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.

<u>IN THE COMPETITION</u> <u>APPEAL TRIBUNAL</u>

Victoria House, Bloomsbury Place, London WC1A 2EB Case Nos. 1205-1207/3/3/13

4th November 2013

Before: THE HON. MR. JUSTICE ROTH (Chairman) STEPHEN HARRISON PROFESSOR COLIN MAYER

(Sitting as a Tribunal in England and Wales)

<u>BETWEEN</u>:

BRITISH TELECOMMUNICATIONS PLC Appellant

- and -

OFFICE OF COMMUNICATIONS

Respondent

AND BETWEEN:

(1) CABLE & WIRELESS WORLDWIDE PLC (2) VIRGIN MEDIA LIMITED (3) VERIZON UK LIMITED

Appellants

- and -

OFFICE OF COMMUNICATIONS Respondent

AND BETWEEN:

(1) BRITISH SKY BROADCASTING LIMITED (2) TALKTALK TELECOMMUNICATIONS GROUP PLC

Appellants

Respondent

- and -

OFFICE OF COMMUNICATIONS

Transcribed by Beverley F. Nunnery & Co. Official Shorthand Writers and Audio Transcribers Quality House, Quality Court, Chancery Lane, London WC2A 1HP Tel: 020 7831 5627 Fax: 020 7831 7737 info@beverleynunnery.com

HEARING DAY FIVE

<u>A P P E A R AN C E S</u>

- <u>Mr. Rhodri Thompson QC</u>, <u>Mr. Graham Read QC</u>, <u>Ms. Sarah Lee</u>, <u>Mr. Ben Lynch</u> and <u>Ms.</u> <u>Georgina Hirsch (instructed by BT Legal)</u> appeared on behalf of the Appellant, British Telecommunications PLC.
- <u>Mr. Meredith Pickford</u> and <u>Mr. Julian Gregory</u> (instructed by Herbert Smith Freehills LLP) appeared on behalf of the Appellants (1) British Sky Broadcasting Limited and (2) TalkTalk Telecommunications Group PLC.
- <u>Ms. Dinah Rose QC</u> and <u>Mr. Tristan Jones</u> (instructed by Olswang LLP) appeared on behalf of the Appellants (1) Cable & Wireless Worldwide plc, (2) Virgin Media Limited and (3) Verizon UK Limited.
- <u>Mr. Pushpinder Saini QC</u>, <u>Ms. Kate Gallafent</u>, <u>Mr. Hanif Mussa</u> and <u>Ms. Emily Neill</u> (instructed by the Legal Department, Office of Communications) appeared on behalf of the Respondent.

1	THE	E CHAIRMAN: Good morning, Mr. Thompson.
2		. THOMPSON: Good morning, Sir, we now move to stage 3 of our arguments generally, the
3		expert material. Before we go to that, simply to respond to the query that you raised on
4		Friday lunchtime as far as BT is concerned, the confidentiality issue, that is not an issue for
5		us. As far as we are concerned, we are perfectly content to treat the figures that you
6		identified as non-confidential. I think it is a matter for others as to whether they have a
7		different view. As far as we are concerned, those figures can be treated as non-confidential.
8		Can I now call Dr. Maldoom?
9		Dr. DANIEL MALDOOM, Affirmed
10		Examined by Mr. THOMPSON
11	Q	Dr. Maldoom, unfortunately we have quite a number of bundles in this matter, and in
12		relation to your reports they are to be found in three different bundles. Could you first of all
13		take bundle B2 18. At tab 1 you should find your first expert report headed, "Expert Report
14		on Economic Matters by Dr. Daniel Maldoom", do you have that?
15	А	Yes, I have that, yes.
16	Q	If you turn to p.75, which is not quite the end, you will find the statement of truth. Is that
17		your signature?
18	А	It is, yes.
19	Q	Can you put that one away and go to bundle 32, and tab 2 in that bundle should be your
20		second expert report.
21	А	Yes, I have it.
22	Q	If you turn to p.56, it is again not quite the end of the tab, and you have signed a statement
23		of truth again.
24	А	Yes, that's signed.
25	Q	Is that a poor copy of your signature?
26	А	It is, yes.
27	Q	That is your second report?
28	А	It is.
29	Q	Then bundle 33, tab 8, that should be your third report. If you turn to p.75, again not quite
30		the end, is that your signature?
31	А	It is, yes.
32	Q	I think you can put those bundles, subject to what my learned friends may wish to ask you
33		about, and just take out core bundle D. Here we have quite a number of tabs to worry about.
34		First of all, there should be a tab 1.1.

1	А	Yes.
2	Q	If you turn to p.42, which is the last page, that is your signature again, I think - is that right?
3	А	It is, yes.
4	Q	Then 1.2, p.14, which is actually the last page?
5	А	Yes, I have it.
6	Q	Again, that is your signature?
7	А	It is, yes.
8	Q	1.3, p.11, signed by you and Mr. Holt, I believe?
9	А	It is, yes.
10	Q	Then 1.4, p.41, which is again the last page?
11	А	Yes, I have it.
12	Q	Again your signature on p.41?
13	А	Yes, that's correct.
14	Q	Then 1.5, p.5, joint at the time by you and Mr. Myers, I believe?
15	А	Yes, that's correct.
16	Q	Then we are on the home straight, tab 3, you will find a copy of the first report that we
17		looked at?
18	А	Yes.
19	Q	And again that is signed at p.75?
20	А	It is, yes.
21	Q	Tab 5, signed at p.56?
22	А	Yes.
23	Q	And tab 5, signed again at p.75?
24	А	Yes.
25	Q	Taking that all together, the three reports, are they your evidence in this case on behalf of
26		BT?
27	А	They are, yes.
28	Q	Are they true to the best of your knowledge and belief?
29	А	They are, yes.
30	Q	In relation to the meetings with the other experts, there are a number of columns setting out
31		your views, and do those columns set out your views to the best of your knowledge and
32		belief?
33	А	They do, yes.
34	Q	Thank you. I believe there may be a number of questions for you, if you stay there?

1		Cross-examined by Mr. SAINI
2	Q	Good morning, Dr. Maldoom, I am going to ask you some questions, if I may, on behalf of
3		Ofcom. I am going to focus on core bundle D, do you have that in front of you.
4	А	I have it.
5	Q	I want to see if we can agree on some terminology, first of all. In particular I want to focus
6		on the word "arbitrary", the concept of arbitrariness, and as you will know you used that
7		word several times in your first report, and I will just find some examples for you. If we
8		can go to divider 3, which I hope is your first report?
9	А	Yes.
10	Q	Can you go to para.26 on p.10, you will see at 26(a), if I may read that, you say:
11		"Any test for cost orientation that compares the price of a service with a cost
12		standard such as DSAC is subject to a misdiagnosis due to ambiguity and
13		uncertainty associated with the cost standard. This arises because of:
14		a) arbitrariness in choices made about the allocation of common costs"
15		Do you see that?
16	А	Yes.
17	Q	There are other examples. Perhaps I will just find one further example for you. Could you
18		please go to the bottom of p.18, para.51, there you observe, if I may read it to you:
19		"In practice, the concept of a cost for a particular telecommunications service is
20		largely a construct that depends on many assumptions, some of which are
21		essentially arbitrary."
22		As I understand it, when you refer to the word "arbitrary" in that context, you do not mean,
23		in a sense, random or capricious, do you?
24	А	No. No, not at all.
25	Q	Perhaps you can help the Tribunal with the sense in which you are using that term?
26	А	Yes. The sense in which I'm using it is in terms of what can we determine from looking at
27		the requirement for cost orientation alone? So if we are concerned with cost orientation
28		then there are choices in terms of how common costs might be allocated to individual
29		services. There are then consequences that follow from that which are obviously analysed
30		in some length in my reports. The reason I use the word "arbitrary" is that there is nothing
31		in the requirement of cost orientation itself that allows you to prefer one choice over another
32		choice and, in that sense, it is arbitrary. I think I have said elsewhere - I can't remember the
33		exact reference - that one would have to provide additional objectives or principles to make
34		a choice amongst those methods of allocating cost and that cost orientation alone does not
	I	

1		resolve the issue. So that is the sense in which I am using the word arbitrary.
2	Q	So would you agree with me that when one is allocating common costs one has to operate
3		some form of decision rule to decide how to allocate the common costs?
4	А	I think one needs context for that. In practice often one does do that, both businesses
5		themselves and regulators do that. There may be practical reasons for doing that, it may
6		help decision making, it may give people incentives to do certain things and so on, but I
7		think one also needs to bear in mind that common costs have been allocated when you do
8		this, and that there may be other ways in which that could have been done, and that what
9		might be fit for one purpose might not be fit for another purpose.
10	Q	Perhaps, with respect, I can go back to my question: do you agree with me that somebody
11		has to apply a rule when deciding how to allocate common costs?
12	Α	Well, as a matter of theory, the answer to that is a clear "no", because there are tests which,
13		for cost orientation, which would not require any allocation of costs whatsoever, so I think
14		there is some extensive discussion both in my reports and in some of the joint statements
15		about the combinatorial costs test, and that is an example of a test which does not require
16		any kind of allocation of common cost to be made, but purely looks at essentially what are
17		all the reasonable allocations that could occur. So, in theory there is no need to allocate
18		costs, however, in practice that is far too complex and one has to come up with practical
19		solutions which means that often costs are allocated, indeed, accounts have to make a
20		statement, there have to be specific numbers put down and that will often require a specific
21		choice to be made about cost allocation.
22	Q	So are we just disagreeing about the term "rule" and "choice"?
23	А	Possibly.
24	Q	I think we are agreed that when one comes to allocate costs one has to apply a rule?
25	А	Yes, absolutely, one would apply a rule, yes.
26	Q	If I could ask you, please, to be provided with bundle E and I want to show you the PPC
27		judgment of the Tribunal because you make extensive reference to this Judgment in your
28		reports, you are familiar with it, are you not?
29	Α	Yes, I have referred to it.
30	Q	If you would go to divider 9, and within that to p.25 and if you could read para. 87, please,
31		to yourself?
32	Α	(After a pause): Yes.
33	Q	And, as I am conscious of the answers you have just given me, you would tend to agree with
34		the point that Mr. Ridyard is making there, is that correct?

1		
1	A	I think I have outlined clearly what I mean by "arbitrary", and I don't think "arbitrary"
2		means 'capricious' or 'unpredictable'. I am using the word in the sense that I explained, that
3		there are other rules that could be used and that additional objectives or criteria may need to
4		be provided to choose amongst them.
5	Q	But we are agreed, are we not, that somebody has to use a rule - I thought you had agreed
6		with me earlier?
7	A	It depends on the context. Are we talking about Ofcom's consideration of cost orientation,
8		are we talking about BT considering what prices to set, there has to be context for this?
9	Q	Let us make it very simple. BT's allocation of common costs follows a rule, does it not?
10	А	In presenting the RFS, yes, there is an allocation that is made, yes.
11	Q	I do not think you are suggesting that when BT makes those allocations it is acting in a
12		capricious way?
13	А	No, I mean the point that I am making is a simple one, which is that there are other ways in
14		which that could have been done.
15	Q	I think we are agreed on that. If we can go back to your report, please. If you can go in
16		your first report (tab 3) to p.5, please, and para. 11, and if you can refresh your memory?
17	А	Yes.
18	Q	There you refer to appendix 3?
19	А	Yes.
20	Q	I will be corrected if I am wrong, although you are an expert witness you are the only
21		witness called on behalf of BT that is explaining DSACs and the development of BT's
22		regulatory financial statements, and you have very helpfully set out in appendix 3 your
23		understanding, based upon not only documents but also discussions, is that right?
24	А	Yes, I was keen to understand how this worked, and I made inquiries and tried to collect
25		documents, read them and ask people how this actually operated in practice and the
26		appendix represents a very succinct summary of what I found.
27	Q	If we can please go to the appendix, which is within this report at p.86 towards the end,
28		beginning at para. 208. There you set out your understanding of the way in which LRIC,
29		DLRICs, SACs and DSACs are constructed. You recall that?
30	А	Yes.
31	Q	Can I just check, the sources of your knowledge are, first of all, as you describe in 208,
32		there you relied upon BT's documents and discussions, is that right?
33	A	Yes, I have listed the documents I have relied on. I also had some meetings with BT with
34		some of their accounting people to try and understand this better. I prepared this summary
	I	~
		5

1		and I gave it to BT to comment on.
2	Q	Is your understanding, based on this, that DLRIC and DSAC are constructed here by BT for
3		the purposes of establishing cost orientation?
4	А	"Constructed" I think is a good word to use in that, yes, they do involve allocations of costs.
5	Q	And the purpose is?
6	А	For reporting.
7	Q	For reporting, and also, I think you would agree with me, for the purposes of showing cost
8		orientation?
9	А	I think that is a different question. Clearly BT has to report something, it has to choose a
10		particular allocation of costs to report, it does not produce many RFSs with different
11		allocations of costs in it, it has to produce one RFS. The question of whether one assesses
12		cost orientation against one particular allocation of common costs or whether one looks at
13		an alternative is a different question. I think it is one which I have addressed in my report,
14		particularly in my third report but I think it is a distinct question.
15	Q	Please will you focus on the question I am asking you? What is your understanding or the
16		reasons why BT is required to report DLRICs and DSACs? What is the reason for it?
17	А	This provides a basis for Ofcom to assess cost orientation. It's not intended to be the last
18		word. It's a starting point.
19	Q	And where do you get that from, that it is a starting point?
20	А	One can even go to PPCs, and see that the suggestion is that these are a "first order test", I
21		think is the language that is used.
22	Q	But we are agreed, are we not, that one of the purposes of DLRIC and DSAC is for Ofcom
23		and also for other CPs to assess cost orientation?
24	А	Absolutely. I agree that there's clearly a need to create a process which is reasonably
25		predictable and which can be managed in a reasonable manner, and there is value in creating
26		clear statements of accounting data. That does not, in any way, remove the fact that there is
27		a particular choice of cost allocation that has been made in presenting that data, and that the
28		data needs to be interpreted accordingly.
29	Q	And, as far as you are aware, when BT was constructing its DLRICs, DSACs, and
30		allocating common costs it was applying rational rules?
31	А	There is a model behind this, yes.
32	Q	Do you also agree with me that, given that these DLRICs and DSACs are prepared for the
33		purposes of regulatory financial statements, it is important that Ofcom and third parties be
34		able to rely upon them?

1	Α	Yes, I think there is a debate in my third report about this question of the extent to which the
2		statements in the RFS should be seen as fixed in stone, or whether there should be any
3		changes, say, to cost allocation that could be made in assessing cost orientation. To be
4		absolutely clear I see that there is value in trying not to change these if that is not necessary
5		or there is not a clear benefit in doing that. However, equally, I don't think that it's the case
6		that one should be absolutely set in stone because it may well be that looking at this data
7		differently or, for example, looking at cost allocation differently might then lead to a more
8		informed view in terms of assessing cost orientation so I think I have a balanced view on
9		this.
10	Q	Would you agree with me that as far as CPs are concerned - let us put aside Ofcom for the
11		moment - that these statements in the RFS provide the only visibility, as far as BT's costs
12		are concerned?
13	А	Of BT's costs, I presume that's correct, yes.
14	Q	I do not want to debate with you, Dr. Maldoom, what the meaning is of Condition HH3
15		because, as you are aware, and I think as you have acknowledged in your statement, that is a
16		matter of legal interpretation ultimately. I just want to explore with you some other
17		statements you made in your first report in relation to the issue of connections and rentals.
18		You are aware, are you not, that of the 41 cases of overcharge found by Ofcom, 38 concern
19		rental and three concern connections, you are aware of that, are you not?
20	А	Yes, yes.
21	Q	And you say in your report, and if I can just refresh your memory please go to p.13, para.
22		34. If you just want to refresh your memory, I want to ask you a question about the first
23		sentence in particular, but I would like you to take your time to read the whole paragraph if
24		you wish?
25	А	(After a pause): Yes.
26	Q	Do you stand by the first sentence in that statement, Dr. Maldoom, that there is no economic
27		rationale for the separated treatment of connections and rentals with a DSAC test applied
28		separately to each?
29	А	In this application, yes, I do, I think that is the clear conclusion.
30	Q	So for this case, let us say this case generally
31	А	Yes.
32	Q	your position is there is no economic rationale?
33	А	I don't think there is. You will see from the joint statement that I think myself and Mr.
34		Myers agree that there is a balance and considerations but I think that there is an

1	1	avery halming aga for an integrated treatment of connections and rentals in assessing cost
1 2		overwhelming case for an integrated treatment of connections and rentals in assessing cost orientation here.
2	Q	So are you suggesting that there is an argument now that one might treat them separately, or
4	Q	are you suggesting that there is no argument available for the separate treatment?
+ 5	А	If I try to put Ofcom's hat on for a moment, I can see that Ofcom may be concerned about
6	Α	the balance of connections and rentals. The regulatory system provides for BT to have
0 7		flexibility in determining the balance of connections and rentals, subject to the cost
8		orientation obligations. If there was a specific reason why one thought that that balance
8 9		
		might be very out of kilter and might lead to adverse competitive effects and that should
10		have been baked into the regulatory system, that appears not to have been the case on either
11		of the two market reviews, so I don't see that that is a significant issue.
12	Q	So is it your position - so that I am not misunderstanding this - that separate connection and
13		rental charges provide no meaningful economic signals?
14	A	No, that is not my position at all.
15	Q	So what is your position, that there are meaningful economic signals to be drawn from
16		separating connection and rental?
17	A	Okay, hang on, I think we have to provide a little bit more background to that question. Can
18		I just try that and see if you will agree?
19	Q	Please do.
20	А	I guess what you are getting here is the question of a customer, what is the role of the
21		connection and the rental charge to that customer, and I think that is one aspect that needs to
22		be thought about. I think there is also a question about common costs of connections and
23		rentals, but I will park that just for the purposes of engaging with your question. Now, I
24		think there is an economically meaningful role for connections and rentals but equally they
25		do not work like the prices of, you know, they are not like the prices of apples or oranges,
26		which are two separate products, because there are clearly leakages across connections and
27		rentals that then lead to blending between those prices in terms of the decision making by
28		customers purchasing these services. They are not acting as two entirely separate products.
29	Q	That is very clear. Perhaps I can make my question more specific by putting to you
30		particular parts of Ofcom's approach. I just want to know whether or not we agree or
31		disagree.
32	А	Sure.
33	Q	If you stay within that bundle that you have got and we will look at Mr. Myers' statement,
34		and if you kindly go, please, within that statement (which I hope is in Tab 13) and if you go,

1		please, to p.109, para.299. If I have understood what has happened at the joint meeting
2		correctly and if I have understood your third report correctly, which is your response to this
3		report, there does not seem to be a major disagreement between yourself and Mr. Myers in
4		relation to these paragraphs. I want to make that absolutely clear by taking you through
5		them.
6	А	Sure.
7	Q	If we could please go to 299a, if you can just perhaps read that to yourself and the Tribunal
8		can also read it. This is the initial decisions paragraph. (After a pause): Do you agree with
9		what is in 299a?
10	А	Yes, I think I largely agree with everything in 299. I would not necessarily choose to
11		emphasise these points in quite that way but I think the points which are being made are
12		perfectly valid.
13	Q	So 299b, just to be very specific, as I understand your previous answer, you are agreeing
14		that the rental charge is independently economically significant in relation to subsequent
15		decisions?
16	А	I think you have to be very careful about the word "independently". It is economically
17		significant but there is also a blending that goes on with the connection price, and I think the
18		easiest example to see is if you can imagine a sort of static world in which there is no news
19		and nothing new happens, from 299a I think there is general agreement that lifetime costing
20		is relevant in terms of how people think about purchase decisions, so if no prices changed
21		and no news came along then essentially, as a CP, my whole decision about taking a
22		product and how long I make it, I can make that in one go given the connection and rental
23		charge that I face and I can make that now. If nothing then changes then I might cease that
24		service at some later point, but essentially the two prices are just aspects of one decision.
25		Clearly if something did change, suppose that the prices changed or circumstances changed,
26		then 299b is relevant in the sense that I would look at the rental price in terms of a second
27		subsequent decision in terms of did I continue that service. But remember that subsequent
28		decision is only important if something has changed. In a sense I have already pegged in
29		some anticipation of this situation when I first chose to purchase the service, so I think these
30		points are absolutely right but it is very important to be clear that the consequence of those
31		is that there is a blending across rental and connection charges in terms of their impact on
32		the decision making process.
33	Q	You have helpfully indicated your position in relation to para.299. If we can look at
34		para.300, which is also quite important and I want to tease out whether or not there is any

1 real dispute between yourself and Mr. Myers here, and again, based upon the joint meeting, 2 I am not sure there is but let us take it carefully, please. 300a, please, which concerns one 3 potential distortion, which is a high rental price. You can stop when you have read to the 4 end of 300a. Perhaps you can help me with whether or not you agree or disagree with that 5 potential for a distortion in the initial purchase decision? 6 Yes. I think there is potential for distortion. I think my slight difficulty with 300a is it only А 7 talks about the rental charge so I think there are potential for distortions to occur with 8 certain mixes of connection and rental charge potentially, potentially. 9 Q So is it your position that you do not consider an excessive rental charge has the potential to 10 distort efficient decision making in the initial purchasing stage? 11 In extremis clearly this can happen. If we have all costs on rental or all costs on А 12 connections this is unlikely to lead to a particularly happy outcome in the sense that that 13 may well have adverse effects on demand for these products and potentially there could be 14 competitive issues that arise from that as well. I think that would require some careful 15 analysis to identify. So I think in extreme clearly these possibilities exist. There is 16 probably a wide range of middle cases where there is really very little effect. 17 Q And in (b) this is the subsequent decision, after the initial decision we were discussing, 18 which is the decision to continue or cease a circuit which, as we know, concerns only the 19 rental charge. Do you agree that a high rental charge in those circumstances may lead a CP 20 to cease hiring a circuit earlier than would be efficient? 21 А Yes, clearly there is a balance to be struck. If you think about a competitive market where 22 we do not have any regulatory issues, it may well be that you are paying something initially 23 and then an ongoing charge and the balance of those charges clearly has to in some way be 24 balanced to attract the consumer, and that often involves cross-subsidisation. So I think 25 there are difficult questions about balancing ongoing and initial charges. 26 THE CHAIRMAN: I did not quite follow that answer. Mr. Myers was saying that a later 27 decision, and we heard that some of the customers of the CPs are likely to re-tender at a 28 certain stage, their contract with a customer comes to an end and they re-tender and then 29 have to decide on their price re-tendering. They might then think, "Do we continue with BT 30 or do we do something else or do we not tender at all?" What Mr. Myers is saying is that in 31 that decision, which is a separate decision, the connection charge is then irrelevant, it is just 32 the rental, and I was not clear whether you agree with that. 33 А I think that is correct but I think that there is a slightly more complicated point around this 34 which is to the extent that anything unexpected happens at this point then that must be

- because something has changed, because when I originally took the service I could anticipate, I could see myself in this future decision of having to decide if I continue with the service or not. So, for example ----
- Q But would you know how long when you take it you are going to have to take it for?
- A I think that is exactly the point. If I did know, if nothing changes, I should be able to anticipate how long I might take this for and I can look at the whole life cost, so therefore I am looking at essentially both connections and rentals. When it comes to the renewal point then the relevant consideration is what has changed. Absolutely nothing may well change, in which case then it is the rental charge that matters at that point, but equally it is not a completely out and over decision at that point. It is evaluating. We are only really concerned about things which have changed and this goes to the point about why this is not the same situation as pricing of two separate and independent products.
- MR. SAINI: If I may ask you then to please focus on item (c), where we are just again concerned with rental charges in the context of bandwidth upgrades and downgrades, there it is clear, is it not, that an inefficient decision might be made if the rental charges are excessive?

16 A Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

17

18

19

20

- Q If I can then ask you to go back in your witness statement at para.34 at p.13, Divider 3, and if we go back to that first sentence where you say: "There is no economic rationale for the separated treatment of connections and rental, with a DSAC test being applied separately to each". As I understand your evidence, there are situations where you consider there may be an economic rationale?
- A I completely agree that that statement was confined to the context of this case, where I think
 there is a very clear conclusion in terms of weighing these respective issues, and I think we
 also agree that in general there may be other considerations. But here I feel that there is a
 very strong case for looking at connections and rentals together for the purposes of
 assessing cost orientation. Just to be clear, I am not saying that that is always the case in all
 situations. I am saying I think that is the case here.
- Q I am sorry, I am puzzled again by what you mean "the case here". Let us just discuss this
 case and no other case. Connections and rentals in the context of the Ethernet market,
 nothing else. What is your position? Is there an economic rationale or is your position that
 there is no economic rationale for separate treatment for connections and rentals?
- A In this case I think, weighing the various issues, there is no rationale. There is a very clear
 argument for unified treatment of connections and rentals.
- 34 Q With respect, Mr. Maldoom, I am puzzled by that because you seem to be largely in

- agreement with paras.299 and 300 of Mr. Myers' report, are you not?
- A I am.

Q One might be forgiven for thinking that there he sets out an economic rationale for treating them separately. You would agree with that?

A He sets out a rationale for potentially being concerned about the balance of connections and rentals. I think that is a slightly different question from assessing cost orientation separately for each of those, just to be clear.

8

1

2

3

4

5

6

7

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

What I am going to suggest to you, Dr. Maldoom, is that you have gone too far in para.34. Q А No, I think this is intended to be a summary of the overall position and, just to be clear, we have only talked about half the picture here. I absolutely agree with Mr. Myers that there are economic effects that come from both the connection price and the rental price. I think that is not disputed. I also see that in principle there may be reasons to be concerned about the balance of those. However, if we look at the regulation of the AISBO market then there is no mechanism in there for expressing concern about this connection and rental balance. It has not been brought up as a problem. I am not aware of there being any analysis that suggests that the balance that BT could choose could lead to competitive problems. The issue here is that Ofcom has decided to delegate that balance to BT on the basis that BT has enough information that allows it to set that balance in a way that promotes development of this market and attracts demand for this product, and that is the basis, that is the key basis, for why it can become sensible to allow that discretion and to consider connections and rentals on that aggregated basis. I do not want to go on at length, but there is also this issue that there is a very considerable amount of arbitrariness in the sense that we agreed earlier, in terms of whether costs turn up under connections and rentals. That is another large part of my evidence, which is I actually think there are some rather large bands here for the connection and rental charges in terms of where costs end up. So actually even if one does assess these individually I think there is a lot of meaning in that assessment.

Q But we have agreed, have we not, that the decision on allocations is made by BT?

- A BT needs to make a decision about allocation for presenting the RFS. That is clearly the case. I think my evidence is quite clear that I think there are some issues about essentially baking in and concreting that allocation of cost and always using just that allocation of cost for the purposes of assessing cost orientation. That I do not agree with. I think there are some limited circumstances in which it is appropriate to look at other allocations of costs which may not be the ones that have been used in the RFS.
- 34 Q I may have been misunderstanding what you had agreed in the joint experts' meeting, Dr.

- Maldoom, so we may need to go back and have a look at the joint expert statement.
 A Okay.
 Q If you can go back, please, to Tab 1.4 in this bundle, to p.24, and this happily in what seems to have been a rather unfruitful set of meetings, happily seems to be an area where everyone was agreeing.
 A I am sorry, which page is that?
- 7 Q Page 24 in 1.3.

