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IN THE COMPETITION APPEAL TRIBUNAL

Case Nos. 1205-1207/3/3/13

Victoria House, Bloomsbury Place, London WC1A 2EB

5th November 2013

Before:

THE HON. MR. JUSTICE ROTH

(The President)

STEPHEN HARRISON PROFESSOR COLIN MAYER

(Sitting as a Tribunal in England and Wales)

BETWEEN:

BRITISH TELECOMMUNICATIONS PLC

Appellant

- and -

OFFICE OF COMMUNICATIONS

Respondent

AND BETWEEN:

(1) CABLE & WIRELESS WORLDWIDE PLC

(2) VIRGIN MEDIA LIMITED (3) VERIZON UK LIMITED

<u>Appellants</u>

- and -

OFFICE OF COMMUNICATIONS

Respondent

AND BETWEEN:

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

Appellants

- and -

OFFICE OF COMMUNICATIONS

Respondent

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HEARING DAY SIX

APPEARANCES

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

1	MR.	THOMPSON: Sir, before Mr. Pickford gets to this feet, can I just mention a fourth report
2		from Mr. Coulson, which has been served, to deal with some of the concerns that the
3		Tribunal have about matters relating to the cost adjustments under Ground 4.
4	THE	PRESIDENT: Yes.
5	MR.	THOMPSON: It is in response primarily to the points you were putting to Mr. Saini on
6		Tuesday of last week and I think Mr. Pickford is very concerned that I do not trespass in an
7		way on his time for cross-examination, so can I just make the point that we have served it.
8		The consequences that may flow from that can be discussed at a later stage.
9	THE	PRESIDENT: Yes, thank you.
10		Dr. DANIEL MALDOOM, Recalled
11	THE	PRESIDENT: Dr. Maldoom, did you have a chance to look through the documents?
12	A	I did, yes. I think an extra comma would have actually helped enormously here, because I
13		think this was just describing the Practice Direction which was the Protocol for the
14		Instruction of Experts, and I think it properly should say "to give evidence in civil cases"
15		not "in the Tribunal".
16	Q	Have you brought it with you?
17	A	I have not, no.
18	Q	You said this paragraph was provided for you by BT's solicitors.
19	A	I think Bird & Bird gave me the following paragraph, the Statement of Truth, the form of
20		words I should use. I cannot remember whether they provided me with the previous
21		paragraph as well in terms of what I needed to set out or whether that I what I wrote. But I
22		looked at what paperwork I had, and I had CPR Part 35, then I had this Protocol for
23		Instruction of Experts to give evidence in civil cases, and then I also had the Tribunal's
24		guide to proceedings.
25	Q	Yes, and you just misdescribed it?
26	A	Yes, I think that is probably what has happened.
27	Q	Yes.
28	A	Which I suspect means that probably I wrote that rather than my instructing solicitor.
29	Q	Yes, I see. Just one second. (After a pause): Yes, Mr. Pickford.
30		Cross-examined by Mr. PICKFORD, Cont'd
31	MR.	PICKFORD: Dr. Maldoom, good morning.
32	Α	Good morning.
33	Q	In order to get through today in time I have been on a crash diet in terms of my questioning
34		last night and, for your part, if you can, if you can answer "yes" or "no" when it is

- appropriate to do so. Obviously you can clarify if you need to, but in order to try and get on today.
- 3 A I understand and I will do my best to help.
- 4 Q I am very grateful. Thank you. Yesterday we discussed your concern about CPs having incentive to delay in relation to bringing disputes.
- 6 A Yes.
- Q I have just got one very short further point to put to you on that before moving on to another topic.
- 9 A Sure.
- 10 Q We know that Sky and TalkTalk brought the overcharging to BT's attention in January
 11 2008, soon after it had spotted a problem on the basis of the data contained in the accounts
 12 that were published in late 2007.
- 13 A Right.

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- 14 Q That of itself is not consistent with wanting to accumulate an overcharge, is it, because by
 15 bringing it to BT's attention there was a fair chance that BT might reduce its prices if it
 16 agreed?
 - A Yes, I am not sure what the exact timing of this was. I do not want to go on at length, but I think our discussion yesterday was quite useful in just making clear what my report was addressing and what it was not, in the sense that I think I was concerned with a slightly more general problem that arises in this context, in the context of setting a general repayment policy, which is the scenario in which we have a wholesale charge which is then affecting retail charges of a number of CPs using that product. We are in a situation where potentially, if we increase that wholesale charge, there is the potential for a retail pricing response from them which clearly depends on the extent to which that set of CPs using that wholesale product might constitute what you might roughly call a kind of relevant market at the retail level. So it is to what extent there are actually other constraints.
- 27 Q As you said, we discussed that yesterday.
- 28 A Yes, we discussed that yesterday.
- 29 | Q I am not going to go over that today.
- A To be clear, I think I actually take your point from yesterday that if we actually look at the services in this case, I think there is variation across those in the circumstances that apply, the extent to which the situation which I was considering applies to that. I think it applies potentially to a lesser degree to your clients. Arguably it might apply to a greater degree, say, to mobile operators using BES or to the WES case, just to be clear.

- I would like to put to you now a much simpler theory on delay than the one that you have developed. If BT does not have to pay interest on any overcharge, BT has a strong incentive to delay the determination of a dispute for as long as it possibly can because for every month that goes by it gets to hang on to not only overcharge but the time value of that money.
- Yes, I think we agreed yesterday that there are incentive effects on BT too and clearly there is a compliance incentive and there is a timing incentive, which again goes to this question of balancing various incentives and what happens at potentially different interest rates.
 - Q You told me at the outset yesterday, in response to my questions on the scope of your instructions, that you had approached the issue of the competing incentive effects objectively and you had considered all of the competing incentives. The problem I have with that, Dr. Maldoom, is that you do not consider the delay incentive on the part of BT when you are addressing the competing incentives at all, do you?
- 14 A That is part of the compliance question surely?
 - No, it is separate from compliance, Dr. Maldoom. Can I illustrate it this way? Let us suppose that BT breaches it costs orientation obligation. At some point down the line that is brought to its attention and it corrects the problem going forwards. So there is no ongoing compliance problem anymore. But there is still an incentive for BT to delay in relation to the resolution of a dispute about the historic overcharge because, for the reasons I gave, it gets the time value of money in relation to that particular overcharge.
- 21 A I agree that could be an issue, yes.
- 22 Q But you do not address that in your report, do you?
- A I think I have considered issues -- I have made some comments, for example, about the role of Ofcom in compliance and so on, so, yes, I certainly had things like this in mind in terms of the issue of providing incentives to BT and I think, under the joint expert meeting, there was a broad level of agreement that there was an issue of providing appropriate incentives on BT and I agree with that. My point is clearly that that needs to be trading off against other considerations.
- 29 | Q What I am saying is that the compliance point, which you obviously have recognised ----
- 30 A Yes.

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O -- because that was the point that Dr. Houpis has emphasised, is distinct from the delay point which is what you emphasise in relation to CPs, and I am putting to you that actually in relation to delay there is a far more simple and obvious delay incentive and it is the one on BT.

- 1 A I agree that that delay incentive could be present, yes.
- 2 Q Moving on to a new topic in relation to your theories on the competing incentives, another
- 3 concern you raise is the payment of interest which you say risks discouraging BT investing
- 4 in new services or CPs from investing in their own infrastructure.
- 5 A Yes. Here I am considering essentially what might happen if one increases the interest rate
- and as a thought experiment, what might happen if it is at a relatively high level.
- You say that you consider that there are limits on how large the deterrent effect can be made without creating counterproductive distortions if payments have a penalising effect.
- 9 A Yes.
- 10 Q That is the essence of your case.
- 11 A Yes, I think that is a fair summary. Yes.
- 12 Q I do not want to discuss with you again the chances of a false positive against a false
- 13 negative because we discussed that yesterday. What we are now discussing is the
- consequences of errors. That is correct, is it not?
- 15 A Yes, indeed. I think the trouble is obviously I have views about whether I think the way
- Of Ofcom has gone about calculating the repayment is correct or not.
- 17 Q But we are not going to address that again.
- 18 A But the extent to which the penalisation arises is clearly dependent on all of that, but I think
- we take that as given for this conversation.
- 20 | Q Yes. The consequence of a false positive is that BT is found to have overcharged and has to
- repay an amount it should not have done and, moreover, has to repay interest on top of that,
- 22 if interest is payable. That is right, is it not?
- 23 A I am sorry, is that the situation we are considering?
- 24 Q I am simply explaining, so I can go through some steps with you and explain it to the
- 25 Tribunal. The consequence of a false positive is that Ofcom makes a finding of breach
- 26 when in fact it should not have made a finding of breach, and so BT has to pay an amount
- 27 which it should not have had to pay and also it has to pay interest on it, if we are right that
- 28 they should pay interest.
- 29 A Yes, or it could be the situation where the amount that has been determined has been too
- large, say, as well. You might consider that as well.
- 31 | Q Yes, indeed. The consequence of a false negative is that BT gets to hold on to an amount of
- money it should not have done together with the time value of money.
- 33 A Yes, that is correct.
- 34 Q In that case it gets the time value of money forever because it never has to pay the principal

1		sum back.
2	A	If that situation occurs, yes, that must be so.
3	Q	Whereas in the false positive case the interest payment is finite because at some point it is
4		addressed and there is a repayment.
5	A	There is a repayment, yes.
6	Q	So the consequences are not asymmetric against BT, are they? They are actually
7		asymmetric in BT's favour?
8	A	Sorry, I am not following you here. The consequences depend on the nature of the
9		repayment regime and we cannot say anything at this point. I think we cannot reach any
10		balancing of those effects. We have not specified enough yet.
11	Q	I am simply talking about the consequences on BT, is that sometimes it will lose, sometimes
12		it will win, but overall, in fact to the extent that it gets to have the time value of money
13		forever on the times when it won, it actually wins out of the uncertainty rather than losing.
14	A	No, I don't think you can reach that conclusion. You haven't specified anything about the
15		repayment regime. I think I made it quite clear that the fundamental asymmetry I see is that
16		the nature of the repayment regime affects one of those cases but not the other. So unless
17		we specify something about how the repayment regime operates I don't think we can reach
18		any balancing conclusion across those two cases. What you've said, that in one case there's
19		a repayment and in the other case there isn't, clearly that is just a matter of fact from the way
20		that the assumptions are set up.
21	Q	What you say in your evidence is that the penalising effect also derives from the fact that
22		the amount of overcharge is uncertain and Ofcom makes no adjustments for uncertainty
23		when assessing the level of repayment to apply?
24	A	Yes, this goes back to the question of how the repayment has been determined. I think we
25		can't entirely - it would be nice if we could entirely separate the issue of interest from the
26		issue of how the repayment were calculated, but essentially all of these effects combine in
27		terms of setting what you might call the kind of strenuousness of the repayment regime.
28	Q	Your point before to me was that I have not specified enough about the repayment regime.
29		If the repayment regime is that you have to pay time value of money at an appropriate
30		interest rate that does not impose a penalty on BT, but merely restores it to the position it
31		should have been in, then there is no problem, is there, for BT? It should not be
32		discouraged from investing because the interest rate ensures that it is not subject to a
33		penalty?
34	A	Yes. I think this goes to a debate which I have had with Mr. Myers to some degree, which

is that I think that once we have these conditions of uncertainty, and in particular the key issue here is BT's imperfect ability to set a price in the absence of knowledge of what the DSAC mean, then under conditions of uncertainty BT essentially faces - it is very difficult for BT to control that, and that leads to different consequences in terms of this penalisation, because we have the problem that it may be that BT simply just sets - it tries to set a cost oriented price but there are at least two possible cases where it could be high or it could be too low, and they are not treated the same. There is a repayment that tends to be more likely in one case than the other. So I think under conditional uncertainty it is not clear at all that that is the case.

- I think we will come back to that if we have time in the context of the discussion about the cost test. Your other theory that you articulate in relation to the incentives of paying interest, you explain some of it, that there is a risk of BT over-complying, but in turn that could discourage CPs from investing in their own infrastructure because BT's prices are too low and that crowds out competing infrastructure investments that is the other part of your theory?
- A Yes, the essence. Just to be clear, just to possibly cut through some debate here, what I'm considering is what happens if one makes the interest rate quite high, just so that we can identify what the relevant trade-offs are. These are things that might happen at a sufficiently high interest rate, let's be clear.
- Q I think in that case we can cut through much of that. It is the same argument we have just had here. It is the same mechanisms going on again in relation to this theory.
 - A Fine. What I'm trying to do is I'm trying to look at what might happen at different interest rates trying to identify some of the relevant trade-offs.
 - Q Let us move on to charge controls and cost tests.

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- PROFESSOR MAYER: Can I just raise one question at this point. The way in which economists would typically look at the issue of time value of money is to say that if the payment that has been made just reflects the cost of capital, of that payment, and parties are entirely indifferent as to what date that payment is made, and furthermore it would be completely neutral in relation to investment decisions is that not correct?
- A Yes, I think, if you looked at essentially the additional cash flows associated with an overcharge and a later repayment, one could look at that and ask what is the time value of money associated with that cash flow and its riskiness, and one could apply an interest rate which would leave you essentially indifferent I think that's correct.
- Q Would it not therefore cut through this argument to say that essentially what we should be

- doing is to move to a position of neutrality investments?
- A I think my problem with this is that one can see if that were a repayment say it was a policy that Ofcom adopted in general, I think there are additional considerations which Ofcom needs to bear in mind. In particular, I think this delay issue, and there's clearly a question mark about its applicability to different circumstances, but in terms of a general approach to repayments it is relevant for Ofcom to consider, and Ofcom has subsequently itself raised the issue in the determinations it has made on *Gamma*. So I think there will always be a debate about what exactly that relevant interest rate might be for looking at creating indifference. I think it is relevant to take account of the fact that there are some other factors which might be in play, certainly in terms of, as it were, choosing amongst the ranges of reasonableness that there might be here.
- Q That seems to be a matter of determining what the right cost of capital is, not saying that in principle one wants to apply the right cost of capital?
 - Yes. Obviously there's the problem of getting involved in a large amount of debate about what some of this might be. So I think the point which I've made was that, actually, if one looked at what the cash flow benefits were, given the elastic nature of those additional cash flows, the interest rate was likely to be quite low. This is the debate we had yesterday about, is it something that you can just, as it were, stick in a cash deposit? Under those circumstances that rate is quite low. We also know some other things. We know that there may be the potential for other incentives to operate on BT beyond that of repayment itself, so the fact that there might be liabilities to other parties that result from over-payment. We know that there are potential concerns about delay, though obviously that is something that probably needs to be assessed case by case. We know that there may be issues that go to Article 8 type of objectives for Ofcom in terms of infrastructure investment promoting competition that might arise were the interest rate set too high due to possible perverse incentives that might result for BT. I think, under that full set of considerations, it is not a precise answer but you're getting down to zero being possibly within the range of plausibility here, given the relatively low numbers which are involved for what the appropriate time value of money might be for the additional cash flows that might result from the repayment. That was very much how I thought about the problem.
- MR. HARRISON: Just on that point though, on your conditions of what it was dependent upon, there is actually the potential for the mistake not to be picked up?
- 33 | A Yes.

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Q Therefore, there is also in your terms of uncertainty the uncertainty that the risk will be

picked up will also go the other way?

A It will do, yes. To be clear, when I talk about these risks, I'm always thinking about there being the two possibilities. I don't focus on the case that BT could set non-cost reflective prices and not be found out, but I think that is always implicit due to the problems with measurements, and so on, that are here. But I think the issue is always that that case is not affected by - that is a given, as it were. That is just an unfortunate state of the world that will occur sometimes.

Q In the terms that you have described it, at one level, if you expect the repayment to be made and for it to go back, then you have given a list of factors that, in your terms, take you closer to zero.

11 A Yes.

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If, on the other hand, you have got a reasonable expectation that it is going to not be repaid, that would take you closer to having it as permanent capital within the business, which would take you to a WACC level of type of return?

15 A Well, I suppose I am assuming that there is some power in the regime, as it were, that there
16 may be cases where ----

17 | Q You specified one, which was the base?

18 A Yes.

Q But equally with the factors, because we cannot quantify and evaluate the functionality of the factors you have identified, then you can take it equally in theoretical terms to the other end of the extreme, can you not?

Well, I suppose that is right in terms of that being - BT will enjoy a benefit in that case, and yes, these arguments about the nature of the additional cash flows, including that the nature of the additional cash flows, are different in that case. The problem is, by assumption, this is a case that - as it were, it's a box that we can never go into, because the nature of constraints that are operated on BT and Ofcom in terms of the information that's available would seem to suggest that there may be a probability that BT ends up with setting - it must be a consequence of that uncertainty that BT could set prices which are not cost orientated. The problem is that we can't, as it were, do anything about that because we can't identify that possibility.

Q Therefore, we cannot equally conclude that it will be zero either?

