structure for standard broadband as for superfast, is that really what is driving all  
24 this?

25 A. Absolutely not. We have no particular engineered market share outcome in mind and I think  
26 that is clear from the second sentence of 36. The inference I am drawing from it is not that  
27 we must have four equal shares otherwise we have a problem, I am observing that the  
28 structure of how superfast sales are panning out and are expected to pan out creates  
29 a context where one should be worried about price squeeze being implemented, which is not  
30 the point you put to me.

31 PROFESSOR MAYER: Can you just clarify that point a little bit more, Mr. Matthew, how we  
32 should relate the market structure as you see it emerging with the risk of a price squeeze,  
33 what is the relationship?

34 A. I think if we imagine a different world, say one where -- perhaps it is in time. Let's imagine a

1 world where Sky, TalkTalk, BT and Virgin were all very well established in superfast  
2 broadband at a period where that has become the predominant form of broadband, and you  
3 were to ask yourself what are the risks associated with a price squeeze? And there may still  
4 be issues there, in particular if you are relying on a retail minus price control it might be the  
5 case that you would want to control BT's pricing to avoid excessive pricing. But in terms of  
6 is there a price squeeze risk, you might say, well, that is probably going to be less of  
7 an immediate concern. The market is established, it is probably more about who makes  
8 money out of it, and the risk might be a bit different.

9 So I think the way I see it is, when you start off from a position well ahead of that being the  
10 outcome, you are in a position where BT would be looking at more than just how much  
11 money can I make out of VULA and, at the margin, can I get some more customers for  
12 BT Consumer? They may think, well, actually against this background Sky and TalkTalk  
13 are being very slow, their position isn't projected to get that strong very quickly but it is  
14 going to come, we would expect, although as they remain healthy competitors. But if we  
15 put in place a price squeeze now, we may lead -- if we take the extreme version of  
16 foreclosure, we may lead to a situation where one of them decides: actually, I really am  
17 going to give up on superfast broadband, I'm just not going to try, I am going to shift my  
18 commercial strategy to exploiting my copper assets and give up on the future.

19 So the pay-offs could be much larger and the impact could also be large because you would  
20 lose one of your competitors. So I think it is building on a situation that doesn't look as  
21 healthy as the one we have today in broadband, and the potential link goes back to if I pull  
22 the VULA lever am I going to get significant retail benefits? I would say arguably yes in  
23 this sort of context.

24 PROFESSOR MAYER: So you are saying that there may be greater benefit to BT in squeezing  
25 off competition in an embryonic market.

26 A. I think, yes, that is the way I put it. A greater foreclosure benefit, a greater prospect that they  
27 may seriously damage one of their rivals' ability to compete over time.

28 PROFESSOR MAYER: Thank you.

29 MR. THOMPSON: Can we just look again at your figure and see whether you do or don't agree  
30 this as a credible analogy for what has happened here. It looks like there was initial  
31 investment by Virgin Media and took a very substantial and relatively mature market share  
32 over a period of years of over 50 per cent of the market by means of its initial investment in  
33 superfast broadband, would you accept that?

34 A. Sorry, so on Virgin, yes, they started off with a very large share --

- 1 Q. And it is still over 50 per cent of the market as at the end of 2014.
- 2 A. Yes.
- 3 Q. I think you call it a closed system, which I think means that Ofcom hasn't intervened, despite  
4 those very high market shares, to require Virgin to share its investment with anyone else,  
5 that is what the closed system means?
- 6 A. I'm not sure I have heard the reference to closed system before, but, yes, Ofcom does not  
7 regulate access to Virgin.
- 8 Q. And then it looks as if BT reacted by investing itself and built up quite a strong market  
9 position, and we have had it described by Mr. Petter in the investment in Infinity et cetera,  
10 and that is what one sees as it were up to the end of the continuous line.
- 11 A. Yes. Yes, BT has certainly pushed fibre much harder and much earlier than its competitors on  
12 using VULA, and itself engaged in a bit of catch up against Virgin. Because of the  
13 technology of their network, they essentially upgraded most of their customer base very  
14 quickly.
- 15 Q. There is evidence which -- it is not intended as criticism but it is a fact I think, that Sky and  
16 TalkTalk haven't made such investments, and there are obviously reasons, commercial  
17 reasons, why they haven't done that, but they have invested quite heavily in LLU, and they  
18 have been given quite a significant regulatory benefit in relation to LLU, and we discussed  
19 that with Mr. Clarkson.
- 20 A. I would agree that there are a variety of reasons why Sky and TalkTalk have been slower than  
21 BT to get going on fibre. My understanding is they have been pushing it fairly hard for  
22 a while now and, as this graph shows, they do expect to get gains in their fibre subscribers  
23 over time, although not to the point where they are going to reach a scale of BT's size in the  
24 next few years.
- 25 Q. But they haven't invested in the hard wires, as it were, or the fibre?
- 26 A. No.
- 27 Q. And they haven't invested in the branding. Their unique selling point is not high speed  
28 broadband, that is Virgin's particular selling point and, more recently, BT's with its Infinity  
29 brand. That is the position, isn't it?
- 30 A. Certainly Sky and TalkTalk have not yet built their own network, which I think was your first  
31 point. They are now, as I understand it, marketing fibre products more prominently than  
32 they used to.
- 33 Q. Yes, I think Sky has made a large offer for free fibre for a year, I believe.
- 34 A. Yes.

1 Q. But that narrative of Virgin then BT and then the others makes perfect sense and is a perfectly  
2 normal evolution of a new market segment, is it not?

3 A. But as I say, we are not saying that the projections we see here are themselves the result of  
4 price squeeze or anti-competitive conduct by BT. So, yes, this presumes, I think, that Sky  
5 and TalkTalk will perceive themselves able to match the BT offers and over time they will  
6 upgrade their bases to use fibre.

7 Q. Yes.

8 Can I move to another topic, which is the types of margin squeeze with which Ofcom may  
9 be concerned, and there are broadly three -- sorry, I am just reminded the word "closed  
10 network" is actually used in the statement at paragraph 3.61 in relation to Virgin but  
11 I don't think that is -- I think Mr. Holmes used a similar expression, but I don't think  
12 anything turns on that.

13 Broadly speaking, there are three types of margin squeeze if I can put it to you like this.  
14 First of all, there can be excessive pricing on the upstream market, squeezing margins  
15 downstream, and I think that is one of the concerns you have expressed and Mr. Clarkson  
16 has expressed. Secondly, there can be discrimination upstream whereby the monopolist or  
17 significantly dominant firm actually treats its downstream arm better than the rival  
18 purchasers. And thirdly, there can be predation on the downstream market. So a powerful  
19 retailer can pull down its prices with a view to driving competitors out and that is, as it  
20 were, predatory pricing on a vertically integrated market.

21 Would you accept there are those three possibilities, in outline terms?

22 A. There may be others. So your first is someone may price squeeze just by setting a high price  
23 for the wholesale products.

24 Q. Yes.

25 A. Your second is they may discriminate. I'm sure that can be part of it. I think generally in  
26 price squeeze we are talking about a transfer price, so I'm not quite sure that discriminatory  
27 pricing as between your own retail division and your rivals' carries significance on its own  
28 because for your own retail price you would largely ignore it --

29 Q. That could in principle happen. You could target your rivals and charge them more than you  
30 charge your downstream arm?

31 A. Yes. I think my point is simply suppose I set the same price for my own downstream division  
32 as I do for my rivals, that doesn't stop me from still setting a high transfer price because my  
33 downstream provision doesn't care because it just says, okay, my accounting profits  
34 downstream have reduced but my upstream profits have increased so it all nets out.

1 So you might do it that way, or you might say, okay, I will set my own price to my own  
2 downstream division at 5 and I'll set the price of 10 to my rivals, you might do it that way.  
3 But the relevant question is do you set the price at 10 for the rivals, not what you are doing  
4 for yourself?

5 Q. But in principle, if everyone is charged 10 and the retail price is also 10, then that is an  
6 excessive pricing margin squeeze. Whereas if the price to your downstream arm is 5 and 10  
7 to everyone else, that is what I am calling a discriminatory pricing squeeze. In broad terms  
8 I think you could accept that?

9 A. Those are just differences in the magnitudes. You could have a price of 10 -- you could have  
10 a wholesale price of 10 and a retail price of 10 and that would still be a price squeeze if that  
11 margin, which would be zero, is not sufficient to cover your retail costs.

12 Q. Just --

13 A. So you don't need to set a higher price for the wholesale price than your own retail prices to  
14 achieve a foreclosing margin squeeze.