- A Do you mean 1.4?
- 9 Q I am so sorry, 1.4. You are quite right. I apologise. Here all five experts were considering
 10 the position after minimum contract period. We will look at the period prior to that in a
 11 moment. It appeared to be agreed (we will look at your particular rider in a moment) that
 12 there would be some incremental distortions after minimum contract period if there was
 13 aggregation. You have put in there your rider.
- A Yes, I think this is exactly the point which I have been making. The potential exists. Very
 clearly there is a lot of blending of the connection and rental charge prior to this point. I
 think that there is a limited need to worry about this problem.
- 17 Q You stated there in your rider in the fourth line: "However, it seems that most customers
 18 largely take services for similar periods." On what do you base that?
- A I think this is Mr. Coulson's evidence on the circuit analysis and that there didn't seem to be
 a very large spread of lifetimes. Clearly there is some variation but it doesn't seem to be
 particularly large.
- Q If we can go back to the previous page, which is in relation to the minimum contract period,
 p.23, again there you are saying: unlike Mr. Harman (who is giving evidence in due course)
 you are less certain in your response. You say "probably not".
- A Yes, I have a slightly different view about this from Mr. Harman. I think that there are
 economically meaningful effects of connections and rentals; there is no doubt about that. I
 think there could be separate effects from those on customers. In particular, I might have to
 pay the rental up front; I may pay the connection later. There is the potential for potential
 effects. Whether these are material I think is pretty difficult to see. But I don't deny the
 potential.
- Q If we could perhaps put that away and staying in that bundle please go back to Mr. Myers'
 statement and p.66 of that statement which is in divider 13. I hope p.66 has a table on it,
 table 3?
- 34 A Yes, I have it.

 on this table in your third witness statement and there you kindly described it as a helpful summary of your points and Ofcom's responses. Is that correct? A Yes, because I think I had made some comments about particularly the calculation of the repayment in particular and things that were concerning me, and Mr. Myers had helpfully bundled those up into these eight areas. I think this is a useful way of looking at it. Q Just for the Tribunal's reference and the transcript it is in Dr. Maldoom's third statement tab 5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you can help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well	1	Q	Tell me if you agree with me as to the relevance of this table. I think you have commented
 A Yes, because I think I had made some comments about particularly the calculation of the repayment in particular and things that were concerning me, and Mr. Myers had helpfully bundled those up into these eight areas. I think this is a useful way of looking at it. Q Just for the Tribunal's reference and the transcript it is in Dr. Maldoom's third statement tab 5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you can help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider the first six points which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but wha	2		
 repayment in particular and things that were concerning me, and Mr. Myers had helpfully bundled those up into these eight areas. I think this is a useful way of looking at it. Q Just for the Tribunal's reference and the transcript it is in Dr. Maldoom's third statement tab 5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you can help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also a	3		summary of your points and Ofcom's responses. Is that correct?
 bundled those up into these eight areas. I think this is a useful way of looking at it. Q Just for the Tribunal's reference and the transcript it is in Dr. Maldoom's third statement tab 5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you ean help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't rea	4	А	Yes, because I think I had made some comments about particularly the calculation of the
 Q Just for the Tribunal's reference and the transcript it is in Dr. Maldoom's third statement tab 5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you can help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the qu	5		repayment in particular and things that were concerning me, and Mr. Myers had helpfully
 5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you can help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but theat really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	6		bundled those up into these eight areas. I think this is a useful way of looking at it.
 an help me with this. You had identified in your first witness statement eight points where you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of 	7	Q	Just for the Tribunal's reference and the transcript it is in Dr. Maldoom's third statement tab
 you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	8		5 para.71 p.30. That is where Dr. Maldoom describes it as a helpful table. Tell me if you
 that correct? A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	9		can help me with this. You had identified in your first witness statement eight points where
 A Well, OK, I can't remember the exact words that I used, but what I was particularly concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	10		you considered, on the issue of cost orientation, Ofcom had not conducted an analysis. Is
 concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	11		that correct?
 the repayments. I think that was my primary concern. Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	12	А	Well, OK, I can't remember the exact words that I used, but what I was particularly
 Q Let us put repayments to one side because the Tribunal have to consider the repayments issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	13		concerned about was I couldn't find, as it were, the fingerprint of this in the calculation of
 issue separately. Let us just look at the finding of a breach of the cost orientation obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	14		the repayments. I think that was my primary concern.
 obligation. Tell me if you agree with this. You had identified eight areas where you said that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of 	15	Q	Let us put repayments to one side because the Tribunal have to consider the repayments
 that on the finding of a breach of cost orientation condition Ofcom appeared not to have conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	16		issue separately. Let us just look at the finding of a breach of the cost orientation
 conducted an analysis. That is correct? A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	17		obligation. Tell me if you agree with this. You had identified eight areas where you said
 A Yes. Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	18		that on the finding of a breach of cost orientation condition Ofcom appeared not to have
 Q And then in your third witness statement you had had the benefit of this table from Mr. Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	19		conducted an analysis. That is correct?
 Myers and the identification by Mr. Myers of the path of the Determination where specific areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	20	А	Yes.
 areas were considered, and now you say you agree with that, but there are still two areas where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	21	Q	And then in your third witness statement you had had the benefit of this table from Mr.
 where you consider Ofcom should have conducted an analysis which it did not. Is that right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	22		Myers and the identification by Mr. Myers of the path of the Determination where specific
 right? A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	23		areas were considered, and now you say you agree with that, but there are still two areas
 A Sorry, these are the economic harm and the risk of investment in new services areas? Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	24		where you consider Ofcom should have conducted an analysis which it did not. Is that
 Q Yes, that is 2 and 5 where there are two notes. A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	25		right?
 A Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	26	А	Sorry, these are the economic harm and the risk of investment in new services areas?
 did consider the first six points within the question of were these prices cost oriented or not. I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance. 	27	Q	Yes, that is 2 and 5 where there are two notes.
I am absolutely prepared to accept that they may have done that, but what I can't really see is how. I think that's the point that my report makes. I think that's clearer in the case of repayments as well, but I think it also applies, to some degree, to the question of compliance.	28	А	Yes, OK. Well, OK, again, just to be absolutely clear, I think Mr. Myers says that Ofcom
 31 is how. I think that's the point that my report makes. I think that's clearer in the case of 32 repayments as well, but I think it also applies, to some degree, to the question of 33 compliance. 	29		did consider the first six points within the question of were these prices cost oriented or not.
 32 repayments as well, but I think it also applies, to some degree, to the question of 33 compliance. 	30		I am absolutely prepared to accept that they may have done that, but what I can't really see
33 compliance.	31		is how. I think that's the point that my report makes. I think that's clearer in the case of
	32		repayments as well, but I think it also applies, to some degree, to the question of
34 Q Let us take it in stages, then please. The two items where you and Ofcom are agreed there	33		compliance.
	34	Q	Let us take it in stages, then please. The two items where you and Ofcom are agreed there

 and item 5 (aggregation across services or across time). I think you and Ofcom are agreed that those issues were not considered by Ofcom? A I think we are. I think that goes to more fundamental issues about how we look at this problem. That is a fundamental disagreement, I think, is the reason for these. Q The Tribunal will need to decide in due course whether or not those two items are relevant to the issue. A Yes, I think that goes to principles. Q On the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections? A Clearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Offcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I	1		was no consideration in the Determination are items 2 (alternative reasonable allocations)
 that those issues were not considered by Ofcom? A I think we are. I think that goes to more fundamental issues about how we look at this problem. That is a fundamental disagreement, I think, is the reason for these. Q The Tribunal will need to decide in due course whether or not those two items are relevant to the issue. A Yes, I think that goes to principles. Q On the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections? A Clearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of returm was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Or. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider 'the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, oi it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration b	2		``````````````````````````````````````
5problem. That is a fundamental disagreement, I think, is the reason for these.6QThe Tribunal will need to decide in due course whether or not those two items are relevant to the issue.8AYes, I think that goes to principles.9QOn the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections?11AClearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been made.19QI am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed."26AYes.27AYes.28QIf one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? <td>3</td> <td></td> <td></td>	3		
6QThe Tribunal will need to decide in due course whether or not those two items are relevant to the issue.8AYes, I think that goes to principles.9QOn the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections?11AClearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made.19QI am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed."25AYes.26QIf one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express	4	А	I think we are. I think that goes to more fundamental issues about how we look at this
7to the issue.8AYes, I think that goes to principles.9QOn the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation OfCom ignored BT's rate of return on rentals and connections?11AClearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made.19QI am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed."25AYes.26QIf one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE?27AROCE is listed, clearly. </td <td>5</td> <td></td> <td>problem. That is a fundamental disagreement, I think, is the reason for these.</td>	5		problem. That is a fundamental disagreement, I think, is the reason for these.
8AYes, I think that goes to principles.9QOn the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections?12AClearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been make.19QI am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed."26QIf one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE?27AYes.28Q39Q30Q31A32Q33What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has loo	6	Q	The Tribunal will need to decide in due course whether or not those two items are relevant
 Q On the other items, if we take the example of rate of return, item 6, is it your position that when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections? A Clearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	7		to the issue.
 when considering whether or not there had been a breach of cost orientation Ofcom ignored BT's rate of return on rentals and connections? A Clearly there is consideration in the determination of, for example, ROCE numbers and so on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	8	А	Yes, I think that goes to principles.
11BT's rate of return on rentals and connections?12A12Clearly there is consideration in the determination of, for example, ROCE numbers and so13on. There are tables in there. My difficulty is that I can't see how that has filtered into the14final assessment in that I think a lot of those numbers sort of do suggest, for example, that15there was a lot of uncertainty, that the measurement of rate of return was extremely difficult16because it was incredibly unstable over time in the way that it has been assessed. So my17difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really18understand is how that eventually affects the decision that has been made.19QI am still puzzled by the difficulty that you are having. Let us take a practical example,20please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all21go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the22case of each specific service it is going to consider "the magnitude and duration by which23charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the24rate of return on capital employed."25AYes.26QIf one can take an example, please, of it doing that (and we could take many examples) let27us look at p.373 which is BES 100 connections. I am using this as an example of what is28done in every case. One sees express consideration being given there to ROCE?29AYes. <td>9</td> <td>Q</td> <td>On the other items, if we take the example of rate of return, item 6, is it your position that</td>	9	Q	On the other items, if we take the example of rate of return, item 6, is it your position that
12AClearly there is consideration in the determination of, for example, ROCE numbers and so13on. There are tables in there. My difficulty is that I can't see how that has filtered into the14final assessment in that I think a lot of those numbers sort of do suggest, for example, that15there was a lot of uncertainty, that the measurement of rate of return was extremely difficult16because it was incredibly unstable over time in the way that it has been assessed. So my17difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really18understand is how that eventually affects the decision that has been made.19QI am still puzzled by the difficulty that you are having. Let us take a practical example,20please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all21go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the22case of each specific service it is going to consider "the magnitude and duration by which23charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the24rate of return on capital employed."25AYes.26QIf one can take an example, please, of it doing that (and we could take many examples) let27us look at p.373 which is BES 100 connections. I am using this as an example of what is28done in every case. One sees express consideration being given there to ROCE?29AYes.20Q21what I am puzzled by, Dr. Maldoom, is what is	10		when considering whether or not there had been a breach of cost orientation Ofcom ignored
 on. There are tables in there. My difficulty is that I can't see how that has filtered into the final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	11		BT's rate of return on rentals and connections?
 final assessment in that I think a lot of those numbers sort of do suggest, for example, that there was a lot of uncertainty, that the measurement of rate of return was extremely difficult because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	12	А	Clearly there is consideration in the determination of, for example, ROCE numbers and so
15there was a lot of uncertainty, that the measurement of rate of return was extremely difficult16because it was incredibly unstable over time in the way that it has been assessed. So my17difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really18understand is how that eventually affects the decision that has been made.19QI am still puzzled by the difficulty that you are having. Let us take a practical example,20please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all21go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the22case of each specific service it is going to consider "the magnitude and duration by which23charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the24rate of return on capital employed."25AYes.26QIf one can take an example, please, of it doing that (and we could take many examples) let27us look at p.373 which is BES 100 connections. I am using this as an example of what is28done in every case. One sees express consideration being given there to ROCE?29AYes.30QRevenues?31AYes.32QWhat I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was33Ofcom meant to do. It has looked at return on capital employed. It says at various points	13		on. There are tables in there. My difficulty is that I can't see how that has filtered into the
 because it was incredibly unstable over time in the way that it has been assessed. So my difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	14		final assessment in that I think a lot of those numbers sort of do suggest, for example, that
 difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	15		there was a lot of uncertainty, that the measurement of rate of return was extremely difficult
 understand is how that eventually affects the decision that has been made. Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	16		because it was incredibly unstable over time in the way that it has been assessed. So my
 Q I am still puzzled by the difficulty that you are having. Let us take a practical example, please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	17		difficulty with this is yes, I can see bits of text that relate to this issue, what I don't really
 please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	18		understand is how that eventually affects the decision that has been made.
 go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	19	Q	I am still puzzled by the difficulty that you are having. Let us take a practical example,
 case of each specific service it is going to consider "the magnitude and duration by which charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A Yes. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	20		please Dr. Maldoom. Could you take up bundle B, which is the Determination, first of all
 charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A ROCE is listed, clearly. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	21		go to p.333 Section 14. You will see at 14.2.2 step 3 that Ofcom has said there that in the
 rate of return on capital employed." A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A ROCE is listed, clearly. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	22		case of each specific service it is going to consider "the magnitude and duration by which
 A Yes. Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A ROCE is listed, clearly. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	23		charges exceeded DSAC; whether, and the extent to which charges exceeded FAC; and the
 Q If one can take an example, please, of it doing that (and we could take many examples) let us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A ROCE is listed, clearly. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	24		rate of return on capital employed."
 us look at p.373 which is BES 100 connections. I am using this as an example of what is done in every case. One sees express consideration being given there to ROCE? A ROCE is listed, clearly. Q Revenues? A Yes. Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	25	А	Yes.
28done in every case. One sees express consideration being given there to ROCE?29AROCE is listed, clearly.30QRevenues?31AYes.32QWhat I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was33Ofcom meant to do. It has looked at return on capital employed. It says at various points	26	Q	If one can take an example, please, of it doing that (and we could take many examples) let
 29 A ROCE is listed, clearly. 30 Q Revenues? 31 A Yes. 32 Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was 33 Ofcom meant to do. It has looked at return on capital employed. It says at various points 	27		us look at p.373 which is BES 100 connections. I am using this as an example of what is
 30 Q Revenues? 31 A Yes. 32 Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was 33 Ofcom meant to do. It has looked at return on capital employed. It says at various points 	28		done in every case. One sees express consideration being given there to ROCE?
 31 A Yes. 32 Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was 33 Ofcom meant to do. It has looked at return on capital employed. It says at various points 	29	А	ROCE is listed, clearly.
 Q What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was Ofcom meant to do. It has looked at return on capital employed. It says at various points 	30	Q	Revenues?
33 Of commeant to do. It has looked at return on capital employed. It says at various points	31	А	Yes.
	32	Q	What I am puzzled by, Dr. Maldoom, is what is the difficulty you are having? What was
34 (and we can find further examples of this) the return on capital employed seems high, very	33		Ofcom meant to do. It has looked at return on capital employed. It says at various points
	34		(and we can find further examples of this) the return on capital employed seems high, very

1 high in many cases, do you accept that?

2

3

4

5

6

11

27

28

29

30

А Well, I think there is a debate to be had about that. I think it is less straightforward than simply looking at a single year's number and saying that looks high. There's an enormous amount of volatility here which I think tells you that the single year assessments are really not very valid. There are lots of questions about how to interpret these numbers. I can't agree with that statement without a little bit of unpacking, shall we say.

7 0 Is your position that you accept Ofcom has considered return on capital, but you have got a 8 dispute about how it considers that return on capital and its conclusion in any specific case? 9 А It has clearly calculated it and those numbers are here, yes. The issue is to what extent these 10 other considerations have turned up in the conclusions. For example, just to take the ROCE number, if you look at these tables for various products they demonstrate a very high degree 12 of volatility. In some cases there are substantial negative returns in early years which are 13 paid back by positive returns later; in other cases it is the opposite way round. But these 14 numbers are exceedingly erratic. So all this is is a demonstration of the uncertainties that 15 there are in making the assessment here.

- 16 Given that, what we have is that the findings are very much linked to a direct comparison of 17 DSAC and prices on a year by year basis without any kind of sort of modulation, shall we say, of that by, for example, averaging across time or, for example, by combining 18 19 connections and rentals to reduce uncertainties.
- 20 So I think my point is that there are a lot of things here which I think should give one 21 discomfort in terms of the difficulty of measuring what is going on that might be reflected 22 in a more modulated approach, shall we say, to applying the cost orientation test. That is 23 the essence of my concern.
- 24 Q But with respect, Dr. Maldoom, this modulated approach is exactly the approach adopted by 25 Ofcom. Would you look kindly, please, at 14.166 in the text above the very table we have 26 been looking at p.373. May I read that:

"Connection services typically have low levels of MCE, and can thus show very high levels of ROCE even when charges are below DSAC. Given the volatility of ROCEs, we place less weight on this measurement when considering whether BT's charges were cost orientated."

- 31 So I assume that so far as you are concerned that is a tick for Ofcom because they are doing 32 the right thing?
- 33 I think they have dismissed ROCE here because of volatility, as I read this. But, just to take А 34 ROCE, I think that should give one some concern about the ability to measure cost

orientation here. This is beside all the other issues which I raise in my report. So if we could see a specific example where, say, there was a year on year averaging, or one might look at cost orientation on a slightly more aggregated basis, say combining connections and rentals, maybe combining some other services to see what happens, then I think one could say yes, here is the place where these uncertainties have been taken into account. My difficulty is that I do not see that. It may well be that Ofcom has considered that, but I can't find, as it were, the fingerprint of that consideration in terms of there being a different conclusion being reached.

Q

At the moment, I am failing to see what different specific conclusion you are saying should have been reached in respect of any of these?

A I think my third report makes some points on this. These are very difficult matters because
 what you are trying to do is in some way take account of uncertainty, which is clearly very
 difficult to quantify. But there are ways in which that could have been done, for example by
 looking across years. My particular concern is the separation of connections and rentals. It
 exposes the analysis to a great deal of uncertainty with regard to how costs are spread across
 connections and rentals. So there are certain practical ways of proceeding that would have
 reduced the exposure to uncertainty.

Q Would it be fair to say that your principal concern about Ofcom's approach is that it disaggregated connections and rentals?

A Yes. I think the point is that the greater the degree of disaggregation in the analysis, the
 higher the degree of uncertainty and the greater the risk that one just finds these false
 positives where uncertainty has ended up creating a relatively low cost relevant to price.
 Those uncertainties are reduced by taking a more aggregated view or a more smoothed view
 over time.

Q We have looked at rate of return. Another complaint that you make, and I do not want to
take you through all of these, but let us look at another one which is the question of
magnitude and duration of prices above DSAC, which is your item 4. Do you see that?
A Yes.

Q Again, Ofcom says it did look at that issue, and can we look at your first report, please, at
tab 3, p.13, para.36. Again, I am not sure on the basis of your third report, whether or not
you stand by this and you may have reconsidered the position following Mr. Myers'
evidence, but you appear to be saying in your para.36 that in the provisional conclusions
Ofcom was considering allowances for duration and magnitude, but in its final report it was
not. I think you have seen Mr. Myers' statement, and perhaps I will turn it up for you now,

1		in the same bundle, divider 13, para.213, p.77. He says there that exactly the same factors
2		were considered both in the provisional and the final Determination. Do you accept that?
3	А	I absolutely am not suggesting that Ofcom did not consider these things. If Mr. Myers says
4		that they considered them that's good enough for me. My issue is that I cannot find the
5		result of that consideration in the conclusion being in any way changed. Therefore, I must
6		conclude that if they did consider them they must have just been immaterial. Really the
7		result and the analysis is no different, had they not considered them at all.
8	Q	I think, with respect, Dr. Maldoom, the point is a more basic one than that. If you focus on
9		para.213, Ofcom was faced with an allegation by you that Ofcom in its provisional
10		conclusions had considered magnitude and duration, and you are saying that when one
11		comes to the final Determination magnitude and duration are not considered. Just as a
12		matter of fact, Mr. Myers was saying that exactly the same factors had been considered, and
13		he gives a reference to the Determination. Do you accept that?
14	А	Yes. I think the words that I used in my report were that they rightly considered the issues
15		in the provisional conclusions and then dropped allowances for magnitude and duration in
16		the Decision. So, yes, presumably they did consider the issues but must have then judged
17		them to be immaterial and then there are not any allowances that one can find in either the
18		assessment of cost orientation or the calculation of repayments that reflect any kind of
19		averaging over time to deal with transient excursions above DSAC.
20	Q	Let us look at another one of your factors, please, which is staying on table 3 - p.66. You
21		may want to take that table out so that you do not have to keep jumping back and forth. We
22		have looked at rate of return, we have looked at magnitude and duration, so we have looked
23		at items 6 and 4. Item 1, which is error bars due to ambiguity and uncertainty: if you
24		would, please, go in Mr. Myers' statement to para.179, p.67, and again we see between 179
25		and 183 express consideration being given to the issue of error bars and uncertainty - you
26		see that?
27	А	Yes.
28	Q	Can I then take item 7, please, which is economic harm. You are aware, are you not, that
29		Ofcom's position is, based on the PPC case, that a showing of economic harm is not
30		necessary for demonstrating a breach of the cost orientation condition. You are aware of
31		that, are you not?
32	А	I understand that, yes.
33	Q	Do you accept that in the Determination Ofcom separately, however, considered the issue of
34		a potential for economic harm?
	-	

- 1 А Yes, there's discussion of potential economic harm, yes. 2 Item 8, do you agree that Ofcom expressly considered your concern about the risk of Q 3 investment in new services? 4 I think there is consideration of that. I think the point which I am making, certainly on А 5 economic harm, to go back, is a slightly one different one though. I think the point I was 6 making in my report, sorry to go back one question, was more to do with whether there was 7 evidential value in the fact that there has not been any strong evidence of economic harm. I 8 think that was the point which I had raised. That's the summary, it's just economic harm, 9 but just to be absolutely clear, my point is a slightly different one. 10 Q To make Ofcom's position absolutely clear, you have got Mr. Myers' statement in front of 11 you, have you not? 12 Yes. А 13 It is probably just as well that the Tribunal sees this now as well, if you go to p.80, there Q 14 Mr. Myers identifies on the economic harm, which is item 7, Ofcom's approach. I am 15 happy for you to read that, but I just want you to go over to the next page to show you what 16 Mr. Myers said about item 8, which is risk of investment in new services. 17 Yes. А 18 Q Are you aware - and I ask you this question because you are the witness presented by BT for 19 the purposes - of any situation in which BT were not given the opportunity to respond to 20 Ofcom's concerns as expressed in the provisional determinations? 21 А I don't think I'm in a position to answer that. I wasn't privy to those discussions in BT. 22 Q That is a fair answer. If we are just focusing on the issue of breach of the cost orientation 23 condition, not repayment - let us put repayment to one side for the moment because you 24 deal with that separately in your third report - if I can fairly summarise the area of dispute 25 for the Tribunal, would you agree with me, looking at tab 3, p.66, the areas where you 26 disagree with Ofcom's approach are principally items 2 and 5, which you can read for 27 yourself, alternative reasonable allocation methods and then aggregation, which is 5 - is that 28 correct? 29 To be clear, I think there are principles which are disputed in 2 and 5. I think on some of А 30 these other issues they are material to the eventual conclusion, so in particular this issue about transient excursions above DSAC, so item 4, and to some extent item 1 as well in 31 32 terms of the uncertainties that are involved, which I think are material and where I do have 33 concerns about whether those issues are properly represented in the eventual conclusion.
- 34 That's a different point from, was this considered by Ofcom. I perfectly accept that.

1	Q	So your essential concern, apart from items 2 and 5, appears to be that they were
2		considered, those other items, but you are unhappy with the conclusions - is that right?
3	А	I cannot find how those, which I consider quite important issues, have affected the
4		conclusion. I think on all of these issues I could strike out those matters and the conclusion
5		would seem to be exactly the same as we have it now. In that sense, I can't see that they
6		affected the conclusion. It may well be that Ofcom has given these lower weight or
7		considers that they don't matter to the eventual conclusion. That's fine, that's their view
8		about that. I think that that's incorrect because I think some of these issues are actually very
9		important in practice. I would expect them to affect the conclusion.
10	Q	Would it be fair to say that your concern is that you cannot see the conclusion being
11		affected because you cannot find any situation where DSAC was exceeded and yet Ofcom
12		found there was no breach of cost orientation. Is that your concern?
13	А	Well, DSAC calculated on this aggregated basis, yes, with connections and rental split,
14		absolutely.
15	Q	In order for you to be satisfied that Ofcom had considered these factors properly, you would
16		have wanted to see a case where DSAC was exceeded yet Ofcom let BT off - is that correct?
17	A	Well, I think if that had happened, if we'd seen some logic where comparison of price
18		against DSAC had then led to a conclusion that that wasn't a fair cost orientation then we
19		could see that these various factors were in play. Obviously, if it were the case that there
20		was no relevant situation where this might be relevant then we wouldn't learn anything. In
21		practice, we know that there are some years where there are just single year excursions and
22		where the excursions are relatively small. Clearly, on other years, the excursions are rather
23		large, and one would not expect the conclusion to be reversed from taking these factors into
24		consideration.
25	Q	Would you agree that exceeding DSAC creates a rebuttable presumption that there has been
26		a breach of cost orientation?
27	А	Yes. Yes, I think that's the clear system that BT operates within, yes.
28	Q	Would you agree with me that that requires BT then to produce some evidence as to why
29		the presumption should be rebutted?
30	A	That's the principles that have been laid out by Ofcom, yes.
31	Q	You do not disagree with that as an approach, do you?
32	A	No, I don't have a big problem with that. It's a question of what it means by "evidence".
33		For example, I think that if one could justify prices with regard to a different allocation of
34		costs or through some aggregation to deal with possible cost allocation arbitrariness
	-	

1	problems, and so on, do you want to call that evidence or is that a different way of assessing	ng
2	cost orientation? I don't know. That seems a legal question. I think in this case it would	
3	seem that there are some ways of looking at this differently that might lead to different	
4	conclusions.	
5	Q I think you are agreeing with me that it is really for BT to rebut the presumption of	
6	overcharging?	
7	MR. HARRISON: Excuse me, can you just help on this point: can we demonstrate those ones	
8	that you do describe as "single excursions"? Sorry to interrupt, it would just be helpful, th	at
9	is all.	
10	A Yes, I think if you go to my first report - the problem is that it's all detail and I don't have	
11	this absolutely at my fingertips. The first report certainly lists out - let me just find the	
12	relevant pages - some examples. I don't think this is necessarily exhaustive. There is a list	t
13	of some examples, I am just going to find them, if you'll give me one moment. Sorry, it's	
14	the third report, so that's tab 5, core bundle D, so the section that starts on p.52, para.118	
15	onwards. If you go to para. 121 there is an example given of the BES 100 rental charge,	
16	which was 3 per cent above DSAC in 2009/10.	
17	MR HARRISON: But that's just an example?	
18	A That's just an example. There are other examples dotted around as well, yes. But there are	;
19	some examples where there are relatively small excursions for isolated years. I think in the	9
20	Determination also, there is a summary section in section 1 that shows the disputed prices,	,
21	and I cannot quite remember but I believe there are some examples there where you can ju	ıst
22	see there are some individual years. Sorry, does that help?	
23	MR. SAINI: I do not think, sir, that there is a complete list anywhere of those where there are	
24	single excursions, or temporary excursions above DSAC. (To the witness): Is that right?	
25	A I think that is right, yes.	
26	MR. THOMPSON: It may be that simply the summary table at 14.23 on p.410 gives at least an	
27	outline of this issue.	
28	MR. SAINI: 410 of?	
29	MR. THOMPSON: The Determination.	
30	MR. HARRISON: Just scanning on this, the single year excursions, I can see the 100 rental, I	
31	suppose the BES 1000 connection as well?	
32	A Yes.	
33	Q So it is two items as well?	
34	A Yes, there are two examples, yes.	

1	MR.	SAINI: Just dealing with that issue, Dr. Maldoom, would you agree with me that it is
2		appropriate, when there has been, for example, a single year excursion above DSAC, for
3		Ofcom to say to BT: "Can you explain why, in that particular year, there was an excursion,
4		and do you have a good reason?" Is that an appropriate approach?
5	А	Yes, clearly it requires further investigation, yes.
6	Q	Would you agree with me that that is exactly what Ofcom did in this case, so when there are
7		single year excursions they ask BT for evidence to rebut the presumption of overcharging?
8	А	Yes, I guess the problem is that it goes to fundamentals though, because I mean in some of
9		these cases putting connections and rentals together would make the problem go away, so
10		we have a problem in that one view is that connections and rentals shouldn't be
11		disaggregated, in which case the problem wouldn't arise, another view is that it should be
12		disaggregated and the problem does arise, so I don't know whether you call that providing
13		evidence or just disagreeing about fundamental principles, but I guess that's why we are
14		here really.
15	Q	Let us assume for the moment, for the purpose of argument that a legitimate answer is not
16		aggregating connection with rentals, if you assume that for the moment, would you agree
17		with me that Ofcom did provide BT with an opportunity to explain excursions above
18		DSAC?
19	А	I don't know the details of the interaction between Ofcom and BT, but I presume that would
20		be the case.
21	Q	If I can ask you then to turn to the question of repayments, please? You deal with this in
22		your third report, principally. Again, helpfully, following your consideration of Mr. Myers'
23		evidence, it appears that the dispute is rather narrowed, and I want to see if you can help me
24		as to whether or not I have understood this level of narrowing. If you could go to your
25		third report, which is, I think, the report that you have prepared principally focusing on the
26		issue of repayment?
27	А	Yes.
28	Q	That is at tab 5 of bundle D. Within that report if you would like to read para. 134 on p.59,
29		please. Here we are focusing just on the economic arguments. If I can read 134 with you:
30		"In the Defence, Ofcom acknowledged that: 'The only economic argument now
31		advanced that is potentially relevant to the issue of the amount of any repayment is
32		the suggestion that Ofcom's approach threatens to create significant perverse
33		incentives in relation to BT's pricing and approach to investment'."
34		Then you say, helpfully: "This is exactly the point." You can read the rest if you find it
	-	

1		helpful, but I just want to be clear now that, on the repayment issue, that is distinguishing
2		this point from whether or not there is a breach of the cost orientation condition, is the
3		dispute between yourself and Mr. Myers only limited to the incentive effects of repayment?
4	А	Yes, I think the difficulty is the word "only". I think a large measure of the dispute is
5		around this issue. My overriding concern is that I think there is a public policy issue that is
6		created by the repayment regime, or different repayment regimes in a world of uncertainty.
7		That is laid out in this report fairly clearly. I think there are also, however, measurement
8		issues that are related to the uncertainties as well. So, when I say: "This is exactly the
9		point" I do not think I am putting a lot of weight on the word "only".
10	Q	That is very fair, so let us take it in stages then: There is the issue of incentives, which you
11		have laid out clearly there, there is a concern you have about Ofcom's approach to
12		incentives?
13	А	Yes.
14	Q	I want to know what are the other issues where there are disputes. One of the issues, I
15		believe is the fact that you consider that if there has been a finding of breach of the cost
16		orientation condition Ofcom should be itself, in a sense, second guessing that finding when
17		it comes to the level of repayment. Is that right?
18	А	Yes. I think the way I put it was what I was concerned about was that essentially no new
19		information is created by the fact that you found non-compliance, so essentially all the
20		uncertainties that were present in that assessment have to be carried over into the
21		consideration of repayment. This is the analysis in this third report. There are significant
22		public cost issues I think which arise as a result of how one approaches repayment, which
23		need to consider those uncertainties. So it is not that you say: "Yes, okay, there is a breach,
24		it's fine, we just go ahead and we set repayment to the excess of price over the breach". I
25		think you also have to carry forward this idea of uncertainty which, to some extent, as we
26		have just been discussing, there is consideration of some of these factors in the Ofcom
27		statement, but this is also relevant at the second stage.
28	Q	What I am having difficulty with here, Dr. Maldoom, is that Ofcom, assume for the
29		purposes of this argument, has found that there has been overcharging.
30	А	Yes, I did
31	Q	And it has come to that conclusion bearing in mind all the points you make about the
32		uncertainties of the figures, you accept that?
33	Α	Yes, absolutely.
34	Q	Is your point that Ofcom, when it decides to order repayment or not, should effectively

- second guess itself in relation to its finding that there has been overcharging. Is that your
 point?
- 3 А No, I don't think it is my point. I am not sure I quite understand what you are putting to me, 4 but let me have another go and see if I can't clarify it. I think my concern is these issues to 5 do with measurement uncertainties, some of which are created, I think, by the particular 6 way in which Ofcom has approached this, that needs to be carried forward into the 7 assessment of repayment, and that one cannot simply look at the excess over DSACs as 8 being the amount of repayment and say: "Right, that's it", we somehow reset the clock back 9 as if prices had been DSAC and that's the end of the matter. But actually I think there are 10 some really very difficult regulatory considerations and various trade-offs that will have to 11 be struck in deciding what that level of repayments might be, even if there has been a 12 technical breach in some cases.