A Well, I think zero is applying to the case where we have identified it, so we know that that situation doesn't apply. Essentially, I think what you are saying is, could BT be overcompensated due to these cases that crop up? I think the only way you can address that is

- by looking over a long period at BT's total return across the business as a whole if you think that on some occasions maybe it's got away with a few things. So that is really a matter for Ofcom, not for any one particular regulatory review in a particular product market. It is something for looking at BT's overall performance and whether that might be considered excessive, because of essentially regulatory failures, I guess is the question then.
- 6 Q Thank you.
- 7 MR. PICKFORD: You are obviously aware of Sky and TalkTalk's proposal for an aggregate FAC test to supplement Ofcom's DSAC test?
- 9 A Yes, I am.
- 10 Q Their test leads to downwards overall pressure on BT's prices compared to Ofcom's test, does it not?
- 12 A I think that's a fair assumption, yes.
- 13 Q At its most basic, that is why it is good for downstream competitors, such as my clients,
 14 because it gives them a greater margin with which to compete against BT at the retail level,
 15 and conversely it is why it is not so good for Openreach because it reduces Openreach's
 16 profits?
- Yes, I can see why it might be good for your client. Equally, I think the assumption is thatif we're talking about the test, then the assumption that it should bind in some cases, in
 which case then it would be a restriction on what Openreach can do relative to the current
 situation. It may almost be worth adopting the assumption throughout that it would bind. I
 think that might simplify matters.
- Q One of the points that you make in your evidence is that a competitive market does not always lead to a firm earning its cost of capital if it is more efficient than its rivals?
- 24 A Yes.
- 25 Q Your model is of a number of competitors, one of whom is more efficient than everyone else?
- 27 A Yes. This is the argument that sometimes regulation is a surrogate for competition. I am just making the point of how competition actually works in practice.
- 29 Q You say that that operator gets to earn greater returns than everyone else because of its greater efficiency?
- 31 A Yes. The outcome is that competitive markets usually provide reasonable incentives for cost reducing effort because I would typically enjoy a benefit from that relative to my competitors for some period until they catch up.
- 34 Q The kinds of advantages that BT has in the wholesale Ethernet market, in particular they

1 come from its economies of scale and scope and its very large market share, do they not? 2 Yes. It has SMP, that clearly derives primarily from scale economies, yes. Α 3 Q Your model is of a competitive market? 4 No, it's not a model. I'm purely making a point that competitive markets create incentives A 5 for cost reduction. Regulation should, ideally, limit that and create incentives for cost 6 reduction. 7 O I thought your point was something different. What you actually say, and maybe we should 8 go to your evidence ----9 Sure, I may be misremembering something. Α 10 -- is that a firm can earn more than its costs of capital in a competitive market. There are Q 11 implications for that, but that is one of your central points? 12 As a transient phenomenon, that is the spur to cost reducing innovation. Α 13 You do not suggest that permanently they can earn above their cost of capital in a Q 14 competitive market? 15 One has to specify a lot, but under the usual notion of competitive market, no. Α 16 O I would like to turn, please, to deal with allocative efficiency. 17 Α Sure. 18 Q It might help if we start with the joint note, which is 1.1 of core bundle D, and if we turn, 19 please, to p.18, and the proposition being put here - do you have p.18? 20 Α Yes, I have it. 21 -- is does the Houpis 1 test, which is the Sky and TalkTalk test reduce the risk of allocative Q 22 inefficiencies compared to the Ofcom test, and your answer is, "Unlikely"? 23 Yes. Α 24 Q Keeping a finger in that tab, because we are going to come back to it, but for comparison go 2.5 to tab 4 of this bundle, which is your second report? 26 Α Yes. 27 Q And turn, please, to para. 142? 28 Α Yes. 29 Q Here you are dealing again with the Dr. Houpis test, and you say in the second sentence: 30 "While this may result in allocative efficiency improvements, one cannot dismiss the potential trade-off against dynamic efficiency." 31 32 Yes, I think I am engaging with Dr. Houpis' views about allocative efficiency here, yes. Α 33 So your view seemed to have hardened between your second report and the joint report, Q 34 because as I read 142 what you are saying effectively is you are conceding allocative

efficiency but you are saying there is far more to it than that, have a look at dynamic efficiency?

Yes, I see the problem. I think the difficulty is that allocative efficiency is a rather moveable

feast and there are different notions depending on what constraints one is operating under. Dr. Houpis is quite right to say the test results in lower prices that might be more allocatively efficient because we get closer to incremental or marginal costs of these services. So in that sense that is good for those services. If we look only at those services clearly that is good for customers of those services as well.

The issue that we have though is this broader question which I think is thrown up by this FAC test which is to do with not just these services but everything else that BT is doing because there are common costs associated with these services, they need to go somewhere. Now, for these services it is clearly better if it goes somewhere else.

If we are talking about allocative efficiency, however, with the requirement those common costs need to go somewhere, I think there are then questions around the constraints that get imposed by this FAC test for spreading those not just amongst these services but across services in general. I think I have mentioned in the joint report that my concern is that we have had a Decision by Ofcom - I will be brief - in 2004 and again in 2008 which allows this kind of flexibility, and we would be kind of taking it away which would then create a restriction potentially in terms of how those common costs might be recovered.

- I do not propose to debate with you the precise meaning of the 2004 statement, because I do not have time to do that, and I would not suggest that you are necessarily the best placed witness to do it with. However, as I understand your evidence that you have just given, can we divide the question on allocative efficiency into two? There is the issue about the level of prices, and there is the issue about the structure of prices. As I understand it, you are effectively conceding that if we reduce prices then that is obviously good for allocative efficiency in terms of taking them towards marginal costs, but you say there are issues that we have to bear in mind about how that is distributed and the structure of prices, because it may have particular implications for one price relative to another, is that correct?
- A It is, and I think one needs to be clear, there are questions which are broader than purely these AISBO services.
- Q Indeed.

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A Okay, but I think the trouble is that this term gets rather abused, because one really needs to be clear about what constraints one is working under when talking about allocative efficiency, so it can lead to misleading comments, I think.

- 1 Q As you are concerned about the possibility of there being comments that are misleading, let us try and go through it very quickly so we have some degree of certainty.
- 3 A Sure.
- 4 Q I think we can agree that DSAC as a cost standard permits multiple recovery of certain common costs?
- 6 A Yes, it is common costs which go beyond the services in question, yes.
- Q We can divide the markets in which BT operates, I would suggest, into three broad
 categories. First, there are those markets where there are only cost orientation obligations?
- 9 A Yes.
- Q Secondly, there are those where there are specific price controls with or without cost orientation obligations, and thirdly, there are those that are competitive?
- 12 A Yes, I think that probably broadly works, yes.
- 13 Q Now, you have not sought to dispute, and I am not suggesting that you should have done,
- Mr. Robinson's evidence that for Ethernet products the main Ethernet products, WES, BES
- and mainlink BT recovered in the order of £230 million more than its FAC during the
- dispute period?
- 17 A I haven't looked at that. If that's what was the case then I am happy to take that on your trust.
- 19 Q We will take that as a working assumption for the purposes of this discussion.
- 20 A Fine.
- 21 Q Likewise, you have not sought to dispute TalkTalk's evidence advanced during the disputes
- 22 that in the other markets that are subject to the same type of SMP control, so another cost
- orientation obligation, BT was over-recovering in the order of about £360 million. Can we
- take that as a working assumption?
- 25 A Which set of markets are £360 million just runt this past me again?
- Q That is the other markets in which there are cost orientation obligations which aren't
- wholesale Ethernet?
- 28 A Right.
- 29 Q So things like ISDN. So we are up to a total of about £600 million-ish, it does not really
- matter the precise figures of recovery above FAC in relation to that set of markets ----
- 31 A Right.
- 32 Q An assumption okay? Now, we know that for services that are subject to a charge control
- prices are generally regulated by reference to fully allocated cost, are they not?
- 34 A I think that depends. I mean they may be, yes.

- 1 Q It is not generally the case that Ofcom requires prices in aggregate to be below efficient 2 FAC for the prices in question?
- A No, that would be true, but I think there are many approaches taken to regulation in different contexts. Sometimes we have a price cap it will be set with a view to allowing appropriate cost recovery, but clearly a little bit more complex than saying it is just set by reference to FAC.
- Yes, but it is a fair working assumption that prices in those price controlled markets are not going to be very substantially below FAC?
- 9 A I think it is a fair assumption because I think Ofcom clearly needs to allow some of these headroom issues to occur. Again, I want to be brief, we talked about that yesterday.
- 11 Q Yes, indeed, I think we can take that as read. So we have dealt, first, with the cost
 12 orientation markets, we have dealt with the price controlled markets. In relation to the
 13 competitive markets you are not aware of any evidence, are you that has been provided by
 14 BT that it is under recovering in those competitive markets to the tune of £600 million?
- 15 A I do not know anything about the details of BT's overall financial performance, that is not a matter I have looked at.
- 17 Q And, in any event, in a competitive market the price is set by competition not by BT is it not as a broad assumption?
- Well, yes, I think you need to be careful. Some of these areas may involve innovation.

 There may be new services where potentially it is not regulated, but one does not
 necessarily mean that it is operating under conditions of perfect competition. Just to take
 one example of BT Sport initiative, for example. All I am saying is your bucket contains
 cases where there may be new products that BT is offering as well as things where it is
 essentially in vigorous competition with other people, there are a variety of cases there.
 - Q But in that other bucket it is not going to be BT that is dictating the price, is it?

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- A If it is a new service it could be, if it is something innovative, surely? If BT comes up with something new, which is unregulated that is in that bucket and BT does set the price.
 - Q Okay, we will come back to new services, I think, in a moment. If we just park for a few moments the structure of prices, if the prices of all the cost-oriented services were an average FAC rather than DSAC I think we agree that that would lead to an improvement in allocative efficiency, subject to the structure issue which we will come on to in just a moment?
- A Okay, hang on, I think one needs to go slowly, because essentially what you are doing there is you are saying: "Right, let us just impose FAC across all of those regulated services" is

1 essentially a consequence of that statement. The problem there is obviously that that means 2 that the prices are all then set by the cost allocation which has created FAC. 3 Q Actually, just to be clear, I do not mean that those ----4 Is that not what you mean? Α 5 Q No, I do not mean they will have to be individually set at FAC, I simply mean that across 6 the whole group they on average recover FAC, then that leads to an improvement in 7 allocative efficiency? 8 I don't know how you can reach that conclusion. Again, just to be absolutely clear I am Α 9 working under the assumption that there has to be some flexibility in cost recovery to get 10 efficiency - yes? To be absolutely clear are we restricting, are we just putting a cap across 11 everything and then allowing complete flexibility otherwise? 12 Yes? Q 13 Α Right, then that is fine. 14 If it is in the order of hundreds of millions of pounds, that means that ultimately BT's O 15 customers are going to be very significantly better off? 16 A Okay, I think that is a very, very large step because we were talking about allocative 17 efficiency. In terms of benefits to customers we also need to look at all the other things 18 which were important so we can go to look at what is traditionally called 'productive 19 efficiency', so cost reducing incentives; we need to look at dynamic efficiency in terms of 20 new services. What we get from new services - a common view amongst economists is that 21 that would dwarf these benefits from allocative efficiency, so I we can't jump statements 22 about customers. 23 In relation to allocative efficiency alone we are okay. Your point is we also need to Q 24 consider the other aspects? 2.5 Under the very precise terms that we have agreed that is fine. Α 26 Q I would now like to consider the structure of prices because this is another important point 27 that you are making ----28 Sure. Α 29 -- the need for flexibility. In essence the argument goes, does it not, that BT needs the Q 30 flexibility to be able to vary the relationship between price and costs so that different 31 services make different relative contributions to cost recovery, depending in particular on 32 their demand elasticities?

Yes, I think that is the logic of ... inflexibility. We can see this in many Ofcom Decisions.

For example, if you look at 2008 with the price cap across these services, it was an

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aggregate price cap across the services with the idea of delegating some of the structural questions about prices to BT to make use of, as you say, this relative elasticity information.

Unparticular, the general aim is to allocate more common costs on to those services that are

less price sensitive, because overall that has less of an impact in terms of reducing demand?

- A Indeed, so this is again the matter of allocative efficiency under the constraint that these common costs need to be recovered somewhere. So somebody has to pay more than marginal cost so we want to try and reduce the impact of that on consumers.
- 8 Q The theoretical gold standard is called "Ramsey pricing"?
- Yes, it is a gold standard. That's not what we are doing here. What we are doing is, as it were, borrowing heavily from that model as a regulatory solution allowing flexibility in the hope that we get to something that is more like that theoretical benchmark. I do not think there is any suggestion that we expect to get that theoretical benchmark. It is simply better than the alternative.
- 14 Q I would like to divide up the flexibility question into two, if I may ----
- 15 A Okay.

- 16 Q -- for analytical precision?
- 17 A Sure.
- 18 Q So first, I am going to deal with what I will call 'intra-Ethernet flexibility', that is about the
 19 relativity of the prices within the Ethernet group. Then I am going to talk separately about
 20 'inter-group flexibility', so that is talking about looking at Ethernet as a group and how it
 21 compares to other groups such as ISDN?
- 22 A Okay, fine.
- Q Within Ethernet services, looking at the relative pricing flexibility of them to one another the flexibility we have just discussed obviously means allowing some Ethernet products to contribute more to common costs than other Ethernet products?
- 26 A It would.
- Q Under Sky and TalkTalk's approach an individual price can be set up to DSAC as under Ofcom's approach?
- Yes, I think the main difference is we started, I think, right at the beginning with I had suggested the working assumption that the constraint bites. What is different is clearly that if BT changes one price, potentially it affects the prices of everything else under this proposal. So I think that is a significant difference.
- Q Ultimately, for any particular price relativity that BT wants to achieve, it can achieve that as long as it adjusts its overall recovery so that overall it is not recovering above its FAC.

- 1 A To do that it may well have to simultaneously adjust multiple prices under this proposal.
- 2 Q But it can do that?
- 3 A I suppose it could.
- 4 | Q There is no reason in principle why it should not be able to do that?
- Yes, there may be certain practical difficulties that arise from doing that because it could not, for example, increase one price and then subsequently decrease another price. It all has to happen simultaneously under this proposal.
- Q It does not necessarily have to happen simultaneously. If you do it over an average year
 basis, as long as over the year it works out?
- 10 A It can't increase one in December and decrease one in the following January then. I don't
 11 want to go into details. I mention this point. There are clearly some practical issues that
 12 arise in terms of how actually you would price under this constraint, which do not arise
 13 under the current regulatory system in that there is a greater degree of flexibility for BT to
 14 move prices around.
- 15 Q We will come back to the practical issues later on.
- 16 A Sure, OK.

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- 17 Q Subject to that, we are agreed as a matter of principle?
- 18 A Yes, on the basis that BT can simultaneously move prices, clearly it can operate within that
 19 overall cap and move prices of different products simultaneously to stay in satisfaction with
 20 the overall cap, indeed.
- 21 Q And choose whatever relativities it considers it wants to have between those?
- A There is still the DSAC. There are still DSAC limits, there is potentially still DLRIC floors as well. I think, as we discussed yesterday, I don't think any of that is an automatic tick when there is still potential for Ofcom to say: are there issues here?
 - I want to go now and look at the inter-group flexibility issue, as I said I would. We are now thinking about the broad relativities of cost recovery, say, between Ethernet services and services as delivered in other SMP markets. If BT thinks it is important for, say, Ethernet services to contribute relatively more to common costs than, say, ISDN services (to give two examples), then it can set prices to recover below FAC in ISDN and above FAC in Ethernet, can it not? And it can say to Ofcom: we set slightly higher prices here and we are recovering more than our FAC here, but do not worry, we are not over-recovering overall because you can see this under-recovery over here. That is something that is available to it on Sky and TalkTalk's test?
- 34 A It has to recover costs somewhere else in that case.

- 1 Q Yes, but it has that flexibility?
- 2 A OK, so you are saying if we lower prices for these services, it could just increase the price of something else?
- 4 Q Yes.
- I think that's exactly the trouble, though, isn't it? I mean, the question is about flexibility and about where it's most efficient for those common costs to be recovered. How can we assume that it's more efficient for those to be recovered from something else?
- I am not suggesting it is. I am saying that BT could make that decision. Let us suppose that it is BT that says to itself: obviously we cannot achieve Ramsey pricing, but we think that broadly it would be more efficient if Ethernet made a greater contribution to common costs and ISDN made a lesser contribution. Let us suppose that is what BT thinks, OK?
- 12 A OK.
- Under the Sky and TalkTalk test there is nothing preventing BT from doing that, because it can say: look, we recover X amount more in relation to Ethernet, but don't worry Ofcom, we are recovering the same amount less in relation to all the other products, so we are not over-recovering overall, we are simply adjusting our prices in a way that we think is efficient.

 There is no way in which our test prevents that.
- A I may be failing to understand here, because I thought that we had a cap on the overall prices for Ethernet which were set by FAC, yes?
- Q As Dr. Houpis explains. That is the prima facie test, but as Dr. Houpis explains (and as is also set out in our pleadings) we accept that if BT has evidence that it is under-recovering elsewhere then it can justify over-recovery in relation to any particular group of services to which the price test applies.
- A I failed to pick this up from Dr. Houpis' reports. Right, so you are suggesting that
 potentially this FAC limit would be relaxed for the services in question and not apply, to
 allow Ramsey type principles to operate?
- 27 Q Not apply it strictly to the group, so long as ultimately we are still not over-recovering costs
 28 altogether. So that BT has to justify the under-recovery by reference to what it is doing in
 29 relation to the other services that share common costs.
- 30 A OK, so essentially the FAC constraint gets turned off if BT, as an entity, generates an appropriate return and no more?
- 32 | Q I am suggesting that the FAC constraint gets widened if BT can justify widening it.
- 33 A Right, OK. I understand now. I am sorry, I have interrupted your question.
- Q If the test works on that basis, so that prima facie BT has to satisfy in a particular market,

but BT always has the option, because these things are never applied in a way that is totally mechanistic, coming along and say: actually we are over-recovering here but do not worry, we are under-recovering elsewhere, that would meet your concerns in relation to the flexibility and inter-group pricing, would it not?