15 Q. No, no. Indeed. I'm just trying to focus on what it is that we are worried about here. As I am  
16 understanding it, I think it was reflected in the way Mr. Holmes opened the case and it's also  
17 reflected in the terms of the final statement, the focus here is on upstream pricing, excessive  
18 pricing or possibly discrimination on the upstream market, and there is a good reason for  
19 that in that BT doesn't have SMP on the retail market, it hasn't been found to have it which  
20 is actually under a different legal regime under a different directive, so Ofcom would have  
21 jurisdictional problems about, for example, setting a floor on BT's retail prices. That  
22 wouldn't be within its powers because there is no finding of SMP on the retail market, is  
23 there?

24 A. I don't know about that. Sorry --

25 MR. HOLMES: Sir, again this is a legal question.

26 A. My point is what we are concerned with here is a price squeeze condition. So the relevant  
27 question is would they raise the VULA price to a level where the resulting margin between  
28 the VULA price and their downstream retail prices was not sufficient to cover retail costs?

29 MR. THOMPSON: That is the focus of your concern.

30 A. Yes.

31 Q. And I don't know whether -- did you have any dealings in relation to the Commission's  
32 concerns expressed in their letter?

33 A. Yes.

34 Q. Can we just look at that briefly then. It's at tab 9 of core bundle III/II. It's towards the end,

1 after the Commission has expressed its concerns about the design and the lack of flexibility  
2 in relation to the six-month, at that point, period for recovery of costs. At the bottom of 6,  
3 the Commission says this:

4 "Ofcom's purpose in designing the test is to address a competitive concern in  
5 relation to pricing of the regulated product, i.e. VULA, for which it doesn't  
6 propose a charge control. However, the design of the test proposed by Ofcom  
7 may result in BT choosing to address a failed test by changing its behaviour on a  
8 market other than the regulated market, for example by increasing retail prices  
9 or reducing costs for BT Sports. Given the magnitude of the costs involved and  
10 the uncertainty of future costs and revenues of BT Sport as new rights auctions  
11 approach, there is a risk that Ofcom's regulatory intervention would have a  
12 significant impact on non-regulated markets without necessarily affecting the  
13 price of the VULA input. Ofcom will therefore have to remain vigilant that the  
14 application of the test doesn't have unintended consequences in markets where  
15 the application of ex post competition law would be sufficient or where BT's  
16 SMP in the WLA market does not necessarily play a role."

17 That is the point I have been making to you, that you wouldn't have jurisdiction, and as  
18 a matter of economics it would be wrong for you to try to constrain BT's competitive  
19 position on the retail market where it hasn't been found to have SMP. That is what the  
20 Commission is saying, isn't it?

21 A. I think the Commission here is commenting on the way BT Sport costs should be treated in  
22 the VULA margin conditions, isn't it?

23 Q. No, I don't think it is doing that. I think it is saying Ofcom can't try to meddle in the retail  
24 market because there is no SMP and it is not even part of the right jurisdiction.

25 MR. HOLMES: Sir, the way this question is being put contains a legal element on which this  
26 witness cannot comment. Questions of jurisdiction are for submission, they are not for  
27 putting to an expert witness.

28 THE CHAIRMAN: I do agree, Mr. Thompson. I'm not sure it really helps to get Mr. Matthew's  
29 views on this letter.

30 MR. THOMPSON: Let's come to your statement and see what it is you were worrying about.  
31 I had understood you were either looking for a -- I think I described it as a bear in  
32 the woods, either a discrimination or an excessive pricing problem. That seemed to be the  
33 tenor of what you were worried about in relation to the VULA price, that seemed to be the  
34 tenor of the statement. In particular, there are repeated references to BT setting a VULA

1 price which favours its retail business and one finds that for example at 13B.

2 A. This is my statement?

3 Q. Yes, your statement, page 5. You can put away the Commission's letter now.

4 A. 13B?

5 Q. Yes. You say:

6 "BT will have incentive to set the VULA price to favour its retail business ..."

7 That is a repeated theme. I can give a number of references, for example at paragraph 22

8 you say the same thing, paragraph 86 --

9 A. Yes, I haven't checked all of those, but it is a theme, yes.

10 Q. If we look in 22 we see in the third and fourth lines:

11 "BT should not be able to use its control of the critical wholesale inputs to

12 favour its downstream retail operations."

13 And you say the same in 22E:

14 "Allowing a price squeeze could exacerbate the risk perceived by BT's

15 competitors that BT was free to use its vertical integration to favour its retail

16 business."

17 And then at 22C, do you remember this, you talk about setting a price to negate advantages

18 of its rivals, do you see that?

19 A. Yes.

20 Q. Presumably that could only work if you somehow damaged them by giving them -- harming

21 them by the VULA price to them as against the VULA price to BT Consumer, you must be,

22 as it were, favouring BT Consumer again otherwise it wouldn't negate the advantage, is that

23 right?

24 A. Yes, I think so.

25 Q. So there seem to be allegations of discrimination of raising competitors' costs while keeping

26 BT's charges constant, is that right? Is that what you are alleging here?

27 A. Yes, effectively. I think 22C is essentially a theme that is in my report about the nature of the

28 concerns that can arise with a price squeeze, so we have I think the sort of standards -- sort

29 of outright foreclosure concern which is where BT sets a very low margin for a period that

30 seriously undermines rivals' ability to win customers, they become much smaller,

31 potentially exit the market, and BT can benefit from that.

32 What I am trying to do here is outline that actually that is not the whole story because

33 perhaps a more moderated version of that arises where, okay, let's suppose there is

34 a situation where BT's rivals are selling to customers who wouldn't switch to BT as a

1 consequence of the price squeeze, but nevertheless when those rivals are thinking about  
2 should I make investments in terms of the services I am offering or offer them low prices to  
3 induce them to buy my better fibre product, they will think -- they will have an eye on the  
4 future and say, well, this might be a good thing for me to do today, but what if the VULA  
5 price is jacked up to me in two years' time after I have made those investments?

6 You can quite quickly see that in a situation -- clearly there is an important element of retail  
7 competition, but you can quite quickly see that in that situation effectively you are saying to  
8 BT's competitors, look, you need to make investments in competing with BT Consumer,  
9 and even if you have got some advantages of your own that allow you to stay in the battle,  
10 you are exposed to effectively a drip-feed risk of expropriation of the moves you make, and  
11 that's going to reduce their incentives to compete dynamically in acquiring customers  
12 et cetera.

13 So even though they may still be there in three years' time, may still be important  
14 companies, the way in which they compete and the intensity of it is likely to diminish if  
15 they feel they are exposed in that way.

16 Q. It sounds like in a similar sort of area to some of your earlier remarks where I said it didn't  
17 sound much like a margin squeeze. You seem to be taking a pretty broad approach to the  
18 concept of a margin squeeze.

19 A. Well --

20 Q. I am slightly -- at the moment I was just asking you, and I think you agreed, that all these  
21 references to favouring BT's retail arm sounds like a case of discrimination, in my terms,  
22 and I think you agree with that?

23 A. I just don't necessarily find discrimination a useful concept here. It is about do they set a  
24 margin that allows rivals to match their offers, covering retail costs?

25 Q. But the repeated references to favouring BT's retail arm does sound like a classic case of  
26 discrimination.

27 A. Well, as I said, I'm not sure I see discrimination as the right word. What I am thinking of is  
28 when they choose to set their retail and wholesale prices they will take into account the  
29 effect that has on their retail business and that will lead them to set a higher VULA price  
30 relative to retail prices than would be the case if they didn't have that incentive.

31 PROFESSOR MAYER: Just to clarify this, your argument to me does not seem to hinge on  
32 saying they would charge different prices to competitors from that which is being charged  
33 to BT Retail.

34 A. That is absolutely correct.

1 MR. THOMPSON: Just to close this out, I think it was said by Ofcom's counsel in opening, and  
2 particularly in cross-examination of Mr. Petter, that discrimination couldn't be a form of  
3 margin squeeze but I think we have agreed that it could be, and I think you also agree with  
4 me, with the qualification you gave, that all these references to favouring BT's retail arm do  
5 sound like an allegation of discrimination?

6 A. As I said, I just don't find discrimination a useful -- I prefer the way I just spelt it out.

7 Q. Given the indications I have had from the Tribunal and the protests I have had from  
8 Mr. Holmes, I won't push it any further, but your position as an Ofcom official includes the  
9 obligation to take account of guidance from the European authorities, and I think you were  
10 probably here when Mr. Holmes read out that discrimination and excessive pricing are both  
11 recognised forms of margin squeeze.

12 What I will go on to say is that insofar as the element of discrimination was part of your  
13 reasoning, then I think you would accept that that was a central focus of the undertakings  
14 that were given by BT back in 2005, would you accept that?