THE CHAIRMAN: I do not quite follow that. You say, accepting for the purposes of this argument there has been a finding of breach, call it technical or non-technical, because there has been overcharging of X hundred thousand?

A Yes.

13

14

15

16

17

18

19

Q Then you go to the next question of should there be a repayment? This is not a precise, but how do you then carry forward in working out your next figure of what repayment should then be?

20 A The difficulty we have is that essentially this baseline is a very imperfectly observed one.

- 21 Q Yes, well we always have that inherent unreliability.
- A This inherent unreliability. I think the difficulty is that the repayment regime, if you can
 call it that, because in a sense what is being set here it is not purely a solution to the problem
 as we find it essentially this is something that affects CPs' incentives from here on out.
 That has to balance a number of considerations, which is this point I am making in this
 section of the report. Obviously there is this question of compliance incentives by BT, but
 there are also issues about prompt disputes being brought so that benefits can go through to
 customers, and there are also broader competitive developments issues.
- 29 Q Those points are about the incentives, that is quite separate ----
- A I don't think it is separate, because the problem is that the approach which one takes to
 repayment given that the number could be X, it could be 2X or ½ X without terribly much
 trouble because of the degree of uncertainty there is in assessing these things. So I think in
 that world one has to acknowledge that uncertainty and then look at what the trade-offs are
 from a public policy perspective in taking different approaches to repayment on the parties

1		which were involved.
2		If this is just a retrospective matter then maybe there are no incentives here, but whatever is
3		decided in this case has potentially quite serious implications for the behaviour of people
4		within this market in future. The point I am making is that we don't really know what the
5		breach has been and we know the approach we take here potentially has some pretty wide-
6		ranging consequences in terms of the behaviour of the CPs and BT in future.
7	Q	You say you do not really know what the breach has been
8	А	Yes.
9	Q	there has been the best attempt on this assumption
10	Α	Yes.
11	Q	with all the other uncertainties, to work out what the breach has been. That is stage 1?
12	А	Indeed, yes.
13	Q	You do the best you can?
14	А	Yes.
15	Q	Then you have to do the best you can about any repayment. So are you then going back and
16		saying that the figure which was our best attempt at the breach, we will revisit it - which is,
17		I think, the question being put to you, and you said "No", but I do not understand what you
18		are suggesting?
19	А	Right. The question is: is the only question that of essentially resetting BT back to the
20		position that would have applied and essentially taking away any money that it has had? Is
21		that the only consideration? If the answer to that is "yes", then clearly you are in the world,
22		as you suggest, which is to form the best assessment of what the appropriate cost-oriented
23		price might be and to work out the difference.
24		The difficulty is that I don't think that is the only consideration because we also have to
25		think about these other problems which are, as I say, the incentive issues to do with bringing
26		disputes quickly, and also what you might broadly call Article 8 of the Framework Directive
27		issues around essentially what Ofcom is trying to do in terms of develop competition by not
28		regulating too harshly in certain areas where there may be emergent competition. So I think
29		once those conditional considerations come into play then it would seem relevant to take
30		account of the fact that you cannot really estimate the size of the breach with any great
31		certainty. I hope that helps.
32	PRO	DFESSOR MAYER: Would you agree that the amount that is being recovered can, in fact, be
33		too low because the incentive effect could go the other way?
34	А	Yes, there is potential for all manner of errors to be made here, and I think all things are

possible. The issue, though, is that the approach that Ofcom has taken in terms of the disaggregation of connections and rentals, and also the failure to look at these transient excursions by doing a little averaging over time, I think that raises the particular concern that there may be a bias here and that actually that might be essentially over-estimating the problem. I think interest is also relevant here because there are a number of essentially "knobs" with this, which is how much do you aggregate? How much averaging is there over time? What policy do you take with regard to interest, all of which essentially have these incentive consequences.

- 9 Q With respect, are there not a lot of the facts that go exactly the opposite way, in particular
 10 the asymmetry of the information between BT and the regulator?
- 11 There are asymmetries of information but these are all matters which have been considered А 12 by Ofcom in the regulatory design with each of these market reviews. I had not gone back 13 to sort of bedrock with these reports. There is a certain assumption here that there is a 14 rational structure to the regulatory systems that Ofcom has put in place following the 2004 15 and 2008 market reviews, and they entail providing a degree of flexibility to BT because BT 16 had some private information as well which Ofcom thought it would be sensible to exploit, 17 and hence these points were round flexibility. So I have taken that as a starting point, so I 18 think it is not unreasonable to assume that that is a beneficial aspect of the system as we 19 have it.
- 20 MR. SAINI: Can I go back, Dr. Maldoom, to the point that I was asking? I am still having difficulty in understanding how you say Ofcom should practically have gone about 21 22 determining the issue of repayment, and I am putting aside completely the issue of 23 incentives. I am going to do that separately. I just want to know practically what you think 24 Of com should have done because ultimately the Tribunal has to grasp all of this on a 25 practical level. One way of doing it, and perhaps you can help me with this, is to look at the 26 way that the Court of Appeal -- you are aware of the Court of Appeal decision in the PPC 27 case?

A Yes, I am aware of it in broad terms and I have read some of the data but not necessarily every last thing.

Q In order to focus my question I just want to draw your attention to a particular paragraph
and see where the difficulty is arising. If you go in Bundle E, please, to Divider 11, and
within Divider 11 it is p.19, para.84.

33 A Yes, I have it.

1

2

3

4

5

6

7

8

34 Q If I may read the first four lines with you:

1 "The discretion under s. 190 plainly must be exercised in a principled way with a view 2 to achieving those objectives. The starting point must be, in a case of overcharging in 3 breach of an SMP condition, to order repayment of the amount of the excess charge". 4 Then Lord Justice Etherton goes on to describe some reasons why it might better achieve 5 the objectives of the Act to order no repayment or a lesser repayment. Just focusing on that, 6 is your position that Ofcom, when it is considering s.190 and its discretion, should be 7 reconsidering whether or not in fact there has been an excess charge? 8 I guess that is right actually because if one combines connections and rentals in some А 9 limited cases, I think, because the margin of price over DSAC in some of these cases is so 10 small I think some of the years in cases in which there is an overcharge will disappear but 11 not all of them, just to take one example. So I think earlier I made the practical suggestions 12 of, for example, combining connections and rentals and looking at some averaging over 13 time. I think if one did that certain years might drop out but there would still clearly be 14 years in which there were prices which were not cost orientated. 15 So if I have understood you correctly, you are saying that at this stage 3, when you are Q 16 deciding the level of repayment, Ofcom, on your approach, should go back and re-look at 17 the figures and say, "We know we found in stage 2 that there was an excess charge, but in 18 fact for the purposes of repayment we are going to decide that this was not an excess 19 charge". Is that a correct way of expressing it? 20 А One could do. I suppose there is a sort of question as to what it means to find a breach in 21 that case. One might say, "Yes, there is a breach" but then one calculates the repayment in a 22 different way to take account of some of these issues. Alternatively I suppose one could take 23 a slightly more aggressive approach to this and say, "Actually the assessment of the breach 24 may be should be different". I do not really have an issue about the assessment of the 25 breach, to be honest. I can see that there might actually be some reasons for saying, "Well, 26 actually we have a relatively simple system for deciding whether there is compliance or not 27 but actually these more difficult considerations, we will start to think about them only in the 28 case of non-compliance". I do not think that makes very much practical difference. From 29 an economic perspective I do not think that makes very much difference, though equally 30 that may be very different. 31 Q The Tribunal will have to decide whether or not the approach that you commend is a correct 32 legal approach, but let us put that to one side and just focus on this issue of what I call 33 second guessing the finding of breach. The main thrust of your report appears to be that the

reason that Ofcom needs to do that is because there might be some false positives -- which

 A There could be, yes. Q Would you agree with me that it is equally likely there might be some false negatives in the finding of non-breach? A There may well be. Q You are aware that there is a whole separate appeal in this case where Sky are contending that in fact there should have been greater findings of overcharge. You are aware of that? A No, I was not. Q Okay, we will put that to one side for a moment. MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 	1		is your word, "false positives" in the finding of breach. Is that correct?
 finding of non-breach? A There may well be. Q You are aware that there is a whole separate appeal in this case where Sky are contending that in fact there should have been greater findings of overcharge. You are aware of that? A No, I was not. Q Okay, we will put that to one side for a moment. MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 	2	А	There could be, yes.
 A There may well be. Q You are aware that there is a whole separate appeal in this case where Sky are contending that in fact there should have been greater findings of overcharge. You are aware of that? A No, I was not. Q Okay, we will put that to one side for a moment. MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 	3	Q	Would you agree with me that it is equally likely there might be some false negatives in the
 G You are aware that there is a whole separate appeal in this case where Sky are contending that in fact there should have been greater findings of overcharge. You are aware of that? A No, I was not. Q Okay, we will put that to one side for a moment. MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 	4		finding of non-breach?
 that in fact there should have been greater findings of overcharge. You are aware of that? A No, I was not. Q Okay, we will put that to one side for a moment. MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 	5	А	There may well be.
 A No, I was not. Q Okay, we will put that to one side for a moment. MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? A They do, yes. 	6	Q	You are aware that there is a whole separate appeal in this case where Sky are contending
 9 Q Okay, we will put that to one side for a moment. 10 MR. THOMPSON: I think it might be worth putting that question again. 11 THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. 12 A Oh, yes, sorry. 13 MR. SAINI: You are aware that Dr. Houpis has his own test? 14 A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. 15 Q It is my fault. 16 A Yes, is the answer. 17 Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	7		that in fact there should have been greater findings of overcharge. You are aware of that?
 MR. THOMPSON: I think it might be worth putting that question again. THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? A They do, yes. 	8	А	No, I was not.
 THE CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test. A Oh, yes, sorry. MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? A They do, yes. 	9	Q	Okay, we will put that to one side for a moment.
 12 A Oh, yes, sorry. 13 MR. SAINI: You are aware that Dr. Houpis has his own test? 14 A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. 15 Q It is my fault. 16 A Yes, is the answer. 17 Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	10	MR.	THOMPSON: I think it might be worth putting that question again.
 MR. SAINI: You are aware that Dr. Houpis has his own test? A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? A They do, yes. 	11	THE	E CHAIRMAN: I think that was misunderstood. Not a greater finding on the same test.
 A Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of. Q It is my fault. A Yes, is the answer. Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? A There are, yes. Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? A They do, yes. 	12	А	Oh, yes, sorry.
 15 Q It is my fault. 16 A Yes, is the answer. 17 Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	13	MR.	SAINI: You are aware that Dr. Houpis has his own test?
 16 A Yes, is the answer. 17 Q But there are various approaches one can take to the question of whether or not there has been an overcharge? That is correct? 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	14	А	Yes, indeed. I was thinking of some entirely separate procedure I knew nothing of.
 17 Q But there are various approaches one can take to the question of whether or not there has 18 been an overcharge? That is correct? 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	15	Q	It is my fault.
 18 been an overcharge? That is correct? 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	16	А	Yes, is the answer.
 19 A There are, yes. 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	17	Q	But there are various approaches one can take to the question of whether or not there has
 20 Q Ofcom has a preferred approach, which is use of DSAC. We are agreed on that? 21 A They do, yes. 	18		been an overcharge? That is correct?
21 A They do, yes.	19	А	There are, yes.
	20	Q	Ofcom has a preferred approach, which is use of DSAC. We are agreed on that?
	21	А	They do, yes.
22 Q I think it is common ground that DSAC may in fact be passed, or the DSAC test may be	22	Q	I think it is common ground that DSAC may in fact be passed, or the DSAC test may be
23 passed, when there is over-recovery of common costs?	23		passed, when there is over-recovery of common costs?
A I think that is right, yes.	24	А	I think that is right, yes.
25 Q Just dealing with the incentive effects issue, and I want to try and tease out where the	25	Q	Just dealing with the incentive effects issue, and I want to try and tease out where the
26 disagreement is between you and the approach that Ofcom took in its Determination. If you	26		disagreement is between you and the approach that Ofcom took in its Determination. If you
27 could go in the core bundle to the Determination, Core Bundle B.	27		could go in the core bundle to the Determination, Core Bundle B.
28 A Can I put away PPC?	28	А	Can I put away PPC?
29 Q Yes, please do. You can clear your decks. If you could please go within the Determination	29	Q	Yes, please do. You can clear your decks. If you could please go within the Determination
30 to p.420, para.15.59, and, just so you do not read it cold, the analysis begins on the facing	30		to p.420, para.15.59, and, just so you do not read it cold, the analysis begins on the facing
31page at 15.54 and there is a reference to the Court of Appeal decision which we have just	31		page at 15.54 and there is a reference to the Court of Appeal decision which we have just
32 looked at. I want to focus on 15.59 but please do read the paragraphs up to 15.59 to provide	32		looked at. I want to focus on 15.59 but please do read the paragraphs up to 15.59 to provide
33 yourself with some context. (After a pause):	33		yourself with some context. (After a pause):
34 A Yes.	34	A	Yes.

1	Q	Do you agree with the threshold point that leaving BT with the benefit of its excess
2		charging would provide an incentive for BT to fail to comply with its regulatory
3		obligations? Do you agree with that?
4	А	I think this is difficult. The problem is I think there are trade-offs to be struck and it may
5		well be that taking away all the benefit to BT has adverse effects which might make that
6		difficult to do and to meet broader CRF objectives.
7	THE	E CHAIRMAN: I do not think that was the question. That was a broader question.
8	А	Okay.
9	Q	Just concentrate on the question you were asked, which you go on then to think of other
10		counter-incentives, but you were asked specifically about what is said about the compliance
11		incentive on BT.
12	А	I think we know that the compliance incentive for BT will always be stronger with a more
13		onerous repayment regime. That is absolutely clear. At some point there may be concerns
14		about what I have called "over compliance" within my report, which is one gets all kinds of
15		unforeseen consequences in terms of distorted incentives for BT. The other issue which is I
16		just think we do not really know much about what is required to give sufficient incentive to
17		BT, in that clearly there are all kinds of other mechanisms that operate on BT through, for
18		example, third party claims, reputational issues. There are questions about internal
19		organisational structure and how incentives work on managers and so on. So I think we
20		cannot say that much about the structure of incentives on BT.
21	MR.	SAINI: Let us just look at the level of principle for the moment. As I understand it, you are
22		agreeing with what is said in the first five lines of 15.59, that if one leaves BT with the
23		benefit of this excess charging it will provide an incentive for BT not to comply with its
24		regulatory obligations. You are agreeing with that, as I understand your position?
25	А	It could well be, yes.
26	Q	I want to understand then your position as to why there are kind of counter-incentive effects,
27		if I have understood you correctly, which might suggest that BT should not be required to
28		make repayment. It may be best to pick this up by looking at Mr. Myers' statement, where
29		again I think you agree he has set out accurately what you say the counter-incentives are.
30		That is back in Bundle D at Tab 13. Would you please go to para.246 at p.85?
31	А	Yes.
32	Q	Do you agree or disagree with what is stated in para.246?
33	А	I think I largely agree with it. I think the issue is that Mr. Myers and I have slightly
34		different ways of looking at this issue, which I think emerged in the course of the joint

expert meetings, I am concerned with this idea of sort of penalty with BT as being a rather
inadequate way of describing the situation. Clearly if one has a regime in which BT incurs
no penalty or you re-set somehow back to as it were year zero as if an overcharge had not
occurred and the world is as if the price had been cost orientated all along, then this kind of
statement makes sense. My problem is that I think that you cannot make that kind of
statement because there is an issue of uncertainty that gives rise to different possibilities in
terms of what might happen and that that needs to be considered in terms of the incentive.
Well, when one is analysing the incentive effects one needs to think about that uncertainty.
So it is not the case that one can necessarily re-set BT back, or not just BT but indeed the
market as a whole, back to the situation that would have prevailed had prices have been cost
oriented all along and that that needs to be considered as well. So it is a slightly long
answer but I think it is important to make that point.

I just need some clarification, Dr. Maldoom, about what you mean by "uncertainty" here. Is Q it the uncertainty that we were discussing a few moments ago which is that you are saying that the amount of the overcharge, in other words the finding of overcharge, is uncertain? А We have a number of issues here. The first one is that BT's pricing involves uncertainty in the sense that it doesn't know what DSAC is or costs more generally at the point that prices are set. So there's uncertainty created by what you might call the imperfect targeting of BT's pricing approach. That is source 1. Source 2 is the fact that Ofcom can't make a perfect assessment and that there are probabilities of error in either way, both with regard to finding non-compliance and also potentially to try to measure repayment, because the base at which we are measuring against is itself uncertain. Those are the two main issues that we have to consider. They are the assumptions which underpin my analysis and incentives in my third report.

Q But let us assume for the purposes of our discussion here that there is a finding of overcharge. Assume, for the purpose of argument, that the finding of overcharge is correct, both as a matter of principle and in quantum terms, assume that, please. Would you agree with me that there is a real reason, or appropriate incentive, for BT to be required to repay sums it should never have had?

A Yes. I think your assumptions mean we would be operating in a world of complete
 certainty in which case then we could reset the situation back to what a cost oriented charge
 for BT would have been and everything works very neatly. But of course, that would mean
 that under those assumptions why would we ever have a dispute in the first place, because
 BT should then just simply set a cost oriented price, away we go, and there shouldn't really

be any further problem. So clearly the issue is to do with these two key sources of uncertainty, both in BT having imperfect ability to set a price because it doesn't have the relevant information at the point that the price is set, and in Ofcom having imperfect ability to make an assessment. So I think it's so hypothetical, this set of assumptions. If they applied we wouldn't have this dispute here.

1

2

3

4

5

6

7

8

9

Q Let us be practical again, Dr. Maldoom. What is Ofcom meant to do on this analysis? We have a finding of overcharge. What I am trying to understand is practically how is Ofcom, then, meant to give effect to your desire to take into account incentive effects? What is it meant to do practically?

10 А Yes, I don't dispute that this is a difficult question. I think a trade-off has to be struck 11 between the various incentive effects which I have listed out in my third report. So BT's 12 compliance is one issue; very high levels of incentive for BT, there are over-compliance 13 issues to do with it setting prices that might be too low for purposes of promoting 14 infrastructure competition; there will be issues about it constricting the range of products it 15 is offering to reduce its exposure to risk – these are listed out – there are issues to do with 16 providing incentives for CPs to bring disputes in a timely way. So I don't think there's a lot 17 of dispute about what the issues are, to be honest. These all need to be traded off. One has 18 to take a view about what the relative importance of these things are. Clearly, I think issues 19 to do with promoting infrastructure competition and these kind of Article 8 objectives, 20 although they might be rather vague, they are actually extremely important in terms of long 21 run, consumer benefit and development of the industry.

22 So if you turn that back, what does that do? I think that tells you that if one turns up all the 23 knobs, as it were, in terms of highly disaggregated treatment of the assessment of the 24 repayment, so dividing products and dividing connections and rentals and so on, one takes a 25 short time period view. For example, one doesn't allow adjustments in cost allocation 26 relative to what was in the RFS. If one adds all those things up you can see one ends up in 27 potentially a slightly extreme position with regard to making this trade-off. So I think what 28 I would say is I think there are certain practical things that you could do in terms of, for example, aggregating connections and rentals; for example, looking more over time at what 29 30 has been going on; in terms of possibly allowing assessment against a different basis of cost allocation as compared to what is in the RFS. These all bring one back towards a more 31 32 desirable place in terms of these trade-offs between these competing objectives. There can 33 be no precision in the answer to this. I think there just has to be a degree of judgment made 34 on this. But I think what we can say is that at the moment there is not really anything within

- the Ofcom determination that pulls us back towards a more balanced position with regard to these various effects.
- Q But you will be aware that this Tribunal, Dr. Maldoom, is hearing an appeal on the merits.
 What I am finding difficult to grasp at the moment is what you are saying the net result should be. Is your view that on the basis of these incentive effects you identified, Ofcom should have decided to order no repayment?
- 7 А No, I'm not. I don't dispute the fact that there clearly are cases where these prices would be 8 excessive, even on the basis of some of those suggestions which I have just given you. I 9 don't think that is a dispute. The issue which there is is that if this were to be, as it were, a 10 model for dealing with such disputes, where assessment is done on a highly disaggregated 11 basis, on the basis of short time periods without really factoring in issues such as 12 uncertainty, dealing with arbitrariness and cost allocation, then essentially what you end up 13 with is creating a system which provides a strong possibility of bringing disputes ex post, 14 where there might be strange incentives for CPs to basically kind of sit and bank potential 15 repayments until such point as it became clear that one of their competitors maybe would 16 bring a complaint and then a complaint is brought. I don't think that is necessarily 17 something that is compatible with what Ofcom is trying to achieve.
- Q Just dealing with that last point, Dr. Maldoom, I am having difficulty following that, is it
 your position that there is a real and substantial risk, in your view, of communications
 providers sitting back, paying an overcharge over many, many years on the basis that they
- 21 will sit quietly and then reclaim the money? Is there a real risk of that in your experience? 22 А Let's be clear. You said many, many years, I think that may be a little strong. But I think 23 there are risks to be considered with these delays. To be fair, I introduced these thoughts in 24 my third report. Ofcom has itself picked up this within the three objectives that is discusses 25 in this recent Gamma dispute that has been published. So I think it is fair to say that these 26 are relevant issues. Actually, the basic principles in terms of the economic trade-offs, I 27 suspect there is, judging from the Gamma dispute, essentially no disagreement between 28 myself and Ofcom. The question is to what extent it is relevant, this delay question. I think 29 what we have in this dispute suggests that it is relevant, and this isn't just an airy-fairy 30 theory.
- Q Let us be more specific, then. I am not taking much time over this, but I wanted to look at
 your evidence in relation to the four specific incentive effects. I think you have got Mr.
 Myers' evidence in front of you there, is there right?
- A I do, yes.

2

3

4

5

1	Q	Would you please go to para.250 p.86. Mr. Myers deals with each of your four incentive
2		effects in turn. Again, could you help me in identifying the level of agreement and
3		disagreement.
4	А	Sure.
5	Q	Your first incentive effect which you say Ofcom should have taken into account and which
6		it did not is incentives to delay new services. If you can read paras.250 to 251 before I ask
7		you any questions, please. (Pause to read)
8	А	Yes.
9	Q	Do you agree or disagree with Mr. Myers' conclusion at 251?
10	А	I think it's incorrect because he's assuming a world of certainty again. I think this is clearest
11		in 250 where he says:
12		"BT earns the profit it would have earned if it had set its price at the level of DSAC
13		(since there is no financial penalty)."
14		This only occurs in a world of certainty. Once there is uncertainty of the type that we have
15		just discussed a few moments ago, this is no longer true.
16	Q	So would it be fair for me to say that you would agree with those paragraphs, but on the
17		basis that you are not accepting that a finding of overcharge should carry through to the
18		question of repayment? In other words, you are not accepting that there is an overcharge?
19	А	No, I don't think that's right.
20	Q	Is that not your certainty point?
21	А	No. I mean, this is laid out in my third report, and I think my thoughts about this.
22	Q	Perhaps you can just tell us now.
23	А	I think the issue is that we have these uncertainties because essentially even if BT sets what
24		it thinks is on average the right price then it might be too high; it might be too low. Then
25		potentially Ofcom assesses that and it might come to the right view or the wrong view. So
26		there are a number of possibilities that arise. The repayment regime clearly only matters in
27		the cases where a dispute arises; it does not matter in the other cases. So there's no sense in
28		which the upside for BT is in some sense balanced by a corresponding downside. The
29		upside is limited by the approach that's taken to repayment; the downside is still there. So
30		one can see immediately that with uncertainty the more aggressive the approach that's taken
31		to repayment (and that means all of the factors that we've discussed in terms of dis-
32		aggregated assessment, not averaging over time, not allowing reallocation of common costs
33		relative to the RFS, all these kind of issues, indeed interest as well - that's probably by far
34		the most important of all of those) that will essentially limit this upside without having a
	I	

1		corresponding downside effect. So there clearly is an incentive issue here for BT, even if
2		everybody does the right thing on average.
3	Q	Let us be very specific, and if you could just focus on my question, please. Look at the last
4		sentence of para.251:
5		"Therefore, in the absence of a financial penalty, the risk of overcharge does not
6		give rise to a profit incentive for BT to delay new services."
7		Assume for the purposes of my question that there has been an overcharge, there is no
8		uncertainty, assume that for the moment. You agree with Mr. Myers there, do you not?
9	А	Yes, I think that's right. I think Mr. Myers' argument is correct under the conditions of
10		certainty but incorrect under conditions of uncertainty.
11	Q	Let us look at the next incentive which is incentive to reduce the number of services. Please
12		do take your time to read this. (Pause to read) My question is again take as a premise to my
13		question that there is a finding of overcharge and one cannot reconsider the question of an
14		overcharge. You agree with Mr. Myers, do you not?
15	А	Again, it is the same point: this argument is correct under conditions of certainty; it is
16		incorrect under conditions of uncertainty. Under conditions of uncertainty, the more
17		products BT has - just take this market, the regulations on the AISBO market, suppose we
18		doubled the number of AISBO products and we didn't just have connections and rentals; we
19		had created lots and lots of new charges for different things – obviously if each one is going
20		to be individually assessed and there is uncertainty, then the risk that there may be a
21		repayment associated with that will necessarily increase. So this argument does not work
22		under conditions of uncertainty.
23	Q	The next one, then, which is a question of incentive to lower prices which goes over a few
24		paragraphs, but please do read through them. (Pause to read)
25	А	I think it's very much the same point again which is that Mr. Myers has assumed conditions
26		under which the financial penalty problem can go away because essentially there is
27		sufficient information to be able to reset BT back. I think the point is that that is not the
28		world as we find it and the question is to do with over-compliance, this point here, what I
29		have called over-compliance. Really, all that one requires for my argument to work is that
30		BT is only able to imperfectly target setting a cost oriented price. So basically it only finds
31		out in a year or two years what that cost oriented price is. It has to set a price today. So
32		again, there is an upside and a downside with this. It might be too high; it might be too low.
33		The approach that Ofcom takes is only relevant in the case where the price turns out to be
34		too high, so if we make that more and more generous, the repayment regime, the effect it

has on BT will at some point eventually cause its behaviour to change to reduce the probability of those repayments happening. It can do that in a variety of ways, and one way is clearly by setting a lower price. At some point that will conflict with concerns that Ofcom rightly has about trying to make sure that those wholesale prices are sufficiently high to encourage infrastructure competition. So, yes, there's a question about how one needs to turn up the knob for this to happen, but it is a possibility.

- Q Let us just put aside the question of possibility. On the basis of your knowledge of this case, is it your understanding that BT, in fact, set its prices at the levels it set them at because it was concerned about the incentive effect that is identified in para.254 and following. So practically, did BT approach its pricing in this case on the basis that, by setting the price at these levels, it would be able to innovate, it would be able to achieve wider competition objectives?
- 13 A This is a concern for Ofcom, not for BT.

14 Q What did BT do?

1

2

3

4

5

6

7

8

9

10

11

- A What did BT do? It's quite difficult to tell. I've had a look at some of their documentary
 evidence, some of the pricing papers from BT which are referenced in my reports. These
 are obviously commercial considerations here. They're trying to be compliant yet achieve
 some return from these products. It's kind of what one would expect, I think. I don't know
 much more than what I've gleaned from looking at those papers.
- Q You are aware, are you not, that BT has no positive case in this appeal that its prices were
 cost oriented. You are aware of that, are you not?
- A Absolutely, and I think I agreed with you earlier that actually my concerns are more to do
 with quantum of the repayment and the amount by which BT is assessed to have set prices
 above cost oriented levels. If some of my suggestions we've discussed, these practical
 suggestions, were implemented, there would absolutely still be prices which are not cost
 oriented.
- Q And you cannot help the Tribunal with a practical approach to how much it should knock
 off the finding of overcharge in order to give effect to the incentives?
- A Okay, we have some numbers which come from the reports of Mr. Coulson and
 Mr. Harman, which tell us something about, in rough terms, how the repayment might
 change, in particular if connection and rentals were aggregated, if different approaches were
 taken to timing, so essentially a somewhat less extreme approach to assessing whether there
 has been breach. I think that gives an indication of the sort of rough magnitudes we're
 talking about.