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- A Yes. It is something that sounds very similar to what we have at the moment, in the sense that there is headroom provided by Ofcom. Ofcom clearly runs reviews in different markets, different sets of services, with an eye to the overall position of BT. I think the only real difference with what you are proposing is then that essentially some of those headroom questions might become difficult under your proposal. I think the idea of getting BT down to FAC overall there may be a question about headroom that needs to be added to that.
- Q The big difference, of course, is that under Ofcom's approach if BT recovers DSAC across all of its Ethernet and DSAC across all of its ISDN, and DSAC across all of those other cost oriented services, that can lead to very substantial over-recovery of common costs, can it not? That is the big difference?
- A OK, I don't think there's any surprise that that is the case. Clearly, it is a feature of the regulatory system as constructed that it can allow such possibilities. But that is not the only issue here. DSAC is not the only question around cost orientation. Equally, Ofcom has presumably designed the system which we have for these particular services, mindful of this broader issue about BT profitability overall. That's a question for Ofcom's entire regulatory programme. What it said is it considers this flexibility to be important, so it is not a contingent flexibility in the way that you describe with this FAC cap being removed in some cases. Clearly, there is a considerable value being put on flexibility here.
- Q Just to recap where we have got to in relation to allocative efficiency and do not worry, we are going to get into dynamic efficiency and ... On the basis of the discussion we have had, Sky/TalkTalk's approach certainly is better in terms of the level of prices because it is driving prices lower.
- A The problem is what does "better" mean? Prices are lower, we could agree. There are consequences that come from that which are not necessarily all good.
- 29 Q OK. The next consequence is again, I say, we will do dynamic efficiency ...
- 30 A Sure, but even before we get there, we do have this question about the degree of flexibility in your inter product flexibility, and whether it is proper to restrain that or not.
- Q As I have explained, our test allows both inter-group flexibility and also intra-group flexibility.
- A OK, but we have various ways. If we look at what Ofcom has actually done, in 2004 there

1 is essentially no constraint of that nature at all. If we move to 2008 we have a price cap 2 which provides a certain limit on this --3 Q I hesitate to interrupt, but if you can answer my question about Sky/TalkTalk's approach. 4 A Lower I agree with, better – we need to agree what we mean. 5 Q It allows the same amount of flexibility in relation to intra-group pricing because you can 6 choose any relative set of prices you want, as long as overall you do not over-recover. 7 A In theory I think that's right; in practice I think there are very significant issues that come 8 from that due to the fact that you're creating inter-linkages between the prices of different 9 products, because we've agreed that one would expect this cap to bite. That's essentially 10 what we're discussing in that case. 11 Q It is the same point, I think, as regards inter-group flexibility. 12 Α No, I'm not sure about that. You were talking about contingent relaxation of this FAC cap. 13 I think that's not necessarily quite the same as what we have at the moment. I think exactly 14 how one did that, that affects how much flexibility there is to recover common costs across 15 these different groups of services. I think we haven't defined enough to really say anything. 16 O I think I have put my case sufficiently on that and we will move on to the next topic: 17 dynamic efficiency. There is a framework for analysis that you have agreed with your 18 fellow economists. It is in three parts. Maybe it would be helpful for the Tribunal in 19 particular to remind them if we turn, please, to p.20 of your joint note. You have all agreed 20 there: 21 "There is in general agreement as to the different elements of dynamic efficiency 22 that are relevant for evaluating the merits of the Ofcom and Houpis1 approaches, 23 as set out earlier: 24 (i) The incentives for BT to undertake efficient investments; and to introduce 2.5 new/innovative services; (ii) The effect on downstream competition and incentives 26 for efficient downstream investment by other CPs; and (iii) The incentives 27 provided for efficient new entry in the provision of WES/BES services (taking into 28 account that efficient entry includes entry that may be statically inefficient in the 29 short term but provides sufficient offsetting benefits in the longer term);" 30 So if we can agree that we will work within that framework. 31 OK. Α 32 Taking the first point: efficient investment incentives for BT. In order for BT to undertake O 33 efficient investments in the provision of groups of services that are subject to price controls

or cost orientation, BT needs to be able to recover the costs it incurs, including a return on

1 capital employed that reflects appropriately the risks that BT faces when investing in such a 2 group of services. That is a fair statement, is it not? 3 Α Yes. I think there are some very complex issues when we talk about risk, but I think as a 4 summary that is probably fair. 5 Q OK. If we could then please go to the statement in core bundle B and turn up para.9.188. 6 Here we have the beginnings of a discussion by Ofcom about the possibility of the WACC 7 that is allowed for BT reflecting product-specific concerns and therefore particular risks that 8 are faced by BT in connection with the provision of AISBO services. 9 Α Yes, this is the traditional kind of capital asset pricing model approach to working out a 10 WACC. That is what has been taught here, a product specific WACC. 11 If you could please read paras. 9.188 to 9.913, because that is the whole of that section Q 12 dealing with product specific WACC. (After a pause): Have you read that? 13 I have, yes. Α 14 O Thank you. If you could then turn on a few pages, please, to p.130, and we see that having 15 set out the framework that you have just read, Ofcom then answers respectively the 16 questions that it has posed in paras.9.234 and following. Do you have 9.234? 17 At the bottom of the page, yes. Α 18 Q Yes, so you see here again, under the subtitle "Product specific WACC" ----19 Yes, I have it. Α 20 Q -- Ofcom then addresses the issues that it raised in the previous section. Do you see that? 21 Α Yes. 22 Q If you could read, please, the first three paragraphs down to 9.236. (After a pause): Have 23 you read that? 24 Α I have, yes. 2.5 Q So what we see is that Ofcom were of the view that BT had failed to establish that there was 26 anything sufficiently special about the delivery of WES and BES services that justified a 27 higher cost of capital than the rest of BT WACC that it ordinarily allows. 28 Yes, so this is about systematic risk, yes, and impacts on WACC. Yes. Α 29 Then the other consideration that Ofcom addressed would be the idea of fair bet Q 30 considerations, and if we just turn back briefly to para.9.194, we see again there that Ofcom sets out the basic framework in relation to fair bet consideration, the idea that they may be a 31 32 relatively new service; it might be justifiable to allow a particularly high rate of return 33 because some services win, some services lose.

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Yes.

- 1 Q That is the kind of argument.
- 2 A To be clear, this is about essentially real options and providing incentives for timely
- delivery of new services, so the point here is these are risks that are not necessarily
- 4 systematic risks in the terms of Ofcom's previous analysis.
- 5 Q Exactly. It is looking at the other side of the equation.
- 6 A Exactly, yes.
- 7 Q If we go back, please, to para.9.238 and following, we again see that Ofcom rejects any
- 8 adjustments on the basis of fair bet considerations, in particular para.9.239.
- 9 A Yes.
- 10 Q I am not suggesting that you should be, but you are not in a position to disagree with any of Ofcom's analysis here, are you?
- 12 A Actually on the fair bets analysis, I do not think that fully reflects the whole question of
- real options in investments decisions, to be absolutely fair, and this is something I briefly
- touch on in my report but it is certainly something I have done previous work on. I think
- the fair bet analysis of Ofcom is only a partial reflection of the importance of these real
- options in investment decisions and there are actually additional worries that one might
- have to ensure that there are proper incentives to ensure timely investment in these
- situations where investments are risky and irreversible. So again there is oblique reference
- to this in my evidence, but I am conscious that I have not expanded on this in my written
- 20 submissions.

Yes.

- One of the points that you make, I think, in your evidence this is, I think, the oblique reference ----
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- 24 Q -- is that you develop a theory that BT needs a higher rate of return to overcome the option
- value of weighting. That is essentially your point, is it not?
- 26 A This has been a very controversial area, to be absolutely clear, of regulatory policy.
- 27 Q Just for the record, if it could be clear, my proposition that it is your theory about the option
- value. That is effectively what you have just been averting to.
- 29 A Exactly. That is right. That section in my report relates to the fair bet consideration, yes.
- We see in para.9.239.2 a confidential figure, so I am not going to read it out ----
- 31 A Right. I do not have that in this copy. I probably do not need it.
- 32 | Q I think you do need it unfortunately, so if I could ask the Tribunal, please, it is simply one
- figure but I think it would be helpful if you could see what it is.
- 34 A Thank you.

- 1 Q You have had access to a confidential version of the report in the past, have you not?
- 2 Α I have the BT confidential one, yes, which would have this number in. Yes.
- 3 Q So we see that in relation to WES services it sets out a confidential percentage. It says:
- 4 "... duct, fibre and cable accounted for around X% of the mean capital employed 5 (MCE) associated with web services in 2006/07. Although these categories are largely fixed in nature, they are shared with many other services (such as WLR, LLU
- 6 and PPCs)". 7

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9 Q You see that?

Yes.

- 10 Α I do, yes.
- 11 So those investments are going to be made in any event, are they not, irrespective of the Q 12 demand for Ethernet services because they are shared common costs?
- 13 Yes. This is Ofcom's argument. They are trying to say that the problem of sunkness of Α 14 these assets may be down-rated as it may be possible to use them for something else. That 15 is their argument here, yes.
- 16 O So BT had no option to delay that particular investment because it was going to be made 17 anyway for all of the other services, including LLU and WLR?
- 18 Α I do not know. It is not something that I think I am able to comment on really. That is 19 asking me about what BT might do. I think my evidence was more about the fact that there 20 are questions around providing sufficient incentive to make these investments in situations 21 where there is a large degree of uncertainty, and that is not just systematic uncertainty in the 22 meaning of the WACC calculation. That is also specific risks.
- 23 Q You are aware, are you not, that WES and BES are subject to a regulatory obligation on BT 24 to provide those services?
- 2.5 They are, yes. Α

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- 26 Q So given what you have said about your lack of knowledge about the specifics, you are not 27 in any position to conclude that your evidence about needing a higher rate of return to 28 overcome the option value of weighting is at all relevant when applied to these facts, when 29 in fact it would appear that a very large percentage of the investments would have been 30 required to have been made anyway?
 - Okay, I think some of my evidence does talk to this point. Certainly I have considered Α particularly the first couple of years of this product, and I think it is fair to say that there was an extremely large measure of uncertainty around the demand for these products and the timing of demand. I think that is relevant in considering the materiality of these option

- effects. So certainly on demand uncertainty side, I think there is very strong evidence that demand uncertainty is large enough for these matters to be important. To be absolutely clear, I have not looked at anything to do with fungibility of the assets.
 - Q Your point about significant uncertainty is contra, is it not, to Ofcom's conclusion in para.9.239.1 that by 2006/07 it is unlikely that there was significant uncertainty over whether BES and WES would succeed?
 - A Yes, well, that statement is clearly true. There was still enormous uncertainty about -- I think there was still uncertainty about the volumes, to be absolutely clear. Volumes by that point were already quite large but in fact it was still the case that forecasts and outturns were still very different on that point.
 - I would suggest, on the basis of the Ofcom analysis that we have seen here (I think I know what your answer is going to be but I need to put the proposition to you anyway), that there is no need to add a further margin on top of the margin that is already allowed for by the rest of BT WACC in order to provide appropriate incentives in this particular market given the conclusions that Ofcom reaches here.
 - Yes, I would disagree with you on that. I think it is very underrated, the importance of these real option effects in general. Ofcom has made some statements about this. I think they acknowledge the matter in principle but I think we have yet to see a sort of significant decision from Ofcom that has actually in practice incorporated real option effects. So I think this is still a relatively new area of regulatory policy. I think there is a general reluctance from Ofcom to actually, as it were, apply the theory that it has agreed may be relevant. We have a decision from the European Commission, I am sorry, a recommendation from the European Commission, that sort of tries to bring in some of these issues to encourage broadband investment. So I think that is relatively new, so I think this is, as I said at the beginning, a controversial area. I have a different view about this to Ofcom.
- 27 | Q Right. Just so we are clear and so I understand it, you disagree with Ofcom ----
- 28 A Yes.

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- Q -- but on the basis of Ofcom's conclusions, if Ofcom were right, and I hear you say they are
 wrong, but if Ofcom were right that would suggest that one did not need a higher rate of
 return than the rest of BT WACC. That is the implication of what Ofcom says here.
 - A Sure. Let me see if I can help. What would have to be true for Ofcom to be correct, I mean, I think it is pretty difficult to assume a weight demand uncertainty, given what we know, so essentially what would have to be the case would be all the assets which were involved in

1		supplying these services
2	Q	I hate to interrupt, Dr. Maldoom, but that is not my question. You have already answered
3		that question. You say that Ofcom are incorrect.
4	A	Yes.
5	Q	I simply want to be clear, that if Ofcom are correct, and that is the premise for the question
6		(with which you disagree), then there is no need for a higher rate of return in this particular
7		case because it has dealt with the arguments and it has dismissed them. That is what Ofcom
8		are saying, is it not?
9	A	I am just trying to be clear about which bits of Ofcom I am agreeing or disagreeing with,
10		just to try and be clear.
11	Q	I am not asking that question. I am simply saying, I understand you disagree.
12	A	The problem is I don't think they specify quite enough for me to be able to, as it were,
13		answer your question. I think the critical thing is that all the assets which were involved
14		here have to be fungible to other uses. They talk a bit about duct might be used for
15		something else. There are clearly other assets involved as well which they say nothing
16		about. Under the assumption that all those things could be used for other things, then
17		clearly these fair bet real option considerations would tend to fall away. Does that help?
18	Q	I think that helps, thank you. As an extension, we can infer from the evidence that we see in
19		9.239.2 that because of the large common costs, LRIC is likely to be substantially below
20		FAC. That is a fair working assumption, is it not?
21	A	By which you pure LRIC not DLRIC?
22	Q	I mean pure LRIC.
23	A	Okay, yes, I think that's true.
24	Q	The same is true, in fact, in relation to DLRIC? Not as far, but it is still going to be
25		significantly below FAC?
26	A	Yes. I think I even discussed this point. Ofcom has also noted that there is a significant
27		difference between DLRIC and DSAC, yes.
28	Q	My question was the difference between FAC and LRIC or DLRIC. There would then be a
29		substantial margin between FAC and DLRIC or LRIC?
30	A	That is likely, yes.
31	Q	In those circumstances, from an investment point of view simply focusing for a moment on
32		Ethernet services rather than all investment, our FAC test allows BT considerable headroom
33		to cover its incremental investment costs, does it not?
34	A	Incremental costs, yes?

- 1 Q Yes.
- 2 A By what we have just discussed it should be covered under fairly mild assumptions.
- Q Indeed, and as regards covering common costs, what actually matters for BT in relation to that is the whole set of BT's products which share significant common costs. That is
- 5 correct, is it not?
- 6 A I think we're back to our inter-group common costs that we discussed earlier on.
- 7 Q You agree with what I have just said?
- 8 A That's right, we have to think about recovery of those, yes.
- As regards BT's investment incentives, it is difficult to see that the FAC test that is being proposed by Sky and TalkTalk should have particular problems because as regards Ethernet alone it will recover its incremental investment, and more generally we have to look across the wider picture as to whether it has sufficient incentives across all of its products?
- 13 A Wouldn't somebody investing they're not going to ask the question, "Do I get back my
 14 incremental costs?" they are going to ask the question, "What do I get back?" Clearly the
 15 returns which you get back are affected by this constraint.
- 16 Q They answer that question by reference to all of the services that share significant common costs, do they not? That is the effect of your agreeing with my earlier proposition?
- A But the incentives to invest in this group of services depend on the returns that I get from that group of services. Whether I am making margins or not making margins on another group of services is irrelevant.
- 21 Q So it is irrelevant, you say?

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- 22 A Irrelevant to the question of the investment incentives for this specific group of services.
- Q But in relation to this specific group of services, you only have to cover your incremental costs. More generally you have to recover all of your costs?
- We're not talking about whether somebody breaks even or not, we're talking about what the incentives are. Under this dynamic efficiency heading, we are talking about what are the incentives to provide a new service. So if I'm putting a new service in I look at what the return is from that product group. I don't just say, "Does this cover my incremental costs? Yes, plus £1". I am interested in what the total return is. My incentive is to develop those products related to the return from that product group.
 - Q You are interested in two things, are you not? Let us assume you already have a network and you have already sunk the vast majority of your common costs. The two things that you are interested in are ensuring that overall your investments make a sufficient return to justify your investments globally. That is one?

A No, but that's not relevant to the consideration which we have here. The question is about dynamic efficiency and the incentives to bring in new products. That is a matter of what the return is from those products. It is not sufficient just to take a satisfying attitude to say, "Well, if it just about covers incremental costs, that is good enough". That isn't implementing Article 8 type objectives in terms of trying to encourage investment.

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- O To be clear I think we may be at slight cross-purposes I am not suggesting that for each product you simply have to cover your incremental costs. What I am saying is that there were two things that one worries about. If you are going to make investments in relation to Ethernet you need to know two things: one, that overall you get back an appropriate return on all of your investments; and two, that you are also making a sufficient return to justify investment in relation to Ethernet products, but that part only ultimately has to, firstly, cover LRIC and then make some kind of contribution towards your common costs, because you have told me that you might want to recover those common costs from all different places?
- A Okay, I think you've got me rather confused now. What are we talking about? Are we talking about a capacity investment in Ethernet products? Yes, well, okay, does it make an incremental return? Yes, that's a relevant question. We're not talking about, say, a capacity investment in Ethernet products. We are talking about dynamic efficiency issues. So essentially rewind back to some point before 2004 and put your mind in BT's shoes, as it were, and say, "Right, am I going to introduce this new product group or not?" That is the question that we need to look at to consider dynamic efficiency. To repeat myself here, it is clearly the expected returns and the risk characteristics of those returns that affect the decision to develop those new product groups.
- Q I would like to continue the debate, but I think I am going to have to move on in relation to this. I can see that Professor Mayer potentially has a question.
- PROFESSOR MAYER: I am a little puzzled by what you were just saying. You seemed to be suggesting that an investment decision is not based on the LRIC of that investment?
- A The LRIC exists for a product which is already here. I think the questions about dynamic efficiency incentives before the product even exists, in which case there is no LRIC. There are just the expected returns that you can achieve. It's a matter of expectation.
- Q That is saying that over a longer period of time you have to recover all of those fixed costs that were previously incurred as well, but it is still saying that in relation to a particular investment decision is one not looking at the LRIC?
- A It is a matter of what the investment decision is. If it was saying an incremental capacity increase or some, say, minor service improvement, then I think you would make it. If it

creates some contribution to common costs, so if you can get more than the LRIC, then you would do it, absolutely. I think there's a different question which goes to these kind of policy type matters again which is the expectations that get for CPs by the approach that Ofcom takes in a given case, which is, "If I come in with a new product group, how can I expect Ofcom to deal with that initially?" Ofcom has a pretty clear policy about this, and you can see this from the 2004 Decision, which is that if something is new they basically keep their hands off it to a large degree for some period of time. As it becomes more established then it may come under regulation, but there is a sort of degree of forbearance to provide these kind of incentives to introduce those products in the first place.

- Q To answer your question, you would have to go back and look over the whole period of the product group and say, "What are the initial investments that are made as well as the incremental"?
- A I think that's correct. To look at the dynamic efficiency question you would need to do that.

 I know that's obviously an incredibly hypothetical question but there's really not any other way to properly address dynamic efficiency.
- 16 Q That is the only way in which one can do that. Looking at it in relation to a particular service within that group, it is correct to look at the LRIC on its own?
 - A If one were looking at, say, quality improvement, something like that, yes. I think the problem is obviously service in relation to quality clearly might cover a very large range of possibilities from something which might be, say, a minor quality improvement that might be treated by consumers as similar to a price decrease. It doesn't really force you to buy something, or cause you to buy you would never otherwise have bought it's not new in that sense through to there is an entirely new range of products that enables something to happen that couldn't have happened before. There's that whole range.
- 25 Q Thank you.