15 A. First you are going to have to spell out what you mean by discrimination because I am  
16 struggling with what you mean by it in concrete terms. Secondly, and perhaps to cut this  
17 off, I'm not an expert on the undertakings of 2005.

18 Q. No. I will just give you the indication of what it is I am talking about and I will take it as  
19 quickly as I may.

20 The undertakings document is at --

21 MR. HOLMES: Sir, given that the witness has just indicated he is not familiar with the  
22 undertakings, I'm not sure what value Mr. Thompson hopes to extract in terms of useful  
23 evidence for the Tribunal by showing him a document which can be shown in submission.

24 THE CHAIRMAN: I tend to agree, Mr. Thompson.

25 MR. THOMPSON: I will move on.

26 THE CHAIRMAN: How are we doing in terms of timing?

27 MR. THOMPSON: We are going a bit more slowly than I had anticipated. I don't think I am  
28 going to quite finish this morning.

29 THE CHAIRMAN: An early finish?

30 MR. THOMPSON: I hope so, yes. I was going to look at the issue now of what exactly the  
31 positive case is that Mr. Matthew puts forward.

32 THE CHAIRMAN: Very well.

33 MR. THOMPSON: In my submission your real case -- my submission, I will put it to you  
34 whether you agree with me or not, is that the core concern you have here is in effect a form

1 of excessive pricing margin squeeze of BT pushing up the VULA price and constraining  
2 competition on the downstream market, is that correct? I think you have been reluctant to  
3 accept the characterisation of discrimination so what seems to be left is an inflated VULA  
4 price constraining competition downstream, is that right?

5 A. Yes, I think it is fair to say -- I'm not quite sure I would put it in precisely those terms, but yes,  
6 essentially the concern is that BT would raise the VULA price to a level that, relative to its  
7 retail prices, wouldn't allow a similarly efficient rival to cover its retail costs.

8 Q. But if BT simply put up its prices to the profit maximising price, would that be a concern in  
9 itself?

10 A. Not here, because we have agreed BT should have pricing flexibility in respect of VULA in  
11 the sense that it's allowed to set a higher price at profit maximising levels because it is not  
12 regulated under cost plus terms. But of course it would need to do that -- at the same time  
13 as doing that it would still need to have its retail prices set at a margin above that that  
14 allowed retail costs to be recovered.

15 Q. Yes. I am just trying to get to grips with what exactly it is that you are worried about and  
16 I think we have had some indication from the exchanges we've had already so I'll try and  
17 take it reasonably promptly. But you will be familiar with the fact that the regulation of  
18 excessive pricing was partly dealt with by the FRAND condition and partly was considered,  
19 as you have said, in FAMR where it was decided not to impose a charge control, and  
20 I debated some of the reasons for that with Mr. Clarkson. You remember the constraints  
21 from standard broadband, the risk of error, and the effect on investment incentives, you  
22 remember all that?

23 A. Yes.

24 Q. Then at paragraph 22 you set out a number of concerns. I think in 22A and B in particular, the  
25 initial wording does describe a conventional margin squeeze. So first of all:

26 "Foreclosure in the sense that BT's competitors are unable to match BT's prices  
27 in the short-run leading to a reduction in short- or long-run retail market  
28 competition and setting a high VULA price that excluded rivals from competing  
29 for SFBB for a period."

30 So those sound like conventional margin squeeze cases. But then you say:

31 "In the extreme case ..."

32 Which makes one doubt whether you actually think either of those possibilities is actually  
33 realistic. So is that right, that Ofcom is not really talking about those sort of core  
34 exclusionary cases?

1 A. The reference to "In the extreme case" is to A, not B.

2 Q. Yes, exactly.

3 A. And it's talking in the context of classical foreclosure. I think the point I am making is that the  
4 extreme case of foreclosure is that the rival completely gives up on the market and ceases to  
5 be as an effective competitor entirely, outright exit. So that is the extreme case. Obviously  
6 there are gradations before you get to that point which is where the rival's ability to compete  
7 in the future is damaged, such that the intensity of competition diminishes but the rival need  
8 not exit completely for that to be the outcome.

9 Q. By the end of A, you have gone to even a modest weakening of competition, and that is really  
10 quite a different concern and I would say that is not a margin squeeze at all, that is just  
11 competition. The problem with your statement is I find it very difficult to distinguish the  
12 one from the other. But would you say a modest weakening of competition is still a margin  
13 squeeze?

14 A. Well, if a price squeeze would result in a modest weakening of competition then, as I say, that  
15 is liable to adversely affect consumers over time.

16 Q. Look at 22D. You say:  
17 "There is a risk that BT might raise the VULA price to expropriate the  
18 profitability associated with these investments."  
19 So that is where there has been an investment.  
20 There are two possibilities, aren't there, that BT might just put its price up as part of  
21 a commercial negotiation taking account of the overall profitability of this market, and there  
22 might be some toing and froing and the price might be a bit higher than the downstream  
23 competitor would like, but is that really a margin squeeze or is that just ordinary  
24 commercial negotiation? How does this tell the difference between the two?

25 A. This is saying that if you allow BT to price VULA freely without a price squeeze condition,  
26 this is the sort of thing that it might do, or at least competitors might perceive that it might  
27 do, and this is one particular way in which that could result in a reduction in future  
28 competition.  
29 Essentially this is the further theme on if you don't allow competition on the merits and you  
30 expose people to this sort of risk, their incentives to do things where it requires investments  
31 will diminish and that could be quite harmful.

32 Q. Let's see how low it goes, because at the bottom in 22E you raise the possibility:  
33 "Even in circumstances where BT doesn't actually impose a price squeeze, the  
34 threat that it might do so in the event that retail rivals emerge as stronger

1 competitors could itself dampen the incentives for a rival to compete as  
2 strongly."

3 Is that within your concept of a margin squeeze? Something expressly not a margin  
4 squeeze but a competitor might think that there might be a margin squeeze. Is that within  
5 your concept of a margin squeeze?

6 A. It is clearly relevant to whether one should have a regulatory intervention to say you cannot  
7 margin squeeze. Because what is being suggested here is -- leaving aside what BT actually  
8 would do if the competitor perceives that they might do it, in particular raise the VULA  
9 price to it after it has made some investments in growing its business, that would  
10 disincentivise it from doing just that, and that can arise even if BT hasn't actually price  
11 squeezed. The mere threat of it could be the problem. I think this point -- I think it is in  
12 Sky's submissions.

13 Q. It may well be. That is quite interesting, actually. The original consultation wasn't going to  
14 introduce this regulation and then I think Mr. Clarkson said Sky and TalkTalk came along  
15 and said that is not good enough. Then you changed your position. But can it really be the  
16 case that if, for example, Mr. Heaney or Mr. Blumberg come along and say: I am very  
17 worried about BT engaging in a margin squeeze, that is enough for Ofcom to impose  
18 a condition? Can it really be enough that the competitors think that BT might impose  
19 a margin squeeze? Is that really enough?

20 A. Firstly, it is one of a list of factors I'm pointing out here. I am just merely pointing out that is  
21 a further one. Sky's argument, if I remember rightly in their statement of intervention,  
22 essentially is on this theme. I think it was put to us during the process. So essentially they  
23 were saying: look, if we don't have reasonable confidence that we are not going to be  
24 exposed to ratcheting up the VULA price after we have upgraded our base, then that will  
25 lead us to have lower incentives to do that. That makes economic sense to me.

26 Q. But would you accept that is a very low test, and it is not just theoretical because it is  
27 actually -- I think it is a passage Mr. Holmes didn't refer to but it is actually in the final  
28 statement at 3.92, on page 43.

29 A. Yes, that is essentially the same point.

30 Q. It is. It says:

31 "Even if BT doesn't actually use any latitude to set a low VULA margin, the  
32 threat that it might do that in the future could undermine rivals' incentives to  
33 expand as strongly in superfast broadband."

34 But, in my terms, that is like a ghost of a margin squeeze. So, even if there isn't really one,

1 it is good enough if there might be one. Do you go that far?

2 A. I think this is -- I just return to my previous statements. If it is the case that there are no  
3 controls on BT's ability to raise the VULA price, the price squeeze condition being one of  
4 those, whether it's in the form we eventually ended up with or the variant of FRAND with  
5 guidance, this is one of the negative effects you might get. And I don't see that that is  
6 a problematic point.

7 Q. Is that really consistent with the very first -- where we started, the bias against regulation and  
8 the need for evidence, that it can be good enough if people come along and say: I am very  
9 worried about this, and so effectively that is good enough? Can that really be enough?