1	Q	If I can just finish with the last point, which is incentive to combine prices, and this is the
2		question of combining rental and connection, and would you just refresh your memory from
3		263 to 266, please.
4	Α	(After a pause) Yes.
5	Q	Would you agree with Mr. Myers at para.266 that you do not in your report weigh the
6		potential profit going to BT of combining the services against the profit reducing
7		consequences?
8	А	No, I don't think that's relevant. I think my position is that Ofcom shouldn't correct adverse
9		incentives. Whether people respond to that or not I think is irrelevant.
10	Q	Do you know why BT decided to separate connections and rentals?
11	А	I don't. It would seem quite plausible that that is what customers want. I would have
12		thought that the pricing structure is designed to encourage take-up of this service, which
13		was relatively new, that the system of regulation that Ofcom put in place allowed that
14		discretion to BT. So I presume that commercial considerations suggest that that's a good
15		way of pricing it.
16	Q	Would you agree with me - I have just got one final question, Dr. Maldoom, which is in
17		relation to this question of repayment - assuming, and I know that as far as you are
18		concerned, this is a big assumption, that there has been a finding that BT has overcharged,
19		what we have been calling stage 2?
20	А	Yes.
21	Q	Would you agree with me that absent some compelling counter-argument, the correct
22		economic approach would be to order BT to repay the amount of the overcharge?
23	А	No, I think there's a trade-off because of these other incentive issues. Assuming we've
24		managed everything correctly, and we didn't have too much trouble with that, I think there
25		is still of question of incentive issues for CPs.
26	Q	Would you also agree with me that on my assumption, which is that there has been historic
27		overcharging, requiring BT to pay interest would simply be returning to the overcharged
28		CPs money that they have effectively had to borrow to pay for the overcharge?
29	А	Well, that's just a statement of what an overcharge is, I think. There's also the matter to
30		consider of how that changes their incentives. We're not in a situation here - just to be
31		absolutely clear, it's not a fining regime for BT and then a making good for the CP question.
32		They are not two separate questions. The amount of money that comes from BT is the
33		amount of money that goes to the CPs - i.e. you have to find some position with this that
34		balances the various incentive effects. I think whatever decision is made here essentially

1		creates a policy that will affect the decisions of BT and CPs for years to come potentially.
2	Q	You say it is a matter of policy, but I take it from that you would accept that it is a
3		legitimate policy that Ofcom could adopt that it would require overcharges to be repaid,
4		even though there may be some negative incentive effects in the way you describe. It is a
5		legitimate policy, is it not?
6	А	They could choose to do that. I don't think that would follow Ofcom's proper objectives
7		though, because there are considerations under Article 8 and the need to promote
8		competition and the need to promote infrastructure investment, and indeed equally to make
9		sure that in the event that BT set a price that was too high, that that was rapidly identified
10		and that could be lowered and competition could pass that benefit through to consumers
11		rather than it ending up in the pockets of other CPs. I think they are all important
12		considerations for Ofcom which it should take into account.
13	Q	So would it be fair to say that your view is that when it comes to repayment issues, Ofcom
14		should effectively be conducting a form of 'competitional' analysis to decide whether or not,
15		bearing in mind the Community Law objectives, it would promote competition and the
16		interests of consumers to require repayment?
17	А	No, I don't think it's a competition law matter, I think it's just a simple regulatory matter
18		under the CRF in terms of what the objectives are of regulation. This is a sort of quasi
19		regulatory decision, I think, that has quite widespread implications for the incentives of all
20		the parties within the market. I think Ofcom says as much.
21	Q	You do not have to put before this Tribunal a figure which you say should have flowed if
22		the error had not made?
23	А	To do so would be spurious accuracy. I think what we can identify, to be clear, is some
24		considerations which have come into play, which is what we've just been discussing. I think
25		one can also identify some concerns in how the assessment of the repayment has been made
26		in terms of this extreme level of disaggregation between connections and rentals, the lack of
27		averaging over time and the refusal to look at alternative cost allocations for assessing
28		whether prices are cost oriented or not. So I think it's a combination of these two things. I
29		think we need to be worried about what the incentive effects are and also there are
30		significant concerns about the actual approach that Ofcom has adopted here, which I think
31		would make these matters worse.
32	Q	Thank you very much.
33	THE	E CHAIRMAN: Just before we move on, I think we will take a five minute break.
34		(<u>Short break</u>)

2 way it has been done, and BT does not know its DSAC you said a moment ago and so on. 3 But there is no requirement to set its prices at DSAC, is there? 4 A No, it has to work on an interpretation of what it thinks the cost orientation obligation means. 6 Q Yes, but it does not have to set them at that level? 7 A No, it doesn't. It could potentially set them above and, as it were, take the fight to Ofcom and say: "That's justificat", or it could set it below. DSAC is there because it's essentially merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no -1 think T used the term "gold standard" 11 Q Yes. 12 A - there's nothing intrinsically 13 Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below 15 DSAC? 16 A It could. 17 Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? 19 A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption.	1	TH	E CHAIRMAN: Dr. Maldoom, you made a point about the uncertainties in DSAC and in the
 A No, it has to work on an interpretation of what it thinks the cost orientation obligation means. Q Yes, but it does not have to set them at that level? A No, it doesn't. It could potentially set them above and, as it were, take the fight to Ofcom and say: "That's justified", or it could set it below. DSAC is there because it's essentially merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no - I think I used the term "gold standard" Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	2		way it has been done, and BT does not know its DSAC you said a moment ago and so on.
 means. Q Yes, but it does not have to set them at that level? A No, it doesn't. It could potentially set them above and, as it were, take the fight to Ofcom and say: "That's justified", or it could set it below. DSAC is there because it's essentially merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no - I think I used the term "gold standard" Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	3		But there is no requirement to set its prices at DSAC, is there?
6 Q Yes, but it does not have to set them at that level? 7 A No, it doesn't. It could potentially set them above and, as it were, take the fight to Ofcom and say: "That's justified", or it could set it below. DSAC is there because it's essentially merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no - I think I used the term "gold standard" 11 Q Yes. 12 A there's nothing intrinsically 13 Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? 16 A It could. 17 Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? 18 A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. 24 Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? 25 DSAC? Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. <t< td=""><td>4</td><td>А</td><td>No, it has to work on an interpretation of what it thinks the cost orientation obligation</td></t<>	4	А	No, it has to work on an interpretation of what it thinks the cost orientation obligation
 A No, it doesn't. It could potentially set them above and, as it were, take the fight to Ofcom and say: "That's justified", or it could set it below. DSAC is there because it's essentially merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no - I think I used the term "gold standard" Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q One aspect of DSAC; is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	5		means.
 and say: "That's justified", or it could set it below. DSAC is there because it's essentially merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no - I think I used the term "gold standard" Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	6	Q	Yes, but it does not have to set them at that level?
 merged as a standard through interaction with Ofcom, and that is something that is enshrined in the RFS, but there is no - I think I used the term "gold standard" Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	7	А	No, it doesn't. It could potentially set them above and, as it were, take the fight to Ofcom
 enshrined in the RFS, but there is no - I think I used the term "gold standard" Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	8		and say: "That's justified", or it could set it below. DSAC is there because it's essentially
 Q Yes. A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	9		merged as a standard through interaction with Ofcom, and that is something that is
 A there's nothing intrinsically Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	10		enshrined in the RFS, but there is no - I think I used the term "gold standard"
 Q Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	11	Q	Yes.
 standard Ofcom applies, it still does not have to set its price at that, it could set below DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	12	А	there's nothing intrinsically
 DSAC? A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	13	Q	Assume it is the standard that Ofcom applies, and rightly applies, and BT knows that is the
 A It could. Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	14		standard Ofcom applies, it still does not have to set its price at that, it could set below
 Q What it has to do commercially is, as again I think you said, it has to cover its costs and make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	15		DSAC?
 make a reasonable return, and that is it? A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	16	Α	It could.
 A Indeed, and I think many prices are below DSAC. This was a new market, and I have no idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	17	Q	What it has to do commercially is, as again I think you said, it has to cover its costs and
 idea what was going through the minds of the commercial managers who set these prices, but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	18		make a reasonable return, and that is it?
 but there may well have been questions about trying to encourage adoption. It is not the case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	19	Α	Indeed, and I think many prices are below DSAC. This was a new market, and I have no
 case that these are necessarily prices which were all at DSAC and nor would that be sensible for BT to do. Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	20		idea what was going through the minds of the commercial managers who set these prices,
 for BT to do. Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	21		but there may well have been questions about trying to encourage adoption. It is not the
 Q Indeed, I think it is common ground that you can recover your common costs pricing below DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	22		case that these are necessarily prices which were all at DSAC and nor would that be sensible
 DSAC? A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	23		for BT to do.
 A You could, essentially. Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	24	Q	Indeed, I think it is common ground that you can recover your common costs pricing below
 Q One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty? A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	25		DSAC?
 A Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC. Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	26	Α	You could, essentially.
Essentially it has some headroom built into it because it allows costs which are common across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature.	27	Q	One aspect of DSAC, is it not, is that it gives a margin for cost uncertainty?
 across BT at the highest level across all these service groups, potentially could be recovered more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	28	А	Yes, you might describe this as a feature rather than a bug. That is an aspect of DSAC.
 more than once if one were to apply a similar system to other product groups, but that is very much there as a conscious feature. 	29		Essentially it has some headroom built into it because it allows costs which are common
32 very much there as a conscious feature.	30		across BT at the highest level across all these service groups, potentially could be recovered
	31		more than once if one were to apply a similar system to other product groups, but that is
33 O Oh yes, but that headroom is also a buffer against measurement errors is it not?	32		very much there as a conscious feature.
	33	Q	Oh yes, but that headroom is also a buffer against measurement errors is it not?
A It is indeed, yes. I think I have made that point, yes. There are a number of reasons it is	34	A	It is indeed, yes. I think I have made that point, yes. There are a number of reasons it is

1		there. Of com is rightly not concerned about stymying emerging competition and that means
2		until one has essentially given up on competition in an area one wants to take a cautious
3		approach. Equally, where there are measurement issues and uncertainties around how
4		things are done, then one wants to add in a margin of appreciation. The issue here is I think
5		a lot of that margin has been stripped away by the disaggregated approach in connections
6		and rentals, which is my main concern.
7	Q	There is the disaggregated point; I know you say that is one source of error because of the
8		difficulty the more you disaggregate. But, apart from that point, the fact that the DSAC test
9		applies is quite generous in terms of measurement, because they could price quite
10		commercially happily and avoid any risk of overcharging?
11	А	Yes, "generous" is a difficult word. These are all about balance issues. Clearly there is
12		already headroom built in to DSAC and that is very much a choice by Ofcom.
13	Q	It is a headroom. I am not just thinking about the investment dynamic efficiency, I am
14		thinking about measurement errors?
15	А	Yes, I think that is right. The generosity or headroom, or whatever you want to call it, is
16		very much a function of essentially the entire structure of the system that has been put in
17		place. So, yes, DSAC is a construct. It does allow some multiple recovery of common cost,
18		but then, on the other hand, the way that the interpretation of this HH3.1 is worked here is
19		it's very disaggregated and then it's on a narrow time basis, so then that strips some of it
20		away. So it is in the round that one gets the overall impact of the approach that is taken
21		depends on all these factors.
22	PRO	OFESSOR MAYER: Perhaps I could then pick up on that point because, as I understand your
23		argument, Dr. Maldoom, you are saying that aggregation over time and over the different
24		components of charging of rental and connection would be inherently beneficial and
25		desirable?
26	А	I think the issue is it would seem that the uncertainties here are very great. This
27		disaggregation of connections and rentals is not something which has been traditionally
28		used before, and that this approach would seem to exacerbate these considerable
29		uncertainties.
30	Q	Can I just clarify because there are a lot of uncertainties that arise, one of which is, if you
31		were looking over time, that circumstances change - factors enter in that were not irrelevant
32		to the actions that were taken in the time in question - so is there not a possible risk that one
33		could actually make matters worse not better by aggregation over time?
34	А	Yes, all of this is a matter of balance, I think. If one goes to the opposite extreme, if things

1 are too aggregated then there may well be prices which are problematic which are hidden 2 within that. All you would know then would be that the overall level was okay, so perhaps 3 BT is not making an excessive return across this product group but then there may be 4 structural issues in there which are causing some competition problems or distorted 5 incentives for other CPs, so clearly there is a balance to be struck with this. 6 Is it not the same in relation to aggregation over charges, that if the charges in fact relate to Q 7 things that have a degree of substitutability rather than complementarity associated with 8 them, that aggregation over those charges could be detrimental rather than beneficial? 9 А Yes, I think that's right. There was some question, I think initially, as to whether 10 aggregation at the market level - I think BT suggested this - might be appropriate. I think 11 the problem there is clearly these different bandwidths potentially are substitutes, so that 12 may not be good enough because it could be that the pricing structure at the different 13 bandwidths is in some way distorted and leading to adverse effects. 14 I think the issues to do with connections and rentals because, if you want to call them 15 anything, they are complements rather than substitutes, and there is this very high degree of 16 common cost across the two aspects of the service, and we have seen this because there is 17 this transmission equipment - this electronics' package - which, I think, at some point went 18 across between connections and rentals. There is potentially a lot of costs here which 19 different views could be taken about, namely whether they are connection costs or rental 20 costs, so I think we have very, very little certainty about what really is the properly 21 measured cost of connections and what are rentals. Overall, then we have a much clearer 22 view, and we do not have the substitutes' argument. I think my point has been that 23 connections and rentals really are of a different nature to these other issues. 24 Q But this balance between complements and substitutes is, I think, important in this regard, 25 and you say that inherently what we are talking about here is a market of substitutes, but can 26 I just pursue that a little bit further. If we are thinking about the buy versus build decision 27 of a potential upstream provider, is it not the case that there is a degree of substitutability 28 associated with those decisions rather than complementarity, and would it not then be the 29 case that one should consider that element of substitutability? 30 Do you mean between connections and rentals? А 31 Yes. Q 32 I think that is unlikely to be the case. I can imagine that one can create a set of assumptions А 33 in which that might be the case, so an example would be: suppose you had a CP who was

very financially constrained and they may well care about the balance between connections

34

and rentals, and there may be a question. Certainly the evidence I have seen doesn't suggest that that is a reasonable view, and I think this notion of lifetime costing with maybe some additional effects on rentals and on the lifetime service taken was probably the right way of looking at it. It's not really plausible to think about financial constraints operating for the people that are taking this. I know some of these might be relatively small competitors but there are no real capital constraints or resource issues there, so I think actually that is not a plausible way of looking at it. Actually, even taking account of the self-build alternative, I think connections and rentals should still probably be viewed as complements presumptively.

10

24

25

26

1

2

3

4

5

6

7

8

9

Q Does not the balance between connection and rentals affect that buy versus ----

11 А It could do, but I don't think we should expect it to affect it very much. It is absolutely 12 possible that a capital constrained purchaser might be very concerned about getting 13 connections down, or it could be somebody is expecting them to take it for a long time, in 14 which case they may worry more about rentals, but on balance I think certainly the data 15 which we have seen on, for example, lifetime - this is the Coulson circuit analysis - suggests 16 that there is not an enormous amount of variation in terms of lifetimes. Remember this is 17 book-ended by the fact that this product came in, whenever it was, about 2004 and then 18 there is a replacement set of products coming in 2008/09, so there is a limit to the amount of 19 variation that there can be in these lifetimes, so I don't think we can expect there to be a 20 massive range of considerations from one end of the scale to the other end of the scale in 21 terms of the collect and rental balance. One would expect broadly similar considerations to 22 apply to most of the purchasers and I think one would expect that to be complementarity. 23 Could I then just turn to the second part of your presentation and that is in terms of Q

- Could I then just turn to the second part of your presentation and that is in terms of recovery, where you are saying that uncertainty inherently leads to a risk of over-recovery, as I understand it, is there not the potential of uncertainty creating a risk of under-recovery as well?
- 27 I think there is. The asymmetry that I am pointing to though is the fact that the repayment А 28 regime clearly only affects matters in the case that these disputes are brought, and that some 29 failure has been found, so there are upsides and downsides which are not symmetrically 30 treated. So if we turn up the knob -- sorry to use this rather horrible analogy -- but if we turn 31 up the knob on the repayment regime in various ways, of which there are many ways in 32 which we could do that, clearly that does have an effect on the expected return that you get 33 from a particular level of pricing due to the asymmetric impact between these upsides and 34 downsides. The upsides and downsides could be to do with Ofcom's uncertainty in applying

1 the test; it could be to do with the imperfect targetability of these cost orientated prices for 2 BT. It would seem to be, from what I have seen, that that just acts as a fundamental 3 constraint on what is possible within the pricing here. It is just an institutional constraint. 4 You do not have access to the RFS data until about eighteen months later when the prices 5 have been set. So there seem to be unavoidable sources of uncertainty present. 6 Is there not a risk of uncertainty taking the form of a failure to recover at all excessive Q 7 pricing? 8 Yes, that would be the possibility, that BT sets an excessive pricing and it is just never А 9 found out, it just gets away with it. Yes, it is possible, yes. I am conscious of that 10 possibility. I am not, as it were, supposing that -- A lot of my analysis, just to be absolutely 11 clear, my incentive analysis would still hold even if Ofcom was on average correct. So one 12 way it made errors, the other way. BT was on average correct, it made errors one way, it 13 made errors the other way. Those arguments would still apply. I think we need to be 14 especially concerned, because of the way that Ofcom has applied the test, and this goes to 15 the formulaic nature of the test, which is how I think I have described it, which is to do with 16 the disaggregation and so on, but I think even absent that there are some reasons to be 17 concerned. 18 PROFESSOR MAYER: Thank you. 19 MR. HARRISON: As far as in your evidence you explain that the complexities with the data and 20 the collection of the data, and there is an incredibly complicated model and we have heard 21 from Mr. Dolling, I think it was, the difficulties in actually getting the data information. If I 22 can just take you to what is Core Bundle B and to the Determination on p.328. 23 А So this is the table? 24 0 Yes, the table which actually shows in absolute terms, rather than average pricing and 25 average cost, exactly what the situation was in absolute value terms between revenues and 26 so on. Again if you look at that table and particularly in the first year, you can see that there 27 are, certainly for a number of them, clear evidence in 2006/2007 where external revenues 28 are substantially in excess of DSAC. 29 А Yes. 30 Yes? Looking at those and recognising that there is an inevitable delay, and I accept that Q 31 there is a delay and we understand there is a delay but we were told by Mr. Dolling that the 32 numbers are run first on a trial basis, I think, on period 9, I think is what he said, and then in 33 preparation for the year end and then run about four months after the year end. Looking at

these numbers, would you have expected, based on that first year, for BT to be on warning,

as it were? I think you described this comparison as a first step on a first stage, but it is also a first stage for BT as well.

А Okay. I have looked at this to some degree and I have been through the pricing figures, so I am going on the documentary evidence and I do not know what they actually did. Mr. Dolling would know that better than me. But certainly what I made from it was the following: You can see really clearly in certain cases where prices exceeded DSAC, that has been realised with the delay. I am not sure exactly what that would be. One would have to look sort of in the order of eighteen months I think. Then adjustments have been made and you can see that happening. Actually there are also some the other way round. There are actually really negative returns in the initial year, because remember these are new at the beginning, so I think the first year of introduction there are some examples where there are quite negative returns and prices have been increased. Actually it is too far and then they have gone back again. So you can see this kind of delayed tracking. Then the other thing that has been going on here is that the forecasts, I think it was really from 2006 onwards particularly, the forecast volumes are just terribly wrong and there is just repeated underestimation of take-up year after year, both by Ofcom and BT. Essentially they are trying to hit a target here with repeated underestimation of what the take-up is, and I think my interpretation of this is that that is a large cause of the problem.

Q Part of it was clearly that and part of it was methodology as well.

A Yes, yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

Q Given the situation here, some of the delays in methodology come very much later during
 this period rather than perhaps earlier. Given the significance of the apparent overcharging
 that this table demonstrates, would you not have expected those methodology issues to have
 been certainly identified and corrected much earlier in the process than not?

A I do not know. I think you would probably have to take them one by one. Certainly on
connections and rentals, the split of connections and rentals, I honestly do not think
anybody would have expected Ofcom to have applied the approach that they have applied
now. I know BT has made this point but as an independent person I would not have
expected that and certainly it is not what they have done elsewhere. So that is sort of
surprising. I think some of those other changes may be more debatable. You would
probably have to take them one by one.

Q Okay, fine. Again on this table it demonstrates the points about your single point or single
year, I think it was, where there were outliers, and it looks on this table as well as though
there are two of them.

1	А	Yes, yes.
2	MR.	HARRISON: Fine, thank you.
3	THE	E CHAIRMAN: I think we will then resume at 2 o'clock.
4		(Adjourned for a short time)
5	THE	E CHAIRMAN: Yes, Mr. Pickford.
6		Cross-examined by Mr. PICKFORD
7	Q	Dr. Maldoom, I am going to ask you some questions on behalf of Sky and TalkTalk. I am
8		going to focus principally on your second witness statement because that is the document
9		where you respond to my clients' case. Before doing that, I would like to follow up a few
10		points that were discussed with Mr. Saini, and also with the Tribunal, if I may. One of
11		those points is that you said in relation to an exchange with Mr. Saini that DSAC should
12		effectively just be a first order test, and then Ofcom should be prepared to exercise its
13		discretion around DSAC. That is correct, is it not?
14	А	Yes, I mean there is obviously debate about what exactly that means in practice, but I think
15		there's a reasonable degree of consensus that DSAC is not the beginning and the end of the
16		story.
17	Q	Would you go please to core bundle B p.336 and turn up the table that you looked at with
18		Mr. Saini.
19	А	This is the Determination, yes?
20	Q	That is correct. I just want to be clear about what your case is, and what it is not. If we look
21		at table 14.3, right down the bottom we have "mainlink rental", do you see that?
22	А	I do.
23	Q	For 2008/2009 it was just 2% below the DSAC test. Do you see that? 98%?
24	А	98, yes, I do.
25	Q	It was just 2% below DSAC?
26	А	Yes, I have that.
27	Q	On your case, just so I am clear, should Ofcom consider finding that mainlink rental was
28		excessive because it was close to DSAC? Should it have gone on to consider other factors
29		and maybe ultimately have concluded that it was excessive?
30	А	I don't think you can conclude that it would be excessive, but I think my argument about
31		uncertainties would suggest that maybe a little bit more hunting around might be
32		appropriate for Ofcom in such a situation.
33	Q	But you have said that there may be situations where you just exceed DSAC by a little bit
34		then ultimately Ofcom should decide that there has not been overcharging. That is your
	I	

1 case, is it not?

1		
2	А	Yes. Obviously, that's predicated on the fact that we have this high level of disaggregation
3		here, so again this is a disaggregated charge. So I don't think the argument applies
4		symmetrically. Yes, I take your point entirely that if uncertainty is important, then coming
5		close to that threshold presumably must be equally important, yes indeed. Is it symmetrical,
6		the argument, if it is 2% over or 2% under or the same? Not necessarily. We are looking at
7		something that is disaggregated here.
8	Q	But as a matter of principle you accept that a price below DSAC, for instance here, 98%,
9		that could still be appropriate for Ofcom to judge that that was excessive?
10	А	To be clear, cost orientation is not automatically expressed in terms of DSAC, so we have
11		this DSAC test but it is obviously an interpretation of what cost orientation means.
12	Q	Let us assume one is applying DSAC as its first order test, as you suggested it should be.
13	А	Yes, I can quite imagine that that might promote some more scrutiny.
14	Q	So you agree with me that there may be situations in which Ofcom discovers a price that is a
15		little bit below its first order test, and ultimately concludes that it is excessive on its first
16		scrutiny. That would be legitimate?
17	А	I think one could imagine that that situation might arise. I think that is implicit in my
18		argument.
19	Q	You also had a discussion with Mr. Saini and also members of the Tribunal about
		uncertainty and we will be coming back to uncertainty on a number of occasions. One of
20		
20 21		the points that you make in relation to uncertainty we can pick up in your first report,
21		the points that you make in relation to uncertainty we can pick up in your first report,
21 22		the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were
21 22 23		the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say:
21 22 23 24		the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments
21 22 23 24 25		 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that
21 22 23 24 25 26		the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct."
 21 22 23 24 25 26 27 	A	 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct." So here you are talking about the uncertainty that arises in relation to different choices about
 21 22 23 24 25 26 27 28 	А	 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct." So here you are talking about the uncertainty that arises in relation to different choices about common cost allocation, are you not?
 21 22 23 24 25 26 27 28 29 	Α	 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct." So here you are talking about the uncertainty that arises in relation to different choices about common cost allocation, are you not? Yes, I think there's two aspects to finer disaggregation. The first one is that that may expose
 21 22 23 24 25 26 27 28 29 30 	Α	 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct." So here you are talking about the uncertainty that arises in relation to different choices about common cost allocation, are you not? Yes, I think there's two aspects to finer disaggregation. The first one is that that may expose an issue of cost allocation that would not be exposed at a higher level of aggregation.
 21 22 23 24 25 26 27 28 29 30 31 	Α	 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct." So here you are talking about the uncertainty that arises in relation to different choices about common cost allocation, are you not? Yes, I think there's two aspects to finer disaggregation. The first one is that that may expose an issue of cost allocation that would not be exposed at a higher level of aggregation. Secondly, I think there's intrinsically a kind of what you might call a sort of law of large
 21 22 23 24 25 26 27 28 29 30 31 32 	A	 the points that you make in relation to uncertainty we can pick up in your first report, please, which is at tab 3 of CBD para.130 p.46. This picks up on something that you were just talking about when you were discussing finer levels of disaggregation. You say: "The finer the disaggregation of prices the greater the risk of triggering repayments due simply to the uncertainty in measuring costs for components of a service that are not distinct." So here you are talking about the uncertainty that arises in relation to different choices about common cost allocation, are you not? Yes, I think there's two aspects to finer disaggregation. The first one is that that may expose an issue of cost allocation that would not be exposed at a higher level of aggregation. Secondly, I think there's intrinsically a kind of what you might call a sort of law of large numbers issue, which is that as you look more finely you become more exposed to errors

1	1	exposed to error because they are less likely to average out?
2	Α	Let me explain.
3	Q	Surely the errors will average out over different certainties?
4	A	No, I think the point is that as you look more finely then you would see errors in
5		measurements which would be essentially added together if one were to look more broadly.
6		I think, as we agree that there are both positive and negative errors possible and they all tend
7		to average out, you still may have an aggregate error, but you have the benefit of averaging
8		on your side in terms of reducing the impact of error as you look at a higher level of
9		aggregation.
10	Q	I am afraid I do not understand that answer either. You said that as you go down and you
11		disaggregate, more errors add together
12	А	No, I didn't say that. As you go down, then you are exposing errors which previously would
13		have been added together at an aggregate level. The result of that is $-$ and this is just a
14		statistical issue - that as you go down more finely you will expose these errors and be more
15		exposed to the risks of incorrect conclusion.
16	Q	In terms of common cost allocations, that is something that BT gets to decide in its own
17		regulatory financial statements, is it not?
18	А	Yes, it does.
19	Q	In the present case, Ofcom did not seek to interfere in any way with BT's assessment of cost
20		allocation between, for instance, rentals and connections?
21	А	No, the issue which we have is clearly that that was done at some point prior to the setting
22		of these prices. I think some of this morning I was talking about the disconnect that can
23		arise due to the RFS being set on one basis and potentially, connections and rentals are a
24		good example, pricing being done on a different one.
25	Q	These are things that are all within BT's control here?
26	А	In the long run maybe, but there are timing issues in terms of when it can exercise these
27		choices.
28	Q	BT, if it wants to be, if it thinks it is sufficiently important to it, can update its own
29		management information so that it is in a position to comply with its cost orientation
30		obligations.
31	А	It is not in a position, as far as I can understand, to update the basis of the RFS to match
32		what it considers to be the most appropriate pricing structure, particularly in a world where
33		connections and rentals are disaggregated. These are two independent decisions which are
34		being made by BT. You are quite right, they are all under BT's control, but they are on

 production of the RFS, and then there is setting the prices for these services and they are not on a coordinated time frame. Q Obviously, ultimately the RFS are produced on an annual basis, but BT is in a position, if it wants to, to keep updating its own internal systems to keep abreast of what it thinks, what it knows it will ultimately be judged by, is it not? A Yes, but it still has to produce the RFS and that becomes set in stone, as it were, in the sense that then updates have to be justified relative to that. So I think what you have described rather overstates the flexibility because of these timing issues. Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequeney, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can ethange its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A Fm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of seni	1		different timeframes. There is determining the cost allocation which is used for the
 Q Obviously, ultimately the RFS are produced on an annual basis, but BT is in a position, if it wants to, to keep updating its own internal systems to keep abreast of what it thinks, what it knows it will ultimately be judged by, is it not? A Yes, but it still has to produce the RFS and that becomes set in stone, as it were, in the sense that then updates have to be justified relative to that. So I think what you have described rather overstates the flexibility because of these timing issues. Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service, which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A Fm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these	2		-
 wants to, to keep updating its own internal systems to keep abreast of what it thinks, what it knows it will ultimately be judged by, is it not? A Yes, but it still has to produce the RFS and that becomes set in stone, as it were, in the sense that then updates have to be justified relative to that. So I think what you have described rather overstates the flexibility because of these timing issues. Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis, ot that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I'm not sure how rapidly it can actually do that, though. It has to documentary evidence, there would appear to be lags	3		on a coordinated time frame.
 knows it will ultimately be judged by, is it not? A Yes, but it still has to produce the RFS and that becomes set in stone, as it were, in the sense that then updates have to be justified relative to that. So I think what you have described rather overstates the flexibility because of these timing issues. Q In relation, for instance, to volumes, Ict us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis, so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this processe	4	Q	Obviously, ultimately the RFS are produced on an annual basis, but BT is in a position, if it
 A Yes, but it still has to produce the RFS and that becomes set in stone, as it were, in the sense that then updates have to be justified relative to that. So I think what you have described rather overstates the flexibility because of these timing issues. Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. G So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	5		wants to, to keep updating its own internal systems to keep abreast of what it thinks, what it
 that then updates have to be justified relative to that. So I think what you have described rather overstates the flexibility because of these timing issues. Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there w	6		knows it will ultimately be judged by, is it not?
 9 rather overstates the flexibility because of these timing issues. 10 Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? 14 A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. 17 Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? 2 A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. 24 Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? 27 A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. 31 Q So you cannot assist us on that question? 32 A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their curr	7	Α	Yes, but it still has to produce the RFS and that becomes set in stone, as it were, in the sense
 Q In relation, for instance, to volumes, let us suppose (and this is something that you adverted to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	8		that then updates have to be justified relative to that. So I think what you have described
 to before) that BT is underestimating the volumes of a particular service which turns out to be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. 31 Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	9		rather overstates the flexibility because of these timing issues.
 be more popular than BT originally anticipated. In its monthly management accounts it can see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	10	Q	In relation, for instance, to volumes, let us suppose (and this is something that you adverted
 see the volumes that are actually being realised for a particular service, can it not? A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	11		to before) that BT is underestimating the volumes of a particular service which turns out to
 A I don't know what's available. What I have looked at is the pricing papers, where pricing decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	12		be more popular than BT originally anticipated. In its monthly management accounts it can
 decisions are made, and they are not at a monthly frequency, as far as I am aware. They are irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	13		see the volumes that are actually being realised for a particular service, can it not?
 irregular. Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	14	А	I don't know what's available. What I have looked at is the pricing papers, where pricing
 Q It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	15		decisions are made, and they are not at a monthly frequency, as far as I am aware. They are
 its business. So if it thinks it is necessary, for example, to have information on a monthly basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	16		irregular.
 basis so that it can change its prices according to what it experiences on a monthly basis, it can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	17	Q	It is up to BT to have whatever systems it thinks are necessary to keep abreast of changes in
 can do that, can it not? No-one is stopping it having whatever internal systems it thinks are necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	18		its business. So if it thinks it is necessary, for example, to have information on a monthly
 necessary in order to comply? A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	19		basis so that it can change its prices according to what it experiences on a monthly basis, it
 A Sure, absolutely. There may be practical issues, there may be limitations, but within those limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	20		can do that, can it not? No-one is stopping it having whatever internal systems it thinks are
 limitations presumably it can do what it wishes. Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	21		necessary in order to comply?
 Q If it sees, on whatever grouping that it keeps its information for, that it appears to be getting out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	22	А	Sure, absolutely. There may be practical issues, there may be limitations, but within those
 out of line with its volume estimates, it can take that into account, can it not, in its pricing decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	23		limitations presumably it can do what it wishes.
 decisions? A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	24	Q	If it sees, on whatever grouping that it keeps its information for, that it appears to be getting
 A I'm not sure how rapidly it can actually do that, though. It has to observe that price change, it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	25		out of line with its volume estimates, it can take that into account, can it not, in its pricing
 it has to be considered. The way I understand it is these pricing papers are put forward to a group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	26		decisions?
 group of senior managers to approve those price changes. I don't know, I think you'd have to ask BT as to what sort of lags were involved in this process. Q So you cannot assist us on that question? A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	27	A	I'm not sure how rapidly it can actually do that, though. It has to observe that price change,
 30 to ask BT as to what sort of lags were involved in this process. 31 Q So you cannot assist us on that question? 32 A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	28		it has to be considered. The way I understand it is these pricing papers are put forward to a
 31 Q So you cannot assist us on that question? 32 A I can't tell you what the lags are. From what I've seen from the documentary evidence, there 33 would appear to be lags, and quite significant lags, with their current processes. That I can 	29		group of senior managers to approve those price changes. I don't know, I think you'd have
 A I can't tell you what the lags are. From what I've seen from the documentary evidence, there would appear to be lags, and quite significant lags, with their current processes. That I can 	30		to ask BT as to what sort of lags were involved in this process.
33 would appear to be lags, and quite significant lags, with their current processes. That I can	31	Q	So you cannot assist us on that question?
	32	Α	I can't tell you what the lags are. From what I've seen from the documentary evidence, there
34 tell you.	33		would appear to be lags, and quite significant lags, with their current processes. That I can
	34		tell you.