- MR. PICKFORD: You have just been talking to some extent about new services. You are aware,
 I presume, that in the 2004 LLMR statement Ofcom said that if a service is entirely new and
 genuinely so innovative that it falls outside the market, then clearly the price control does
 not apply to it?
- 30 A Yes, I think there's that nature to that decision, yes.
- It also said that if there is a service that is innovative but does fall within the market
 nonetheless, there is always an option for BT to ask for the condition to be disapplied, for
 some other cost test to apply?
 - A Okay, I don't remember that detail, but I'm happy to take it that that's what they said.

- 1 Q They also said that there is a third category, that if there is some sort of new service that is
 2 not really that innovative, but nonetheless there is some justification for a higher rate of
 3 return then again they would permit BT to make those arguments to it? You are aware of
 4 that?
- A Again, I don't remember the exact section of the Determination, but I am happy to take your word for it that that's how one can summarise it.
- Q If we have seen that and that is correct, none of that is incompatible with the approach that is being suggested by Sky and TalkTalk, is it?
- Well, I think it is actually, and I think this goes back to this question of if I anticipate that
 I'm going to be faced by this FAC limit then that clearly has an impact on investment
 incentives. What I'm less clear about, however, is your client's case as to whether what
 we're talking about is applying that limit essentially all the way back to 2004 or whether this
 is something that one is thinking about for the future, but clearly one has ----
- 14 Q To be clear, if it helps you, we are applying it in relation to this dispute, so this dispute runs 15 from 2004 to 2009?
- 16 A Okay. So if we ask the question, what would have happened if a constraint like this had
 17 been applied from 2004 onwards, I think one has to expect that that would have an effect on
 18 these incentives for innovation and investment, so the dynamic efficiency. That may not be
 19 the question that you want to put to me, but that's how I would tend to think about it.
 - Q In relation to new services, if BT thinks that, in fact, it needs a higher return it is able to come to Ofcom and argue for it. Indeed it did. That is what it did in the Determination.

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- A Surely there's a difference between if today I am sitting here thinking about a new service, I have to form an expectation of what the regulatory would be on that new service. I think Ofcom has been pretty good about this in terms of providing clarity that it doesn't expect to come in a hard line on products which are new, exactly as you have outlined. There are some gradations to this. I am very aware, not just in this dispute, but in many other determinations Ofcom keeps a very consistent line with regard to not intervening excessively where there's something new and innovative that comes along. If we have this constraint in place from 2004, I don't think that's consistent with the general approach that Ofcom takes.
- I think we will move on to downstream competition and downstream investment, and we can be very short on this because we addressed this yesterday, did we not, in the context of your theory on CPs having incentives to delay?
 - A We mentioned whether there could be impacts on investment decisions for your clients, for

1		example, marginal investments, and I think I agreed that that is possible.
2	Q	And also on competition in the downstream level?
3	A	That's possible, yes.
4	Q	I think we will just take your evidence on that in relation to yesterday without repeating it.
5		Upstream entry: we are now considering the possibility of someone coming in to the
6		wholesale market. Could you take up, please, BT3, and we are going to go a section in the
7		2004 LLMR statement which is not in the core bundle, I am afraid. Can you go, please, to
8		p.73. I have a missing page.
9	A	Sorry, what are we actually looking at?
10	Q	Page 73 bundle BT3, para. 3.38 and 3.39 under "Wholesale alternative interface symmetric
11		broadband origination"?
12	A	Yes, right.
13	Q	You see the conclusion there:
14		"Ofcom has concluded that BT has SMP in the market for wholesale AISBO. BT is
15		able to behave, to an appreciable extent, independently of competitors and
16		customers. This is possible because, principally:
17		 BT controls a wide reaching infrastructure;
18		 BT enjoys advantages resulting from its vertical integration;
19		• BT is able to exploit economies of scope and scale more effectively than other
20		communications providers; and
21		• there are significant barriers to entry, including sunk costs, in this market."
22	A	Yes.
23	Q	You are not in a position to say that Ofcom is wrong about that, are you?
24	A	No, I mean the starting position is that BT has SMP here, yes.
25	Q	So an undertaking that is contemplating entry into the wholesale AISBO market has to take
26		account of the following factors, does it not? First, that there are, as Ofcom says, substantial
27		barriers to entry?
28	A	Indeed, because there would not be an SMP finding were entry easy.
29	Q	One of the problems is that the investment it would need to make is going to become sunk.
30		Once it has dug holes and stuck fibre in them there is no liquid market for selling those
31		investments on, is there?
32	A	This seems a little incompatible with our previous discussion about sunk assets and option
33		values, but yes. For a small scale entrant who was doing just this that might well be an
34		issue, yes.

- 1 Q It obviously all depends on the timing, does it not? If you are already in the market you have 2 an entire network, that is one thing. If you are considering making an entry decision and 3 you are not yet in the market then those sunk costs become far more relevant to you?
- 4 Yes, I mean I would not over emphasise the difference. I think even BT still needs to dig Α 5 some new holes.
- 6 The entrant does not have any guarantee the prices it saw when it took its entry decision are Q 7 going to be the same prices that remain once it has actually dug all its holes and got into the 8 market?
- 9 Α Are we talking about guarantees or expectations, because they would seem to be two 10 different things. Clearly, there is no ----
- 11 Let us talk about them one by one. Say you did not have any guarantees? Q
- 12 Α There are no guarantees, absolutely.

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- 13 So it faces the risk that it makes all of these sunk investments and then BT comes along and Q 14 responds very aggressively to it and drops its prices?
- 15 If those prices were predatory then there are issues there in terms of potential competition Α 16 actions. It also faces the risk of Ofcom regulating and pushing down prices from BT. There 17 are many risks it faces from that investment decision.
- 18 Q Let us suppose, which I think is the argument that you make, that there is a relationship 19 between pre-entry prices and post-entry prices. That is our working assumption and that is 20 your case, is it not?
 - Α I think the assumption we are working on here is a relatively small scale entrant I think we were starting from. Under those assumptions why would one expect a competitive response from BT across essentially what might be pricing on a large geographical area only some of which might be challenged by this entrant in a small way. I do not think there are any particular reasons to think that BT would respond strongly, if at all, under these assumptions.
- 27 Obviously, if BT does not respond very strongly then the new entrant has not exerted any Q 28 particular pressure, has it?
- 29 I think what Ofcom is concerned about with this is that it does not want to preclude entrants Α 30 of that nature. There are obviously question marks about to what extent can emerge in certain markets, and we do not really ever know because it is something that is going to 32 happen in the future. All we really know is that, for example, if wholesale price or access 33 price is going to get set too low then that may preclude these possibilities entirely, and that 34 is the reason why Ofcom tends to be cautious, I think, in terms of how it sets these

wholesale prices. That might lead to such entry, it might not. If there is entry then it might lead on to greater competition at some point in the future, which might give considerable benefit, so I think there is a regulatory question about not precluding entry like this, even though it might be quite small and marginal in its first stages.

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- Dut Ofcom obviously has to take a view when it is imposing regulation about realistically what it thinks is likely to happen?
- That is right, and it takes a different view in different places. It does not think, for example, that the copper line infrastructure of the UK is going to be replicated by somebody else, and there is a different approach to regulation taken there. In certain areas this is one there is the thought that competition might emerge; one does not have any guarantees and it is all uncertain, but the point is about not foreclosing the possibility.
- Q BT's profits would be reduced in the long run by entry which ultimately led to significant competition against it in the upstream market, would it not?
- 14 A Well, that may be the case. That is a matter of how much slack, as it were, in the regulatory system. If regulation is quite tight then that loss may not be very great.
- Q So if BT is profit-maximising and rational it is not going to go out of its way to set prices that are so high as to encourage large amounts of upstream entry, is it?
- 18 A Well, that is what the regulatory system is there for, I think, to ensure that prices do not get
 19 too high that customers suffer, but at the same time there is not foreclosure of this
 20 possibility of emerging competition.
- 21 Q But obviously there are competing arguments about how much headroom there should be, 22 because you and Ofcom are saying it should be DSAC and we are saying in aggregate terms 23 it should be FAC?
- 24 A Yes, those are the lines of disagreement, I think that is right.
- 25 Q So even if it is a DSAC test rather than a FAC test, if pricing at DSAC was actually going to encourage large scale entry we can reasonably rely on BT not actually doing it. They would find some lower place, potentially above FAC where they could price more safely?
 - A I think you need to be careful here, because I think under your maintained assumptions we have a situation where essentially BT's pricing has been constrained by potential entry, and that doesn't seem to be very compatible with the SMP finding. So I think one needs to be clear. We have an SMP finding so BT has market power here, but clearly it does not entirely foreclose the possibility that there might be subsequent entry. We are not talking about the copper lines example, where clearly entry is very, very difficult. There is an approach being taken here by Ofcom, it would seem, which is saying: "Yes, there is market

- power that needs to be constrained, but equally we do not want to foreclose possibilities that somebody might come in and supply some other products which might compete with these in various ways, and there are people providing products which do compete with these, but which are not a sufficient constraint to remove the SMP designation.
- Q One of the points you make in your witness statement for why you say that there is going to be a relationship between pre-entry and post entry prices is that there is a 90 day notice period on changes in price for BT?
- A I don't think I mentioned any particular notice period, I just said there is "likely to be lags"
 I think may be the phrase I used, I can't exactly remember.
- 10 Q But whatever notice period there is if BT is going to be reducing its charges in response to competitive entry, the person who is the beneficiary of that might well be willing to waive any notice period, might they not?
 - A I think it depends what scenario are we talking about? Are we talking about large scale entry where BT is seriously challenged, which would then presumably make changes in BT's pricing, so we move from a system where BT is constrained by regulation to one where it is constrained by competition. Presumably there has to be some kind of overhead associated with the fact that prices are set by regulation under conditions where information is imperfect, Ofcom has to provide these various forms of headroom we have talked about because there are all kinds of informational problems about regulating. There are uncertainties, there are questions about promoting competition and so on. But if we move to a large scale entry scenario, and the regulatory system can drop away, prices may well be lower and that regulatory imperfection would go away.
 - On the other hand, if we are talking about small scale entry then that is not relevant and the SMP designation would carry on. There would probably be very little effect on pricing for BT because otherwise there would not be an SMP designation. So I think there are different cases to consider here.
- Q Just to be clear though about the effect of this notice period. I am not quibbling with you on this, you do, in fact, refer to the 90 days in footnote 69?
- 29 A Fine.

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- 30 Q But in any event 90 days ----
- 31 A Is not terribly long.
- 32 | Q -- is not terribly long?
- 33 A I would agree with you there.
- Q Exactly, so that is not really going to be material ---

- A The point, I think, is that there would likely be lags, there is a minimum of 90 days. In practice price changes would have to get authorised internally and so on. I do not think it would necessarily be a speedy process.
- Q Okay, let us move on to productive efficiency, please. You say that Sky and TalkTalk's test is similar in effect to applying rate of return regulation?
- 6 A Yes.
- Now, if you apply any cost standard retrospectively, whether it is FAC or DSAC or, indeed, any other, and that cost standard actually bites so as to constrain the prices of the regulated entity then in one sense that amounts to rate of return regulation, does it not?
- 10 A Okay, I think the answer to that is "yes", but I think your assumptions are very important.

 11 You are saying that if in each case the constraint bites, and I think there is a really important difference between FAC and DSAC with regard to that assumption.
- 13 Q If we could come on to that stage by stage. I understand that is your argument. Just so that
 14 everyone is clear before we get to that, if the constraint bites, and we will come on to
 15 whether it does or it does not depending on the test being applied, the incentives to achieve
 16 productive efficiencies in either case are low, are they not because when a control is applied
 17 ex post the firm does not benefit from the efficiencies?
- 18 Yes, this is the point, so it does not really matter what the details are but if we had a binding
 19 constraint on each of these prices and BT cuts costs and that then caused rapid tightening of
 20 that constraint then clearly there would be little incentive to cut cost. This is the reason that
 21 we have price caps and periodic reviews specifically to provide incentives for cost reducing
 22 innovations.
- Q The evidence in this case is that BT price many of its services substantially above DSAC, is it not?
- 25 A There are some services which are above DSAC, yes, indeed.
- 26 Q That is what led to the imposition of the order requiring very significant repayments?
- 27 A Indeed.
- Q So, left to its own devices, its own profit-maximising devices, it seems unlikely that BT's profit maximising prices are reliably below DSAC?
- A Okay, let us be clear here. We are contrasting a situation where this FAC limit across the services as a whole, let me just emphasise all of the services are constrained, so if I cut costs with regard to any one of those services this constraint tightens, so that is the FAC limit.
- 34 Q Just to be clear, of course, the FAC limit is an aggregate so it does not apply to each one?

- 1 A It applies to all those services, but if I cut the cost of any one the FAC limit comes down. I 2 think we have to contrast that with the situation with DSAC. Yes, clearly, we are in a 3 position where there has been overcharging here with regard to certain products but it is not 4 the case that all of those are above DSAC and there are certainly quite a few examples 5 where they are below DSAC. Also, remember, there is a dispute about how we measure those overcharges and the approach that Ofcom has taken. If a different approach were 6 7 taken it would not necessarily lead to the same conclusion. So I think we could say: "How 8 would you view those two situations with regards to cost reducing innovation?" In one case 9 you know absolutely for certain that every pound you save in cost comes back through a 10 lower FAC and you cannot recover that.
- The other case you might or you might not okay with the DSAC model.
- 12 | Q Depending on whether it bites or not?
- 13 A Whether it bites or it doesn't, and actually if we wind back it would appear that BT did not expect it to bite at least from the beginning of the period given what we know.
- 15 Q So from a productive efficiency point of view the thing that is better about DSAC, insofar as there is anything better about it, is that sometimes it does not actually act as a constraint?
 - A Let us be clear, it potentially acts as a constraint, that is right, so it is there. Here, we have a situation, if we look at 2004 it is providing a backstop essentially. Remember we haven't got intrusive regulation. If we go to 2008 what we have is essentially a basket price cap across these services and that same constraint. In some sense, there's a similarity between the basket price cap that Ofcom implemented and what you are suggesting with this FAC constraint. The issue is really about the tightness and the level of it. But the point is that the reason that there's a price cap there was that if there was a reduction in costs, that would then be enjoyed by BT temporarily up to the review of that price cap. That is just different with what you're proposing. The FAC system does not allow that.
- 26 Q OK.

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- A I think that's the real comparison: it's between the use of a conventional price capping approach with periodic review against what you're suggesting.
- Q I am not going to debate that with you. Certainly our case is that is the wrong counterfactual, but I do not think that is something that I need to pursue with you now. You said that it was a backstop, the DSAC test was a backstop?
- 32 A At 2004, just to be clear, I think one can view it in that way.
- 33 Q But let us be clear, it either constrains BT in the behaviour in which it would like to engage, or it does not. You agree with that?

- 1 Α There are two possibilities. If one is looking forward then one might know which one – one 2 might not know what will happen, but clearly there are two possibilities, yes.
- 3 Q If it constrains, then the efficiency incentives disappear?
- 4 I think you know what I'm going to say, which is when I'm considering making that cost Α 5 reducing innovation I don't know whether it will bind or not in the case of DSAC. It might 6 or it might not. In the case of the FAC constraint, I know it will bind. There is a material
- 7 difference between the two systems with regard to these productive efficiencies.
- We saw earlier at para.9.239.2 of the Determinations a confidential number, percentage, of Q 9 mean capital employed associated with WES that is shared with other services such as
- 10 WLR, LLU and PPCs?
- 11 Yes. Α

- 12 Q Do you recall -
- 13 I remember the number. I put the binder away, but I remember the number. Α
- That is all that I need for the following question. Does the Tribunal also have it in mind? 14 O
- 15 THE PRESIDENT: Yes.
- 16 MR. PICKFORD: I am very grateful. WLR, LLU and PPCs were all subject to charge controls 17 in 2004 and in the following relevant period, were they not?
- 18 Α Yes.
- 19 Q So those charge controls would have given incentives to drive down the common costs in 20 any event?
- 21 Yes, there should be incentives to drive down common costs. Α
- 22 Q So we can deduce from that that the residual productive efficiency advantage of a DSAC 23 standard over a FAC standard must be fairly trivial?
- 24 Α No, I think you've lost me somewhat here. The issue is to do, essentially, with the
- 2.5 probability of a constraint binding and that's not the same in the two cases. That really is 26 the source of the issue.
- 27 THE PRESIDENT: I think it comes back to that fundamental point.
- 28 Yes. Because in one case it might bind; in the other case it certainly does bind with this Α FAC constraint. Really, everything else then follows from that distinction. 29
- 30 MR. PICKFORD: OK, let us move on, then please, to the risks of inadvertent breach.
- 31 THE PRESIDENT: Is that your final topic?
- 32 MR. PICKFORD: I am nearly there, sir. We had a slightly later start.
- THE PRESIDENT: A couple of minutes. 33
- 34 MR. PICKFORD: But also, I discussed with Ms Rose, who apparently needs half an hour. I am

sorry, it crept up again! I am nearly there, sir, but I probably need about ten minutes, I 1 2 should think. 3 THE PRESIDENT: Well, you must finish by 12.30. Actually, you must finish in ten minutes, 4 because I think it is only fair to give Mr. Maldoom a short break before Ms Rose begins. 5 MR. PICKFORD: Of course. I will press ahead. Inadvertent breach. You say that a price test 6 based on FAC might be inadvertently breached by BT, despite having tried to adhere to it. 7 That is correct? 8 Could you just turn that up? I can't remember exactly where I said that. Α 9 Q It is in your second report para. 146. You do not in fact recall saying that? 10 Α No, I would like to just remind myself which report it was in. 11 THE PRESIDENT: You say it is in the second report at tab 4? 12 MR. PICKFORD: Tab 4 para.146. You say: 13 "Notwithstanding arguments relating to the difficulty faced by Ofcom in 14 implementing any test for cost orientation without any risk of false positives or 15 false negatives, there is always the possibility that BT may unintentionally set non-16 compliant prices due to the somewhat arbitrary choices regarding how common costs will be recovered across services ..." 17 18 Α I see the point. That's fine. 19 Q So we are agreed that you make that point? 20 Α Yes, I do. 21 Q But, of course, the worst that can happen if there is an inadvertent breach is that BT gets put 22 back in the position that it would have been in had it not breached, as long as there is no 23 penalty? 24 A Yes, I mean, we've discussed this at some length. I think it's not really possible to do that 2.5 because of uncertainty. So it isn't the case we can easily reset everything back. But I think 26 the issue with the FAC test is there are a lot of practical difficulties about how actually you 27 would set prices because essentially all prices within the product group are relevant to the 28 achievement of the test. 29 BT has never been fined for a breach of an SMP condition, has it? Q 30 I don't know. Α 31 Q So you also would not know how many times Ofcom has made findings in disputes that 32 there was in fact a breach? 33 I don't know, no. Α 34 Q The practicality of the Sky and TalkTalk test you have raised. One of the points that you