10 A. Is the suggestion that: imagine all of the other evidence made it absolutely clear that BT was  
11 never going to introduce a price squeeze, would it then be sensible to introduce a regulation  
12 that stopped them from doing something that they say they are never going to do because  
13 competitors were uncertain? One would need to think about that. Clearly, there are other  
14 things going on here and I suppose, as a matter of sort of logic, if BT was never going to do  
15 this, then committing not to do it wouldn't harm BT. It would, nevertheless, give certainty  
16 to its rivals, which is what they want.

17 Q. Yes, I know they want it, but it's a different question. We have seen that, under the old  
18 regime, they were thriving. Under the old regime, if it carried on, they are projected to  
19 thrive. But if they come along and say: we are very worried about this. You say: okay, we  
20 will give them a bit more regulation. That seems to be what you saying?

21 A. No, I am saying we think there are other reasons why BT might price squeeze, not just this.  
22 So it's not clear that BT wouldn't do it as a matter of position. So it's a somewhat academic  
23 question to ask yourself: what would you do if it was clear that all the evidence showed that  
24 they wouldn't price squeeze, which is not the case before us. But ultimately, if the outcome  
25 is that rivals actually would be precluded from expanding and investing in their businesses  
26 because they lacked certainty in relation to the VULA price, then you would want to take  
27 that into account in deciding what you should do about it.

28 Q. Can we go finally at 22F on page 12. You say:

29 "A price squeeze may reduce or eliminate competitors' ability or incentives to  
30 offer effective competition to BT even where there is no exclusionary intent on  
31 BT's part."

32 Then there is a reference to the issues we have been discussing about the early lead. Then  
33 you say:

34 "Even if that is the reason for imposing a price squeeze, the effect may still be

1 that BT retains a strong retail position and its competitors' ability or incentives  
2 to compete in the long-run are reduced."

3 I think this brings it to a focus. Because the words "imposing a price squeeze" could easily  
4 be replaced by "competing vigorously on price" and the whole thing would just be the same.  
5 How do you distinguish here between BT competing vigorously on price? Because this  
6 whole thing would go through on the same basis. What is it you are actually talking about  
7 here?

8 A. You put your finger on the problem, which is BT has two levers here; it can compete by  
9 setting low prices, investing in its products, the good side of competition on the merits if  
10 you will. But it also has control over a key input for rivals, and what the price squeeze  
11 condition is doing is it's saying: well, it might be the case that you are competing  
12 aggressively for good reasons, but it might also be the case that you are setting a high  
13 VULA price for whether it's even intentionally bad reasons or simply because they find that  
14 very profitable.

15 The reality is you have two levers in front of you and one of them is potentially damaging to  
16 competition, and what this is all about is ensuring that isn't used to favour the BT Retail  
17 business.

18 In terms of outcomes in any case, if this question is about whether incentives to impose  
19 a price squeeze in an effort to foreclose are relevant, then I think that is relevant to the  
20 foreclosure arguments, but that is only one source of potential problem. So leaving aside  
21 precisely why BT might impose a price squeeze, if they actually do, that will still  
22 undermine competitors' ability to compete on the merits.

23 Q. In the course of your answer, and we can obviously check it with the transcript, I think you  
24 have used the expression to which we have taken exception in various places that it doesn't  
25 prove that BT wouldn't impose a price squeeze. It does appear that, at least on occasion,  
26 you seem to place the onus on BT to disprove the existence of the risk. Do you go that far?

27 A. No. Sorry, this is a reference to not quantifying with precision what I think the BT incentives  
28 might be, which is a point that is made in various of the submissions.

29 Q. I think it is more than that. There is a narrative of why Virgin has done this, BT has done that,  
30 Sky and TalkTalk have focused on LLU, and that is quite a clear story, the branding issues,  
31 the points you have accepted. But then we seem to shift to BT might impose a price  
32 squeeze and it hasn't proved that it won't. You do appear to put the onus on to BT to  
33 disprove that in some way, and it's difficult to see how BT could do that and how that could  
34 be the basis for your decision.

1 A. That is not how I characterise it. I think we have put together appropriate evidence to  
2 conclude there is a real and significant risk that BT would impose a price squeeze if it were  
3 free to do so. That is the position I set out in my statement. Not that there is some sort of  
4 academic risk in BT's job to prove that they would never do it. I think the evidence shows  
5 that there is a risk of that. It might be that BT could have put together -- they might have  
6 responded to the points we made in the final statement in here with evidence themselves. If  
7 they really felt that things like diversion to Virgin or losses to Openreach were likely to be  
8 so large that it really ruled out that finding that there is a real and significant risk, they  
9 might have advanced that. But that is not saying the onus is on them to disprove it. The  
10 onus is on us to show there is a real and significant risk and that is what we did.

11 Q. I think these issues have probably been fairly well aired, but in principle I think you would  
12 accept that the raising of the VULA margin could certainly lead to diversion of volumes  
13 away from VULA and BT to Virgin, and so there is a balance that would have to be taken  
14 into account by BT.

15 A. I think you said the VULA margin. I think you meant the VULA price.

16 Q. Yes. I guess that is right, yes.

17 A. Yes, I would agree. If BT raises the VULA price to Sky or TalkTalk and the consequence is  
18 they pass that on in terms of higher prices, as you have laid out and as we previously laid  
19 out, there is a variety of places those customers might go. They might go back to standard  
20 broadband, they might go to BT Retail and some might go to Virgin. That would -- you  
21 throw that into the mix if you were to try and undertake a precise quantification of how all  
22 this would exactly pan out.

23 We have seen from Mr. Heaney's statement that probably the Virgin effect might not be that  
24 large and, while Virgin is an important competitor here, obviously that diversion would  
25 only cover half the country. Looking at things -- if you look at Virgin's market shares over  
26 time, and they don't tend to be the biggest movers, you tend to see a lot more sort of shifting  
27 around within the Openreach network. So it may be the case there is perhaps less switching  
28 with Virgin than there is within the Openreach environment.

29 But I would agree that that would be one source of loss to BT Openreach. I would also note  
30 that, when somebody does spin off from Sky and TalkTalk to Virgin, they would lose, not  
31 just the potential fibre wholesale revenue, they would also lose the other charges as well.

32 So, all else equal, BT doesn't like losing customers from Sky to Virgin.

33 Q. Yes. And equally, and I think it is a point that Mr. Bishop made quite eloquently, is that, even  
34 on these projections about the expansion of superfast broadband, there will still be a large

1 field to play for of approximately half the market, which will either be on no broadband or  
2 standard broadband going forwards. So if the VULA product is priced too high and the  
3 margin effects between standard and superfast move adversely, then that will slow down the  
4 transfer to superfast broadband. I think you would accept that as well?

5 A. Yes, and in particular I think -- well, I like the term "slow down" because that is probably the  
6 way I tend to think about it. What we are looking at here is superfast is a better product,  
7 people's need for it increases over time, video games and the kids' behaviour, et cetera,  
8 starts to demand it. And what you will typically expect is that you will have a flow of  
9 customers. The people who start to think: do I want superfast? Am I prepared to pay this  
10 premium price for it? As time progresses, more of them will start to think that. As each  
11 sort of cohort, each sort of group -- let's suppose there's a couple of million a year of people  
12 who fall into this. Each couple of million will go through and they will make a decision:  
13 do I upgrade or not, and the level of the price of VULA will influence that decision. So if  
14 the VULA price -- sorry, be clear, the retail prices for superfast broadband will influence  
15 that decision.

16 So if the retail price of superfast broadband is unduly high, then maybe those two million  
17 people don't upgrade that year. But, as time progresses, their need for superfast will  
18 increase and maybe they will upgrade. It is quite important what stage of the market  
19 development we are in. So if we think of those first couple of million customers thinking:  
20 do I upgrade or not, and think about, well, what are the incentives to set a high fibre price,  
21 the problem is, well, if I set a high fibre price, none of them are going to upgrade. So that is  
22 no help to me at all. So I have to set a low fibre price.

23 Let's suppose we move on a couple of years and now you have two million people who are  
24 on fibre and there are another two million thinking: shall I upgrade? There you have  
25 a choice; I can set a high fibre price, which will make me more money on the ones who  
26 have already upgraded because they are probably not going to switch back again, but I am  
27 going to lose that two million who are thinking of it. So that might still lead you to set quite  
28 a low fibre price.

29 Ratchet forward to when you are up to maybe half the market or more. Now we have really  
30 quite large numbers of people who are signed up to fibre who are perhaps less likely to  
31 switch back. You still have two million people thinking: shall I upgrade? Now your  
32 calculation will be, okay, I can set a high fibre price and now I'm going to earn that high  
33 fibre price on a lot of customers, but I still have to take into account I am going to lose the  
34 two million.