Q You talk in para.130 about the possibility of BT being unfairly punished and CPs getting
 significant payments because of the uncertainty that you have discussed. I think you
 accepted in a question from Professor Mayer that you can have false negatives and false
 positives?

A Yes, absolutely.

5

6

7

8

9

10

11

12

13

14

15

Q There is no reason why there should be any asymmetry between the two?

- A Yes, but there is, but there is. The fundamental point which I'm making here is that the asymmetry arises from the fact that there are repayments in the case that BT is found to have overcharged, but not in the converse case that it has not. If we imagine this uncertainty as I said this morning there are essentially two sources of this uncertainty. One is to do with the limitations that there are on BT in setting a price in advance of having information about cost. The other is about Ofcom's assessment. But there are essentially upsides and downsides for BT. The upside is that maybe it gets away with setting a price that's higher than it should do. The downside is that it gets hit by some repayment which depends on the approach that Ofcom takes.
- 16 I think the point is that the approach that Ofcom takes to the repayment only affects one of 17 those two cases. So there is no sense in which the upside and the downside in some sense 18 balance out and on average BT is in the same position as if it had set, say, a cost oriented 19 price right from the beginning. That's the point. There is an asymmetry between these 20 cases.
- 21 Q Nothing that you have just said to me explains to me the basis on which you say that it is 22 actually asymmetrical, whether you are more likely to be above the standard or below? 23 А Only in one of those cases is the repayment triggered. That is the fundamental asymmetry. 24 Q But in the other case, there is not a repayment figured and BT gets to keep the overcharge. 25 А There are many cases here. There are a number of possibilities. BT can set a price that's 26 too high and get away with it; it can set a price that's too high and get caught; it can set a 27 price that's too low essentially. There are many cases here. So we have to think through all 28 of those possibilities. The point is that the case that we have to worry about is the case 29 where BT sets a price that actually is cost orientated but is found, incorrectly, not to be due 30 to these measurement errors. In that case, we end up with this incentive problem that's 31 created by the fact that a repayment is triggered here and there is no countervailing benefit 32 that BT receives.

33 PROFESSOR MAYER: But Mr. Pickford's point was that there is.

34 A Yes, but that doesn't depend on the repayment regime. So if I turn up the knob on the

2 3

4

5

6

7

8

9

10

11

12

13

14

1

repayment machine and make that onerous by adding interest and so on, I'm not affecting the benefit that BT might get in the case that it doesn't get found out.

- MR. PICKFORD: I am not talking about turning up in any concept at the moment. All I am trying to get to is a quite fundamentally important point which is about the asymmetry in the probability of a false negative versus a false positive. If we break it down, for a moment, I think what you are discussing is what you say are asymmetrical consequences of the implications of a false positive as opposed to a false negative. Is that correct?
- A I think that's quite helpful. Let me have another go. I take your point. There are certain aspects of my arguments which, to be clear, do not require any assumption about asymmetric probabilities, OK? They apply just fine, even in the case that this false positive/false negative probability are basically similar. That is very much to do with the asymmetric consequences because in one case the repayments matter and in the other case it does not. For that reason, the approach that is taken to repayments can have incentive consequences.

15 Q Just pausing there.

- A I will not go on at length, but just to be clear, the other aspect of my argument which was
 presented this morning is really to do with the trouble which I have with certain aspects of
 the Ofcom Determination, which I think increases the probability of getting these false
 positives, so incorrectly finding, or excessively finding, that BT has breached cost
 orientation. So to be clear, I also have concerns about that. But I think we can park that for
 the purposes of the questions that you are asking.
- Q In relation to the latter, you have not established in any of your evidence that there is an
 asymmetry in the probabilities associated with a false positive as opposed to a false
 negative. Whatever cost standard you take, you have not established that, have you?
- A What I'm concerned about is the level of disaggregation, and I think particularly to do with connections and rentals, the fact that this seems such an extreme step. I think it is difficult, this area, because we can't expect to really quantify a lot of this. But I think there has to be a very considerable concern that that approach greatly enhances the possibility of a false positive. I think that's primarily to do with issues to do with cost allocation, which is explained in my report, and the fact that there is such a large degree of cost communality between connections and rentals.
- Q Are you telling me that you believe that you have demonstrated as a matter of economics
 that there is a greater percentage of a false positive rather than a false negative in this case?
 I do not follow that.

- A OK. Demonstrate is a difficult word in the circumstances, because we are trying to identify various effects that need to be traded off under a proper regulatory decision. That is what I have tried to do. I think I have demonstrated that there is a very good case for being concerned about the problems that come from an excessive level of aggregation in terms of throwing up this possibility of false positives, and indeed my concern is more to do with essentially identifying too large a repayment as a result.
 - Q But aggregation can equally throw up false negatives.

A Aggregation?

7

8

9

10

- Q Or disaggregation, whichever way you go. There is nothing in what you explained that introduces a systemic bias one way or the other.
- 11 А Okay. Just to be clear, I think there are trade-offs which have to be made. I think we can 12 say things about what happens with a very high level of aggregation, what happens with a 13 very small level of aggregation, and the question is what is reasonable. I think connections 14 and rentals have to be treated in a fundamentally different way from other forms of 15 aggregation for the reasons that Professor Mayer and we were discussing this morning. 16 There is a substantively different set of questions involved in connections and rentals than 17 there might be with other forms of aggregation. I can appreciate this doesn't give a perfectly 18 clear answer. I can't give you a perfectly clear answer to these questions, because there are 19 trade-offs involved. What we are trying to identify is what the relevant effects are, I think.
- Q You have not given me any answer that demonstrates that there is an asymmetry, have you,
 in terms of the probabilities. We will come on to the consequences in a minute.
 - A I haven't given probabilities. How would one give probabilities? That's not the issue.
- Q You have not demonstrated that there is no reason to believe that there is a bias in terms of
 the probabilities of underlying false positives versus false negatives?
- 25 Yes, I think I have, for the reason that the disaggregation of connections and rentals exposes А 26 a really significant question about how costs are allocated between the connections and the 27 rentals. BT has clearly picked a particular allocation across connections and rentals, it has 28 to. Then, essentially, I think the question was whether pricing has then followed that or not. 29 I think in some of these cases it would appear that it has not done, but I don't think that that 30 can be taken necessarily as an indication that there has been a lack of cost orientation, 31 because I don't think it was ever appropriate to disaggregate those services in the first place. 32 I think this is a clear example of the kind of problem that can arise from an excessive level 33 of disaggregation.
- 34 THE CHAIRMAN: I think the point being made by Mr. Pickford is perhaps a slightly simpler

	I	
1		one. We can understand your evidence that the greater the level of disaggregation, the
2		greater the possibility for error on the assumption that there is some perfect allocation of
3		costs or more reliable allocation of costs. There is no reason why there should be more one
4		way than the other through greater disaggregation, is there?
5	А	The error itself?
6	Q	The error itself,
7	А	That's a fair point. The consequences then flow. The consequences become greater.
8	Q	I think that was the point that you were being asked about by Mr. Pickford.
9	MR.	PICKFORD: It was indeed, Sir.
10	А	You mentioned probabilities. I think this may be a helpful way of looking at it. You could
11		ask the question, "What is the probability that at least one of the prices under this obligation
12		is judged to be excessive?" That probability is clearly increasing as we disaggregate more
13		and more, because it's just more likely that something will poke its head above the parapet
14		by chance only.
15	Q	And likewise for there being a false negative?
16	А	Yes, but we don't really - that doesn't really have any consequence, does it, in terms of the
17		design.
18	Q	Consequence is a different issue and we will come on to it in due course. We do have to be
19		clear about precisely what it is that you are saying about the probabilities. I understood that
20		you accepted what the Chair put to you, that in fact you are not saying that there is a
21		difference in terms of the risks of error in each case. You are talking about consequences.
22	А	Let me make two - I think I can tidy this up with two very simple statements. Firstly, to
23		take the Chair's point, if we take a particular price and say, "What is the probability of that
24		being too high or too low?" then there is no reason for that to be affected by disaggregation.
25		If we say, "What is the probability of there being at least one of these many prices that could
26		be too high?" then that is affected by the amount of aggregation that there is, and that
27		becomes increasing the greater the level of disaggregation. Does that help?
28	Q	Equally, there is a greater chance that there is one that is, in fact, not picked up?
29	А	Equally, yes.
30	Q	I think we are there. Can we turn, please, to your second report, which is at tab 4, and could
31		you go to para.2, which is in your introduction. You say you have been asked to consider
32		the economic arguments and then you set out the subjects on which you have been asked to
33		consider those arguments. I just want to be clear exactly about the scope of what your
34		instructions are. To say, "I have been asked to consider economic arguments" is relatively
	I	

 A Yes, I think largely so. Q If I could put two alternatives to you: were you asked to consider them and come up with arguments that BT could use in rebuttal or were you asked to consider them and give your full and objective independent view, irrespective of BT's particular interests? A I was to produce this report, so not to produce rebuttal arguments. Q Not to produce rebuttal arguments, so it is the latter? A Yes. I was asked to produce this report as an independent view. Q On interest you go on to explain your conclusions in para.5, and you say you disagree with Dr. Houpis's conclusion and explain that he has not considered the full range of incentive effects on CPs and BT, nor how these various effects need to be traded off in and out of Ofcom's objectives and duties?
 arguments that BT could use in rebuttal or were you asked to consider them and give your full and objective independent view, irrespective of BT's particular interests? A I was to produce this report, so not to produce rebuttal arguments. Q Not to produce rebuttal arguments, so it is the latter? A Yes. I was asked to produce this report as an independent view. Q On interest you go on to explain your conclusions in para.5, and you say you disagree with Dr. Houpis's conclusion and explain that he has not considered the full range of incentive effects on CPs and BT, nor how these various effects need to be traded off in and out of
 full and objective independent view, irrespective of BT's particular interests? A I was to produce this report, so not to produce rebuttal arguments. Q Not to produce rebuttal arguments, so it is the latter? A Yes. I was asked to produce this report as an independent view. Q On interest you go on to explain your conclusions in para.5, and you say you disagree with Dr. Houpis's conclusion and explain that he has not considered the full range of incentive effects on CPs and BT, nor how these various effects need to be traded off in and out of
 A I was to produce this report, so not to produce rebuttal arguments. Q Not to produce rebuttal arguments, so it is the latter? A Yes. I was asked to produce this report as an independent view. Q On interest you go on to explain your conclusions in para.5, and you say you disagree with Dr. Houpis's conclusion and explain that he has not considered the full range of incentive effects on CPs and BT, nor how these various effects need to be traded off in and out of
 7 Q Not to produce rebuttal arguments, so it is the latter? 8 A Yes. I was asked to produce this report as an independent view. 9 Q On interest you go on to explain your conclusions in para.5, and you say you disagree with Dr. Houpis's conclusion and explain that he has not considered the full range of incentive effects on CPs and BT, nor how these various effects need to be traded off in and out of
 A Yes. I was asked to produce this report as an independent view. Q On interest you go on to explain your conclusions in para.5, and you say you disagree with Dr. Houpis's conclusion and explain that he has not considered the full range of incentive effects on CPs and BT, nor how these various effects need to be traded off in and out of
9 Q On interest you go on to explain your conclusions in para.5, and you say you disagree with 10 Dr. Houpis's conclusion and explain that he has not considered the full range of incentive 11 effects on CPs and BT, nor how these various effects need to be traded off in and out of
10Dr. Houpis's conclusion and explain that he has not considered the full range of incentive11effects on CPs and BT, nor how these various effects need to be traded off in and out of
11 effects on CPs and BT, nor how these various effects need to be traded off in and out of
12 Ofcom's objectives and duties?
13 A Yes.
14 Q That is presumably what you purport to do, therefore, in your report?
15 A Well, I've had a go at doing that, yes.
16 Q We know that must be the case, because we see your conclusion at para.8 that you say that
17 not awarding interest provides a good compromise between the varying conflicting
18 incentives that need to be balanced. So you must believe that you have addressed them all?
19 A Yes, I think one can't be precise about this, but I think no interest seemed to be as good a
20 trade-off amongst all those various issues as anything else involving, say, low levels of
21 interest.
22 Q Your comments on interest are arguably the main unique contribution you make to the
23 debate on Sky and TalkTalk's appeal, because on the issue of the costs standard, although
24 there may be some nuances between you, you are by and large aligning yourself behind
25 what Mr. Myers has to say?
A Yes, I think there is a large degree of agreement between myself and Mr. Myers, yes.
27 Q Can we focus then, firstly, on the issue of interest, and I have quite a few questions to ask
28 you about that. In its final Determination of a recent dispute involving Gamma Telecoms,
29 Of com said that there were three objectives that it had in deciding a question of interest.
30 Are you aware of the <i>Gamma Telecom</i> dispute?
31 A I am, yes, I have read the Determination.
32 Q Perhaps we could just turn it very briefly, because it might be useful as a framework for our
33 discussion. You should find it in a bundle entitled AD2. Could you turn to para.4.9. You
34 see from 4.9 that three potential objectives are identified. Objective 1, avoid CPs having an

 delay submitting disputes. Objective 3, avoid distorting CPs' incentives to invest? A Yes. Q I think, from your report, that you would agree that that is a suitable framework to go about considering the issues in relation to interest? A Yes. My report predates this, but Ofcom appears to have picked up on very similar issues. Those were my three main effects to be traded off. Q Great, so we can agree therefore to discuss them within that framework? A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we a	1		incentive to set charges that are unduly high. Objective 2, avoid CPs having an incentive to
 Q I think, from your report, that you would agree that that is a suitable framework to go about considering the issues in relation to interest? A Yes. My report predates this, but Ofcom appears to have picked up on very similar issues. Those were my three main effects to be traded off. Q Great, so we can agree therefore to discuss them within that framework? A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going	2		delay submitting disputes. Objective 3, avoid distorting CPs' incentives to invest?
 considering the issues in relation to interest? A Yes. My report predates this, but Ofcom appears to have picked up on very similar issues. Those were my three main effects to be traded off. Q Great, so we can agree therefore to discuss them within that framework? A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. T just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis t	3	А	Yes.
 A Yes. My report predates this, but Ofcom appears to have picked up on very similar issues. Those were my three main effects to be traded off. Q Great, so we can agree therefore to discuss them within that framework? A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It	4	Q	I think, from your report, that you would agree that that is a suitable framework to go about
 Those were my three main effects to be traded off. Q Great, so we can agree therefore to discuss them within that framework? A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 	5		considering the issues in relation to interest?
 8 Q Great, so we can agree therefore to discuss them within that framework? 9 A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. 11 Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? 12 A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. 12 Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? 17 A And then through on to consumers eventually, yes. 18 Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? 20 A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. 21 Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? 21 A We are. 22 Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? 33 A Ukay. 34 We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 34 A tranal well have done, yes. 	6	А	Yes. My report predates this, but Ofcom appears to have picked up on very similar issues.
 A Yes. The only thing I would say is that I think I have some issues to do with possible adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 	7		Those were my three main effects to be traded off.
 adverse incentives on BT, but I don't consider that to be the most important issue probably. Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 	8	Q	Great, so we can agree therefore to discuss them within that framework?
 Q Sorry, when you say "possible adverse incentives on BT", could you just clarify? A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 	9	А	Yes. The only thing I would say is that I think I have some issues to do with possible
 A Over compliance, I think, in my report, the possibility of ending up with wholesale prices that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	10		adverse incentives on BT, but I don't consider that to be the most important issue probably.
 that are too low or changes in the products that are offered, these kind of issues, which I think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	11	Q	Sorry, when you say "possible adverse incentives on BT", could you just clarify?
 think was discussed a little this morning. Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	12	А	Over compliance, I think, in my report, the possibility of ending up with wholesale prices
 Q As I understand it, your concern about that principally is that it feeds through potentially into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	13		that are too low or changes in the products that are offered, these kind of issues, which I
 into impacts on BT's investment incentives? A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	14		think was discussed a little this morning.
 A And then through on to consumers eventually, yes. Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	15	Q	As I understand it, your concern about that principally is that it feeds through potentially
 18 Q So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives to invest? 20 A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. 22 Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? 26 A We are. 27 Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? 30 A Okay. 31 Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 33 A It may well have done, yes. 	16		into impacts on BT's investment incentives?
 19 to invest? 20 A Yes. I just point out there's quite a range of issues that are there, but that's fine, as 21 categorisations it's fine. 22 Q Great. So let us turn then to the first question, which is the incentive to comply with cost 23 orientation obligations and consider how that relates obviously to the payment of interest. 24 We are in agreement that in the absence of a payment of interest, BT has a weaker incentive 25 to comply with its cost orientation obligation, are we not? 26 A We are. 27 Q I am just going to, if I may, try to understand the general mechanism behind that. I know 29 you take issue with how Ofcom went about identifying its overcharges in this case, but for 29 the purposes of this discussion we are going to put that to one side - okay? 30 A Okay. 31 Q We are going to assume that BT has, in fact, been overcharging. It has received an amount 30 of money on that analysis that it should not have received - correct? 33 A It may well have done, yes. 	17	А	And then through on to consumers eventually, yes.
 A Yes. I just point out there's quite a range of issues that are there, but that's fine, as categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	18	Q	So we pick that up effectively in the objective number 3, avoiding distorting CPs' incentives
 categorisations it's fine. Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	19		to invest?
 Q Great. So let us turn then to the first question, which is the incentive to comply with cost orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	20	А	Yes. I just point out there's quite a range of issues that are there, but that's fine, as
 orientation obligations and consider how that relates obviously to the payment of interest. We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	21		categorisations it's fine.
 We are in agreement that in the absence of a payment of interest, BT has a weaker incentive to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	22	Q	Great. So let us turn then to the first question, which is the incentive to comply with cost
 to comply with its cost orientation obligation, are we not? A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	23		orientation obligations and consider how that relates obviously to the payment of interest.
 A We are. Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	24		We are in agreement that in the absence of a payment of interest, BT has a weaker incentive
 Q I am just going to, if I may, try to understand the general mechanism behind that. I know you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	25		to comply with its cost orientation obligation, are we not?
 you take issue with how Ofcom went about identifying its overcharges in this case, but for the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	26	А	We are.
 the purposes of this discussion we are going to put that to one side - okay? A Okay. Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? A It may well have done, yes. 	27	Q	I am just going to, if I may, try to understand the general mechanism behind that. I know
 30 A Okay. 31 Q We are going to assume that BT has, in fact, been overcharging. It has received an amount of money on that analysis that it should not have received - correct? 33 A It may well have done, yes. 	28		you take issue with how Ofcom went about identifying its overcharges in this case, but for
 31 Q We are going to assume that BT has, in fact, been overcharging. It has received an amount 32 of money on that analysis that it should not have received - correct? 33 A It may well have done, yes. 	29		the purposes of this discussion we are going to put that to one side - okay?
 32 of money on that analysis that it should not have received - correct? 33 A It may well have done, yes. 	30	А	Okay.
33 A It may well have done, yes.	31	Q	We are going to assume that BT has, in fact, been overcharging. It has received an amount
	32		
34 Q On the basis of my assumption?	33	A	
	34	Q	On the basis of my assumption?

1	Α	On your assumptions it would, yes.
2	Q	So if it were allowed to keep that money then that would mean that BT would profit or
3		benefit from having overcharged?
4	А	Yes.
5	Q	That benefit or profit gives rise to an incentive to engage in the same behaviour again?
6	А	Possibly.
7	Q	On our assumption it does?
8	А	There's clearly a possible incentive to do this. We need to think about other issues as well.
9		For example, your assumptions are not solely sufficient. There are other issues like the
10		possibility of litigation from third parties, excessive pricing and so on and so forth. So I
11		think you have to assume quite a lot away, but okay, that's fine, we can make those
12		assumptions.
13	Q	We will come on to those other points in a moment. The other point that you raise is that
14		one has to worry about what the other incentives are that are bearing down on BT in order to
15		make it comply?
16	А	Sorry, can you explain, I am not sure I'm following you?
17	Q	What you said is that we have to worry about other types of considerations, the possibility
18		of litigation?
19	А	Yes, exactly, so there are some other mechanisms that might provide incentives on BT in
20		addition to any repayment.
21	Q	We will come on to that in a moment, but that is what you are talking about, that is your
22		caveat?
23	А	Yes.
24	Q	Subject to those, you agree with me that there is an incentive to engage in the behaviour
25		giving rise to the benefit?
26	А	It seems reasonable.
27	Q	Again, subject to your caveats which we will come to, you would agree with Ofcom when
28		they say in the Gamma Telecom dispute, I can take you to it in a moment but it does not
29		matter, I will just tell you what the statement is, that it is important to ensure that
30		overcharging firms do not benefit from this non-compliance. If we were to allow the
31		overcharging firms generally to earn a profit in such circumstances, then in our view this
32		risks there being incentives for CPs to set charges that are unduly high.
33	А	Yes, I'd agree that that's one of the considerations that one should have.
34	Q	One of the points that you raised as a qualification was that you said: "There are other
	I	

1		mechanisms that may themselves exert an influence on BT's behaviour" and in particular
2		you referred to the possibility, I think, of litigation?
3	А	That is one, yes.
4	Q	What are the others?
5	А	I think there are reputational issues. There are also internal organisational issues to do with
6		the fact that these are delegated decisions to managers, who may well face quite severe
7		consequences if there is a finding of non-compliance. So, again, if Ofcom wished to
8		consider the strength of the incentive effects that might result on BT from a certain
9		repayment or fining regime I think they'd have to consider all of those issues.
10	Q	You have not provided any evidence about BT's internal management structures
11	А	Absolutely none.
12	Q	and what operates on individuals?
13	А	No, I am just trying to identify the economically relevant effects.
14	Q	As far as Ofcom is concerned, whilst Ofcom might have other powers such as allowing
15		someone to bring litigation from a point of view of enforcement of SMP conditions it makes
16		sense, does it not, from their perspective, if they are effectively self-enforcing in that BT can
17		expect that if it breaches it will have to pay back the full benefit of the breach because that
18		way Ofcom avoids giving a financial incentive to breach in the first place?
19	А	If there were no other considerations and we did not have to trade it off with any other
20		issues then that would obviously be helpful for Ofcom, yes, I would agree. I think the issue
21		is always that there is a trade-off to be struck because the money that is taken from BT to
22		provide these beneficial, as I think we agree, incentives, goes to CPs which then has effects
23		on their behaviour as well. So it is two sides of the same coin unfortunately.
24	Q	Just to be clear about the trade-offs, because we are going to come to those but I want to be
25		very clear about what the qualifications are on your acceptance of my proposition. The
26		trade-offs are the risks in relation to the behaviour of CPs, that is objective too - we are
27		going to come on to talk about that. Objective three is questions about investment
28		incentives of BT and CPs?
29	А	There is a broad range of issues - yes, that is right, but let us keep them in that bucket now.
30	Q	Those are the issues but, subject to coming on to deal with those issues, just focus purely on
31		enforcement from Ofcom's perspective, I think you have agreed with me it is sensible and
32		appropriate from Ofcom's point of view to try and make the cost orientation obligation self-
33		enforcing so that BT does not have an incentive to overcharge?
34	А	Yes, under the very helpful assumption, shall we say, that we only need to worry about

1	ĺ	enforcement. If you just took that money from BT and it went straight to the Treasury then
2		that would be the way to try and get the best incentives for BT. One would still need to
3		consider objective three in trying to make sure that that regime did not lead to any perverse
4		incentives for BT, just to be clear. One could pursue good enforcement incentives more
5		easily if that money just went to Government for example, then we don't need to worry
6		about any of these issues, it's clearly the case.
7	Q	So, again focusing on compliance for the time being, and I entirely understand that you have
8		a whole host of other points that you want to come back to and I assure you we will come
9		back to them, but in order to have a structured discussion we need to break it down.
10	А	That's fine.
11	Q	In relation to compliance, we agree, I think, that if you do not remove the benefit of an
12		overcharge that leads to an incentive for BT to breach its obligation?
13	А	I think we agree under quite a long list of caveats just to be clear.
14	Q	The ones that we have already discussed?
15	А	Yes.
16	Q	And on that basis if we do not remove all of the benefit that creates still some incentive not
17		to comply, albeit a lesser one?
18	А	Well, in practice one would relax with these caveats, so I think some of the other
19		mechanisms by which there could be an incentive on BT to comply may be relevant in
20		practice when it comes to making these trade-offs. So I think, yes, under your assumptions,
21		if you did not remove the benefit that's right, there would still remain some incentive. That
22		clearly depends on exactly how much benefit you leave there and, in practice, that might be
23		overwhelmed by some of these other issues.
24	Q	The one that you have focused on so far is the internal mechanisms of BT, its own
25		regulatory compliance obligations, effectively?
26	А	That is one issue, yes.
27	Q	You are not suggesting, are you, that Ofcom should place considerable weight on just
28		assuming BT will do the right thing because it has asked its employees to do that, if it does
29		not actually give it, at a macro level, the right incentives to do it financially?
30	А	I think it is actually a little bit more complicated than you are suggesting because there is
31		clearly a continued interaction between BT and Ofcom, not just on this issue, but many
32		other issues which may be of more importance commercially to BT than this. Clearly, there
33		is a need, if BT essentially does not make efforts to ensure compliance in one area, there are
34		adverse consequences elsewhere. I think in practice this kind of reputational effect - I don't

1		know what you might call it - good faith in dealing with Ofcom, I think is quite important.
2	Q	So your evidence is that Ofcom should simply
3	А	No, I didn't say that. Just to be clear I didn't say that Ofcom should just rely on a wish in the
4		wind here. I am just saying that when it comes to it we have to look at these trade-off issues
5		that arise. If we take the full benefit from
6	Q	Leave the trade-off issues for one moment, please.
7	А	No, but we will have to come back to that and when we come back to that it is relevant for
8		us to consider what other incentive mechanisms might operate on BT.
9	Q	So just to be clear, you are not saying then that Ofcom should purely rely on, for instance,
10		the reputational effect
11	Α	No.
12	Q	it needs to have, notwithstanding whether they exist or not, its own robust basis for
13		believing that it has not given BT a financial incentive to breach its obligations. Do you
14		agree with that?
15	А	Yes, it should take some steps to ensure compliance, I think that is one of these three issues
16		that we have.
17	Q	That is not quite the question that I put to you. Let us put it this way, in the Gamma dispute
18		again - it happens to be at para. 3.27, but we do not need to go to it, I am just putting the
19		proposition to you - Ofcom said:
20		"We therefore consider that over charging should not be profitable for a CP. This
21		in turn implies that the total repayment, i.e. the principal plus any interest, should
22		be at least as large as the benefit that the CP enjoyed as a result of overcharging."
23	Α	If it wished to entirely remove the incentive that is necessary, yes.
24	Q	If one removes more than the total benefit, because Ofcom referred to "at least" that would
25		actually create a disincentive, or a deterrent, to engage in the behaviour, would it not?
26	Α	It would.
27	Q	Conversely, if the only amount that you remove is BT's benefit, you are effectively leaving
28		BT in a neutral position in incentive terms, all else equal - it does not gain from the
29		overcharging, it does not lose from the overcharging?
30	А	Yes, I think this is subject to all the caveats which I have previously made, under all of
31		those assumptions clearly what you say is correct. The question is whether that actually is a
32		useful set of assumptions when we come to consider the trade-offs that are involved, but I
33		will park that for now.
34	Q	I would like to go on to look at the total size of the benefit that accrues to BT when it