1 are concerned about is how one groups products together. That is correct, is it not? 2 Α Yes, that's right because it is the sort of arbitrary of taking a product group and applying a 3 test on that product group and why is it that group and not something else? 4 Q Obviously, one of the things that Ofcom has to do when it is deciding on what markets it is 5 going to apply costs tests to is decide on particular markets which, to some degree, you may 6 say is arbitrary but Ofcom has to do that job? 7 A Yes, it does, but it can take account of issues in other markets and broad issues of overall 8 costs recovery by BT, and this goes back to the construction of the DSAC test, all these 9 debates that we've had about essentially multiple recovery of common costs and so on. So it 10 is not something that's a regulatory decision, although it is with regard to a particular 11 product group or a particular market, it is not, as it were, isolated. The problem is that the 12 FAC test clearly is isolated to that group of products and potentially the only way it is 13 considering anything else is really through the cost allocation that goes into the FAC. 14 We have already discussed the permitted exceptions so I do not think we need to go back Q 15 over that ground again. Another point that you make is that you say that even if one takes 16 WES, BES and mainlink as the relevant grouping, there remains significant uncertainty as 17 to how costs that are common with other services should be allocated to that group? 18 Α Yes. I mean, essentially we now bring up issues. It matters a lot how costs are allocated 19 between this product group and other products in a way that it's not so critical with the 20 DSAC approach. 21 Q That is precisely what BT does when it is compiling its FAC estimates, is it not? It allocates 22 the relevant common costs to particular services? 23 Α In producing the RFS it has to do that to make a statement of those costs, yes. 24 Q You criticise the use of a FAC costs test at para.54 of your first report for the following 2.5 reasons. We can turn to it if you wish: CBD tab 3. The particular point I want to focus on 26 (we have already dealt with the inflexibility issues so we are not going to revisit that) is you 27 say at the end: 28 "Such an approach creates great practical difficulties as new services are 29 introduced and old ones terminated, as then the basis of common cost allocation 30 must then change. For these reasons, Ofcom has rightly rejected this approach in 31 favour of DSAC." 32 But it is true, is it not, that adding or removing services from a group, if there are new 33 services, also necessarily affects DSACs for all other services in the group too?

It is true it would affect DSACs, yes. My concern here is the one which I raised right at the

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1		beginning with you about practicality, because we have a constraint here which essentially
2		applies across all of the prices for these services, so on the assumption that it is binding, you
3		can't change anything without having to change potentially something else.
4	Q	That is your first point, but in relation to your second point, it is equally a problem for
5		DSAC. So it is not a reason for favouring DSAC over FAC, your second point?
6	A	It's certainly true that if you took something in or out then the D part of DSAC would have
7		to change because essentially there are common costs which are allocated across the product
8		group, so if I bring something in there is potentially one more or one less product to allocate
9		across. So the D part would change, yes.
10	Q	It is true, is it not, that you believe that where there are significant common costs it is
11		impossible to assess cost orientation of one service without simultaneously assessing the
12		cost orientation of the other?
13	A	Where those common costs are significant, that is the case I think, yes.
14	Q	You believe that a practical cost orientation test should treat services which share significant
15		common costs therefore together?
16	A	Yes. Again, I think there are various considerations to be balanced, but in the case that we
17		have significant common costs it may well be that it is better in practice to implement a cost
18		orientation test by looking at them together, yes.
19	Q	Aside from an important issue, obviously, about the standard, the particular level that is set,
20		that is exactly what the approach of Sky and TalkTalk is, is it not? It is to produce a
21		practical test that applies, taking account of the impact of common costs across different
22		services?
23	A	OK, it's additional to, as I understand it, the DSAC test, so you can't call it flexible because
24		it's a more restricted approach than that which we currently have. It also throws up this
25		question about common costs that come up with other services as well, which I think is
26		relevant.
27	Q	I have no further questions. Thank you, Dr. Maldoom.
28	THE	PRESIDENT: Is there any re-examination?
29	MR.	THOMPSON: I do have quite a bit of re-examination. I was proposing to take it all in the
30		round once Ms Rose had finished.
31	THE	PRESIDENT: Yes, I think that is probably best to do it in that way. We will take a five
32		minute break and come back at 12.30 and we will sit until 1.15, Ms Rose, and then we can
33		see where we are.
34		Adjourned for a short time

1	THE	E PRESIDENT: Yes, Ms. Rose.
2		Cross-examined by Ms. ROSE
3	MS.	ROSE: Good afternoon, Dr. Maldoom. I want to come away now from all the excitement of
4		the distributive FAC test back to the issues that are of concern to Cable & Wireless, Virgin
5		and Verizon. You gave some evidence yesterday about Clause 12.3.
6	A	The no interest clause, yes.
7	Q	Yes. When parties negotiate they appreciate, do they not, that Ofcom has the power to
8		impose obligations on one or other party to the negotiation?
9	A	If a dispute arises, yes.
10	Q	The BES and WES contracts are standard terms, are they not, which are imposed on all CPs
11		who want to buy these products?
12	Α	I believe that is correct, yes, that there is a standardised contract that was agreed by the
13		industry. Yes.
14	Q	So they would apply to CPs who had no involvement in the negotiations including CPs to
15		enter the market at a later date?
16	A	Yes. I am not sure I am the best person to answer that question, but I believe that to be the
17		case, yes.
18	Q	It is simply that you gave us some evidence on commercial certainty. That is why I am
19		asking you about it. We have also heard a significant amount of evidence from you about
20		what you say is the incentive on communications providers to delay referring disputes in the
21		event that interest is recoverable, and I appreciate that it is a point you make in relation to
22		repayment generally but I want to focus on the question of interest.
23	A	Sure.
24	Q	This is a hypothesis that you develop in your reports, but you do not cite any academic
25		authority or research to support that hypothesis, do you?
26	A	No, I think the idea is quite simple and I think one can see it very clearly, certainly if one
27		takes a stylised example which I mentioned at the beginning of this morning, where one
28		thinks about a retail market where essentially all the competitors are relying on the
29		wholesale product. I think one can see very clearly that this issue arises.
30	Q	This is just an argument you have developed. It is not supported by any external source, is
31		it?
32	A	Ofcom has adopted this in the Gamma decision. I think one of their three objectives
33		effectively picks up, I think, on this idea. I think they rightly say that there are questions as
34		to how that applies because it depends on exactly what the structure of competition is sitting

- at the top level. But I think the idea is essentially endorsed by Ofcom.
- 2 | Q You say this is something Ofcom endorsed in the *Gamma* decision?
- A Let's be clear, are we talking about the framework? I think that the framework is present there.
- 5 Q The existence of that incentive.
- 6 A The potential existence of that incentive.
- Q Let us just go to the *Gamma* decision. Can you take up additional document Volume 2?
- 8 The hypothesis of the incentive on communications providers ----
- 9 | THE PRESIDENT: Do you want Dr. Maldoom to open it up?
- MS. ROSE: Yes, it is Tab 16. The hypothesis of the alleged incentive on communications advisers to delay is something that BT put forward to Ofcom in that *Gamma* dispute, is it
- 12 not?
- 13 A I believe that is the case, yes.
- 14 Q Did you have any involvement in assisting BT for that dispute?
- 15 A I had already drawn up my second expert report and a colleague of mine, I believe, took that and provided some material to BT in relation to the *Gamma* dispute, but that was not
- something that I was involved in.
- 18 Q But your consultancy was involved in assisting BT in this dispute?
- 19 A I think it took some of the arguments that I developed from that report, but the report had already been written at that point.
- 21 Q So the arguments that you had developed from these proceedings were then used by BT,
- with some assistance from your colleague, in relation to the *Gamma* dispute?
- 23 A To be clear, I had no involvement in drawing up BT's response and I believe my colleague
- provided a summary of the arguments from my report and then provided it to BT. I do not
- 25 think there was any further involvement. I think that was the situation.
- Q We see Ofcom's response to these arguments. If you could turn to para.3.37 in the *Gamma* dispute, if you go first, on the preceding page, you see the heading "Objective 2"?
- 28 A Yes.
- 29 Q "Avoid CPs having an incentive to delay submitting disputes". There you see at para.3.34
- and 3.35 an outline of the argument that was being put forward to Ofcom by BT. Do you
- 31 see that?
- 32 A Yes, I am just reading it. (After a pause): Yes.
- 33 Q Then if we come to 3.37, you see the heading: "Ofcom's provisional view"?
- 34 A Yes.

1	Q	First at 3.37, Ofcom says:
2		" avoiding prices being set at an unduly high level meets our statutory duties.
3		Similarly, we consider it also meets our statutory duties for any overcharging to be
4		identified and ended as quickly as possible it is desirable for disputes to be
5		brought in a timely fashion".
6	A	Yes, so this is the
7	Q	Then they go on:
8		"However, we consider that Objective 2 is of lesser significance than Objective 1
9		when deciding whether interest should be payable or the appropriate level of interest
10		for the following reasons".
11		The first is:
12		"Concerns about the plausibility of whether BT's claims reflect CPs' behaviour in
13		practice".
14	A	Yes.
15	Q	The second is the impact on the likelihood of overcharging and the third is concerns about
16		the assumptions underpinning BT's reasoning?
17	A	Yes.
18	Q	So, in fact, Ofcom is questioning the credibility of BT's hypothesis, is it not?
19	A	They've considered objective 2, and they say it is of lesser significance, so it has clearly
20		entered their consideration.
21	Q	Yes, but do you see there, they are questioning the credibility of your hypothesis, are they
22		not?
23	A	I think I've been fairly clear this morning that there are questions about how that framework
24		applies in different situations. I don't know exactly where it is in this document, but I think
25		that is the essence of Ofcom's concern that they think it may apply sometimes, but it may
26		not apply on other occasions. I think that is - certainly my reading of it, I don't know what
27		Ofcom thought, is that this lesser significance to objective 2 is related to that concern.
28	Q	So that is how you read this paragraph, is it?
29	A	It's not just this paragraph. I believe there is discussion of that point elsewhere, yes.
30	Q	Let us come on to look at the following paragraphs. Paragraph 3.39, do you see the heading
31		"Concerns about the plausibility of whether BT's claims reflect CPs' behaviour in practice"?
32	A	Yes, so there's a question mark about whether this, as a framework, what the applicability is
33		and whether that happens in practice.
34	Q	Whether it is plausible?

1 A Yes. 2 Q "The premise underlying BT's argument is that CPs prefer to be overcharged and 3 thus prefer to delay submitting disputes so as to prolong that overcharging." 4 Then they go on to discuss that. Then they say: 5 "While we discuss the detail of the logic underlying BT's position below, we 6 question whether CPs really behave in this fashion (Gamma has claimed that it 7 does not do so). In practice, we would expect CPs to be more motivated by factors 8 such as resolving disputed prices in order to achieve certainty, which helps 9 business planning. We also note that Gamma's claim that overcharging leaves the 10 overcharged party with an equal and opposite deficit. Regardless of the merits of 11 Gamma's claim, it suggests that Gamma's perspective on the effects of 12 overcharging is very different to the perspective that BT is claiming CPs have. 13 In the light of our concerns about the plausibility of BT's argument, we would 14 need evidence that CPs really do approach disputes in the way that BT claims. In 15 the submissions to date we have not received such evidence." 16 When you prepared your hypothesis for the purpose of your reports in these proceedings, 17 did you carry out any empirical research into the way that CPs have behaved in their 18 submission of disputes? 19 You can see my reports, I haven't, no. Α 20 Q You are aware, are you not, that there have been a significant number of disputes with 21 Ofcom by CPs over the last few years? 22 A There are many disputes, yes. 23 Q Are you aware that some of those disputes have been submitted in relation to contracts 24 which make provision for BT to pay interest on any overcharge which Ofcom orders it to 2.5 repay? 26 Α Am I aware of any specific disputes? I'm aware of repayment issues in the 080 cases. I'm 27 not really aware of any issues around interest there. I've not followed that in detail. 28 Q What about the *PPC* case, are you aware of that case? 29 I'm aware of that case. I've looked at it with interest in terms of the issues to do with A 30 common costs allocation, in particular obviously because there are issue about how that applies here in terms of connections and rentals. I haven't looked at it in particular over the 31 32 interest question, no. 33 Q One of the things you could have done is you could have looked at disputes that 34 communications providers had referred to Ofcom in cases where, first, there was provision

1		in the contract entitling them to contractual interest - yes? If you could say yes, rather than
2		nodding.
3	A	Sorry, I thought you hadn't finished your question.
4	Q	And in other cases where there was no such contractual provision - yes?
5	A	Could I have looked at that? Well, okay, could one look at it?
6	Q	Yes.
7	A	I don't know. Are all these contracts matters of public record? I'm not sure that
8	Q	The disputes are, are they not?
9	A	The disputes are, yes, I
10	Q	BT has all the contracts, does it not?
11	A	I guess a study could be done to do that. It sounds like quite a time consuming exercise,
12		yes, but I guess that could be done.
13	Q	There are potentially many millions of pounds at stake on this issue, are there not?
14	A	I can't see that it would have been feasible to have gone through that within the time that
15		was available, say, for drawing up my second report.
16	Q	Let us just take the PPC contracts. I would like to hand up to you a little clip of papers that
17		relate to the PPC dispute, if these can be distributed. (Same handed) The first document
18		that you have there is the BT standard PPC handover agreement - do you see that?
19	A	I have it, yes.
20	Q	So these are the standard terms and conditions for the supply of PPCs - yes?
21	A	Right.
22	Q	If you go to the next page, over the page, do you see clause 9.7?
23	A	Yes.
24	Q	"If any charge or the means of calculating that charge for a BT service or facility
25		has retrospective effect for whatever reason then BT shall, as soon as reasonably
26		practicable following publication in the carrier price list, adjust and recalculate the
27		charges in respect of such service or facility using the new charge and calculate the
28		interest for any sum overpaid or underpaid at the Oftel interest rate."
29		Do you see that?
30	A	I do, yes.
31	Q	So under this contract, if Ofcom awards a payment by way of an overcharge BT has a
32		contractual obligation to pay interest, does it not?
33	A	Yes, that would seem to be the case.
34	Q	So this is a situation in which, under your hypothesis, the CPs would have had an incentive

1		to delay in referring this dispute, would it not?
2	A	To be clear, my argument about delay does not depend on the existence of an interest rate.
3		If we are in a scenario where, as you said, my hypothesis or my framework applies, then it
4		is not necessary for there to be an interest payment to create a delay incentive. It would
5		make it stronger, but it is not necessary for the existence under the circumstances in which
6		that framework might be reasonable to apply. I'll be very careful here, I am not making a
7		broader statement.
8	Q	So you say there is a stronger incentive for delay where there is a contractual entitlement to
9		interest?
10	A	Yes. I think it's very much the flip side of the point that BT's incentives for compliance
11		become stronger.
12	Q	Just to be clear, under the contract we are concerned with, the Ethernet contract, the
13		communications providers have no contractual entitlement to interest, do they?
14	A	That's correct, yes.
15	Q	They only have an entitlement to interest if Ofcom orders it?
16	A	Well, they would be paid interest if Ofcom ordered it, yes.
17	Q	So that is a separate decision, whereas under the PPC contract, if Ofcom orders an
18		overcharge they will automatically get interest - right?
19	A	Well, Ofcom could presumably override this in the same way as they might override a no
20		interest provision.
21	Q	They might decide a higher interest rate should be paid?
22	A	Or higher, or lower, or whatever, who knows.
23	Q	If you are the communications provider, and we are looking at this from the point of view of
24		incentives, the communications provider who has got a contractual right to interest will
25		think that they are in a stronger position for getting interest on a overcharge than one who
26		does not, will they not?
27	A	Yes, they get the Oftel rate. I don't think that's particularly high, but they get something.
28	Q	Your case is that it should be zero, is it not?
29	A	No. My case is that I think that zero is as good as anything else, just to be clear.
30	Q	We can see the timing of this dispute if you turn to the next page. This is a letter from Thus
31		to BT Wholesale on 10 th July 2007 writing to request an adjustment to the prices of PPCs on
32		the basis that the prices charged for these products are in breach of BT's ex-ante cost
33		orientation obligations - you see that?
34	A	Yes.