1 So essentially, as fibre becomes more important over time and as people are ratcheting up  
2 and as more of the consumer base basically decides they are going to have fibre and not  
3 standard, the degree of that constraint is going to change. This will have implications for  
4 what BT's precise trade-offs might be, when they think, well, do I set a high VULA price  
5 taking into account the risks, or do I look to the gains from my consumer business.

6 So again, for example, let's suppose they set a high -- sorry, I do apologise for running on  
7 a little bit but they are useful points I think. Suppose they set a high VULA price this year  
8 and let's suppose that 500,000 Sky or TalkTalk subscribers were thinking: we will upgrade.  
9 But now they face a higher price as Sky and TalkTalk increase their prices and they decide:  
10 no, it's not worth it. So Openreach loses revenue on those 500,000. So this would be RBB's  
11 point that quite a lot of those people who you set the high price to when they are thinking of  
12 upgrading will simply stick with standard broadband. So you lose the revenue on the  
13 500,000.

14 But let's suppose there is another 500,000 who think, actually, I do want fibre so I'm going  
15 to go to who has the best offer in the market and that is BT, because Sky and TalkTalk have  
16 put their prices up. So BT Consumer gains, it gains some of those subscribers but not all of  
17 them and that is what you would expect.

18 Think about the calculation that one might make. Well, when somebody switches from  
19 Openreach -- when somebody switches to BT Consumer they are going to expect to get that  
20 revenue not just for one year, they will get it for the customer lifetime, we assume five in  
21 our price squeeze condition. BT's actual customer lifetimes tend to be higher than that. So  
22 BT Consumer is going to get that extra retail margin for potentially quite a long period of  
23 time.

24 In the case of the Openreach losses, what you might find is, yes, they don't upgrade. So in  
25 this year they are not going to shift up, but maybe in two years' time, when the need for  
26 fibre et cetera has got even stronger in the household, they may decide to upgrade. So  
27 Openreach will pick up perhaps that business a bit later, maybe in two years' time, so that  
28 can affect the trade-off.

29 Q. Yes. I see the time and if I could just roll this up. I think you accept that there could be  
30 a slow-down effect on the shift to superfast broadband?

31 A. Yes. It's a slow-down effect though it's not the whole of the 50 per cent of the market that  
32 would remain on standard broadband would be liable to shift between superfast and  
33 standard depending on the price. There will be quite a lot of those standard people who  
34 probably won't think of upgrading for a very long time.

1 Q. I think you accepted that half the market will still be out there in 2016/2017 on current  
2 projections, so it's big business?

3 A. It is big business if they would be the cohorts likely to upgrade. As I said, probably in  
4 15 years' time we will all be talking about -- there will still be some sticking on standard  
5 broadband and one will wonder why they haven't. But essentially it's a flow. So of that  
6 50 per cent that remains on standard, the flow of upgraders will not be all of the 50 per cent,  
7 it will just be a proportion of them.

8 Q. Yes, but just to stop for a moment, I think you have accepted that there are complicated issues  
9 here?

10 A. Yes.

11 Q. And I think we have already touched on the fact that the central part of Mr. Bishop's critique is  
12 that none of this was properly thought through. You looked at the market shares, you said  
13 there was a risk and we have discussed that, and that was enough, even that there might be  
14 a ghost of a margin squeeze. So we say that is just not enough.  
15 But we haven't quite finished to perhaps we can come back at 2 o'clock?

16 MR. HOLMES: Sorry, was that last observation a question? If so, could Mr. Matthew be given  
17 an opportunity to answer it?

18 MR. THOMPSON: I anticipate you won't accept that the market analysis was deficient in the  
19 ways I have said but you understand that is BT's critique of it?

20 A. The RBB critique is that we think we have shown there is a real and significant risk without  
21 needing to do that analysis.

22 MR. THOMPSON: Yes.

23 THE CHAIRMAN: How much longer do you think you are going to be?

24 MR. THOMPSON: We have ranged about a bit differently from the way I anticipated and  
25 I haven't touched on effects, but I would hope it won't be more than half an hour. Certainly  
26 less than an hour.

27 (1.05 pm)

28 (The luncheon adjournment)

29 (2.00 pm)

30 MR. THOMPSON: Good afternoon, Mr. Matthew. You may remember on Friday we were  
31 discussing the undertakings and equivalence of inputs, and I think you said you would have  
32 a look at your statement and -- the statement, and I don't know whether there was anything  
33 to report from that exercise?

34 A. I did my homework, and I did a word search and confirmed that the undertakings are not

1 mentioned in my statement. They are also not discussed in the final statement in detail in  
2 the sections I was responsible for. I did also look back, and I don't think they were raised as  
3 a detailed matter by BT in its response to the consultation document so that may be why it's  
4 not specifically picked up, but that was the result of my search.

5 Q. Thank you. For the remainder, can we look briefly -- we were looking to some extent at this  
6 before lunch, the position in relation to the future, and we looked at the position of Virgin  
7 briefly and then you were looking at the risks as you saw them. Just to take it as shortly as  
8 I may, you are obviously aware that there is the issue of Sky and its position in pay-TV and  
9 its position as the leading triple play supplier of bundles. Would you accept that, in reality,  
10 there is no realistic prospect of Sky being excluded from the broadband market given those  
11 advantages it has?

12 A. I think -- certainly I accept Sky has a very strong position in pay television. In terms of the  
13 likelihood it would be completely excluded from broadband, probably not. As I understand  
14 it, Sky to a degree will use broadband as a cross-sell, so they get added value out of it,  
15 cross-sell to their pay-TV subscriber base. As long as it is profitable for them to offer those  
16 I am sure they would continue to keep it in the shop window, but naturally there will still be  
17 an element of degree about it. It is one thing to say, yes, you can get broadband from us, it  
18 is another to be saying we are really pushing this out to our subscriber base.  
19 The story of recent years, I think -- it is probably -- I don't want to oversimplify it, but  
20 a story of recent years has been that Sky has rolled out broadband to quite a large part of its  
21 pay-TV subscriber base and that has been a significant issue for BT who has had to (a) risk  
22 losing subscribers, and (b) respond in the way they have.

23 Q. Yes, and I think we discussed the free twelve-month fibre offer which Sky made which  
24 indicates that they are quite capable of making pretty strong commercial moves, and I think  
25 you said in support of their triple pay position, and you would accept that?

26 A. I certainly accept Sky has demonstrated its ability to make strong commercial moves in a  
27 variety of areas and it is offering aggressively priced superfast broadband offers at the  
28 moment.

29 Q. Yes. Then looking at it more broadly, and we talked about TalkTalk and Sky for obvious  
30 reasons, and they are the leading third and fourth players in terms of this whole market, and  
31 second and third in terms of the overall market, I put it two ways.  
32 First of all, from where we are now, and you have shown the graphs in your statement, it  
33 doesn't look realistic that their position in the overall broadband market is jeopardised,  
34 would you agree that?

1 A. Sorry, I didn't catch the earlier part. Is that other providers?  
2 Q. No, the position of Sky and TalkTalk in the overall broadband market, it doesn't look like it is  
3 jeopardised, they are established players in that market, you would accept that?  
4 A. Yes.  
5 Q. And if I put it in another way, and you will obviously be familiar with the relevant market  
6 guidelines and things of that kind, even if they weren't selling superfast broadband at all at  
7 the moment they would be very obvious supply side alternative competitors to enter the  
8 superfast broadband segment that you'd take into account if you were thinking about  
9 superfast broadband, would they not, and there they are?  
10 A. Yes, if you were to ask the question today: if TalkTalk and Sky didn't have any fibre  
11 customers at all would they be potential competitors? Then clearly yes.  
12 Q. Yes. And it is all in the pleadings so I don't think we -- but you know that they have regulated  
13 inputs on the standard broadband and have done for many years, and they have grown their  
14 business in that field as a result?  
15 A. Yes.  
16 Q. Can we now look at the past position which you deal with at paragraph 84 of your statement.  
17 The first point is the point we started with and the incentive effects of past regulation, and  
18 we discussed that on Friday, if you remember?  
19 A. Yes.  
20 Q. Then the second point you make is that:  
21 "BT has argued strongly against Ofcom's VULA margin condition on the  
22 grounds it might constrain BT's flexibility going forward which suggests that  
23 BT believes the price squeeze constraint might prove to be binding."  
24 I think you understand what BT's complaint is, which is -- and Mr. Petter and Mr. Tickel  
25 were very eloquent on the subject, that it's a badly designed condition that constrains them  
26 inappropriately, that it gives competitors far too much headroom, if I can put it that way. So  
27 that is the complaint, isn't it, not that it might prove binding?  
28 A. Yes, I do understand. So BT argues that the price squeeze arrangements that we have put into  
29 the condition are too favourable to competitors. So I -- essentially they object. I took the  
30 objection to be partly -- well, obviously one doesn't want to have regulation unnecessarily,  
31 but also that there is a possibility that the price squeeze condition that we have used might  
32 be binding on them at some point.  
33 Q. Yes, and I think Mr. Petter has explained that particularly at the start he was very concerned,  
34 when the substantial number of millions of investment in Champions League came into the

1 reckoning, that judged on a monthly basis, it might be difficult to recover that particularly at  
2 the start when you are trying to grow your base, and that was to some extent what was taken  
3 into account in the supplementary guidance, you understand that issue? That was the  
4 concern.