1		overcharges. I think on the basis of your previous agreement, to set a repayment that has a
2		neutral impact the question then is: what is the total benefit that BT has gained through
3		overcharging, is it not?
4	А	Under these assumptions, yes.
5	Q	That benefit necessarily includes, first, the extra money gained from the overcharge
6		obviously - yes?
7	А	Indeed.
8	Q	Sorry, it is merely that even when I make very obvious points
9	А	I think you can take that as self-evident.
10	Q	For the purposes of the transcript you still need to say "yes", or "no"?
11	А	Indeed.
12	Q	Thank you. You obviously understand about the time value of money?
13	А	Indeed.
14	Q	So just to be clear, in a normal economy with inflation what "£1" buys you over time
15		erodes, does it not?
16	А	In a normal economy - we may live in abnormal times, but
17	Q	We still currently live in an economy with inflation?
18	А	We do.
19	Q	Not deflation. There is also a risk associated with relying on getting money from someone
20		else in the future because they might not pay you?
21	А	Yes, I suppose there might be.
22	Q	And there is also a desirability in having money available to you now because otherwise
23		you might be denied from doing something that you cannot do if you do not have that
24		money now?
25	А	We do have capital markets to try and get around that problem. We are talking about large
26		firms here. The likelihood of capital constraint is probably pretty low in this case.
27	Q	But large firms certainly take account of the value of money, do they not?
28	А	Absolutely.
29	Q	So plainly, if an overcharging firm, such as BT is able to keep its overcharges for a
30		significant period of time then there will also be a significant benefit from the time value of
31		that extra money?
32	А	I think that is a bit of a jump. I think Dr. Houpis has kind of made the point that one should
33		think almost of this over payment as some kind of funding instrument at some subsequent
34		point you essentially have to then repay. But I think that is not a very good analogy because

1		you have basically got some unknown amount of money coming in because you do not
2		know what volumes might be consumed in this product. You may not actually even know
3		that it is a repayment. BT may not even know it is a repayment because after all it does not
4		have DSAC at that point in time. At some point a dispute arises or Ofcom intervenes and
5		the repayment is required, and that is pretty much on a random basis, so it seemed that the
6		best thing you could do is probably stick it in a cash account, basically, this is not in any
7		way analogous to any kind of debt instrument that a company might use.
8	Q	This is the point that you advance in paras. 71 and 72 of your second witness statement?
9	А	Yes, I think I have made a point along these lines, yes.
10	Q	Just again so we are very clear, and do not worry I am going to come back to the uncertainty
11		in a moment, I just want to break it all down bit by bit. Without the uncertainty there would
12		be a benefit from the free funding, would there not, as you suggested Dr. Houpis
13		characterises it?
14	А	I can't understand what an "overpayment without uncertainty" means. I struggle here to
15		understand because if it is clear that there is an overpayment then equally there is going to
16		be a dispute, so I am not sure what "certainty" really means in this context.
17	Q	We can come on to deal with that in a moment, but just again, so I am clear what your
18		answer is
19	А	Yes.
20	Q	You want me to make it concrete. Let us assume, and I am not suggesting this is what BT
21		actually did, of course, but let us suppose that BT cynically deliberately overcharged
22		because it thought that there was a lot of money to be made from doing so and it might not
23		have to pay it all back again. Let us suppose that, it was just deliberate overcharging on
24		BT's part. In that case we can imagine a world, even though it is hypothetical, without the
25		uncertainty that you say arises?
26	А	Yes, but it does not know when the repayment might trigger. I can't see how we can
27	Q	Well that is a type of uncertainty again.
28	А	How do we guarantee that we can hang on to this money for any length of time other than
29		
30	Q	I am going to come back to your various types of uncertainty, but what I want to do is get
31		straight what the implications are before we introduce the uncertainty?
32	А	Okay, let me engage with your assumption. Let us suppose that we could do that. We
33		could deliberately overcharge and we had some kind of guarantee that nobody would find
34		out for two years, then that is fine; that might well be analogous to some kind of debt
	1	

2 Q Obviously that is something that we can debate with the Tribunal. Are you saying that the uncertainty - and again we are going to come on to deal with the specific types - but in general terms are you saying that the uncertainty associated with a free funding is so great that it entirely offsets the fact that the funding is free? 6 A No, I think I actually answered this a moment ago when I said the closest analogy would be something like stick it in your building society account, because you do not know how long you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be whatever. You have no idea. This is on call at any point. 10 Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. 11 Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? 16 A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero? 17 J am sorry, before we get onto the trade-offs because, as I said, I promise you we will 18 uncertainties that are involved here. 19 Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will 20 A Yes, so let me be clear 21 Q 22 A Yes, so let me	1	1	instrument, but the assumptions are so completely ridiculous.
 uncertainty - and again we are going to come on to deal with the specific types - but in general terms are you saying that the uncertainty associated with a free funding is so great that it entirely offsets the fact that the funding is free? A No, I think I actually answered this a moment ago when I said the closest analogy would be something like stick it in your building society account, because you do not know how long you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be whatever. You have no idea. This is on call at any point. Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge you A Yes, so let me be clear A No, I am saying that they are very small and they are small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept		Q	
 that it entirely offsets the fact that the funding is free? A No, I think I actually answered this a moment ago when I said the closest analogy would be something like stick it in your building society account, because you do not know how long you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be whatever. You have no idea. This is on call at any point. Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A Yes, so let me be clear Q - come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially	3		
 that it entirely offsets the fact that the funding is free? A No, I think I actually answered this a moment ago when I said the closest analogy would be something like stick it in your building society account, because you do not know how long you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be whatever. You have no idea. This is on call at any point. Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A Yes, so let me be clear Q - come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially	4		general terms are you saying that the uncertainty associated with a free funding is so great
 something like stick it in your building society account, because you do not know how long you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be whatever. You have no idea. This is on call at any point. Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertaintics that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will20 A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge23 A Yes, so let me be clear24 Q in that context are you saying that the benefits are so small as to effectively be zero or are you26 A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	5		that it entirely offsets the fact that the funding is free?
 you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be whatever. You have no idea. This is on call at any point. Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A Tam sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	6	А	No, I think I actually answered this a moment ago when I said the closest analogy would be
 9 whatever. You have no idea. This is on call at any point. 10 Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. 12 A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. 14 Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? 16 A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. 19 Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will 20 A I am sorry, I brought trade-offs in again. 21 Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge 23 A Yes, so let me be clear 24 Q in that context are you saying that the benefits are so small as to effectively be zero or are you 26 A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. 29 Q Put to one side the trade-offs, okay? Do you accept there is a material benefit? 20 A They are certainly not zero, that we can agree on. 31 Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? 34 They are catally the value of the cash deposit at most. That is what we are talking about. I think 	7		something like stick it in your building society account, because you do not know how long
 Q So there is a benefit. The only question is what is the magnitude of that benefit. We are agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge Q - in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	8		you are going to enjoy any benefit for it. It could be a day, it could be a year or it could be
 agreed about that. A Yes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	9		whatever. You have no idea. This is on call at any point.
12AYes, I think that the point which I am making is it is pretty small so if you were to say zero you would not be far wrong.13QSo you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero?16ANo, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here.19QI am sorry, before we get onto the trade-offs because, as I said, I promise you we will 2020AI am sorry, I brought trade-offs in again.21Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge23AYes, so let me be clear24Q in that context are you saying that the benefits are so small as to effectively be zero or are you26ANo, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here.29QPut to one side the trade-offs, okay? Do you accept there is a material benefit?31QOkay. Put to one side the trade-offs, okay? Do you accept there is a material benefit?32A"Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think	10	Q	So there is a benefit. The only question is what is the magnitude of that benefit. We are
 you would not be far wrong. Q So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	11		agreed about that.
 A So you have just agreed that there was a benefit but then you went on to say that to all material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	12	А	Yes, I think that the point which I am making is it is pretty small so if you were to say zero
 material intents and purposes the benefit is zero? A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	13		you would not be far wrong.
 A No, I said when we come to have to trade off things we know that this benefit is not very large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	14	Q	So you have just agreed that there was a benefit but then you went on to say that to all
 large. If we were to say that benefit is zero it makes very little difference, I think, given the uncertainties that are involved here. Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	15		material intents and purposes the benefit is zero?
 18 uncertainties that are involved here. 19 Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will 20 A I am sorry, I brought trade-offs in again. 21 Q come back to them. Just focusing for a moment in relation to the benefit to BT of 22 overcharging and getting the time value of money on that overcharge 23 A Yes, so let me be clear 24 Q in that context are you saying that the benefits are so small as to effectively be zero or are 25 you 26 A No, I am saying that they are very small and they are small so then we need to go to these 27 trade-offs, which we eventually will need to go to, we know that we are not talking about 28 large effects here. 29 Q Put to one side the trade-offs. 30 A They are certainly not zero, that we can agree on. 31 Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? 32 A "Material" I think is going too far. There is a benefit but I think it is really limited to 33 a "Material" I think is deposit at most. That is what we are talking about. I think 	16	А	No, I said when we come to have to trade off things we know that this benefit is not very
 19 Q I am sorry, before we get onto the trade-offs because, as I said, I promise you we will A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge 23 A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	17		large. If we were to say that benefit is zero it makes very little difference, I think, given the
 A I am sorry, I brought trade-offs in again. Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	18		uncertainties that are involved here.
 Q come back to them. Just focusing for a moment in relation to the benefit to BT of overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	19	Q	I am sorry, before we get onto the trade-offs because, as I said, I promise you we will
 overcharging and getting the time value of money on that overcharge A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	20	А	I am sorry, I brought trade-offs in again.
 A Yes, so let me be clear Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	21	Q	come back to them. Just focusing for a moment in relation to the benefit to BT of
 Q in that context are you saying that the benefits are so small as to effectively be zero or are you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	22		overcharging and getting the time value of money on that overcharge
 you A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	23	А	Yes, so let me be clear
 A No, I am saying that they are very small and they are small so then we need to go to these trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	24	Q	in that context are you saying that the benefits are so small as to effectively be zero or are
 trade-offs, which we eventually will need to go to, we know that we are not talking about large effects here. Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	25		you
 28 large effects here. 29 Q Put to one side the trade-offs. 30 A They are certainly not zero, that we can agree on. 31 Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? 32 A "Material" I think is going too far. There is a benefit but I think it is really limited to 33 essentially the value of the cash deposit at most. That is what we are talking about. I think 	26	А	No, I am saying that they are very small and they are small so then we need to go to these
 Q Put to one side the trade-offs. A They are certainly not zero, that we can agree on. Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	27		trade-offs, which we eventually will need to go to, we know that we are not talking about
 30 A They are certainly not zero, that we can agree on. 31 Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? 32 A "Material" I think is going too far. There is a benefit but I think it is really limited to 33 essentially the value of the cash deposit at most. That is what we are talking about. I think 	28		large effects here.
 Q Okay. Put to one side the trade-offs, okay? Do you accept there is a material benefit? A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	29	Q	Put to one side the trade-offs.
 A "Material" I think is going too far. There is a benefit but I think it is really limited to essentially the value of the cash deposit at most. That is what we are talking about. I think 	30	А	They are certainly not zero, that we can agree on.
essentially the value of the cash deposit at most. That is what we are talking about. I think	31	Q	
	32	А	"Material" I think is going too far. There is a benefit but I think it is really limited to
34 the analogy with debt funding instruments that Dr. Houpis has made is incorrect.	34		the analogy with debt funding instruments that Dr. Houpis has made is incorrect.

1	Q	If the sums are sufficiently large, if we are talking about hundreds of millions of pounds,
2		even on a cash deposit, hundreds of millions of pounds can still yield material amounts of
3		interest, can it not?
4	А	We are measuring I thought we were talking about the interest benefit as compared to the
5		repayment principle. So let's be clear, yes, you are talking about absolutes. Fine. I mean,
6		what interest rate would apply here? It would be a relatively small amount in proportion to
7		the principle that is involved.
8	Q	But the key point is that we are debating the interest rate, are we not? We know there is
9		some benefit and what we cannot agree on is what the relevant interest rate is for that.
10	А	No, no, no. I think there are some things you can say about this. This is not all mired in
11		clouds. We know that that is likely to be small. That is what we do know. I think by the
12		simple argument that the uncertainties, again I am afraid you have to deal with uncertainty -
13		I know you wanted to put that to one side - but you enjoy the benefit of the repayment for
14		an uncertain period and you do not know really what the quantity of funding that you are
15		receiving from that repayment might be, in the typical situation that BT might find itself.
16	Q	I think you are agreeing with me that the debate between us is about the interest rate. You
17		say that there are reasons to believe that the interest rate should be low?
18	А	Yes, I do.
19	Q	That is the debate between us, is it not? It is about the interest rate that you should apply?
20	А	And also remember we have parked all these issues about trade-offs, so let's not forget
21		those.
22	Q	Yes, I agree, but in this context you agree with me that what we are debating, what it comes
23		down to, is the interest rate?
24	А	The exchange we have just had comes down to the interest rate, indeed.
25	Q	Coming back to the types of uncertainty that you discuss, you set those out in para.71 and
26		you break them down into two types. At 71(a) you discuss as follows:
27		"The surplus income that BT would gain from setting its price too high is not certain.
28		It depends on the volume of wholesale services BT sells to other CPs, which is outside
29		BT's control. Therefore, overcharging is not the same as receiving some known
30		quantity of funding from a conventional source such as corporate bonds or equity".
31	А	Yes, I am responding to Dr. Houpis' points. Just in context, I think the preceding
32		paragraphs I am just discussing his kind of debt instrument analogy.
33	Q	The volume of services sold at any given price may be out of BT's control but it is certainly
34		not unknowable, is it?
	•	

1	Α	Actually I think it does seem to be pretty difficult to forecast given the trouble there seems
2		to have been for both BT and Ofcom in forecasting what these volumes might look like.
3		The point which I am making here is if I take out a debt instrument, I want to raise
4		£100million, say, I will go and I will raise £100million. Saying, "Right, well, I am going to
5		go and try and come up with some clever overcharging mechanism to raise £100million" is
6		pretty difficult.
7	Q	I am not suggesting for a moment, and I do not think Dr. Houpis is suggesting for a moment
8		either, that this is a substitute for active participation in capital markets.
9	А	No, but the court experiment is being run as to what the benefit of this money is and
10		therefore we have to consider what the risk profiles of cash flows look like, and the point is
11		that the incoming money is subject to risk. That is the point that is being made and that is
12		clearly true.
13	Q	But BT can make informed and sensible estimates about what it thinks are going to be the
14		likely volume. They are not saying it would be perfect but it can engage in that exercise,
15		can it not?
16	А	Okay, one might think so but I think the evidence suggests that has not been possible in this
17		case.
18	Q	You say it has not been possible. You do not actually know the reasons, do you, why BT
19		overcharged in this case?
20	А	The reasons why BT overcharged?
21	Q	You do not know that BT ended up setting prices that were well above its DSAC let alone
22		it's FAC because of misestimates in relation to volumes. You are not party to information
23		about how BT went about setting its prices, are you?
24	А	No, but I have read the pricing papers and again this morning, I think, in the questions from
25		the Panel at the end of the morning, I suggested that there does appear some explanation
26		there in terms of these lags in measuring DSAC and the uncertainty around volumes.
27	Q	That is your speculation but you do not know.
28	А	I cannot be certain, no.
29	Q	You do not know because you do not know how BT did its prices.
30	А	As I said, based on the documentary evidence from the pricing papers.
31	Q	Whatever sum BT overcharges, it gets to keep obviously until it has to pay it back?
32	А	That would seem correct.
33	Q	So for that time it has the extra funds and it benefits from it?
34	А	Yes, I think this is the discussion which we just had.

1	Q	Yes. And the uncertainty that you are really concerned with is the possibility of, and
2		certainty in connection with, how much it has to repay and the fact that it may have to do it
3		on short notice. But those are really the key points, are they not? (a) goes to the amounts
4		and (b) we are just going to come onto that in a moment.
5	А	Yes, but I do not think that we are disagreeing about an awful lot because in the following
6		paragraph I think I have put my position quite clearly. I am not saying there is no benefit
7		whatsoever. I say at the end of 72, I say:
8		"At most, the surplus income stream would seem to be useable to BT only through
9		making short term cash deposits due to the potential for repayment being required at
10		any time".
11		I think that this is exactly what we have just been discussing. This is not a debt funding
12		instrument. It is essentially some surplus cash flow that is subject to risk both to incoming
13		revenue and potentially the repayment.
14	Q	What is between us, Dr. Maldoom, is that you say that there is a lot of risk here and I am
15		analysing, point by point, just how much risk there really is. So to that extent there is
16		obviously scope for argument between us.
17	А	That is true, yes.
18	Q	So if we look, please, at para.71 (b), you say:
19		"The timing of any repayment is effectively unknown and outside BT's control, as this
20		is triggered by CP's complaints and Ofcom's actions, neither of which can be
21		predicted or controlled by BT".
22		So that is your evidence.
23	Α	Yes.
24	Q	You are aware that the normal route to a repayment is via Ofcom's dispute process?
25	А	Yes.
26	Q	And you are aware that before a dispute can be brought to Ofcom the CP has to demonstrate
27		that there is a genuine dispute between it and BT, that it has attempted to resolve the matter
28		and has failed?
29	А	Yes, there are clearly some lags in terms of this repayment. There are clearly lags involved
30		in terms of when they assume this repayment to be.
31	Q	It is not merely lags, is it, Dr. Maldoom, because I would suggest to you that BT can
32		influence the timing in a number of ways. I will give you some examples. The first thing
33		BT can do is try and slow the whole thing right down by not really engaging with the CPs,
34		can it not? When the CPs write a letter saying, "We think you have been overcharging us.
	•	

1		We are worried about this, both in terms of historic, current and future pricing, and what are
2		you going to do about it?", they can just deliberately misunderstand and say, "Do not worry
3		about our future pricing. It is all going to be dealt with".
4	А	I am sure there are many games that can be played with disputes. This is really a matter for
5		Ofcom to intervene, I would have thought.
6	Q	Likewise, even once a dispute has been brought, BT can also still slow things down, for
7		instance, by launching proceedings in the Tribunal trying to challenge Ofcom's jurisdiction
8		to deal with the dispute.
9	А	That sounds more like a legal issue.
10	Q	Are you aware that that possibility exists?
11	А	I am aware there are certainly many things that can be done to delay complaints but again,
12		you know, this is really an issue for Ofcom to put appropriate resource into ensuring that
13		these things are dealt with as fast as possible. And the dispute resolution procedure is one
14		which, as far as I understand it, and again I do not want to cross into legal territory, but I
15		understand that speed is an important aspect in that procedure.
16	Q	The thing is, Dr. Maldoom, that you rely on saying that these issues cannot be predicted or
17		controlled by BT in terms of the timing, and I am suggesting to you (I think you have
18		accepted it) that that is wrong. They can certainly be influenced by BT playing games.
19	А	I think we need to read this paragraph in the context of the previous paragraphs, which is I
20		am responding to the point that Dr. Houpis has made that you can run a fault experiment to
21		treat this additional revenue that might come from overcharging as essentially analogous to
22		a debt instrument. A debt instrument tells me that I need to repay that on a particular date.
23		Clearly that is not the case with a repayment being triggered on an overcharge. That is the
24		point that is being made and I think that is clear.
25	Q	Do you agree with me, in terms of the words you actually use in para.71, you say:
26		"The timing of any repayment is effectively unknown and outside BT's control, as this
27		is triggered by CPs complaints and Ofcom's actions, neither of which can be predicted
28		or controlled by BT".
29		Do you agree with me that in fact they can be controlled by BT and, indeed, predicted?
30	А	I think you are suggesting they can be influenced by BT. I think that is a different point. I
31		think the wording which is here is absolutely fine. If you are suggesting that some influence
32		can be exerted by BT, that may well be the case.
33	Q	And BT can also predict, can it not?
34	А	I do not think

1	Q	They can predict how long realistically it is likely to be able to hang onto the money for?
2	А	It needs to rely on the actions of others, which I do not think it can predict.
3	Q	I can surely take
4	А	Well, we can predict anything surely.
5	Q	BT is a highly experienced operator. I think it has participated probably in more disputes,
6		certainly more disputes, but more CAT proceedings than any other entity in the UK.
7	А	Okay.
8	Q	It must be able to have some kind of rough idea of its expectations about when it might
9		actually have to pay some money back?
10	А	Let me try to engage in your point. Clearly, we can go round and try to predict may things
11		with varying levels of success. I think you make a good point when you say that there are
12		certain minimum periods which one could probably expect, and clearly a certain time is
13		required for disputes to be resolved. Beyond that, I think it's pretty difficult to make any
14		predictions and again the point is that I am trying to here compare the situation, I am
15		responding to Dr. Houpis, I am comparing the situation against a debt instrument with a
16		known repayment date.
17	Q	Have you read the second witness statement of Mr. Higho?
18	А	Yes, I have.
19	Q	We can come back to this in due course, but you are aware that his evidence is that BT
20		engaged in all the tactics that I describe in this particular case?
21	А	I can quite imagine that in commercial disputes people try all manner of things. This is
22		really – Ofcom's role as a policeman here, I think, is important, yes.
23	Q	So presumably you are aware that Sky first raised a concern on behalf of itself and TalkTalk
24		and Tiscali on or around 10 th January 2008? I can take you to the particular paragraph, but
25		will you accept it?
26	А	I will trust you on that, yes.
27	Q	Ofcom issued a draft determination on the Sky/TalkTalk disputes on 8 th February 2012.
28		That is in the statement at para.3.16.
29	А	I think it might be useful to see it actually, if that is all right with you.
30	Q	Yes, of course. The statement is bundle B. I was looking at the Ofcom Determination.
31	А	OK, yes.
32	Q	We see on 8 February 2012 the draft determination in the Sky/TalkTalk disputes. If you go
33		back to just above para.3.15 it is talking about the initial disputes and that includes my
34		clients. That was on 8 th February 2012, you see that at the beginning of para.3.16 yes?

- 1 A Yes, I have it.
- Q Just while we are here, just to take notice of the date, we see that the decision is in fact 20th
 December 2012. We see that on the front page. I do not imagine there is much dispute
 about that, but just so you can see where I am getting all my numbers from.

A Yes.

5

6

7

8

23

24

25

26

27

28

29

30

Q Would you also like to see where Mr. Higho says that Sky first raised the dispute on 10th January 2008?

A No, that's fine.

- 9 Q OK. For reference, it is 2nd Higho, para.23. So the draft determination was four years after
 10 Sky first informed BT that it believed that there was overcharging.
- A Yes. This is not an area which I have looked at very thoroughly, but I was under the
 impression that BT's view was that this wasn't quite so straightforward to interpret in the
 sense that negotiations around this seem to have finished and then there was question as to
 whether a dispute might be raised at that point but then there was further delay. This is not
 an area I'm particularly familiar with, but certainly the impression which I had I had read
 the transcripts from Mr. Higho's evidence was that there were some questions about
 delays in this process, yes.
- Q Obviously, you are not a witness of fact; you cannot be expected to give evidence on that
 and I am not expecting you to, although in terms of economic implications, we may or may
 not come on to it. The simple point I am making, simply comparing the date on which the
 dispute was originally raised and the date on which there was a draft determination, and it is
 over four years, is it not?

A Yes, that's a fact.

Q That is simple maths. Then the final determination was the best part of a year later. In

para.72, when you discussing where you say:

"Put simply, there would seem to be little benefit to BT from free access to a funding instrument that provided an uncertain amount of money and may require repayment of the entire sum at short notice on a wholly unpredictable basis."

- The current periods you are actually looking at in this case certainly do not constitute short notice, do they? Five years after Sky first raised the problem?
- A I think that's rather a kind of retrospective look at it, is it not, on the benefit of hindsight.
 The question that we raised initially was to do with incentive effects. If you remember,
 there was this question about hypothetically what would happen if somebody essentially
 tried to overcharge to use that as a source of funding. The question is at that point what are

1 reasonable expectations, and clearly there is uncertainty at that point about how long they 2 could expect to enjoy any benefit. 3 Q I am not suggesting to you in every case it would take five years from raising the complaint 4 until determination of it. 5 А OK, one might hope that things might move faster on other occasions. I don't think I'm able 6 to judge whether this four years is a large or a short delay in these contexts. I would have 7 thought there are people here much more able to do that than I am. But I think I just make 8 the simple point that with regard to these incentive effects that we're discussing, the relevant 9 question is what you would reasonably expect at the beginning of this period, not 10 necessarily the outturn in one particular case. 11 Q But obviously, as you yourself say in relation to other aspects of your evidence, we, all the 12 commercial parties in this case, will use their experience of how things work. For instance, 13 in this case what kind of tests Ofcom sets, what kind of timescales it adopts, etc, to inform 14 its judgment about future risk, will it not? That is evidence-based decision making? 15 Yes, but you wouldn't have had the evidence of how long this period has lasted at the А 16 beginning of the period. That's my point. 17 Q What we are concerned about now, of course, is setting appropriate incentives for BT going 18 forward. What is done is done. We know that they have overcharged. Unfortunately, we 19 cannot turn back the clock. So what BT did or did not think then is not the issue. What 20 matters now is what incentives we set for BT going forward, given what we know now. 21 А Yes, OK. I mean, I think I make an offhand remark at one point about Ofcom's compliance 22 efforts. Clearly there is a role for Ofcom's compliance efforts, or its level of effort in 23 effecting these incentives. 24 Q Just to be clear, I think you agree with me, but for the transcript it needs to be clear. You 25 agree with me that what matters now – we cannot turn back the clock – is what incentives 26 we give BT going forward? 27 BT and all the other parties within the market affected by this decision. Yes, I think that's А 28 absolutely right. 29 Did you look at the provisional determination? Q 30 Yes, I did. I've not looked at it recently but I did look at it, yes. А 31 In that BT was given a rough idea of the kind of sums that might be repayable on Ofcom's Q 32 view, was it not? 33 А Yes, I think there's been some changes in Ofcom's view between the draft determination and 34 the final determination.

- Q But it was given at least some kind of feeling of the likely orders of magnitude at the very
 least?
- 3 A Yes. I can't remember any of the detailed numbers from the draft determination, but I
 4 suppose that would probably be the case.
 - Q So the amount of repayment at the very least, from the date of the draft determination was not completely unpredictable? I am not suggesting that BT knew, but it had some information on which to make guesstimates?
- 8 Yes. That's right. I guess there's the issue of this current dispute. I don't know what BT А 9 thought at that point, but it might well have thought that some aspects of the decision were 10 appealable. So we are here, after all, today, so there would presumably still be a quite 11 significant degree of uncertainty around that, particularly if BT felt, for example (I don't 12 know whether it did or not) - I have already talked quite a lot about connections and rentals, 13 particularly this morning. I think that is an unusual feature, shall we say, of the 14 determination and one might think that possibly that might be something appealable. So I 15 don't think one can necessarily say for certain where we are at, and there may well be a 16 large degree of uncertainty still at that point.
 - Q We do not need to do it now, but we can certainly look at BT's grounds of appeal and we can see what kind of percentage difference it actually makes to the total overcharge.
- A I think potentially yes, particularly from the Coulson evidence, I think you can have a look
 and get some rough numbers from that.
 - Q We can look at that offline.

A Sure, yes.