If you turn to the next page you will see another letter dated 15th August 2007? 1 Q 2 Yes. Α 3 Q So this is just over a month later? 4 A Yes. 5 Q Also from Thus to BT: "We wrote to you on 10th July regarding our concerns over the non-cost orientation 6 of PPCs, ICs and IBCs, impressing that BT give consideration to appropriate 7 8 adjustments in prices and retrospective rebates. We have not yet received a 9 response. I should therefore be grateful if you would confirm as soon as possible that our request is being considered and indicate when we can expect a response." 10 11 So the first thing is that BT does not appear to have replied at all in that five week period, 12 does it? 13 Well, that's what the letter says, yes. Α 14 Q Then: "Since our letter of 10th July ..." 15 in other words, after 10th July -16 "... it has come to our attention that BT's breach of cost orientation obligations in 17 18 respect of PPCs is more extensive than one previously supposed. The attached 19 note sets out our reasons for believing this to be the case and our estimate of the level of overcharge taking into account the payment terms issue identified in our 20 letter of 10th July and the additional factors that have come to our attention. In 21 view of the magnitude of the overcharge we request BT give urgent consideration 22 23 to an immediate reduction in the price of PPC product segments with effect from 1st October, together with compensation for overcharging in the period from 2004, 24 the date on which the relevant cost orientation obligation came into force, to 31st 2.5 26 September 2007." 27 What they are saying is that they have uncovered fresh information which leads them to 28 suppose that they have been significantly overcharged on product segments for PPCs -29 right? 30 That's what it seems to say, yes. Α 31 That is, of course, the ultimate subject matter of the PPC dispute, is it not? Q 32 I guess the beginning of it, yes. A 33 If we then go on in this same clip, you see the referral of the dispute to Ofcom. This is just Q the cover page and the opening summary, and you can see that is dated 25th June 2008? 34

1 Α I can, yes. 2 Q So we would expect that after that correspondence in August 2007 there would have been a 3 period of negotiation - correct? 4 I don't know. Α 5 Q You are not allowed to refer a dispute to Ofcom unless you have sought to negotiate and 6 have exhausted negotiation? 7 A Yes, then I think we can. 8 Then a referral to Ofcom ten months later. That is a significantly shorter run-in period, is it Q 9 not, than the period between the first raising of the issues in the Ethernet situation and the 10 referral of the complaint to Ofcom - are you aware of that? 11 Yes, I think we discussed those dates yesterday, yes. A 12 Q It is about an 18 month delay? 13 Α Yes. 14 Does that make you think that perhaps your hypothesis might not be supported by the O 15 empirical evidence? 16 A Well, I think I need to be clear about what I'm saying here. I think I'm identifying an effect 17 which Ofcom should be concerned about and which goes into the mix in looking at this 18 interest issue - okay. I completely acknowledge that there may be specific cases where that 19 isn't relevant, or it may be that there are other considerations that lead to dispute being 20 brought rapidly. I'm not saying it's of general applicability, but I thought there was a 21 measure of agreement that we need to look not just at what the consequences are in this case 22 for the parties, but essentially what is being decided here is something that has a very broad 23 range of effects on the behaviour of BT and CPs within the many different markets for a 24 considerable period of time to come. Really my argument is directed at that public policy 2.5 issue. 26 THE PRESIDENT: We would be concerned about it, first, if one was laying down any general 27 guidelines, which is what you envisage the Tribunal would do. It may or may not do, and 28 secondly, if this was a very likely risk. The fact one considers it, it has been raised so it has 29 to be considered. If it is extremely unlikely that there would be any incentive for CPs to 30 delay, then one would not be concerned about it. 31 Indeed, if that were the case. Α 32 Yes, and I think you accepted that for the BES product being purchased by Sky and O 33 TalkTalk, it did not appear upon reflection that there was such a risk? 34 A I think, on reflection, that seems so, but I think one can also identify other cases where

maybe this might be a concern. For example, mobile operators use BES. The only reason not to ----

One comes back to the basic point that we just do not, I think, understand - and one need not go into the details of PPC, it goes back to your second report, I think, and what you say at para.44, which I still do not understand. Perhaps you can explain it to me. Professor Mayer asked about it and that dealt with the point, but you seem to be sticking to the point that if you turn up - tab 4 of core bundle D with the reports in - para.44, that is the sort of theoretical way. We appreciate that you have not done an empirical study. You say:

"Even with vigorous and effective retail competition among CPs there is no pressure to return repayments to consumers... Therefore, a CP would prefer to endure high wholesale charges for a while, knowing that leads effectively to a higher retail price amongst competing operators than would otherwise have been the case, then complain later to recoup the overcharge as excess profit. If all competing CPs can increase their retail prices together somewhat above whatever the competitive level would have been, this will increase their profit".

I just do not, for my part, understand that.

- A Right. Would it be helpful to look at two cases, one where that applies and one where it clearly does not apply?
- 19 Q Yes.

Α

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I think that might help. Sir, if we took a hypothetical situation we have a wholesale product which feeds into a number of retail competitors and all the retail competitors rely on that product, then clearly the pricing of that wholesale product in turn affects their retail pricing. If there is a situation in which they are being overcharged but they do not have any anticipation of any repayment at that point, then clearly their retail pricing will reflect the higher wholesale charge, competition will continue. It may well be then that the process of competition, there basically really is not any retail level because it has all been competed away. At some point there is either a dispute and the price falls immediately, or there is an anticipation of it falling, so essentially the wholesale price drops. At that point one would expect the retail prices to fall as well. But there really has not been any profit impact at the retail level because all the profits have been competed away in both of the case. So where has the money gone? It has ended up with Openreach effectively at that point. The repayment then what it does is it takes that money, which you might even call it a rent that goes to Openreach, essentially because Openreach is being able to move all of the prices of the competitor simultaneously. There is market power at the wholesale level and that higher

- price is giving additional profit to Openreach. That then gets passed back to the retail competitors and there is no need for them to compete that away now because it is just a windfall. So they get that. So during the period that the higher wholesale charge is applied then they have actually benefited from that. If we take a ----
- 5 Q During the period ----

2.5

- A Yes, because there has been no reduction in profit because essentially all their competitors have had the same problem as well.
- 8 Q No effect or neutral on profit?
 - A So it is neutral during the period and then they receive the windfall later, which then clearly that is a benefit. The converse extreme case is to say, right, let's suppose we have just got one person, say, who is using this wholesale product and then they face vigorous retail competition. What happens if that wholesale price goes up. Clearly they cannot sustain a higher retail price so there is a loss of profit during this period. There may be volume effect but let's just keep it simple. There is a loss of profit which is essentially their volume times whatever they overpaid, and if the repayment is determined correctly that should come back and compensate them in that case. So therefore we have reset them back to the position that they were. So what is different about those two cases? In one case the wholesale product has the ability to shift retail prices because it is moving enough people that it affects the basis of competition in the retail market.
- 20 Q And you are assuming ----
- 21 A In the other case it does not and that is the difference. Obviously ----
- Q Just to interrupt you for a moment, being neutral on profit, that only applies if there is no reduction in the market.
 - A Exactly. So in the case where there is no effect on retail competition because there are other people who are competing who are not affected by this wholesale price then all that is happening is we have put them back to a neutral position in that case. In the case that there is a broad effect on the retail price because essentially all the competitors' costs have been moved, then what the repayment does is it actually gives profit to the retail competitors they would not otherwise enjoy. Because essentially it is a bit like a coordination of their retail pricing which has been achieved. It is a slightly odd concept but it is essentially as if they had all raised retail prices together because they had been prompted to do that in reaction to the higher price for Openreach.
- 33 Q But it is assuming that there is no fall off in demand through the raised retail price.
- 34 A Well, if we get fall off in demand then that will reduce that effect, so the more fall off in

demand there is the smaller that effect. Okay. Clearly my other polar case is the one where that fall off in demand is extreme so that then you cannot sustain a higher price, in which case you face higher costs as a result of the higher wholesale price and then that gets given back to you by the repayment. The problem is we have got two worlds, one in which essentially those retail competitors get left. Fine, they are returned. Everything is returned back to them. In the other case they get a benefit and we are clear about those two cases. I think the problem is that the real world lies somewhere in between those two polar cases. To be absolutely fair, I have not gone into that question as to how that applies because it applies differently depending on how these products are used. It is the kind of thing that Ofcom would be best placed to do because you really need detailed knowledge about how things are being bought by people.

- Q Those supplying the retail market would have to be fairly confident about the extent of the elasticity and what effect on the market might be if they are going to take the risk of delaying a complaint?
- A Yes, again I think one could identify certain stylised examples where you can be clear, so I think a good stylised example is the situation where there is a retail effect. So there is a level of overcharge but nobody is aware of it at that point. So then to ask the question about what would happen if I suspect there is an overcharge? Do I have an incentive to bring a dispute to Ofcom at that point? The answer is that you might not because what that does is it stops this period. I realise that is the case. That then stops the period where I am accumulating this repayment because as soon as everybody anticipates that the wholesale price is going to be reduced, it does not matter if it is reduced at that point or not, as soon as there is an anticipation that every unit that I buy I am getting a rebate for at some point through the repayment, then you would expect at that point there may be a retail price response. If competition is affected there should be. So therefore I might actually have an incentive to keep schtum about it.
- MS. ROSE: These issues were considered by Ofcom in the *Gamma* determination, were they not?
- 29 A I think it is exactly this framework, yes.
- Q So if you go down to para.3.42 in the *Gamma* determination, do you see the heading "Concerns about the assumptions underpinning BT's reasoning"?
- 32 A I am sorry, one moment.

2.5

- 33 Q Page 24. We have looked at the earlier bit ----
- 34 A I am sorry, could you give me the paragraph reference again?

- Q 3.42. We have just looked at the bit above that where they say that they doubt whether your argument is plausible and they would like to see some evidence.
- 3 A Yes.
- 4 Q And we agree that there is not any evidence, do we not?
- 5 A We do, yes.
- 6 Q Then at 3.42 they come onto concerns about the assumptions underpinning BT's reasoning.
- Can I ask you just to read from 3.42 down to 3.47? (After a pause): Let me know when
- 8 you have finished. (After a pause):
- 9 A Yes.

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- 10 Q At 3.45, the second bullet, they address the question of inelasticity of demand, do they not?
- 11 A Yes, I think that is exactly what I have just outlined.
- 12 | Q Yes, and the problem of volume effect, that you may have a reduction of profits if demand is reduced.
- 14 A Yes, I think the point there is ----
 - Q I am sorry, can we just take this through because you have dealt with this at some length and I am very constrained for time. The next bullet point is firm level elasticity effect, and the point they are making here is that the overcharge may not affect firms equally. Some firms may be able to raise their retail price more than others when this overcharge is having effect. If you look at 3.46, they say:
 - "Whether or not the impact on firm Y's profits is greater or less than the amount of the overcharge depends on the balance between these factors. This will depend on a range of factors such as the specific characteristics of the product in question, extent to which all rival suppliers are equally dependent on the wholesale input, and the commercial responses of suppliers of Z to being overcharged...".

Then they give an example a little further down:

- "If BT overcharges one CP for use of its network then that overcharge may not affect rival CPs that have their own networks or may not affect them to the same extent. Similarly, that overcharge may have less of an effect on CPs that purchase a different mix of services from BT".
- So some CPs will suffer a relative competitive disadvantage compared to their competitors as a result of the overcharge, will they not?
- 32 A That depends on the situation.
- 33 Q If there are differences in the take-up of the product.
- A Let's be clear because I think what I outlined to the Panel, I think, one is assuming a

1		relatively symmetric situation. If there is a little bit of asymmetry then I think the argument
2		holds.
3	Q	If there is anything more than an insignificant asymmetry the communications providers
4		who are more dependent on the product where there is an overcharge will be placed at a
5		relative disadvantage.
6	A	Yes, that is right. So if there is sufficient asymmetry that may unravel the delay incentive.
7		That is correct.
8	Q	Yes, because they will lose market share.
9	A	Yes, I agree. If there is significant asymmetry then it is possible that that could unravel the
10		delay effect.
11	Q	Then Ofcom makes another point, at 3.47. It says:
12		"When setting the principal our starting point is generally that it should reflect the
13		amount of the overcharge. However, where a lesser repayment may better achieve the
14		objectives of the 2003 Act or the CRF, we may, where appropriate, reduce the
15		principle (or conclude no repayment is necessary). This suggests that even if the size
16		of the overcharge were larger than the loss suffered by an overcharged CP, it is not
17		guaranteed that the repayment will be larger".
18		Indeed, that is specifically what the Court of Appeal made clear in the PPC judgment, did it
19		not, that Ofcom has a discretion?
20	A	Yes, yes.
21	Q	"Put another way, a CP may not be confident that it is profitable to delay bringing a
22		dispute if it is concerned the principal repayment sum might not reflect the full
23		amount of the overcharge".
24		The CPs cannot guarantee they will get all their money back, can they?
25	A	I think what that is saying is, the point is that Ofcom's approach affects the delay incentive.
26		I think that is exactly my point.
27	Q	But you are looking at the incentive at the outset. The CPs cannot be confident that all of
28		the overcharge will be awarded.
29	A	There are no guarantees.
30	Q	No. Then we see Ofcom's provisional conclusions at 3.57 down to 3.61, and they say that
31		their provisional view is when exercising the powers to make a direction requiring
32		repayment, Objective 1 is the most important of the three potential objectives. Then they
33		say:
34		"In our view, it is therefore likely to be appropriate to award interest in the majority

1		of cases in which a direction for repayment is considered appropriate
2		3.58 The award of interest should ensure that there is no incentive for CPs to
3		set charges that are unduly high.
4		3.59 For the reasons set out above"
5		Which are the reasons we have just looked at:
6		"given our concerns regarding Objectives 2 and 3, we do not agree with BT that
7		it would be appropriate to give less weight to that objective (i.e. avoiding
8		incentives to set unduly high charges) in order to pursue Objectives 2 and 3 so
9		as to negate the need for a consideration of the award of interest.
10		3.60 Our starting point is therefore that interest should be applied and that the
11		interest rate should reflect the time value of the principal"
12		So that is their provisional conclusions?
13	A	Yes.
14	Q	And you can see the final conclusion at para. 4.32 they remain of the view expressed in
15		paragraphs we have just looked at? Yes?
16	A	Yes, I do, yes.
17	Q	Have you seen Mr. Scott's witness statement on the incentives that his own company had
18		not to delay in relation to this dispute?
19	A	Yes, I believe I have.
20	Q	Core bundle C, tab 18. He is here discussing the position of Cable & Wireless. If you go to
21		para. 13 he says:
22		"C&W overriding priority would be to get any such disputes resolved as quickly as
23		possible for the following reasons among others:
24		13.1 where it has been overcharged. C&W's priority is to recuperate the amount by
25		which it has been overcharged as quickly as possible.
26		13.2 the amount of the overcharge will be considerably more than the amount of
27		any interest interest is no consolation for the timely recuperation of what is
28		owed to C&W.
29		13.3 correct pricing is required to inform C&W's cost and business strategies. This
30		is of particular importance when pitching for new customer business. In instances
31		where prices are expected to fall - for example, where there is an investigation into
32		pricing of a particular service - C&W will come under pressure to factor that price
33		fall into the bids which are being submitted at that time. However, C&W would
34		only be in a position to factor the price decrease into a bid if the decrease was

1 certain. Therefore, sitting on a dispute does not help C&W conduct daily business, 2 where pricing certainty is essential." 3 That makes total sense, does it not? 4 Yes. There are clearly reasons why a dispute might want to be brought and this delay Α 5 incentive might unwind. Equally, I think it is interesting to note that he notes that there 6 could be a retail pricing effect, which is really the basis of my argument. 7 O Then: 8 "Until the point when Ofcom determines an overcharge has occurred ... BT will be 9 trading at a competitive advantage ... The higher wholesale prices will negatively affect CPs profitability and ability to compete with BT's downstream arm." 10 11 So those are the reasons he gives. You have no reason to believe that is not his honest 12 reflection of Cable & Wireless' incentives, do you? 13 No, it may well be that a particular CP in a particular situation, this delay incentive may Α 14 unwind for them, that is absolutely the case. 15 I would now like to turn to a completely different topic, which is the topic of adjustments Q 16 made to the regulatory financial statements. This is a topic which was addressed by Mr. 17 Holt and you respond to his evidence in your third report at tab 5. It is para. 20, section 6, 18 p.6 19 Yes. Α 20 Q You seek, at para. 20, to summarise Mr. Holt's position: 21 "The First Expert Report of Derek Holt focuses on the consequences of allowing 22 cost adjustments to the results of the Regulatory Financial Statements ('RFS'). He 23 appears to argue that, if such adjustments are permitted, then BT might have 24 perverse incentives to push prices above DSACs and then try to revise up DSACs 2.5 later. Effectively, this is an argument that BT would have an incentive to 26 misrepresent its DSACs by setting them too low. This is clearly incorrect, as BT 27 would gain nothing from this strategy and expose itself to a greater risk of 28 repayment claims. Therefore, I consider Mr Holt's argument should be dismissed." 29 Yes. Α 30 Q That is not a fair reflection, is it, of Mr. Holt's argument? 31 That was my understanding of Mr. Holt's argument at the point I read his report. That was Α 32 my interpretation of it because I did not find it particularly clear. We had a useful 33 discussion of his views at our joint meeting, and he told me that he thought that that was not 34 quite his point.

1 Q Let us look at his report that you were responding to, that is behind tab 12 of this same 2 bundle. He deals with this topic at s. 4 of his report starting at p.31. The first point he 3 makes at 4.2 is that: 4 5 "BT has significant information advantages which provide it with the potential to 6 act on any financial incentives in the cost allocation process." 7 What he is saying is that BT knows all the details about its costs and its methodology for 8 allocating them and has much more information than the CPs do. That is correct, is it not? 9 Α It is, I mean obviously the RFS is there to try and spread that information out to the wider 10 world. 11 But they still have a lot more information than the wider world? Q 12 Α Yes, they have the underlying data. 13 Then, if you move on, at 4.3, p.34 he addresses the impact of adjustments of the RFS on Q 14 BT's incentives to act strategically when allocating costs and he makes the point in this 15 section that BT, when it is allocating its costs has a degree of Judgment that it can exercise 16 as to where it puts the costs - right? 17 It has to decide something and that has to go into the RFS, and Ofcom clearly monitors that Α 18 process. There is a process for making that decision. 19 To an extent it can seek to do that in a way that meets its ends? Q 20 Α It could. 21 Q Then at 4.4 he says: 22 "BT has particularly strong incentives to propose cost adjustments following price 23 disputes." 24 At 103 he says this: 2.5 26 "BT has particularly strong incentives to highlight errors in the RFS following an 27 announcement of a price dispute. This is simply because a key uncertainty faced by 28 BT when deciding how to initially allocate its costs is what charges are ultimately 29 likely to be the subject of a pricing dispute. While BT will have some information 30 on how best to allocate costs to enhance its commercial position, the identification of an actual price dispute will resolve any uncertainty as to which charges may be 31 32 challenged and whether it is a price ceiling or a price floor which is suspected of

Once the pricing dispute has been launched, it will be very clear to BT what type

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being breached.