5 A. Yes, these are the issues I am sure the CMA will be deliberating on.

6 Q. And then the third one -- I don't want to be unkind but it just looks like a bit of speculation  
7 that BT's incentives to price squeeze might change as the market develops. That is  
8 obviously true in itself but it doesn't take things much further, does it? There is no real  
9 quantity of analysis or anything of that kind, it's just a bit of a punt, isn't it?

10 A. It is certainly not quantitative. I think it is slightly more than a punt. BT argues that  
11 essentially Sky and TalkTalk have not invested in fibre up until very recently, that is one of  
12 their points, which rings broadly true to me, and the situation is now expected to change, so  
13 Sky and TalkTalk are now promoting fibre. So in that -- in the first situation we are kind of  
14 in the world where precisely what level of VULA price BT sets probably wasn't going to  
15 make that much difference, but the level at which they set it was sufficient that for whatever  
16 reason Sky and TalkTalk weren't pushing the products and BT weren't price squeezing  
17 them. Going forward, the trade-off may well change in a world where they are actively  
18 pushing fibre.

19 Q. But I think the point that RBB make is that again you seem to be put things a little bit on one  
20 side and not on the other. But Ofcom spent quite a lot of time over the last two years  
21 investigating a complaint from TalkTalk and found that it was unsubstantiated. You  
22 remember that?

23 A. Yes.

24 Q. I think the other point that RBB makes is that the last two years were a particularly good  
25 crucible, as it were, for testing what the incentives are because the regulation has been as it  
26 was, Sky and TalkTalk have started to move into this market, and Ofcom has conducted  
27 a detailed analysis and given BT a clean bill of health. So the past actually is quite  
28 a good -- as it happens, you have a very recent precise examination of this very market in  
29 these very market conditions so it seems wrong to just discount them, don't you think?

30 A. I think as a matter of assessing what BT's incentives are, this is essentially my first point.  
31 When they are subject to the old arrangements, one cannot conclude from their conduct that  
32 they wouldn't have incentives to price squeeze because there were arrangements in place  
33 that limited their ability to do that. One might have a discussion about whether the old  
34 arrangements were sufficient and more proportionate than the new ones, but that is about

1 how you specify the remedy, not about whether there is an incentive in the first place.

2 Q. Can we move finally now to the issue of effects and I think we have discussed already, and it  
3 is obviously a critical issue, just as I think Mr. Holmes put it to Mr. Bishop, that there is  
4 an interplay between incentives and effects. But from our perspective, until we know what  
5 it is that you are frightened might happen, it is difficult to know what the effects will be and  
6 I'm still a little bit uncertain about what it is exactly you think BT might do.

7 But from some of your answers this morning it seemed to be that there were really two  
8 things: one, that there might not be sufficient margin for a competitor to cover not just its  
9 variable costs but quite a substantial chunk of fixed and common costs so that it could  
10 invest and that that is the sort of level that you are talking about, so quite a substantial  
11 margin needed for that purpose.

12 And then secondly, there is the ghost of a risk point, that you seem to be saying that even if  
13 there wasn't such a risk, if TalkTalk and Sky thought there might be, that would be enough  
14 for you to regulate BT's margin.

15 That seemed to be the two points that came out of what you were saying. Would you accept  
16 that or not?

17 A. That is not a summary of what my witness statement says. Sorry, I can't recall precisely what  
18 I said this morning.

19 Q. No, but there are a lot of different possibilities and then you gave a number of quite long  
20 answers and one of them certainly seemed to be that the margin needed to be enough not  
21 just to cover short-range costs but also quite a substantial element of, if I can put it,  
22 investment costs or --

23 A. Yes.

24 Q. -- something of that kind?

25 A. Yes, our view is when it comes to setting the benchmark the cost standard ought to be  
26 LRIC plus, and that entails in this case material gross margins.

27 Q. Yes, but I think you also accepted it was good enough if you didn't actually have that concern  
28 but if competitors were worried that there might be such a concern?

29 A. I think my point was even if BT doesn't actually implement a price squeeze, if competitors  
30 believe it might that will affect their incentives to invest in competing.

31 Q. So that was the sort of standard you applied?

32 A. It was an additional point.

33 Q. I don't think you did accept, but it is quite prevalent in your statement, that there is  
34 an underlying policy concern that the structure of the superfast broadband market might not

1 be the same as the structure of the existing broadband market, and you find it at 90 and then  
2 at 94.

3 You seem to be suggesting at 94 that the loss of one of the competitors ... so it seems to be  
4 focusing on the structure, but it is particularly I think at 35 and 90 where you talk about the  
5 different structures. So that does seem to be a concern, that you want to as far as possible  
6 move towards the same sort of structure as for the overall broadband market, is that right?

7 That seems to be a pretty consistent theme in your statement.

8 A. Yes. As I said this morning, the final sentence of 90 makes this clear. I see the relevance of  
9 this as being about the context, the possibility BT might impose a price squeeze, not that we  
10 have any particular distribution of market shares in mind as something we would  
11 necessarily wish to see.

12 In terms of 94, 94 observes that in a situation where you have a four firm oligopoly and one  
13 of them either becomes materially less effective as a competitor, or even exits, that that  
14 would have a material detrimental impact on the competition probably for quite a long time  
15 and possibly indefinitely which I think is a reasonable point of view to take.

16 Q. Then paragraphs 95 to 99 are devoted to, as I understand it, essentially somewhat playing  
17 down the constraints that are imposed by standard broadband, is that fair? That seems to be  
18 the gist of the analysis here, to effectively talk down standard broadband?

19 A. I'm not playing it down, I am observing that there are -- well, we can go through all the points.  
20 I am observing that what we have here is, well, while they are in the same market they are  
21 not perfect substitutes such that any movement in the price of superfast broadband is going  
22 to lead to the whole market shifting back to standard. They're differentiated products and  
23 there are further points being made.

24 Q. I'm not sure whether you said you were or weren't involved in the Wholesale Broadband  
25 Access Market Review?

26 A. No, I wasn't.

27 Q. And the Fixed Access Market Review?

28 A. My involvement was the VULA margin consultation process --

29 Q. But you are obviously aware, and we won't go back to them, the findings, the detailed findings  
30 in the first two reviews, the wholesale broadband access, section 3 and the fixed access,  
31 section 7, and presumably you were involved in the no material change assessment in  
32 section 2 of the final statement? Or perhaps you weren't, I don't know?

33 A. Again, they're broad level. Sorry, you would have to ...

34 Q. Shall we look briefly at that then. Paragraph 2.15 of the final statement, page 10.

1 A. This is where we essentially pick up the WBA product market definition of --  
2 Q. Yes. We have been through it a number of times, I won't go through it again. This effectively  
3 picks up section 7 of the FAMR analysis which picks up section 3 of the wholesale  
4 broadband access and at 2.15 there is a conclusion that it hasn't changed. And if we went  
5 right back to wholesale broadband access there is a section on future development in that  
6 review, and I take it that you are abiding by that given the terms of this.  
7 We have also mentioned, I don't think we looked at it, but you recall the passage about why  
8 a cost control was not introduced in the FAMR, and the first reason -- we can look at it if  
9 you want -- is the constraints from standard broadband, do you remember that?  
10 A. Yes.  
11 Q. In cross-examination of Mr. Bishop, two new pieces of evidence were adduced on this issue  
12 which I think Mr. Holmes described as the best evidence available which is paragraphs 18  
13 and 30 of Mr. Heaney's witness statement. That is at tab 14 of bundle II. You see it's in  
14 yellow, so it's confidential, but we won't go into it so we won't read it out --  
15 A. Could you give me the paragraph?  
16 Q. Paragraph 18, it's about page six.  
17 A. Yes.  
18 Q. Without giving away any confidential information, it is addressing the question of switching  
19 between retailers, I think that is reasonable.  
20 A. Yes.  
21 Q. I don't want to be mischievous, but if this were the best evidence available there would appear  
22 to be some difficulties in that it doesn't distinguish between standard broadband and  
23 superfast broadband, so it doesn't really cast any light about what the pattern of switching is  
24 in relation to superfast broadband. Would you accept that?  
25 A. I'm not sure what my confidentiality restrictions are here. TalkTalk is discussing destinations  
26 of where customers might go, is that at a high enough level? And it has some numbers.  
27 And I think is your question: if TalkTalk were to produce similar numbers for its fibre  
28 subscribers that might look like a different story? Or is your question: for TalkTalk  
29 subscribers for all broadbands, that doesn't necessarily show where the ones who took fibre  
30 have gone to?  
31 Q. No, exactly. And some of them have gone to Virgin, I think I can say that without breaching  
32 confidentiality, some have gone to Plusnet, some seem to be going to a reasonably premium  
33 product, some to a reasonably cheap product, and it is not clear -- and larger numbers are  
34 going to Sky and the largest numbers seem to be going to BT, I think, one can probably go

1 that far.