5

6

7

17

18

21

22

23

24

25

26

- Q I think to summarise where we have got to, and we are obviously going quite slowly, but just to make clear where we are, we are talking about a funding instrument that is free, that has effective notice period at least in the years rather than in anything smaller than that, and whilst the exact amount is uncertain, it represents an overcharge which is neither random nor entirely unpredictable. I think you would agree with all that, would you not?
- A The problem is you have wound up a whole load of statements in there. You talked about
 funding instrument. I think that isn't a useful analogy as I've made clear from the beginning.
 OK. Yes, you enjoy a cash flow benefit. It is not really a funding instrument because of the
 uncertainties associated cash flows. So strike out the words funding instrument. You get
 some uncertain cash flow benefits for some period, and potentially there may well be a
 minimum period for which you might enjoy that. However, you might not even know that
 you're enjoying that benefit in the case of BT because they don't know at that point, for

1		example, what their DSAC is. So OK, there are so many caveats that I have to put around
2		what you're suggesting. I don't disagree with the fundamental premise that there is some
3		period over which some benefit is enjoyed. Just to be absolutely clear, that is not something
4		that I disagree with you about. I think the question is about what is the right way of looking
5		at it in terms of assessing the scale of that benefit. Then I think some of these analogies and
6		some of this language is not a useful way of looking at it.
7	Q	One of your responses to me, Dr. Maldoom, is that BT might not even know that it was
8		getting that benefit. That is what you just said.
9	А	That is a possibility, yes.
10	Q	It does not matter, does it? It will still be in his benefit?
11	А	But it is relevant in terms of trying to run the analogy with some kind of funding instrument.
12		I think that's the point.
13	Q	We are just saying that there is a benefit. Obviously, that is up to other people, but the
14		discussion between you and me
15	А	Fine.
16	Q	We are not talking about a funding instrument, we are talking about a benefit, whatever it is.
17		Whether you know about the benefit or you do not, it is still a benefit.
18	А	Yes, you get some additional cash flow probably for a minimum period. You wouldn't
19		necessarily know how large that would be, nor indeed what the eventual repayment might
20		be. You would, at the same time, potentially be exposed to third party litigation risk
21		eventually when this came through, so you might get hit with a potentially pretty big bill.
22		So it might turn out to be a rather bad deal, I suspect, compared to a commercial funding
23		instrument.
24	Q	Ofcom is not realistically going to impose repayment conditions, when it comes to
25		repayment, that are so out of the blue and draconian that they would risk BT's bankruptcy, is
26		it?
27	А	My understanding is once these things are settled BT just pays up, even if things get
28		appealed, so I do not think BT's liquidity is at question for this amount, I would imagine.
29	Q	You agree with me, there is no liquidity problem at all?
30	А	No.
31	Q	Given that, if BT needed to get access to additional funds at short notice in order to repay
32		back whatever Ofcom ordered it to repay, it could obviously do so?
33	А	This is probably a significant amount in terms of their corporate finance function. I think
34		there is no doubt about that. So I'm not a corporate financier and I don't know exactly how

1		they would manage it. It seems conceivable that they could manage it, but I'm not sure what
2		stress or dislocations that might cause.
3	Q	It is fairly likely, is it not, that until a very late stage in any dispute that the cash generated
4		from overcharging, to the extent that BT was aware of it, was not segregated but was simply
5		part of BT"s general surplus cash?
6	А	I don't know what you mean by segregated?
7	Q	What I mean is that BT did not say, "We believe that we are overcharging by £100 million,
8		we believe that we are likely to have to repay that, so we are going to earmark this particular
9		cash and put it to one side. Most likely, if it had extra cash because it was overcharging, it
10		just had extra cash as part of its general funds? That is the most likely thing?
11	А	That seems most likely, and certainly, from what I've looked at in terms of the pricing
12		decision papers from BT, there's nothing in there that suggests that they were in any way
13		aware of overcharging. It's very much this issue of trying to hit some target in the future
14		which they don't yet know at the same time as volumes massively changing. It seems from
15		that most likely to me that they probably didn't know at all what the situation was at the
16		time.
17	Q	If BT did not know plainly it definitely would not segregate anything out because
18	А	It didn't know.
19	Q	Because it did not know?
20	А	Indeed.
21	Q	So that money would reduce BT's funding requirements by the amount of the overcharge,
22		would it not? It would have X amount of extra cash kicking around?
23	А	What we have - this goes back to our previous discussion. I'm not sure that there's actually
24		any different point here. The overcharge results in this additional cash flow that has
25		uncertain aspects, both in terms of the initial benefit and then the eventual cost, which is
26		both repayment - I notice we haven't come back to the other issues that we were going to
27		discuss.
28	Q	We are coming back to them, do not worry.
29	А	That eventual - the bill you get at the end might include other things other than that
30		repayment order by Ofcom. It's these third party claims that we have parked for now -
31		okay. I'm just saying that the way to look at the benefit is in terms of what are the
32		characteristics of that additional cash flow? Think of it as a project finance problem - yes?
33		So the project is overcharging. What do I get? I get this benefit for a certain length of time
34		randomly, and then I have a payback at the end at some random point - okay? The right
	I	

1		way to look at the benefit is in terms of the cash flows of that overcharging event, not to
2		look at it in terms of putting it into BT's general cash flow. That is not the way properly
3		done project finance should be done. It should look at the risk characteristics of the specific
4		project that we're talking about.
5	Q	I think probably where we have got to, and correct me if I am wrong, I can summarise on
6		this particular point, is that you would agree with the following statements: this is again
7		another statement that Ofcom makes in Gamma. I will give you the proposition, so there is
8		no need to turn it up. Setting an interest rate equal to the time value of money, of that extra
9		money, to the overcharging firm would remove all of the benefits of overcharging. It would
10		thus support objective 1. You will remember what objective 1 was?
11	А	Indeed, yes.
12	Q	I think you would agree with that. What you disagree with is what the right value to attach
13		to that time value of money is?
14	А	Yes. My point is that I don't think that's very large, and I'm very concerned about objective
15		2 particularly, which I think has some pretty bad public policy consequences. In the way
16		that I look at this trade-off, I don't see this issue about entirely removing the benefit of the
17		beauty and joys as being the, as it were, overriding concern that it's the trump card that
18		trounces all the others. I think there's a trade-off to be made.
19	Q	I understand that. You may well have said yes in any event, and I apologise if I did not hear
20		it, but again, subject to those qualifications, you agree with my proposition?
21	А	Yes.
22	Q	In your second witness statement a few paragraphs before the passage that we looked at in
23		71 and 72, you say that greater financial incentives to deter and punish non-compliance will
24		be subject to diminishing returns. You recognise that as one of your points, and you made it
25		before?
26	А	Indeed. I think that's right.
27	Q	As long as we are just talking about removing the benefit of the overcharging, we are not
28		actually punishing BT, are we, we are just setting neutral incentives in relation to that issue?
29	А	Again, I think one needs to be very careful, and this goes a little bit to some of the
30		discussions this morning about differences between myself and Mr. Myers, but, yes, if we
31		assume that the world is simple, there is certainty and we can identify what the overcharge
32		is and just remove and re-set BT back, that's fine, that removes this incentive. The difficulty
33		is that we also need to think about what the consequences of the approach we take under the
34		other possibilities in which error may happen.

Q Just before getting on to those other points about the consequences, I would just like to
discuss one other thing that you do deal with at some length in your witness statement. I am
going to take up an enormous amount of time with it. You do deal with the issue of
contractual and regulatory certainty or uncertainty, the opening things you address in your
statement?

A Yes.

6

7

8

9

10

- Q As I understand your evidence on this point, you appear to suggest that even if it is correct from the point of view of giving BT appropriate incentives for compliance to remove the full benefit of the overcharging, there is a problem if that goes against an explicit contractual agreement between the parties, and you cite clause 12.3?
- 11 А Yes. I think my concern here is that the parties had agreed this clause. I perfectly 12 understand that there might be a question mark about whether BT has some kind of ability 13 to set those terms unreasonably, but as I understand it there wasn't a dispute that was 14 brought around that contractual term. I think maybe "symmetric" isn't quite the right word 15 to use, but potentially there may be benefits to various parties from setting that clause up in 16 the way that it is. So I think we need to be very careful about retrospection, and in 17 particular just because it favours one party now that that clause were different, I think, if we 18 try to imagine ourselves in the positions of the parties back when the clause was agreed, I 19 can see that there are reasons why people might think that that is beneficial to be set in the 20 way that it is.
- Q We will come back to some of those points in a moment. So we are clear, obviously I think
 it is common ground between us that it is not your role to opine on matters of law?
 A No.
- Q If it were the case that Ofcom awarding interest as a regulatory matter was not, in fact,
 inconsistent with clause 12.3, then your argument on contractual certainty would obviously
 disappear, on that premise?
- A I find it difficult to see how you remove the issue of expectations being formed about
 similar disputes in the future. I think what you're suggesting is that some exceptionality can
 be found around this dispute that would then involve some interest being paid, that then
 people expect similar clauses to apply in the future.
- 31 Q No, that is not what I am saying.
- 32 A That's not what you're saying?
- Q No, it is not what I am suggesting. Just to be clear about how far your theory goes, let us
 assume, and I do not want to debate the legal point with you because that is not for me, that

clause 12.3 merely deals with the question of whether interest arises as a purely contractual matter between the parties. We are making that assumption. Assume with me that it says nothing whatsoever, it is totally silent about whether, as a regulatory matter, it would be appropriate for Ofcom to award interest or not. That is an assumption. I am not asking you to give your view on whether that assumption is right or wrong. On that basis, if we make that assumption, your concerns about awarding interest as a regulatory matter would not arise, would they, because your concern is that you are overriding a contractual term, but if you do not, in fact, override the contractual term the concerns disappear?

A This sounds very hair-splitting. It seems to me that you are overriding the contractual term here. What you are doing is you're forming expectations about how similar disputes might be dealt with in future, which is that you might have a contract that says no interest paid, which people might agree at the point that they take the service, but if at some point a situation then arises where we're into this kind of dispute scenario and a repayment is sought, the expectation would then presumably be, as a result, that it's possible to get interest, which then takes us through into these incentive trade-off issues. So I'm not sure maybe lawyers might look at this differently and see that possibly one can have a regulatory intervention that leaves the contract somehow the same, even though I am paying interest. I'm not sure that an economist or indeed a commercial person would look at it that way.

19 You say that it takes you on to issues such as the incentive effects, and we are going to Q 20 come on very shortly and deal with those, but you also had an entirely separate part of your 21 evidence which said that there are problems for regulatory certainty with awarding interest. 22 What I am putting to you is that if, in fact - and it may appear to be hair-splitting and I think 23 it may be that we are not going to get any further on this particular issue - the contract is 24 silent as to whether Ofcom can or cannot award interest, simply does not touch on it at all, 25 and merely deals with the contractual position between the parties, then if Ofcom does not 26 have to override the contract in order to award interest - that is the assumption - your 27 concerns about regulatory certainty in all of those implications necessarily disappear 28 because they are predicated on Ofcom actually overriding a contractual term?

- A That does sound very hair-splitting. My worry would still be that one is influencing
 incentives from that approach.
- Q I have put the question. I am not sure we will get further on that. It was Ofcom that
 imposed the cost orientation on BT, was it not, obviously?

33 A Indeed.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

34 Q And it assists with regulatory certainty if Ofcom can have strong confidence in that

1		obligation being complied with?
2	А	Yes.
3	Q	So, as part of that, Ofcom will wish to avoid setting incentives that encourage non-
4		compliance?
5	А	Ofcom has a range of objectives. It has its statutory objectives, there are Article 8 issues,
6		and so on. Ofcom clearly has to balance all of that. This is essentially regulatory, more of a
7		regulatory decision than anything, yes.
8	Q	When you say it is a regulatory decision
9	А	But the incentive effects
10	Q	are you saying that the issue of judgment as to what Ofcom's objectives should be - you
11		accept that that is essentially an issue for Ofcom?
12	А	Yes, I don't think - well, Ofcom has to decide how to achieve its objectives by balancing
13		these various issues. Again, I would just emphasise that there are some other serious
14		incentive consequences that arise in terms of delayed disputes, and so on, which I think
15		Ofcom needs to consider, also potentially impacts in terms of infrastructure investment, and
16		so on, that could arise. I think it's proper for Ofcom to consider all of that and to try to
17		come to a balanced view. Indeed, the Gamma decision, that's there. I wouldn't necessarily
18		agree with exactly how Ofcom has gone about this, and I think there are some economic
19		problems which I have within analysis, but the framework is there. That's exactly what I'm
20		suggesting.
21	Q	I think then from what you say that you would agree that whilst you have highlighted
22		contractual certainty and you have explained in your witness statement various
23		consequences that you say flow from overriding contractual certainty, from Ofcom's point
24		of view, regulatory certainty that it can rely on BT complying with its obligations is a highly
25		important consideration for it?
26	А	I don't know if one - we're talking about the incentive effects again. I don't know if one
27		would really call that "regulatory certainty". I don't think that's what people usually
28		understand by the term "regulatory certainty", I think we're just talking about incentive
29		effects again.
30	THE	CHAIRMAN: I think it is important that we move on, Mr. Pickford, to the other two, if you
31		are working through the three objectives of Gamma. Dr. Maldoom has views on both of
32		those which apply in this case which we need to explore, and have an eye on the time.
33	MR.	PICKFORD: With that in mind, just very quickly, at para. 24 of your witness statement, you
34		give an example of when you say that the CPs would benefit from clause 4.3. You do not

1	I	necessarily need to look it up to answer my first question, which is simply you would, I am
2		sure agree, that ultimately the construction of 12.3 and whether it does or does not benefit
3		CPs is a question of law and not of economics?
4	А	No, I think that is a question of economics. I think there are economic questions that arise.
5	THE	E CHAIRMAN: There are two things that you have said there, the "construction" of 12.3,
6		that is a question of law, but whether or not it benefits CPs
7	MR.	PICKFORD: I will break it down.
8	THE	E CHAIRMAN: that is a separate point.
9	MR.	PICKFORD: (To the witness): Your analysis relies on a particular construction of how you
10		believe that 12.3 operates with the rest of the BT contract, does it not?
11	А	I have read it and I have interpreted it, yes. I didn't want to offer any legal opinion. I've just
12		treated this as a clause that says if there is some kind of repayment required at some
13		subsequent point to, as it were, set matters right, there is zero interest applied. That is my
14		interpretation. If that's incorrect then please tell me.
15	Q	Well, the thing is I do not particularly want to debate it with you because it is not really a
16		point to put to you
17	А	Well, that is
18	Q	but obviously your analysis there
19	А	Yes, because I talk about
20	Q	is relying on particular contractual construction, is it not?
21	А	That is what I've understood by it, just to be clear, and then what I am concerned about is if
22		we somehow imagine ourselves back in the situation of the people who entered into that
23		contract, okay, how is it that we have ended up with this? Could it be that BT was, as it
24		were, strong arming everybody, or could it be that there is actually a commercially rational
25		reason for people to sign up to this clause? Well, there are actually some reasons why you
26		might sign up to this clause even as a CP.
27	Q	Could I just interrupt, just to pause you there? Those reasons rely on your view of how the
28		contract operates?
29	А	As I have explained it just a moment ago, yes.
30	Q	So if you are wrong about that then obviously we do not need to debate any of that any
31		further?
32	А	Okay, but I don't know what the consequence of the alternative interpretation is, so I don't
33		think I can answer that question.
34	Q	I think in view of the time we will move on and I will address that in legal submission. We

are going to move on to the second topic: the incentives to delay bringing disputes, we have got there. You say that one of the problems with paying interest is that it increases the CPs incentives to delay bringing a dispute?

Yes. One can be even stronger than this, actually even if no interest is payable this issue А still arises.

Indeed, that is your case? Q

1

2

3

4

5

6

7

11

21

22

23

24

25

26

27

28

А Yes, the issue here is to do with the way that competition is affected by wholesale prices, to 8 be clear. We are talking about an over payment with regard to a wholesale price that has a 9 corresponding retail market sat on top of it that is subject to SMP conditions. Clearly, that 10 wholesale price sets the terms of competition amongst all those people using that wholesale input. So therefore if BT raises that price, if Openreach raises that price that has potential 12 consequences on retail pricing. The result of that is that if there is some overpayment 13 situation where people are pricing as though they don't realise there is an overpayment 14 problem and then suddenly somebody realises perhaps we are overpaying, then there is 15 really no incentive to bring that dispute at that point. If I am the only person that has notice 16 that I am potentially overpaying, do I go straight to Ofcom? Maybe not, because I might 17 actually be better to carry on with essentially banking that overpayment because at the 18 moment that it becomes clear that there is an overpayment then potentially that gets factored 19 into the retail prices that are being set, just the very fact that there is potentially an 20 overpayment situation.

Q Okay, I would like to look at some of the assumptions that go into your model. You say at para. 44 of your second witness statement: "If all", and you underline all:

> "If all competing CPs can increase their retail prices together somewhat above whatever the competitive level would have been, this will increase their profits (even given a potential reduction in demand by consumers given the higher retail price)."

And that is one of the things that your theory depends on there, is it not?

29 Yes, I have emphasised the word "all" there because we have to remember we are in a А 30 situation where we are talking about an SMP retail market. So it is not like there is some 31 outside competitor who can come in. So if BT raises up its wholesale price is that in some 32 way constrained by the fact that there is some other retail operator that can come in and 33 compete with those people who are relying on BT's wholesale product. Well, no, because 34 then it wouldn't have been an SMP service in the first place.

1	THE	CHAIRMAN: Another wholesale operator, you mean?
2	А	No, somebody else who is offering retail services through some other route, not relying on
3		BT as an input. I think this is a very important point actually because I think that this is
4		something that Ofcom has missed in the Gamma decision. We are here talking about an
5		SMP retail market where, by assumption you are requiring access to this wholesale product
6		to be an effective competitor, and that is really what I am getting at here. The word "all"
7		may well be a little too strong here, I am not suggesting that everything is symmetric. There
8		may well be differences between competitors and so on. But the point is that all of the
9		significant competitors in this market are relying on this wholesale product from BT, so
10		therefore there is a market-wide effect that comes from raising that wholesale price. That is
11		the point I am getting to.
12	MR.	PICKFORD: Dr. Maldoom, this is not an SMP retail market. There is no SMP in the retail
13		market?
14	А	The SMP finding is predicated on there being a lack of alternative to BT's wholesale
15		product.
16	Q	In the wholesale market, but not the retail market?
17	А	Okay, I should be clearer. What I mean is there is not a significant alternative to bypassing
18		BT's wholesale service here, clearly that is right. It may well be another wholesale product
19		that somebody offers that goes into other CPs instead of BT, that's right, yes, thank you.
20	Q	Well, you say that there is no alternative to BT's wholesale products, but the fact is that
21		there are a number of competitors. If, for example, I am going to take BES services that are
22		purchased by my clients, that is why they have brought this dispute because they are
23		concerned about BES services, it is correct, is it not that neither Virgin Media nor BT retail,
24		who are two of the major competitors of my clients, consume BES services to an
25		appreciable extent?
26	А	Yes, just to be clear, I am laying out the argument under somewhat stylised conditions.
27		There may well be some modulation of that because there are certain people who can self-
28		supply the service, but it is still an SMP service at the end of the day, so we know that
29		therefore there is a reliance on BT's wholesale product. Yes, okay, the fact that there are
30		some people that self-supply maybe one can exclude those from the equation.
31	Q	No, I am saying one does not exclude them from the equation at all. The fact is that neither
32		Virgin nor BT, two of the biggest players in this market, neither of them buys BES. Are
33		you aware of that?
34	А	Well, they self-supply, yes, Virgin, yes.

1QSo i2able	to put up their prices because BT and Virgin's prices, input costs, are unaffected.
2 4010	to partup mon prices because bit and vingin's prices, input costs, are unanceled.
3 A But	everything that relies on BES is potentially affected by this BES pricing. That is still
4 the	case.
5 Q We	are assuming that this is a competitive retail market. It is not a retail market in which
6 ther	e is SMP, it is a competitive retail market?
7 A Yes	
8 Q Sov	what I am putting to you is that if BT puts up its prices for BES products to my clients
9 that	puts up their costs but it does not do anything to BT's costs, it does not do anything for
10 Virg	gin's costs. How on earth is it that my clients are then able to increase their prices in this
11 com	apetitive market?
12 A BT	is in a similar situation in that it is operating under the EOI obligations, so we are
13 talk	ing about an Openreach product here that is available on the EOI basis. I think I am
14 sim	plifying things somewhat to make the point here, which is clearly if one imagines that
15 ther	e are no alternatives to this BES product then BES is essentially setting prices for
16 even	rybody who is then relying on it. Now
17 Q Wh	at I am putting to you, Dr. Maldoom is that your stylised market bears no resemblance to
18 the	real market?
19 A Oka	y, so if we go to the real world there are some outside options and one needs to
20 mod	lulate that argument. However, it does not remove the point, it just simply modulates it
21 som	what in the sense that there could be some loss that is associated from loss to
22 com	petitors from increasing the retail price. It is not the case that one can be clear that CPs
23 affe	cted by this situation are necessarily worse off as a result. I think that is the point that I
24 am	making.
25 THE CHA	AIRMAN: They are only not worse off if they can pass through the higher charge, is
26 that	not right?
27 A I thi	nk the point is, yes, eventually once it becomes clear that there is going to be a
28 repa	syment, then if they have been able to pass through that higher charge then eventually
29 com	petition should filter through and lead to a lower retail price, yes. But during the period
30 unti	I that becomes clear then there may well be a higher retail price sustained than otherwise
31 wou	Id have been the case. That may well be limited by competition in certain areas. That
32 is al	osolutely the case. There may be limitations on how large that effect can be, but still one
	Ild expect that to happen because we are talking about an SMP service.
34 MR. PICI	KFORD: Without wishing to go around in circles, we are, however, talking about a

1		service that neither BT nor Virgin buy to any appreciable extent, and BT and Virgin are two
2		of the biggest players in this market. So it is very hard to see, surely, how my clients are
3		going to be able to substantially increase their prices
4	А	Right, let's be clear. Virgin has its own infrastructure, BT is working on the equivalence of
5		inputs.
6	THE	E CHAIRMAN: But BT is not acquiring those, is it?
7	MR.	PICKFORD: It does not buy BES though, does it?
8	THE	E CHAIRMAN: It is just not a product that BT takes, and to go back to my question: I do not
9		quite follow, if they cannot pass through the higher wholesale price into a higher retail
10		price, surely then they are worse off?
11	А	If they can't they will be worse off, yes. The point I am making here is that they probably
12		can.
13	Q	That they can pass it through?
14	А	Yes, to some degree.
15	Q	Well, on the BES product, if they are in a competitive retail market no one has SMP in that
16		market, and some of the main players in that market do not need that product, how can they
17		pass them through economically?
18	А	Yes, if there are outside competitors this argument will fall away to increasing degrees, that
19		is correct, yes. That is right. The question is how much is that then relevant, yes.
20	MR.	PICKFORD: You say "how much is that relevant" if there are outside competitors who are
21		not constrained in this way and, indeed, they are large competitors, it is a competitive
22		market there will not be that pass-through and the argument collapses, does it not?
23	А	No, it does not, it is a little bit more complicated, I am afraid. The point is this is primarily
24		used in the provision of broadband services and the conditions of competition are very
25		geographically heterogeneous. Okay, does this argument apply where Virgin is a vigorous
26		competitor? No. What about other areas where essentially there are not competing
27		infrastructures, then this argument clearly does apply.
28	Q	Could you tell me which particular geographic area BT is not a vigorous competitor in?
29	А	What do we mean a "vigorous competitor"?
30	Q	They were your words.
31	А	Yes, okay, so BT is supplying services ubiquitously in the UK, yes.
32	Q	It does not work, does it? Your theory does not work, you have just overlooked an essential
33		feature of the way the market operates?
34	Α	Let us be clear, I think this is a little quick here, I agree. I think there is an issue here and

1		there is a genuine issue to the extent that these prices feed through into retail prices. I
2		noticed from yesterday, I was just reading the transcripts, the evidence of Mr. Morawetz, for
3		example, I think it is not clear that it is necessarily detrimental for CPs to be in a situation
4		where there is overcharging for some period which nobody anticipates the possibility of
5		repayment at that point, but then the possibility of repayment emerges which has a retail
6		pricing response. I think under those conditions it is possible that CPs may benefit from
7		that repayment. In the case of BES, I think the other point that is worth making in the case
8		of BES is that BES is an extremely small component also of retail pricing. I will just make
9		that point as well. In terms of if you look at something like broadband prices, this has a
10		relatively small impact on that.
11	Q	It is the only service that my clients actually purchase from BT which is the entire reason
12		why we are in these proceedings.
13	А	Yes, that may well be the case. My concern here, let's be absolutely clear, is with the
14		framework that is being set by this approach and there is clearly an issue I think we
15		agreed that this is about forward-looking issues that arise from incentives from adopting this
16		approach in other contexts.
17	Q	Okay, let us
18	А	So we are not purely talking about your client and this situation. We are actually talking
19		also about what the impact is of this approach to repayments in other contexts for SMP
20		services, where this effect could be potentially very significant.
21	Q	I think we are just straying slightly from the point, but in order to avoid going round in
22		circles let us move onto something slightly different albeit related. Let us assume that,
23		contrary to what I have put to you, in fact the likes of Sky and TalkTalk (we will give them
24		as examples) they could put up their prices a bit notwithstanding the presence of BT and
25		Virgin. Okay, let us assume that and that is what your argument ultimately has to depend
26		on.
27	Α	Yes.
28	Q	So you are saying that Sky and TalkTalk in fact have some degree of pricing power.
29	А	Yes.
30	Q	That means that they are not constrained merely to price at cost but they can take account of
31		demand conditions and price a bit above cost.
32	A	Potentially.
33	Q	That is what it must mean.
34	Α	No.

1 Q If they have got pricing power it means they must be able to take account of the market 2 conditions rather than simply being at the mercy of their cost structure. 3 А The situation that I am considering here, I just want to be absolutely clear what I am 4 considering, I am considering a situation where this wholesale input has a retail pricing 5 effect and therefore it is largely market wide or there is a limited degree of outside 6 competition. Yes, okay. So that is the situation I am talking about. 7 0 So let us assume that Sky and TalkTalk do respond by putting up their prices in the light of 8 the higher prices from BT, if those higher prices were profit maximising they could have 9 done it before already. They do not have to wait until BT overcharges them to put up their 10 prices. 11 No, under most reasonable economic models one expects that the input costs effect the retail А 12 price that gets set. If we are in a situation where there is a certain charge set by BT, that 13 then effects retail price. If nobody knows that they are being overcharged at that point then 14 that will effect retail prices. If they then find out that they are being overcharged then 15 essentially they will treat the wholesale price as being something that they might get a 16 repayment on later and so the effective wholesale price is lower and that may well have 17 retail price consequences. This is the point that I am getting to here. 18 Q So I think, as I understand your model, it also depends on some degree of uncertainty. I 19 would like to ask a couple of questions just to clarify this. Let us assume that, firstly, 20 contrary to what I suggested, that the CPs can actually put up their retail prices. 21 А Okay. 22 0 I am making that assumption because otherwise your model does not work. Secondly, we 23 are assuming that the CP is aware that BT is overcharging it, so it is also aware that its true 24 cost structure should be lower. Okay? In that case the CP, who knows its true cost 25 structure and the fact is that they are being overcharged ----26 А I can ----27 Q -- is -- you know where I am going, do you not? 28 I think I can leap to agreeing with you immediately, okay. А 29 You know where I am going. It is not going to increase its prices because it knows it is Q 30 simply a temporary effect. 31 А I think I just said that, so I think if we are in a situation where people know they are being 32 overcharged then they should reckon on the effective wholesale price being lower. There is 33 no doubt about that. I think the issue is the following one though, we are in a situation 34 where we think BT cannot tell that they are overcharging until essentially some much later

1		point, so it is reasonable to assume that for some period after these wholesale prices have
2		been set people do not know that they are being overcharged. Now, presumably somebody
3		must at some point twig that they are potentially being overcharged. What are the
4		incentives for them to reveal that information by bringing their complaint to Ofcom at that
5		point? The thing is that that will lower the general point here is that that also lowers input
6		costs for their competitors. Under the scenario which I have got here, which may or may
7		not apply in a certain case but under this scenario there is a very clear reason for not
8		wanting to lower the input costs of my rivals because essentially any benefits that I got get
9		competed away. So we have a situation where we have no incentive for the first person to
10		bring a dispute.
11	Q	So just to be clear
12	А	This is a very clear example where that incentive is unambiguously present.
13	Q	All right. That obviously depends on the other assumptions and we have dealt with those.
14	А	Indeed, I take your point with that but I actually think that the policy question is more
15		general, to be clear, because this has to work in general.
16	Q	Your argument, if I am getting it right, depends on, firstly, no one knowing that they are
17		being overcharged, is that right, and then someone discovering it?
18	А	That is presumably the natural state of affairs, I think.
19	Q	But only one person discovering it? What happens if two people discover it? Surely, if it is
20		a competitive market, they compete it down again because at that point they both know that
21		they are being overcharged?
22	А	No, they are in the same position. You have worked out that you are being overcharged.
23		Do I reveal that information? Okay? Well, my competitors will get a lower input cost as a
24		result of me bringing that dispute. Maybe what I want to do is I want to not reveal that and
25		wait, because I may be banking the repayment during that period. I am not saying this
26		incentive carries on forever but it could carry on for some time. Obviously I might get
27		worried that somebody else might bring a dispute but I always have the option of joining
28		that dispute later. So the incentives for bringing a dispute may be very weak.
29	Q	So your model requires on very extreme asymmetry of information, does it not? That some
30		people realise what is going on and that they are being overcharged, but the rest of the
31		market does not?
32	Α	No, I do not think that is an extreme assumption. That is the lateral assumption. All I think
33		I am saying
34	Q	Whether it is extreme or not, you agree that it depends on that assumption? Some people

1		discover, other people do not?
2	А	Yes, but it is very difficult to see how that assumption would not hold because we start from
3		a position where you do not realise you are being overcharged. Otherwise we have to have
4		the assumption that people know that they are being overcharged from day one. Is that what
5		you are suggesting?
6	Q	The information on which they form a judgement about whether they are being overcharged
7		is public information, is it not?
8	Α	Not entirely, no. I think they may have their own views about what costs are. Some of this
9		maybe for commercial judgement.
10	Q	When you say they have their own views, the reality is that they will look at BT's regulatory
11		financial statements and form a view on that basis.
12	А	They may use other information. There is a question of how much effort they put into this.
13		It may well be that it could be that one CP has put a lot of effort into trying to understand
14		what the potential cost situation is. Let us suppose that we did that, we decided that we
15		were going to try and work out what the situation was; whether we thought we were going
16		to be overcharged or not. We decided we are overcharged. Should we share that
17		information with the market? No, there is actually good reason not to which is that we can
18		continue to bank the repayment.
19	Q	The people, those most likely to find out, are those that can invest their resources in
20		analysing BT's accounts, are they not?
21	А	That may be the case. They may have other information they can use to cross-check or
22		benchmark those. I do not know.
23	Q	They are likely to be the biggest players in the market?
24	А	Who knows? I think that is very difficult to know. Possibly, yes.
25	Q	In this case the people that first worked out they were being overcharged were my clients,
26		Sky and TalkTalk.
27	А	That would seem to be the case.
28	Q	It is those kinds of players that, insofar as the market price is not being driven by BT and
29		Virgin, who we know do not even buy BES, are going to be the ones that are driving the
30		competitive price, not small players that do not bother to find out whether they are being
31		overcharged or not.
32	А	Okay. You have certainly somewhat wrong-footed me on my theory and I see that there are
33		certainly cases where this does not apply. In the case of BES though, there is one where
34		actually BES is a small component and it is difficult to see that there is probably a
	•	

1		competitive effect to that nature. What I concerned with though is the general principle
2		where this clearly is an issue and again, you know, Ofcom has brought this up in <i>Gamma</i> . I
3		do not think there is a disagreement between me and Ofcom that this is a potential concern.
4	Q	I think we can obviously debate that by looking at the <i>Gamma</i> dispute, can we not, because
5		one of the reasons why they addressed those issues was because BT raised them, and BT no
6		doubt raised them because you raised them.
7	А	Ofcom does not seem to have disagreed with the framework that I have suggested, let's put
8		it that way.
9	Q	There is a difference between a framework and what you actually place weight on, is there
10		not, Dr. Maldoom?
11	А	Indeed, I would agree.
12	Q	You have asserted that BES was a very small component of the relevant price.
13	А	I believe that to be the case, yes.
14	Q	You do not actually have any clear factual basis for that assertion, do you?
15	А	I do not have the numbers at hand, no.
16	Q	So if I put it to you that in fact in the early days of the these products that we are in fact
17		talking about, that BES was a substantial part of the cost, you could not disagree with that?
18	А	I do not know what the proportion is.
19	Q	I would like to compare your theory, just momentarily, with some real life evidence. If you
20		could take, please, the second witness statement of Mr. Higho, which is to be found in Core
21		Bundle C, Tab 9, and if you could please read to yourself, and refresh your memory, paras.9
22		through to 17, so the two pages 4 and 5. (After a pause): Have you got there?
23	А	Yes.
24	Q	Then I am going to ask you the same question in relation to Mr. Heaney's evidence as well,
25		so you might as well read that first. It is a rather shorter passage. If you turn on two tabs,
26		please, to tab 11 and read to yourself paras. 6 to 8. (Pause to read)
27	А	Yes.
28	Q	You are in no position to say that those men are not telling the truth, are you?
29	A	Oh no, not in the least.
30	Q	You are in no position to suggest that they are negligent in their respective roles within their
31		respective organisations?
32	A	I am not in that position, no.
33	Q	So whatever your theories may or may not tell us in theory, they appear to have no purchase
34		whatsoever in reality, as far as my clients are concerned?