1 of adjustments to the RFS could assist with demonstrating compliance with the 2 cost orientation test. The incentive to cherry pick errors working in its favour will 3 be particularly strong at this stage. This is because the potential downside 4 associated with any proposed change in cost allocation, namely that it exacerbates 5 rather than reduces the risk or extent of non-compliance with the cost orientation 6 test, will be minimised." 7 That is a perfectly reasonable position, is it not? It makes sense? 8 Yes, his argument is essentially that changes to the RFS should not be allowed too readily, Α 9 and I think that is a fair point. Equally, I think ----10 Q Just pausing there, what he is saying here is that if there is a dispute ----11 MR. THOMPSON: With respect, Sir, I know my learned friend is under time pressure to try and 12 get this completed but it really is wrong to cut a witness off when he is in the middle of 13 giving an explanation. 14 THE PRESIDENT: I do not think that she did cut him off, but Dr. Maldoom ----15 MS. ROSE: (To the witness): The point that he is making in these paragraphs is that once a 16 dispute has been raised BT has an incentive to look in its internal accounts for errors in the 17 RFSs that would favour its position in the dispute. That is the point he is making. 18 Α Again, this is intrinsic to the nature of the problem in that there are fundamental 19 informational limitations and Ofcom says: "We will use DSAC as a test and then if there's a 20 problem we have to look further. So there is, within the system the idea that this is not the 21 be all and end all of the RFS. There are errors, there have been errors, I think these are well 22 documented. There have been adjustments to this and I think this is just simply an 23 informational constraint under which we must operate. 24 Q But BT has a much stronger incentive to identify errors that will reduce the level of an 2.5 overcharge it has to repay than to identify errors that would increase the level of overcharge. 26 Do you agree with that proposition? 27 Yes, that's correct, and that's the very reason that Ofcom exercises a degree of reluctance to A 28 accept changes. I was going to say earlier, the point which I think is important is that, even 29 taking account of that, there are very good reasons why, in certain cases, it may be sensible 30 to look particularly at cost allocations again. To say what is used in the RFS is absolutely immutable and shall be used for the purposes of assessing cost orientation I think is not 31 32 correct; I think that is too strong the other way. 33 Q So you accept that there is this incentive on BT - yes - to cherry pick?

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Q Yes? You accept that?

2 THE PRESIDENT: Well, just pause.

- A I think it is clear that BT has an incentive to propose adjustments which is in its favour, and that is why there is this burden upon it to justify that to Ofcom. I think that is the flip side of it.
- MS. ROSE: If we go on in Mr. Holt's statement at s.4.6, para. 109, you see the heading:
 "Implications of adjustments on consistency with prior determinations"?
- 8 A Yes.

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Q Then:

"Ofcom recognises in its framework for considering whether to allow proposed adjustments to the RFS that such changes may be inconsistent with the basis on which previous determinations have been reached. I agree that this is a concern, since BT could otherwise unfairly benefit from proposed adjustments. This is because its net position would be enhanced as a result of the error (and subsequent 'correction') than would be the case if the RFS was 'correct' in the first instance."

He then gives an example of a situation where one dispute is resolved on the basis of one allocation of costs, yes? And then another dispute is raised and BT shifts some costs in such a way as to reduce its liability in the later case, but which would have increased its liability in the earlier case. You would accept that is plausible, would you not? It is a problem, potentially?

- A I have a general problem with this argument in that essentially what is being suggested is that a particular allocation of common costs needs to be determined and stuck to, and then essentially this is very much the problem with connections and rentals that essentially for assessing cost orientation, essentially that particular allocation of common costs has to be sustained above all things. I think the problem is that that is a very poor implementation of what is the appropriate theoretical test. There is some discussion about combinatorial tests in both my evidence and Mr. Myers' evidence, and the problem which I would have here is that I think some of the idea that Mr. Holt has, some of his examples, would be things that would pass a combinatorial test but he would say they should be thrown out, essentially because he is saying this is the static nature of the cost allocation that the RFS has to be stuck to under all cases.
- Q It is BT that chooses how to allocate costs when it publishes its RFS, is it not?
- 33 A Yes, that is not, in itself, problematic. All these things have plusses and minuses. Yes, there are absolutely issues about manipulation or strategic incentives which we might call them.

- Equally, there is a very good reason that BT is given discretion to make those allocations.
- 2 Q So BT makes the allocations and it publishes the RFS, right?
- 3 A Yes, I am saying that ----
- 4 Q And once it publishes the RFS other players in the market will rely on what is said in the RFS will they not?
- 6 A The RFS comes after the prices that have been set remember ----
- 7 Q Yes.

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- 8 A So they rely on the prices first and then everybody gets to see the RFS at some later point.
- 9 Q And they look at the RFS to see whether the price will meet the cost orientation obligation?
- 10 A Yes, they can do that ----
- 11 Q Do you accept that allowing subsequent revision of those figures undermines the commercial certainty that those players in the market are entitled to?
- 13 No, it hasn't affected the prices, has it? I mean I think, to be absolutely clear here, I Α 14 understand that there are very good reasons why one should be reluctant to allow changes 15 willy-nilly, and clearly there has to be some kind of barrier to this, but equally where these 16 issues of common cost allocation come up, which are exacerbated by taking a highly 17 disaggregated approach which has been taken with collections and rentals, then it means 18 that that exposes lots of issues about common cost allocation and it may well then be 19 appropriate to look at a different allocation of costs for assessing the cost orientation of 20 services, more in line with something a bit more like the combinatorial test, which would 21 then require the RFS to be re-evaluated on a different allocation of costs. I think that is an 22 entirely proper thing to do.
 - Q That is a different point, which is that you are not happy with the way that the condition HH3.1 operates. But, given that it does operate in this way and assuming that that is its proper construction, would you accept that the barrier to BT for amending its RFSs should be set at a sufficient level to neutralise the incentive that it otherwise has to gain in the system?
 - A There is a balance to be struck between ensuring that BT can't game this, and equally to make sure that flexibility is allowed in how common costs are allocated to ensure that there is some measure of efficiency in how common costs are recovered. So, in particular, that BT's pricing can evolve to deal with common cost recovery issues.
- 32 Q Essentially that is a judgment to be made striking the balance between efficiency on the one 33 hand and certainty, and avoiding regulatory gain on the other?
- A I think that is what Ofcom is trying to do with the system.

1	Q So that is a regulatory judgment?
2	A Yes, I think it is, yes.
3	MS. ROSE: I have no further questions.
4	THE PRESIDENT: Thank you very much. Mr. Thompson, how long would you like for re-
5	examination. Your witness has been cross-examined for a day and a half.
6	MR. THOMPSON: He has indeed. I would rather not do it now.
7	THE PRESIDENT: No, of course we are going to take a break now. I just want to know in terms
8	of timing.
9	MR. THOMPSON: I have a number of questions, really essentially to try and draw together the
10	strands of what he has been asked.
11	THE PRESIDENT: What I meant by that remark was not therefore you should not re-examine
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13	MR. THOMPSON: No, indeed.
14	THE PRESIDENT: but that you should be allowed to re-examine because there has been
15	extensive cross-examination and I just wanted to have some sense of timing for the other
16	witness due to start this afternoon.
17	MR. THOMPSON: I would hope not more than half an hour, but it depends on the nature of the
18	answers and whether any other questions arise.
19	THE PRESIDENT: I think, in fairness to Dr. Maldoom, we should give him a proper break. If we
20	come back at 20 past 2.
21	(Adjourned for a short time)
22	THE PRESIDENT: Before you start, Mr. Thompson, I think we should find a place for the
23	additional document that was handed up, or group of documents, regarding the PPC. We
24	have got an additional documents bundle.
25	MR. THOMPSON: Sir, can I just say I think, from what I have been told by other people, that the
26	proposal would be that we give a new index to the additional documents bundle in due
27	course. If it can perhaps just be put there, but I think what is intended is there is going to be
28	a new pagination and tabs provided for the Tribunal at the end of the evidence. If you
29	remember, there was also that letter that I put to Mr. Higho (I think it was) which also needs
30	to be filed.
31	THE PRESIDENT: That is right. At the moment, my additional documents bundle actually has
32	got another document. Although the index only goes to tab 22, there is actually a tab 23
33	with something in it.
34	MR. THOMPSON: Yes, I think from recollection that the Notice of Appeal for the Court of

1		Appeal.
2	THE	PRESIDENT: No, it is not; it is LLU charge control review. Anyway, if we put it at the end
3		of that, and then in due course we get a new index.
4	MR.	THOMPSON: I am told that BT will try to make sure there is a new index circulated
5		tonight.
6	THE	PRESIDENT: Well, tomorrow, with some additional tabs perhaps provided in case more
7		comes. Thank you.
8		Re-examined by Mr. THOMPSON
9	Q	Dr. Maldoom, you have been giving evidence for quite a long time and I am really going to
10		try to draw together some of the strands of your evidence to make sure that I at least have
11		understood, and hopefully that will assist the Tribunal. First of all, as I understand it, you
12		draw a distinction between the issues relevant to the scope of the cost orientation obligation,
13		the issue of compliance, and the issue of repayment including interest. Those three different
14		issues, is that correct?
15	A	Yes, I think my third report covers that.
16	Q	Does it follow from that that issues and arguments that are not accepted by Ofcom for the
17		purposes of the scope, so which charges, may remain relevant to compliance, for example?
18	A	That is entirely possible, yes.
19	Q	Likewise, issues and arguments that are not accepted for the purpose of compliance
20	THE	PRESIDENT: You ought not just to put propositions for Dr. Maldoom to agree with. You
21		should not be leading him in quite that way.
22	MR.	THOMPSON: I am simply trying to put things together.
23	THE	PRESIDENT: Maybe you are, but you can ask it in a neutral way.
24	MR.	THOMPSON: The relationship between issues in relation to compliance and in relation to
25		repayments, are they the same issues or different issues?
26	A	I think they are different issues. The point that I make is I think once one has considered
27		compliance there's further consideration about repayment, and I think my third report deals
28		with the point that the uncertainties that may have been inherent in the consideration of
29		compliance need consideration when one comes to determining repayment.
30	Q	There was some discussion in various places in relation to false positives and false
31		negatives, and the advantages and disadvantages of disaggregation. Could you explain what
32		your position was on that?
33	A	Yes, I think my concern here is to do with greater levels of disaggregation giving greater
34		risks of false positives. Essentially the question is: is there at least one product, or at least
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one price that is excessive? I think there are specific issues in relation to connections and rentals, because that is of a different nature due to the issue of the very large amount of cost commonality between those two elements of the service, and the issue that there is a pricing relationship you could summarise as complementarity, but essentially there is a blending of some form between the prices of those two services.

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- Q On several occasions in response to questions, I think from Mr. Saini, in relation to connections and rentals you used the expression that the distinction should have been "baked in" to I think either the 2004 or the 2008 market review. Could you explain what you meant by that expression?
- A I don't think we gain anything from the 2004 or 2008 market review that suggests that connections and rentals would be looked at separately, or independently is the way I've emphasised in my third report, for the purposes of assessing cost orientation. So I think the more reasonable expectation would be that they would have been treated together and that that distinction would not have been made.
- 15 Q If it had been a concern, what would you have expected to have seen in the 2004 or 2008 market review?
 - A I guess there would have been some issues around what the competitive effects might have been of different connection and rental balances. I just don't think that that's an issue which has arisen previously.
 - Q You also gave a number of examples of what I think you called the lack of fingerprints of Ofcom's consideration of various factors. I think you gave the example of connections and rentals averaging over time, and corrections to the RFS. Were there any other factors that you would have expected to be taken into account?
 - A We've got this question about aggregation, which I think we've just mentioned. So I think probably a central issue is the separate treatment of connections and rentals or aggregation. There is this question about averaging over time, in particular, how one might treat these small transient excursions above DSAC. There are, I think, also issues to do with uncertainty and particularly I think there are very considerable questions about the first two years to do with the new nature of the products. In particular, looking at what seems to have happened in terms of trajectories of prices and DSACs that come out of the RFS. There seems to be a significant issue about BT essentially trying to hit a target at some point in the future, getting it wrong, correcting and then there being other changes during that period. So I think that's really linked to the nascency of these services during the first couple of years, and the lack of any kind of relevant background data that could be used to better

- 1 assess costs. I think those are the main issues.
- 2 Q Is that section 8 of your first report?

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- Yes, I think that's right. That's in section 8. I think my third report also includes a sort of summary of what you might call some practical steps that could be taken, possibly to tighten up things with regard to Ofcom's approach.
- 6 Q There was some discussion with Mr. Pickford about the fair bet issue. Is that in the same area?
 - A I'm trying to remember which report that is in. I haven't dealt with this at great length; I didn't see it as being central to my instructions, but I think it is relevant when considering this FAC suggestion as an alternative cost test. I think that's in my second report. I think the issue here is there are these question marks around how one provides adequate investment incentives when there's uncertainty and sunk costs. Regulation down to WACC may be not the right way to do that, which is I think partly why a somewhat different approach has been adopted through this commission recommendation on next generation networks, which I mention in my report, to allow a little bit more headroom to try to encourage these kinds of investments. So I think these are all relevant issues for why we have some headroom. I think it is headroom that would be stripped out by this group FAC test. I think the suggestion is that sort of FAC evaluated on a simple WACC basis, as far as I understand it.
- 20 | Q I am sorry, I thought I had a reference for you but I have now mislaid it.
- A Sorry, I have it here actually. It's my second report at tab 4. It is the section from para.148 onwards.
- 23 Q Turning to the three specific issues you mentioned yesterday, first of all connections and
 24 rentals, you said more than once that Ofcom had changed its position on this issue in a way
 25 that surprised you. Were you referring to anything in particular?
- A No, I think what I was referring to was the sort of position which one might expect as being economically reasonable in terms of applying a cost orientation test, given the findings from 2004 and 2008. So I think this highly disaggregated approach is a little surprising, and I think the reason I mentioned it was surprising was that I can't think of, for example, a precedent for this splitting of connections and rentals.
- The second issue is averaging over time. Mr. Saini criticised para.93 of your first report which was picked up by Mr. Myers in his report. Could you just turn to your report.
- 33 A Yes, I have it.
- 34 Q The point that Mr. Myers makes is that in fact a passage in the provisional conclusions also

1 appears in the final. So to that extent there is a mistake. Could you turn to the relevant 2 passage of the decision which is at core bundle B 221. 3 Α Yes. 4 Q What you will see is that there is a long quotation in the previous paragraph from the 2009 5 EPC Determinations where various considerations are taken into account? 6 Yes. Α 7 O In particular, do you see at the top of 128: "Average charges compared to DSAC across the 8 whole period"? 9 Α I do, yes. 10 Q Then at 9.221 it says: "These are factors we considered in our Provisional Conclusions". 11 Was this the passage you had in mind? 12 Yes, it was. Α 13 In relation to changes to the RFS, the third issue you mentioned, which particular issues did Q 14 you have in mind in relation to that? How do you see it coming into this appeal? 15 Yes, it is relevant. A very good example of the issue, I think, is to do with these Α 16 transmission equipment costs, so electronics. I think some points were essentially 17 associated with connections and some points were associated with rentals. I think you can 18 see the issue here very clearly. If they were treated differently then obviously it matters 19 how that allocation is made. We have got a number of ways of kind of removing the 20 importance of that cost allocation if we don't think that it's particularly relevant to the 21 assessment of cost orientation. We could either aggregate those, or the alternative would be 22 to say that: actually, the RFS might have been stated in one way, but prices have been set 23 differently. Is that a problem? No, because the RFS is just one particular statement. There 24 has to be some allocation of costs to allow the RFS to exist. So therefore one could imagine 2.5 modifying that on a ... allocation. So more generally, that is a way of potentially looking at 26 different allocations and may be a way of allowing a little bit more flexibility in 27 implementing a cost orientation test and taking account of the inter-dependencies that arise 28 between different services, or in this case connections and rentals from one service without 29 causing undue complication. 30 That is in relation to connections and rentals. In section 9 of your first report you refer to a Q number of other issues. Are you talking about those as well? A lot of them are issues that 31 32 are dealt with by Mr. Coulson in his report as well.

Yes. One can broadly break this down into a number of issues. There are simple errors

which I think have just been exposed; there is kind of new data and potential adjustment;

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- and I think then the other issue is to do with not having to necessarily stick exclusively to one particular allocation of common costs. I think this section really goes through those issues.
- 4 Q Yes. There is an issue about timing, about the other two issues about when the Ofcom position became clear. When did Ofcom's position become clear on these issues?
- A I think it is certainly clear in the Determination that Ofcom is not really minded to allow adjustments unless there is significant reason. In fairness, I think some of these errors have been potentially allowed, but I think certainly the Determination is quite firm on the point of not allowing adjustment of common cost allocations, for example.
- 10 Q What about before that?
- 11 A I think that's also, in some degree, in the draft Determination. I'm not sure I can help much further on that.
- 13 Q Turning to the issue of repayments, one issue that came up was that it was impossible to
 14 turn back the clock. Do you recall that? There was some discussion about transfers and
 15 pass through and issues of that kind?
- 16 A Yes.
- Q Can I just take you to two passages in the decision. Core bundle B first of all at 10.80 to 83 p.147. In particular, 10.82 which is one of Mr. Pickford's clients.
- 19 A Yes.
- 20 | Q Was that the sort of thing you had in mind?
- 21 A Yes. I think this is the problem which I have. Clearly, some of the evidence from commercial people suggests that they don't think these delay incentives are relevant.
- However, equally, there's very clear evidence here that there seems to be the possibility of retail pricing effects. There are a number of statements to that effect.
- Q I think the point was put to you by Mr. Pickford that his clients in particular would not have passed through?
- A I think the issue here is that even with some degree of competition, it may not be perfect competition, there may be some latitude in pricing. I think it is interesting to see that there are statements that suggest that there may well be a retail pricing response.
- Q So that is the position of TalkTalk. In relation to Ofcom, can I turn you through to 15.65, towards the end, p.421. That appears to be Ofcom coming to much the same view?
- Yes, some encouragement. I guess this is the best that one can really hope for under these circumstances. I think this is an oblique comment about difficulties of actually getting a repayment through to the hands of customers. There is no mechanism, even in a

competitive situation that this could get passed through. The only issue is - okay - prior to the point that there was some expectations that the repayments were due up to that point, then any repayment associated with the overcharge up to that point in time when there is absolutely no competitive mechanism to push that back to consumers.