2 A. Yes, I agree, it is not just for people who are going to take fibre.

3 Q. So I don't know whether it's the best evidence or not but it is not very good evidence, is it?

4 A. It's the best evidence I see. And then would the numbers be different for fibre? Probably, yes.

5 But as a general indication of Virgin's role in the market, it seems a reasonable point of  
6 reference to me. Essentially they are not one of the major destinations.

7 Q. Then paragraph 30, which is the other jewel in the evidential crown, is the prospect of spin  
8 down from superfast broadband to standard broadband. Mr. Heaney says that if someone  
9 has superfast broadband they are highly unlikely to switch back to standard broadband.  
10 Then there is a piece of confidential information I don't think we need to worry about.  
11 But I think this issue was considered by Ofcom right back in the Wholesale Broadband  
12 Access Market Review, and, without looking at that, I think one can see that in itself it  
13 doesn't cast much light on this debate, does it, because as Mr. Bishop said, and I think  
14 in fact he probably understated it, at least half the market will be either on standard  
15 broadband or voice only even in 2017. So there is a big market to play for apart from  
16 whether or not someone might spin down. So that doesn't really cast much light, does it?

17 A. I think I did give a very long answer earlier on this theme. It is relevant -- presumably this  
18 will be correct. It is relevant because what it means is as the flow of people trade up, if you  
19 raise the price of superfast broadband, not many of them are going to come back again. So  
20 it will affect the incentives to set higher fibre prices relative to standard prices, relative to  
21 a situation where people trade up but then are always happy to move back again with  
22 relatively modest price movements.

23 Q. Yes, in terms of the big picture effect on competition, if there are still 10/15 million  
24 households out there to compete for, that is still a big battlefield whatever the position on  
25 spin down, you would accept that?

26 A. Yes. So there would still be -- certainly by the end of this period there would still -- a lot of  
27 the market will not have traded up and that process will be continuing. As I said earlier,  
28 I suspect there will be a rump who will just simply not or not want to trade up for a very  
29 long time period. So it's not the case that a whole 50 per cent is going to shift between fibre  
30 and standard in response to modest price movements. But overall I would expect fibre to  
31 become more differentiated for that reason in the eyes of customers, and also there is simply  
32 the overall weight of fibre in the market is going to start to get really quite large. So even if  
33 you continue to view them as being in the same market, fibre will matter.

34 Q. Yes. But I don't think you would really dissent from Mr. Bishop's point that there is a bigger

1 world out there so this question is only a narrow part of the overall assessment?

2 A. It is part of it, but I think if the outcome were that as a consequence of a price squeeze  
3 TalkTalk and Sky were excluded from what is going to become fairly shortly the majority  
4 of the market, that would be expected to have an effect whether or not we decide the  
5 markets continue to be one or separate.

6 Q. I have two last areas. First of all, the question of what might be called the re-entry issue  
7 which is you will understand that both in areas such as predation and margin squeeze, there  
8 is a question which is sometimes called the recoupment question, which is not a necessary  
9 condition for a margin squeeze but I think it is generally regarded as an important one,  
10 whether there is prospect of some form of payback in the future. I think you didn't like the  
11 concept of sacrifice, but I think it is usually pretty well understood that the monopolist  
12 endures a certain amount of pain in the hope that in the future it will get more pleasure, and  
13 I think to some extent that is what your analysis has been touching on.  
14 But if one looks at the points you make I think at 111 and 112, in relation to Virgin, it is  
15 clear that Virgin will always be present because it is not dependent on this input, and I think  
16 that is one of Mr. Bishop's concerns about the credibility of the case. You would accept  
17 I think that Virgin will be there for the foreseeable future and appears to be intending to  
18 expand considerably over the next five years. Would you accept that?

19 A. Yes.

20 Q. So that would make any form of recoupment difficult, to put it no higher than that?

21 A. It would make it more difficult and the scale of recoupment you would expect would be lower  
22 than if there was no Virgin network at all.

23 Q. I think you have also accepted in reality that there is no reason to think that either Sky or  
24 TalkTalk will ever go because they will be there on the standard broadband market on  
25 regulated inputs, isn't that true?

26 A. That is a good question. As I said before, I think for Sky this is a cross-sell, so they will  
27 always be prepared to cross-sell and the degree to which they do it may be affected.  
28 TalkTalk it is a bit more speculative because they don't -- in Sky we can certainly see they  
29 have a very strong position in pay television and I think my report says TalkTalk doesn't  
30 obviously have any advantages at all, and a couple of other contextual points. If you look at  
31 TalkTalk's share of overall broadband now, it is certainly sizeable and they are one of the  
32 big four, but it is not huge and it has been going down over the last five years, six years,  
33 I think.  
34 I don't think they are going to exit their existing business but to me it's not inconceivable

1 that a price squeeze on VULA would lead TalkTalk to essentially give up on fibre  
2 and simply focus on maximising what money it can make out of its -- I think I used the term  
3 "dwindling" copper subscriber base.

4 Q. The other factor which I think both you and Mr. Clarkson have tended to slightly play down,  
5 although it does appear in your evidence, is the possibility that the VULA charge will be  
6 reviewed and I think the logic of Mr. Clarkson's evidence is that at some point in the future  
7 it may be regulated. That is clearly a possibility and was considered last year and will  
8 no doubt be considered again. If that were the case, then the prospects of recoupment, if  
9 I can put it that way, would be undermined, would they not?

10 A. You are certainly right to say that is a possibility but I don't think it undermined -- it  
11 undermines the ability to recoup compared to a situation where BT could permanently set  
12 a very high VULA price such that their rivals could never ever come back into that part of  
13 the market and increasingly the market overall.

14 But if they do face regulation, what will happen is, yes, someone like Sky will be able to  
15 more profitably sell fibre than it otherwise would and that will create more of a competition  
16 to BT Consumer than would be the case if BT was able to continue to exclude. But the  
17 concern we would have is, in the meantime, BT has built up a very large lead in this  
18 particular segment, and very probably in broadband overall, it will take rivals time, money  
19 and investment to win that business back from them, there is customer inertia and other  
20 things around in these markets that are fairly well known. So BT would expect to continue  
21 to make retail profits out of that position in the longer-term.

22 Q. I won't go back over the incentives issue. You will recall we debated the incentive effects for  
23 BT Consumer and the share price et cetera, all that issue about where it might go. But there  
24 is in fact another point which is in the decision itself which is at paragraph 4.28. You will  
25 recall the issue. There is a main text and then there is a confidential item which I won't go  
26 into but which the Tribunal may wish to read. (Pause)

27 The reason I take you to it is in relation to the issue of risk and whether the -- what I might  
28 call the Domesday scenario of BT charging an inflated price into the future indefinitely was  
29 really a realistic possibility that should have been a concern to Ofcom. Because your  
30 response is all about conduct on the retail market, and I'm not sure you accepted it, but  
31 I certainly put it to you that that is really not the business of this regulation of the BT  
32 wholesale price. And insofar as a cap could have been applied, that would I think address  
33 the Domesday scenario of an indefinite VULA price going into the future, would it not?

34 A. So this -- the material in the highlighted text at the end of 4.28 concerns how effective the

1 proposal would have been.

2 Q. I think the main text stands on its own.

3 A. Yes, sorry, you took us to that. I was just observing about it. As to the general question --

4 Q. Sorry, did you mean the blue text in 4.28 itself?

5 A. Yes.

6 Q. Yes, I am sorry.

7 A. But the general issue here is essentially, again, what is the right remedy? I think if you have

8 an effective price cap on BT, and depending on the level at which it is set, then you may

9 have different views on how tight a price squeeze condition you might need to go with it.

10 So that would be something you would weigh up. We weighed up this proposal and

11 decided we didn't think it was wise.

12 Q. We discussed Mr. Petter's point, we discussed the possibility of future price control, and I will  
13 leave it there.