A Well, I don't think that's entirely the case. I think the situation is more complex than this. Firstly, I think it is proper to be concerned about the incentive consequences of the approach that is taken. That is a general public policy issue which Ofcom needs to think about in general. So in exercising its discretion in determining repayments it needs to think about these broader issues, just to be absolutely clear. Secondly, I think there are some interesting issues which arise. For example, I notice in para.15 of Mr. Higho's statement he says:

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

"Sky's retail pricing policy with respect to its broadband services took no account whatsoever of any potential future refund of the overcharges"

I think this is exactly the point that I'm making, which is we can have a situation where nobody really knows they're being overcharged. What it essentially seems to be saying to my reading is that they weren't thinking in terms of the potential of overcharge; that wasn't factored into their retail prices. If we then come along and later there is an overcharge, well that wasn't factored into the retail price. It wasn't that that benefit had necessarily been competed away. So yes, I take your point that there is competition, but you know there will be limits on the extent of this argument. It is certainly possible that there may be a benefit which is enjoyed from the repayment that would not have been enjoyed had it been clear from the off that that repayment was due.

Q Dr. Maldoom, if no-one knows they are being overcharged how can they possibly act on an incentive to delay bringing a dispute about the overcharge?

- 20 А The reason that it is important that they don't know they are being overcharged is we are 21 talking about an initial situation which I think is very plausible which is that wholesale 22 prices paid to BT are just treated as an input cost, and they are just read as they are with no 23 expectation of repayment. That will filter through into retail prices in various ways. The 24 extent to which that is constrained by the competitors will depend on circumstances, but it 25 will filter through. I think at some point then we have to expect that somebody – we are 26 talking about a situation where we get to an overcharge complaint - somebody has to change 27 their mind at some point.
- Q Just to be clear, for the whole of the period that no-one knows, your incentive argument
 does not get off the ground, does it, because you cannot have an incentive to delay
 something you do not know about.
- A My incentive argument is not about this period; my incentive argument is about what
 happens when somebody first suspects that they are being overcharged. It's very simple.
 I'm not really relying on very many assumptions here. Actually, I think this is, despite
 everything we have talked about, still a valid point that needs to be considered, which is we

2therefore retail pricing results from the wholesale price that BT is setting at that point. We3are talking about some situation where there is a subsequent overcharge complaint,4otherwise there is nothing to talk about. So how do we go from that situation to a situation5where there is an overcharge complaint? Somebody must have realised that they're6potentially being overcharged. What are their incentives at that point? That is what I'm7talking about. My point is that their incentives are potentially to delay because of the8benefit that they generate from their competitors by lowering their input costs. That as a9general proposition applies, OK. Yes, what that means in practice may depend on the10nature of retail competition, but as a general proposition that's pretty robust.11QI am not going to re-debate with you whether that is or is not robust, but at some point the12CP discovers that they are being overcharged. At the very least at the same time, BT must13also know that it is overcharging?14AI don't know if we can really say anything about that. Possibly, possibly not, who knows?15QIt is a very selective assumption, is it not, that firstly we assume that no-one knows what is16going on, then we assume that Odes under those circumstances, does it? We've also got17Ofcom as party to all of this as well, and Ofcom might spot some things going on.20QI am asking you a question which you have not answered. If we are assuming that the CPs21know. It suspect that BT docsn't probably spend a lot of time look	1		start from a situation where realistically CPs do not know that they are being overcharged so
 otherwise there is nothing to talk about. So how do we go from that situation to a situation where there is an overcharge complaint? Somebody must have realised that they're potentially being overcharged. What are their incentives at that point? That is what I'm talking about. My point is that their incentives are potentially to delay because of the benefit that they generate from their competitors by lowering their input costs. That as a general proposition applies, OK. Yes, what that means in practice may depend on the nature of retail competition, but as a general proposition that's pretty robust. Q I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? I don't know. I suspect that BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all scriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem<br <="" td=""/><td>2</td><td></td><td>therefore retail pricing results from the wholesale price that BT is setting at that point. We</td>	2		therefore retail pricing results from the wholesale price that BT is setting at that point. We
 where there is an overcharge complaint? Somebody must have realised that they're potentially being overcharged. What are their incentives at that point? That is what I'm talking about. My point is that their incentives are potentially to delay because of the benefit that they generate from their competitors by lowering their input costs. That as a general proposition applies, OK. Yes, what that means in practice may depend on the nature of retail competition, but as a general proposition that's pretty robust. Q I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A I don't know. Is upset that BT does under those circumstances, does it? We've also got Ofeom as party to all of this as well, and Ofeom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly 	3		are talking about some situation where there is a subsequent overcharge complaint,
 potentially being overcharged. What are their incentives at that point? That is what I'm talking about. My point is that their incentives are potentially to delay because of the benefit that they generate from their competitors by lowering their input costs. That as a general proposition applies, OK. Yes, what that means in practice may depend on the nature of retail competition, but as a general proposition that's pretty robust. Q I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its p	4		otherwise there is nothing to talk about. So how do we go from that situation to a situation
 a laking about. My point is that their incentives are potentially to delay because of the benefit that they generate from their competitors by lowering their input costs. That as a general proposition applies, OK. Yes, what that means in practice may depend on the nature of retail competition, but as a general proposition that's pretty robust. Q I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has th	5		where there is an overcharge complaint? Somebody must have realised that they're
 benefit that they generate from their competitors by lowering their input costs. That as a general proposition applies, OK. Yes, what that means in practice may depend on the nature of retail competition, but as a general proposition that's pretty robust. Q I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A I doon't know if what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about tryi	6		potentially being overcharged. What are their incentives at that point? That is what I'm
 general proposition applies, OK. Yes, what that means in practice may depend on the nature of retail competition, but as a general proposition that's pretty robust. Q I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is	7		talking about. My point is that their incentives are potentially to delay because of the
 nature of retail competition, but as a general proposition that's pretty robust. I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	8		benefit that they generate from their competitors by lowering their input costs. That as a
 I am not going to re-debate with you whether that is or is not robust, but at some point the CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. Tve no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	9		general proposition applies, OK. Yes, what that means in practice may depend on the
 CP discovers that they are being overcharged. At the very least at the same time, BT must also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	10		nature of retail competition, but as a general proposition that's pretty robust.
 also know that it is overcharging? A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	11	Q	I am not going to re-debate with you whether that is or is not robust, but at some point the
 A I don't know if we can really say anything about that. Possibly, possibly not, who knows? Q It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	12		CP discovers that they are being overcharged. At the very least at the same time, BT must
 It is a very selective assumption, is it not, that firstly we assume that no-one knows what is going on, then we assume that one of the CPs works out that there is an overcharge to act on the incentive, but BT has no idea that it is overcharging. Are those the assumptions? It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	13		also know that it is overcharging?
 a going on, then we assume that one of the CPs works out that there is an overcharge to act on b the incentive, but BT has no idea that it is overcharging. Are those the assumptions? A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	14	А	I don't know if we can really say anything about that. Possibly, possibly not, who knows?
 the incentive, but BT has no idea that it is overcharging. Are those the assumptions? It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	15	Q	It is a very selective assumption, is it not, that firstly we assume that no-one knows what is
 A It doesn't really matter what BT does under those circumstances, does it? We've also got Ofcom as party to all of this as well, and Ofcom might spot some things going on. Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	16		going on, then we assume that one of the CPs works out that there is an overcharge to act on
 Ofcom as party to all of this as well, and Ofcom might spot some things going on. I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	17		the incentive, but BT has no idea that it is overcharging. Are those the assumptions?
 Q I am asking you a question which you have not answered. If we are assuming that the CPs know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	18	А	It doesn't really matter what BT does under those circumstances, does it? We've also got
 know, it is a reasonable assumption that BT knows. A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	19		Ofcom as party to all of this as well, and Ofcom might spot some things going on.
 A I don't know. I suspect that BT doesn't probably spend a lot of time looking at its retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	20	Q	I am asking you a question which you have not answered. If we are assuming that the CPs
 retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	21		know, it is a reasonable assumption that BT knows.
 out, the answer might well be: would it do so? I don't know. You would have to ask BT. I don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	22	А	I don't know. I suspect that BT doesn't probably spend a lot of time looking at its
 don't know how much time they spend looking at such matters. Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	23		retrospective pricing. I don't know. I've no idea. I mean, if your question is could it work it
 Q Surely if BT takes its cost orientation obligation at all seriously it will be constantly considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	24		out, the answer might well be: would it do so? I don't know. You would have to ask BT. I
 considering whether there is an appropriate relationship between its prices and its costs. A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	25		don't know how much time they spend looking at such matters.
 A The issue that BT will presumably have will be setting its prices. It always has the problem about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	26	Q	Surely if BT takes its cost orientation obligation at all seriously it will be constantly
 about setting its prices now on the basis of what its expectations of costs might be. From what I've seen – we're talking about a large corporation with structures and processes – the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	27		considering whether there is an appropriate relationship between its prices and its costs.
 what I've seen - we're talking about a large corporation with structures and processes - the process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	28	А	The issue that BT will presumably have will be setting its prices. It always has the problem
 process is about trying to set prices on the basis of getting some cost orientation in future, which is a troublesome matter. 	29		about setting its prices now on the basis of what its expectations of costs might be. From
32 which is a troublesome matter.	30		what I've seen - we're talking about a large corporation with structures and processes - the
	31		process is about trying to set prices on the basis of getting some cost orientation in future,
33 Q You are saying that the CP will probably discover at some point, but BT will not know?	32		which is a troublesome matter.
	33	Q	You are saying that the CP will probably discover at some point, but BT will not know?
A I think I have no way of really answering that. If you ask me could BT work it out, then I	34	А	I think I have no way of really answering that. If you ask me could BT work it out, then I

 conscious of not answering your question, because I really don't know whether BT spends any time doing that, which is kind of what you're asking me. Q You are assuming the CPs can work it out. I am not going to go through it again. If BT could work it out, then we are in a situation where BT is either deliberately or at the very least, without proper regard to its obligations, continuing to overcharge, and at the same time you are concerned that there is an incentive on the part of CPs to delay? You agree that BT could work it out at the very least? A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A T have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive levels. The point is that they are higher than	1		think the answer would probably be yes. That is a different question, though. I am
 Q You are assuming the CPs can work it out. I am not going to go through it again. If BT could work it out, then we are in a situation where BT is either deliberately or at the very least, without proper regard to its obligations, continuing to overcharge, and at the same time you are concerned that there is an incentive on the part of CPs to delay? You agree that BT could work it out at the very least? A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the carly years, these demand forecast issues, the time that it takes for it to be known what the costs are expost. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive levels. The point is that they are higher than they would have 	2		conscious of not answering your question, because I really don't know whether BT spends
 could work it out, then we are in a situation where BT is either deliberately or at the very least, without proper regard to its obligations, continuing to overcharge, and at the same time you are concerned that there is an incentive on the part of CPs to delay? You agree that BT could work it out at the very least? A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	3		any time doing that, which is kind of what you're asking me.
 least, without proper regard to its obligations, continuing to overcharge, and at the same time you are concerned that there is an incentive on the part of CPs to delay? You agree that BT could work it out at the very least? A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the carly years, these demand forecast issues, the time that it takes for it to be known what the costs are expost. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	4	Q	You are assuming the CPs can work it out. I am not going to go through it again. If BT
 time you are concerned that there is an incentive on the part of CPs to delay? You agree that BT could work it out at the very least? A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. 	5		could work it out, then we are in a situation where BT is either deliberately or at the very
 that BT could work it out at the very least? A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would ii? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	6		least, without proper regard to its obligations, continuing to overcharge, and at the same
 A Yes. I mean, it is very difficult to know exactly who knows what under these circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	7		time you are concerned that there is an incentive on the part of CPs to delay? You agree
 circumstances. That's why I've limited my argument to one specific circumstance, which is to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	8		that BT could work it out at the very least?
 to ask the question: what would happen if somebody suspects that they are being overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	9	А	Yes. I mean, it is very difficult to know exactly who knows what under these
 overcharged when it has not been released to the market or in public, the information that potentially there might be an overcharge. That is the situation I am considering. Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	10		circumstances. That's why I've limited my argument to one specific circumstance, which is
 potentially there might be an overcharge. That is the situation I am considering. If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	11		to ask the question: what would happen if somebody suspects that they are being
 Q If you could stop BT from overcharging the issue would not arise in the first place, would it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	12		overcharged when it has not been released to the market or in public, the information that
 it? Your delay problem is only an issue at all because BT has in fact overcharged? A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	13		potentially there might be an overcharge. That is the situation I am considering.
 A I have explained quite clearly that I think there are certain risks associated with all of this because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	14	Q	If you could stop BT from overcharging the issue would not arise in the first place, would
 because of the fact that BT is essentially setting prices in advance. There is this nascency issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	15		it? Your delay problem is only an issue at all because BT has in fact overcharged?
 issue during the early years, these demand forecast issues, the time that it takes for it to be known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	16	А	I have explained quite clearly that I think there are certain risks associated with all of this
 known what the costs are ex post. Those are all constraints. We can't somehow magic those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	17		because of the fact that BT is essentially setting prices in advance. There is this nascency
 those away. BT can only do what it can do under those constraints. So therefore these risks are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	18		issue during the early years, these demand forecast issues, the time that it takes for it to be
 are ever-present, I think. Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	19		known what the costs are ex post. Those are all constraints. We can't somehow magic
 Q Your theory requires retail prices to rise? A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	20		those away. BT can only do what it can do under those constraints. So therefore these risks
 A Let us be clear what it requires. It requires that the retail Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	21		are ever-present, I think.
 Q Dr. Maldoom, let us try to get on with it. A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	22	Q	Your theory requires retail prices to rise?
 A I am trying to sort out what you mean by "rise", so I can be clear about it. Q Rise above the competitive level that would prevail if BT was not overcharging. A No, they are still competitive levels. The point is that they are higher than they would have 	23	А	Let us be clear what it requires. It requires that the retail
 26 Q Rise above the competitive level that would prevail if BT was not overcharging. 27 A No, they are still competitive levels. The point is that they are higher than they would have 	24	Q	Dr. Maldoom, let us try to get on with it.
A No, they are still competitive levels. The point is that they are higher than they would have	25	А	I am trying to sort out what you mean by "rise", so I can be clear about it.
	26	Q	Rise above the competitive level that would prevail if BT was not overcharging.
28 been had the wholesale price been lower from the off. That's all I'm saying.	27	А	No, they are still competitive levels. The point is that they are higher than they would have
	28		been had the wholesale price been lower from the off. That's all I'm saying.
29 PROFESSOR MAYER: Can I just clarify something?	29	PRC	DFESSOR MAYER: Can I just clarify something?
30 A Yes.	30	А	Yes.
31 Q Although the prices are higher, you are not saying that the profits are greater?	31	Q	Although the prices are higher, you are not saying that the profits are greater?
A No, not at the time, but we have the repayment that then comes in later.	32	А	No, not at the time, but we have the repayment that then comes in later.
33 Q You have the repayment that comes in later, but the parties would benefit if a repayment	33	Q	You have the repayment that comes in later, but the parties would benefit if a repayment
34 was made and costs were reduced earlier rather than later, would they not?	34		was made and costs were reduced earlier rather than later, would they not?

1	A	They might do, yes.
2	Q	They would do, would they not?
3	A	That may be competed away. I mean, the normal assumption here would be that that would
4		be competed away. Under a perfect competition world you would just go from zero profit
5		to zero profit, and then later you get the repayment come back.
6	Q	But you are only going to essentially increase profits if you've got completely inelastic
7		demand, are you not? Otherwise, your profit is lower, so all parties are worse off if they are
8		not trying to get the costs reduced earlier, are they not
9	А	Yes, it clearly depends on the assumption about how those wholesale prices affect retail
10		prices, that's right.
11	Q	No, but if it is anything less than completely inelastic demand the CPs must benefit from
12		earlier rather than later reductions in costs, must they not?
13	А	I'm not sure that's correct. I mean, I think there is clearly a question about elasticity, about
14		market elasticity. If it is sufficiently elastic then that is true. But I don't think it's necessary
15		to assume that it's completely inelastic.
16	Q	No, but if there is a higher level of cost today and there is anything less than complete
17		inelasticity then profits must be lower than they otherwise would be?
18	Α	OK, but you can imagine scenarios in which profits are largely unchanged or there are no
19		profits. The cleanest example is to imagine the situation in which the profits are actually
20		not affected by the wholesale price that is set.
21	Q	I am a bit puzzled that although you might have an effect on prices, the effect on profits will
22		be adverse.
23	A	Yes, but remember, wholesale charges are higher.
24	Q	I know charges are higher, but they are not sufficiently higher to allow you to compensate
25		for the higher costs unless there is an inelastic demand?
26	Α	But we could have a situation where you have higher cost and there's just a one for one
27		increase in retail price, in which case there's no – take that case, that fits with the
28		assumption, and you can see very clearly that essentially the repayment – it's what would
29		have gone to BT. Essentially, it gets sucked through to BT, the benefit of those inflated
30		wholesale costs. The repayment basically puts that back into CPs but not to consumers.
31	Q	Back to CPs and not to consumers?
32	Α	Exactly. That's the point that I'm making.
33	Q	OK, all right. Thank you.
34	MR	. PICKFORD: So your theory requires the retail prices are higher than they would have been

1		in the absence of the overcharge?
2	Α	That's the right yes, so that's what I mean by rise.
3	Q	The best way of avoiding that happening is obviously to avoid an overcharge altogether?
4	Α	Clearly it wouldn't have happened if there were no overcharge, yes.
5	Q	Higher retail prices is bad for consumers, is it not?
6	А	Yes. I think this is my issue which is that for Ofcom, I think there are particular reasons to
7		be concerned about these delay incentives. As I just discussed with Professor Mayer, what
8		we're getting is a transfer back to CPs which then there's no mechanism to compete that
9		away. So essentially what's happened is some excess profit has been created by the
10		situation, it has gone to BT, it then gets transferred back to CPs, but it doesn't get to
11		consumers under this scenario.
12	Q	The real problem is the fact of the overcharging because none of the rest of these so-called
13		incentive issues arise unless there is overcharging in the first place. You must surely agree
14		with that?
15	А	Yes, but I think - okay, one can't entirely eliminate the possibility that overcharge might
16		have arisen for all the reasons that we've discussed at length. This is the reason why I think
17		it's important to have a balance of objectives here.
18	Q	Could you look, please, at Mr. Higho's first statement, paras.25 to 29, and that is in core
19		bundle C, tab 8. In these paragraphs he is setting out what the detrimental effect of higher
20		prices was on Sky.
21	A	Yes.
22	Q	In principle, it is right, is it not, that those are the types of effects we would expect to see as
23		a result of a CP having to pay higher wholesale prices?
24	A	He actually talks about what I'm talking about. Paragraph 26 says:
25		"Second, high backhaul prices would have resulted in lower profits for Sky and/or
26		higher retail prices for its communications products.
27		This is exactly my point.
28	Q	So you agree with that one? Do you agree with the first one?
29	А	On exchange roll-out issues?
30	Q	Yes.
31	А	I guess that's right, and I'm sure there must be a marginal business case that might be
32		affected.
33	Q	And you agree with the third one?
34	А	I think that's about resources. I don't think Sky's capital was resourced. You have pointed

1		out to me that some of the issues actually in his second witness statement that we were
2		looking at earlier seem to have an implicit assumption of capital constraints which I think is
3		not necessarily reasonable.
4	Q	Let us assume that he is not talking about capital constraints, let us assume what he means is
5		that if Sky makes less profits because its wholesale costs go up then that tends to reduce its
6		incentives to invest?
7	А	If there's an investment case, there's an investment case. Here we're talking about things in
8		other services.
9	Q	The investment case gets worse the more your costs go up, does it not?
10	А	It depends on those costs. He seems to be talking about other things here.
11	Q	As a general proposition your investment case gets worse the more cost there is on one side
12		of the measure as against prices remaining static on the other. You agree with that surely?
13	А	Hang on a minute, I think we have already agreed on this, to be absolutely honest, in the
14		sense that I think I have agreed with the first point that he makes in para.25, that clearly
15		these input costs could affect marginal business cases. I have only looked at this quickly
16		here, but, as I understand the point about investing and innovating, that is talking about the
17		resources that are available for doing other things. I don't think Sky's capital is constrained,
18		so I don't see why doing other things depends on this.
19	Q	I am putting to you that he is not putting that. Let us assume he is not making that point.
20	THE	CHAIRMAN: He does say "scope" not "incentive".
21	А	Yes. He talks about broadband routers and network equipment. I don't think that's talking
22		about the same thing. I think I'm clear. I'm partially agreeing with you. I think I'm clear
23		about how far I agree with you, which is to do with the business case where it is affected by
24		these input costs.
25	MR.	PICKFORD: Whatever the precise meaning of the word "scope", we can generalise out the
26		first situation which was an example of it affecting Sky's unbundling programme more
27		generally to potential investments. It is the same argument.
28	А	Where they depend on those input costs. I think I'm being clear here.
29	Q	And you agree with the fourth point, because we went over that before?
30	А	That could be the case, yes.
31	Q	So all of those negative effects on a CP would tend to militate against possible incentives
32		that there would be for the CP to continue to allow itself to be overcharged?
33	А	No, that's not correct, because if para.26 is correct and he says:
34		" high backhaul prices would have resulted in lower profits for Sky and/or

1	higher retail prices"
2	There's higher retail prices here, okay, so there's potentially some transfer that eventually
3	finds its way back to Openreach, okay, which comes from those higher retail prices. It ends
4	up in the Openreach bucket eventually, and that comes back through the repayment regime
5	to Sky. So, yes, I agree with you. You pushed me hard on this point about this model,
6	about how applicable it is, but what I would say is here it is all laid out. There are some
7	lower profits for Sky, but there are also some higher retail prices, and those higher retail
8	prices go to BT's benefit, okay, and I'm absolutely clear it's a benefit for BT here. They
9	eventually go back to Sky through the repayment. There are perfectly plausible situations
10	in which that repayment benefit is larger than that lost profit.
11	Q He did not actually say there will be higher prices. He says
12	A There may be.
13	Q "lower profits and/or higher retail prices".
14	A Yes.
15	THE CHAIRMAN: I think Dr. Maldoom has explained the point. I think we are going to have to
16	stop for today, Mr. Pickford. I think we are going to have to pause until tomorrow. How
17	much more questioning have you got, because it has gone quite slowly?
18	MR. PICKFORD: We are going quite slowly. We have a bit of an issue in that Dr. Maldoom
19	traverses a lot of the same ground as Mr. Myers, albeit effectively agreeing with Mr. Myers.
20	Mr. Myers produced a responsive report to Dr. Houpis and then in Dr. Maldoom's expert
21	report he has, in addition to his points on interest that we have been debating that are unique
22	to him, developed and effectively endorses a lot of the points that Mr. Myers makes. I have
23	a lot of cross-examination for Mr. Myers. Given the speed that we have been progressing
24	with Dr. Maldoom, I do not think I can realistically make all of those points and address
25	them to Dr. Maldoom simply because he has effectively endorsed and picked up Mr. Myers'
26	analysis. So where that leaves us is that if it is permissible for me not to rehearse all of the
27	arguments that I would go through with Mr. Myers with Dr. Maldoom then we can be
28	somewhat
29	THE CHAIRMAN: BT are intervening in your appeals, are they not?
30	MR. PICKFORD: They are.
31	THE CHAIRMAN: They have got two witnesses. You also, of course, have the opportunity to
32	cross-examine Mr. Harman who deals with some of that. Are you concerned about the FAC
33	or are you concerned about
34	MR. PICKFORD: I am dealing with our cost orientation point. Mr. Myers' evidence is that he

takes issue with a number of points that Dr. Houpis makes about why we say aggregate
FAC should be the right approach. He is the lead witness on that issue, and indeed he put in
his lengthy report on those issues first. Then in intervention Dr. Maldoom comes along and
say, "I agree with much of that and here's my 2p worth on all of those", and then in the
meetings we then have a series of tables that set out various propositions and everyone
gives their particular view. A problem I have is that I have questions on it. I'm very happy
to put all of that to Dr. Maldoom, but there is a lot of it. They are involved issues that take

THE CHAIRMAN: The matters that you have been cross-examining on about repayment and interest incentives, I appreciate Sky and TalkTalk have their own particular position as regards those compared to the other CPs, but as I understand it Ms. Rose you are also seeking to cross-examine Dr. Maldoom, are you not, and I would hope that you would be, as it were, dividing out the issues on which you cross-examine, so that you are not going to have the same issues being cross-examined on by a succession of counsel.

- MR. PICKFORD: My understanding with Ms. Rose is that her cross-examination is going to be very limited because I was, in fact, taking the majority of the issues on Dr. Maldoom. Conversely, on Mr. Harman Ms. Rose will be taking the lead and I will simply be filling in the gaps, as it were.
- MS. ROSE: Sir, I do have some questions I want to put to Dr. Maldoom. Obviously I am not going to repeat ground that has been covered before but I will have questions which relate to our interest appeal, as well as our intervention in BT's appeal.
- THE CHAIRMAN: Yes, that is what I assumed. As Dr. Maldoom unhappily knows, there is half a day further set aside but you are unlikely to need half a day, are you?

MS. ROSE: Sir, no, I would have thought an hour maximum.

THE CHAIRMAN: Yes. I think you should cover some of the FAC issues with Dr. Maldoom because he is what was called an intervener with a direct interest in your appeal.

MR. PICKFORD: I am very happy to do it, Sir. My only difficulty is that given the kind of length of answers that we have had from the witness today, and ----

- THE CHAIRMAN: The space is an hour and a half, apart from that what are the other topics?
- 30 MR. PICKFORD: Apart from the FAC issue? We are nearly through on the issue of interest.
 31 The next point to address is the distortion of the incentives to invest. There is another point

about BT's incentives and ----

33 THE CHAIRMAN: That basically the third objective.

34 MR. PICKFORD: That is the third objective and then there are a few points to mop up on BT's

1	incentives as well, but we are nearly there. I would say on interest probably half an hour or
2	so on interest. But in relation to judging the amount of time it will take to go through all the
3	issues on FAC on the basis of the kind of speed we have been going so far, we had the best
4	part of about a day on FAC. Obviously we cannot
5	THE CHAIRMAN: That is another question.
6	MR. PICKFORD: fit that in.
7	THE CHAIRMAN: No.
8	MR. PICKFORD: I am happy to go back and put effectively an abbreviated set of questions on
9	FAC.
10	THE CHAIRMAN: I think that is what you should do. I would have thought on the basis that
11	you then have an hour, I would have thought you could deal with the other objectives, with
12	targeted questioning, in about 20 minutes. But you have an hour and it may be that we can
13	give you an extra 15 minutes but no more on FAC to cover some of the key points.
14	MR. PICKFORD: I can certainly cover the key points.
15	THE CHAIRMAN: I think that is the way you have got to do it. I think it is right that you should
16	put some of your key points to Dr. Maldoom because BT is, for obvious reasons,
17	intervening with a keen interest in that appeal and he is their expert.
18	MR. PICKFORD: I can certainly do that. One of the difficulties obviously, given the
19	complications, is it is not going to be possible to set out the entire logical sequence of every
20	issue that he goes into so we will have to, to some extent, compromise.
21	THE CHAIRMAN: Yes. I think we will bear that in mind and understand that.
22	MR. PICKFORD: I am grateful.
23	THE CHAIRMAN: Dr. Maldoom, it is a long haul that you are going through. You will know
24	that you, from having given evidence before, are not allowed to discuss the case with
25	anyone else within the legal team before you return and complete your evidence tomorrow.
26	As you have just heard, it will be completed by or shortly after, very shortly after, lunch
27	tomorrow. If necessary will take lunch 15 minutes later. Can I just ask you one very small
28	completely different point?
29	A Yes.
30	Q At the end of your reports, it does not matter which one you look at, if you look at the first,
31	second or third, just above your signature, say on p.75 of your first report, you refer to your
32	duty to the Tribunal and you say you are aware of the requirement of CPR Part 35, its
33	Practice Direction and the protocol for instruction of experts to give evidence in the
34	Tribunal. Does that refer to a document that you have read?

1	Α	I think I have at some point, yes. I am conscious of not addressing the Tribunal today
2		though because of this.
3	Q	No, you have been answering questions in cross-examination. It is just the document itself.
4		I was a bit curious about it.
5	А	I got given a pack of information at point by instructing solicitors which I still have. I can
6		try to find it.
7	Q	Without too much trouble, if you are able to find it overnight. I am now the President of the
8		Tribunal, I was not aware that we had a protocol of instruction letter and my enquiries have
9		not revealed it. So if you are able to produce it I would be very interested.
10	А	This is the form of words that my instructing solicitor suggested using so
11	Q	I see. They wrote this paragraph?
12	А	They gave me the form of words, yes, exactly.
13	Q	The rest of your evidence is that your form of words, or theirs?
14	А	That is, indeed, my form of words, yes.
15	THE	E CHAIRMAN: 10.30 tomorrow.
16		(Adjourned until 10.30 am on Tuesday, 5 th November 2013)
	I	