14 Can I finally ask you about the approach that I understand is really the idea that the margin  
15 must be sufficient to cover fixed and common costs and that is the level you have sort of set  
16 it at. Can I take you to 7.50 in the decision. It is in particular the passage after the footnote  
17 812 where you say you recognise:

18 "... this may in itself still lead to BT having higher retail superfast broadband  
19 prices than might occur in the absence of a control."

20 Then you say that is outweighed by the long-term dynamic benefits of future competition.

21 But would you accept that your approach creates a significant risk of consumer harm in  
22 the form of increased short-term prices?

23 A. The margin condition we have proposed?

24 Q. Yes.

25 A. Certainly we hope it won't.

26 Q. I'm sure we all hope it won't, but would you accept that this approach of giving what we  
27 would call an umbrella intended to protect LRIC plus fixed and common costs does create  
28 a risk of higher short-term retail prices?

29 A. It could be the case that it would. It not necessarily is, but it could be in some circumstances.

30 MR. THOMPSON: Those are my questions, thank you.

31 MR. HOLMES: I don't have any questions.

32

33 **Questions from THE TRIBUNAL**

34 PROFESSOR MAYER: Can I perhaps just turn to the last part of your document and in

1 particular the part where you talk about responding to the additional analysis that could  
2 have been done. I would like to have your views.

3 You conclude it by saying:

4 "I do not think that embarking on a detailed attempt to quantify BT's incentives  
5 to impose a price squeeze would have advanced matters further."

6 The question I would like to ask is: if, for example, we focus on this last point that was  
7 made about the potential impact on consumer prices from imposing a margin squeeze, do  
8 you not think that there would have been some merit in evaluating the extent to which that  
9 could have had a detrimental effect in relation to the potential loss of competition in the  
10 market from not having a margin squeeze?

11 A. I think it is certainly highly relevant to the design of the remedy. Essentially, when we  
12 stepped through the analysis of how we should go about setting the margin condition, we  
13 looked at that quite closely. So essentially we considered three cost standards,  
14 LRIC -- sorry, all LRIC plus. The first was assume we have an EEO, so the same costs to  
15 BT. Secondly --

16 MR. ALLAN: Sorry, can you just speak up, Mr. Matthew.

17 A. Sorry. So the first standard we had was to ensure that a competitor with the same costs as BT  
18 could properly match their offers. The second was a competitor with slightly higher costs,  
19 and by that we essentially meant a competitor -- a situation where BT had unmatchable  
20 advantages broadly linked to its long-standing strength in the marketplace. And then the  
21 third was one where we said we should set it so that a competitor with slightly higher costs  
22 than BT should be able to substantially undercut BT. And we rejected that third one in  
23 particular because (a) we thought it wouldn't help out, but (b) because we certainly  
24 recognised that that would be liable to lead BT to increase its retail prices, potentially, and  
25 also it had other adverse things associated with it.

26 In respect of this, my comment here is essentially about the risks that BT has incentives in  
27 this area and it acted on those incentives, whether that would be potentially damaging. Our  
28 view was very clearly that, given the market evidence we saw, it is clear there was a real  
29 and significant risk of them having those incentives, for me well beyond that sort of  
30 standard. Therefore we didn't see the need to go into all of those more detailed things. But  
31 I do appreciate that when it comes down to how should one design the remedy, they are  
32 more relevant.

33 On the BT Sport issue, which is probably the biggest bone of connection in how we  
34 designed the remedy, that is no doubt one of BT's arguments.

1 PROFESSOR MAYER: So it is less about the incentives and more about a cost/benefit analysis  
2 in relation to alternative remedies.

3 A. Effectively that, yes.

4 PROFESSOR MAYER: Thank you.

5 MR. HOLMES: No questions arising out of that, sir.

6 THE CHAIRMAN: Does that conclude your evidence?

7 MR. HOLMES: It does, sir, yes. Thank you very much.

8 THE CHAIRMAN: Thank you, Mr. Matthew.

9 (The witness withdrew)

10 MR. THOMPSON: Sir, I don't know -- I think we now adjourn until Wednesday.

11 THE CHAIRMAN: Yes.

12 MR. THOMPSON: I suspect it will be preferable for everyone if we could finish on Wednesday  
13 but I'm in the Tribunal's hands. If the Tribunal wanted to start at 10 o'clock rather than  
14 10.30 am, I would be happy to do that, or we can just start at 10.30 and see how we go. I  
15 don't mind. Which is better for the Tribunal?

16 THE CHAIRMAN: What I was going to suggest, and this may have some bearing on the start  
17 time, is that the parties may each like to produce a list of issues which they consider the  
18 Tribunal will have to address in its judgment.

19 MR. THOMPSON: Yes.

20 THE CHAIRMAN: Together with, in relation to each one, each issue, the findings which you  
21 would invite us to make, and together with, as far as any findings of fact are concerned,  
22 relevant references to the transcript and to the witness statements. I appreciate that is quite  
23 a lot of work but I believe that may be helpful both -- it will be helpful to us I'm sure, and it  
24 may be helpful to you in terms of the structure for your final submissions.

25 I was going to suggest that if you could each do that by tomorrow at 5 o'clock, let's say, that  
26 would give us time to look at it overnight, and in that context I would think it is probably  
27 best to start at 10.30 am rather than 10 o'clock to give us a chance to discuss it in  
28 the morning.

29 MR. THOMPSON: It certainly gives us some focused homework to do overnight. Subject to  
30 what anyone else may say, I am happy to undertake it on behalf of BT.

31 MR. HOLMES: Of course if the Tribunal would find that helpful, we will do our best. The  
32 document may be a more considered one if it were to be put in after oral closings, but this is  
33 something that you would find helpful for the purposes of structuring the final day of  
34 proceedings?

1 THE CHAIRMAN: Yes. There is nothing to stop -- and we can perhaps look at that after we  
2 have had the final submissions. It may be that it can then do with some perfecting after we  
3 have had the oral submissions, but I think it would be helpful as a prelude to the closing  
4 submissions to have that ready.

5 MR. THOMPSON: Yes. I think the stages were the issues and the answers, and then the third  
6 was the references to the evidence. I suspect the third may be the most burdensome.

7 THE CHAIRMAN: I can see that, but ultimately it is going to be helpful to us to have references  
8 to the transcript certainly so that we know which bits you would like us to focus on.

9 MR. THOMPSON: Yes.

10 THE CHAIRMAN: See how you get on. If it proves to be a completely impossible task --

11 MR. THOMPSON: Hopefully there will be some match-up between the issues but we'll see.

12 THE CHAIRMAN: Yes. Again, if there was more time available I would encourage you to try to  
13 agree the list of issues but I think that is too much to ask in --

14 MR. THOMPSON: I think that may be difficult, but we will try and come up with a logical set of  
15 issues and see whether Mr. Holmes comes up with the same ones or a completely different  
16 set.

17 THE CHAIRMAN: If that happens that will only, I think, underline the need to be clear what the  
18 issues are.

19 MR. HOLMES: May I check one final point. I understand this is in relation to the issues that  
20 engage the evidence.

21 THE CHAIRMAN: Of course.

22 MR. HOLMES: There are some legal matters. Did you envisage --

23 THE CHAIRMAN: I am glad you touched on that because we did have in mind that it would  
24 include the legal issues as well. One of those issues is the issue of the nature of the risk  
25 assessment under section 88. I don't want to constrain you too narrowly, but if the starting  
26 point for these purposes is that a risk means a chance of something happening but not  
27 necessarily more likely than not, in other words, if it is -- how risk is generally understood  
28 is a matter of common parlance.

29 Is it sufficient -- you might want to write this down actually -- is it sufficient for Ofcom to  
30 show, first, a risk of engagement in a price squeeze together with no more than a risk but  
31 not necessarily a likelihood of adverse consequences for end users, or must Ofcom go  
32 further and show a risk of a price squeeze together with a probability that the price squeeze  
33 will have adverse effects?

34 So is it risk plus risk or is it risk plus probability, ultimately, in short.

1 MR. THOMPSON: Yes, and there is a sort of conceptual element and then there's a matter of  
2 statutory construction as well, both unfortunately at the EU level and the UK level, so there  
3 are quite a number of underlying issues, but we can certainly think about that and try and  
4 make our position as clear as we may in writing by 5 o'clock and I will try and make it yet  
5 clearer on Wednesday morning.

6 THE CHAIRMAN: Thank you.

7 (2.55 pm)

8 (The hearing adjourned until 10.30 am on Wednesday, 16th December 2015)

9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34

**INDEX**

1	
2	
3	MR. DAVID HAMISH CURRY MATTHEW (continued) .....1
4	Cross-examination by MR. THOMPSON (continued).....1
5	Questions from THE TRIBUNAL .....53