- Q You then had a lengthy discussion of incentive effects, and I think you mentioned civil and administrative incentives, which I assume are independent of these orders for repayment. I think you also said something about powering the regime. Could you just explain what you had in mind?
- Yes. There are questions about balancing various effects, and I think this is particularly relevant on the question of interest and indeed whether there should be interest or what the rate should be. I think there are some balances to be struck in that setting too high a rate could potentially lead to some issues to do with delay and failure to pass through to customers. So that clearly needs to be traded off against the incentive effects for BT. Clearly compliance incentives for BT are very important, so owe have to give them all due weight. Then I think equally we have to think about all sources of those incentives, not necessarily just the repayment regime. I think there is the potential, for example, for claims to be brought by parties who might not have brought the dispute. If there had been some specific damage to a party that had been caused by these prices then I presume that might give rise to a claim regardless of repayments might have been ordered by Ofcom.
- Q In relation to regulatory enforcement, do you have anything particular in mind there? If not, then I will pass on.
- 22 A Yes, I think I'm not quite sure what you're getting at, to be honest.

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- Q Mr. Pickford asked about the nature of BT's benefit from the overcharge and there was a long debate about what assumptions were appropriate about the nature of the benefit. Could you just simply clarify what your position was on that?
 - A I think what I've written about this is very much in response to Dr. Houpis, and I think a key here is, is it right to look any cash flows that arise from an overcharge of some kind of funding instrument. I think my position on this is that the nature of those additional categories and the risks that are involved with them suggest that that is not the case. I think certainly the exchange with Mr. Pickford threw up some issues, for example, to do with there may be some certain minimum delays until repayment occurred, and so on. There may be constraints on this, but to a large degree there is considerable uncertainty both on what might come in in terms of additional cash flows and what repayment might be needed. I think by far the most natural way of thinking about this is that the nature of those risks

1 would kind of suggest that the value of money would be measured better by just a simple 2 cash deposit. I think that then leads to the consequence that the amount of interest that we 3 are talking about is probably relatively low and to be traded off against these other issues, 4 which I have mentioned. 5 Q I do not know whether you have had an opportunity to look at the transcripts of the evidence 6 that was given last week? 7 A I have looked at them, not in enormous detail, but I have read all of them, yes. 8 And in particular the evidence of Mr. Morawetz? Q 9 Α I did notice that, yes. 10 Q I was simply going to ask you to comment on an exchange with Professor Mayer about 11 incentives. 12 THE PRESIDENT: I am not sure it provides a narrative, does it? 13 MR. THOMPSON: There was a lot of discussion about the incentives on the upstream and 14 downstream market, and I was simply going to ask whether he had any comment on that. If 15 it is better to put in more general terms I am very happy to do so. 16 THE PRESIDENT: Those points were point to Dr. Maldoom about incentives. You can do it 17 through the transcript. There is a passage that you want to show Dr. Maldoom - is that 18 right? 19 MR. THOMPSON: It is day 3. 20 THE PRESIDENT: Can someone provide that. 21 MR. THOMPSON: There should be a bundle of transcripts. It is p.73, and in particular the 22 passage beginning on p.74 at line 11, the second question from Professor Mayer in relation 23 to suppliers of both upstream and downstream providers? 24 A Yes. I do remember when I read this thinking this was quite interesting in the sense that -2.5 it's this comment here on line 15 when asked about the balance of higher or lower prices, 26 that it's generally difficult to say and it depends clearly on a very hypothetical scenario. I 27 think this is the point, if you read down, that that increase, if you like, raises the level of 28 market price. This is related to the points which I'm making about the possibility of retail 29 pricing effects that then could potentially lead to delay incentives. This seems like a 30 potential example. 31 Q Looking at the issue of incentives more generally and the future incentive effects, you made

some references to a "regulatory knob" being turned up, that being in some way dangerous

Yes, it's probably unduly colourful language. What I was trying to get at was the idea that

for incentives. Can you just explain what the "regulatory knob" is supposed to mean?

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- there were quite a lot of choices that are being made which affect the overall whether you call it generosity or power of the repayment regime. There are actually quite a lot of elements to that. There's this question of disaggregation of connections and rentals, there are issues to do with transient excursions, and so on. So we've got all of that plus we've got interest as well, and I think all of these are relevant considerations in terms of moving towards a more or a less generous repayment regime. I think it is quite helpful to think about the incentives of the parties of shifting between those extremes. One might take an approach which reduced the amount of the repayment by, for example, aggregating connections and rentals, or one might turn down interest to zero or ignore it, or one might turn up interest. These are all ways in which we get to a different answer. I think the "knob" is, as it were, those quite wide range of choices.
- Q Both Mr. Pickford and Ms. Rose asked you a number of questions about delay and the length of the dispute. Mr. Pickford put to you the facts of the present case in relation to Sky and TalkTalk, and I would just like to take you to the relevant passages. Can you go to bundle B, the Decision, first of all, para.1.4: You will see that the dispute was brought on 27th July 2010 relating to the period from 2004 to 31st July 2009.
- 17 A Yes, I see that.

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- 18 Q I think questions were put to you on the basis of this dispute being raised in February 2008 19 by ----
- 20 A Yes, 2008, that's correct.
- 21 Q There is obviously a material discrepancy between those two dates. Could we just look at
 22 the significance of that. That is at table 14.23 on p.410. You will see the original dispute
 23 raised in February 2008 ----
- 24 A Sorry, which paragraph?
- 25 | Q Page 410, table 14.23.
- 26 A Yes, I have it.
- 27 | Q The scope of dispute was quite materially after that date. Would you agree with me on that?
- 28 A Yes, that's absolutely the case.
- 29 MR. PICKFORD: Sir, I think it is leading again.
- 30 MR. THOMPSON: I am sorry about that.
- THE PRESIDENT: Those are facts that are clear. You need not put them to Dr. Maldoom, and we can see the dates.
- MR. THOMPSON: I am only raising the question because I think his credibility is quite severely put in play by both Mr. Pickford and Ms. Rose, and these numbers are relevant to that

- question, in my submission. I think it is relevant to see it at this stage. The position in
- 2 relation to Sky and TalkTalk one sees at p.422. Do you see that, table 15.1?
- 3 A I have non-confidential version, but I see the table.
- 4 Q So that is the position in relation to Sky and TalkTalk. Ms. Rose took you to task in relation
- 5 to Gamma.
- 6 A Yes.
- 7 Q That is at AD2, Tab 16. I go to para.3.35.
- 8 A I am sorry, I have it. What paragraph number?
- 9 Q Page 23. You see there the nature of BT's argument and, in particular, the last two
- sentences.
- 11 A Yes.
- 12 Q Simply by way of question, do you have any comment on those facts and how they bear on
- your theory which has been criticised by Mr. Pickford and Ms. Rose?
- 14 A I think the trouble with all of this, it is very much a question about whether one looks at
- incentive issues or whether one looks at actual behaviour. I think the problem is that,
- firstly, parties clearly have an incentive to say that they will behave in a certain way if it
- suits them, so I think one has to take comments about what might be behaviour in certain
- circumstances with a pinch of salt. Equally, even if people do not necessarily respond to
- incentives, from a regulatory perspective I think the relevance is not creating distortionary
- incentives. Yes, okay, there is relevance to considering how likely are people to respond to
- 21 this but I think the primary question is about not creating them in the first place.
- 22 | Q Then finally in relation to that issue, I think you have indicated you have read the *Gamma*
- 23 determination.
- 24 A I have.
- 25 Q There is an issue in relation to contractual certainty that you address in your second report at
- para.9 to 33. Are you aware of Ofcom's conclusion in relation to that issue? It appears to
- be at 4.82, insofar as it bears on it.
- 28 A Yes. It would certainly be useful to look at it again. I have read this but I have not
- 29 necessarily memorised it.
- 30 Q I think it is particularly 4.88. (After a pause):
- 31 A Yes, it appears that there is some weight being given to this issue of contractual certainty.
- 32 | Q It is more of a negative question. Did they consider contractual certainty?
- 33 A They certainly did, yes.
- Q Can I just ask you some very short questions on the FAC/DSAC issue? First of all, the

- difference between a cost control price cap and the Houpis proposal for an aggregated FAC test. I think it was put to you that the price cap was set at FAC and I would just like to ask you whether that is correct.
- 4 A No, I do not think that is correct.

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- 5 Q Is that how it works over the period?
 - A The way that price caps have to be set, there have to be some forecasts made. They clearly apply for a period. Running forward, the whole point of having a price cap is to provide essentially some certainty that there will not revisions of that to provide these cost reducing incentives. So these have to be constructed on the basis of expectations. This is Ofcom's job. That will have to include in it headroom to deal with uncertainty issues. It will have to consider Ofcom's regulatory objectives in terms of all these Article 8 issues; in terms of not potentially foreclosing the possibility of emerging competition, and so on. So there is a bunch of considerations that go into the determination of a price cap which are not present in the simple FAC cap proposal.
 - Q Thank you. You may recall that Mr. Pickford put to you that there were three types of market. SMP markets with price control; SMP markets without price control, and competitive markets. I would just like to put it to you, is there a fourth type which is an SMP market ----
 - THE PRESIDENT: Mr. Thompson, if you want the witness to confirm what is said in the *Gamma* decision it seems to me unnecessary because we can all read it. Whether you lead or not does not particularly matter, but to put a proposition like that in re-examination, as you know, is really not acceptable.
 - MR. THOMPSON: I will move on, Sir. I just have two more questions, one in relation to practicality and the other in relation to dynamic efficiencies. Mr. Pickford appeared to put to you that the way in which his FAC test could be varied would be for BT to show under-recovery on one or more other markets. I just wanted you to comment on the practicality of this proposal.
 - A I have broad concerns about the practicality of this measure, not least for that reason. I think I have already laid out some of the issues that come, to do with the fact that one might require simultaneous price adjustments to satisfy this. Clearly this does raise -- If the idea is to try and provide some kind of headroom or to allow some kind of flexibility and common cost recovery by essentially allowing this kind of contingent nature, there is clearly a very big question about what the burden would be to actually get that cap relaxed. Potentially it could involve looking at BT's profitability and aggregate across many different markets.

1	You cannot just look at one and say it is under-recovering because presumably the argument
2	would then come, "Is it over-recovering somewhere else?" So I think that essentially
3	requires a kind of BT-wide profitability review, I think.
4	Q Then there were a number of questions put to you about dynamic efficiencies and BT's
5	ability to recover its costs from other markets. I would just like to ask you whether for BT's
6	competitors there would also be problems?
7	A Whether they might face similar issues?
8	Q BT would have concerns over dynamic efficiencies relating to third parties, so BT's
9	competitors?
10	A Yes. This is also potentially relevant to anybody who wants to kind of innovate and come
11	up with something that might be a competing service through some different route. This
12	again goes to all these Article 8 issues about trying to make sure that emerging competition
13	does not get nipped off, and clearly one aspect of emerging competition is that there may be
14	novelty in the way that people delivery services.
15	MR. THOMPSON: Those are my questions, Sir. I do not know if the Tribunal has any other
16	questions?
17	THE PRESIDENT: Thank you, Dr. Maldoom. You have been in the witness box for a very long
18	time. You are now released.
19	MS. ROSE: Sir, before we come to the next witness can I just raise
20	THE PRESIDENT: Yes, do you want to let Dr. Maldoom resume his seat?
21	MS. ROSE: Make his getaway.
22	THE PRESIDENT: He has been there long enough.
23	(<u>The witness withdrew</u>)
24	THE PRESIDENT: Yes?
25	MS. ROSE: It was suggested to me by counsel for BT that both Mr. Thompson and Mr. Read
26	were intending to cross-examine Mr. Holt, my expert witness. I have some concern about
27	that because it is certainly not normal to permit two leading counsel to cross-examine a
28	witness on behalf of the same party and, in my submission, the normal procedure is that one
29	person cross-examines the witness otherwise there is a risk of repetition and oppression of
30	the witness through simply being harassed by two individuals rather than one. I just wanted
31	to raise a concern because I cannot see any good reason why they should both do that.
32	THE PRESIDENT: I think, before Mr. Read stands up, if there is a clear demarcation of what
33	areas they wish to cover and one deals with one area and another deals with another area,
34	then I do not think it should be a problem and it can be left to me to be alert that they do not,

1	as it were, have another go, which, I quite agree, would be unfair. But if they have, as it
2	were, divided the issues between them in that way I do not find that impurity objectionable.
3	Your concern is that you should not have to go through the process twice, which I can quite
4	understand. I would assume that if they are going to divide it, it is by subject matter.
5	MR. READ: Can I help and say it is not actually two leading counsel. It will be me and Ms. Lee
6	THE PRESIDENT: It is the same point.
7	MR. READ: The division is between, on the one hand, where he deals with the issues of
8	effectively connections and rentals, which Ms. Lee will be dealing with, and then the issues
9	about the incentives for changes in the RFS which is what I will be dealing with. We have
10	deliberately done it in this way in order to cut down the length of cross-examination that the
11	witness will have, so that the person who actually knows the full subject matter is dealing
12	with the bit that they actually are dealing with. So I hope that helps Ms. Rose.
13	THE PRESIDENT: Whether it cuts it down or not I do not know. We shall see. But I think to
14	divide it in that way is not too objectionable and I shall be alert to make sure that we are not
15	going over the same ground again.
16	MS. ROSE: I am grateful.
17	MR. THOMPSON: Can I call Mr. Harman?
18	Mr. GREG HARMAN, Sworn
19	Examined by Mr. THOMPSON
20	MR. THOMPSON: Mr. Harman, good afternoon. I am afraid you have to do the slightly
21	complicated but less complicated exercise that Dr. Maldoom undertook. Could you first of
22	all be given Bundle BT24?
23	THE PRESIDENT: The reports in the core bundle are signed, are they not?
24	MR. THOMPSON: Yes. I think we have gone through this basically with everybody else. I am
25	happy to go straight to the core bundle.
26	THE PRESIDENT: I think we can go straight to the core bundle. It was only, I think, there were
27	some witnesses whose statements were unsigned.
28	MR. THOMPSON: I will simply say that the originals, as it were, are in Bundles BT24 and
29	BT33, and then if we just go to Core Bundle D, first of all, Tab 1.4.
30	A Yes.
31	Q Page 38. You will see obviously this is a joint expert statement. I am just taking them in
32	order as they appear in the bundle.
33	A Yes.
34	Q Is that your signature?

1 A It is. 2 Q Then Tab 6, we should see your first report. Then on p.71 ----3 Α I have that, yes. 4 Q -- is that your signature and declaration? 5 Α Yes. 6 O And likewise Tab 7, p.38, your signature and declaration. Those two reports, are they your 7 evidence in this matter ----8 Yes. Α 9 Q -- and a record of your contributions to the joint expert meeting, and that is true to the best 10 of your knowledge and belief? 11 That is right. Yes, it is. Α 12 THE PRESIDENT: Before you sit down, it is not necessarily a matter for me, but I noticed that 13 some figures are confidential. For example, on p.57 of Mr. Harman's first report the figures 14 in the table 4.2 are marked in our copy as confidential, but on p.55 the figures in table 4.1 – 15 the last column of which in fact I think are the same as figures in table 4.2 – none of those is 16 marked confidential. Equally, on p.60, the top line of that page: "Service Centres provision (line D)" and then two percentages are given which are not marked as confidential. If that is 17 18 the case that is fine, but I just wanted to be clear, before questioning of Mr. Harman starts, 19 that it is accepted that those are not confidential figures or whether they should in fact be 20 marked as confidential. Do you want to take some instructions? 21 MR. THOMPSON: I know how cautious people are about confidentiality when they are filling 22 these things in. I think I have people here who could probably tell me whether table 4.2 is 23 in fact confidential. 24 THE PRESIDENT: And if it is, whether table 4.1 is confidential, because there seems to be a 2.5 slight inconsistency. (Pause) 26 MR. THOMPSON: I think we are happy to treat table 4.2 as not confidential. 27 THE PRESIDENT: That is very helpful. 28 MR. THOMPSON: Mr. Harman, I think there will be some questions for you. 29 Thank you. Α 30 Cross-examined by Ms ROSE Good afternoon, Mr. Harman. 31 Q 32 Good afternoon. A I just want first to ask you some questions about the scope of your evidence. You are not a 33 O 34 lawyer, are you?

1	A	I am not.
2	Q	You do not give evidence as a legal expert?
3	A	I do not.
4	Q	You are not a witness of fact?
5	A	I am not.
6	Q	The facts that you refer to in your reports are based either on factual data, supplied to you
7		by BT, or information given to you by Ernst & Young, is that not right?
8	A	I think that's correct for the most part, yes.
9	Q	You have not independently analysed the factual data that's been provided to you, have you,
10		or audited it?
11	A	I think you might need to give me a little bit more context. I say that only because
12		obviously through the process of being an expert you discuss matters and you do push back
13		if they sound contrary to what your beliefs are or what your understanding should be. For
14		the most part I take the facts as they are, and where I haven't I've signalled that in my
15		reports.
16	Q	Yes. The context I had in mind, if you want to take tab 6, your first report, para.1.25 you
17		say:
18		"The information and underlying data presented in this report has not been subject
19		to independent audit or verification by FTI or me."
20	A	Yes, I think what I mean by that is in relation to the numbers that have been provided to me
21		by Mr. Coulson, for example, I have not gone back to his models and tried to audit them; I
22		have accepted those numbers at face value. Likewise, if I've relied on a factual piece of
23		information, I have not taken that back to a contemporaneous source to corroborate that
24		statement. So there are factual statements that I have relied on BT.
25	Q	You say at 1.28 that you reserve the right to reconsider your opinions in the light of
26		additional information that may be made available to you in the future, is that right?
27	A	That's correct.
28	Q	Still sticking with this report, if you go back to p.11 para.1.23, in that paragraph you
29		identify some restrictions on the scope of your evidence, do you not?
30	A	I do.
31	Q	You say that you have not been asked to consider certain issues?
32	A	Correct.
33	Q	The first issue you say you have not been asked to consider is:
34		"whether similar arguments to those advanced in my report could also be applied
	1	

1		to the decision of Ofcom to disaggregate charges for 'main link' from the other
2		rental charges levied by BT".
3		Is that correct?
4	A	That is correct.
5	Q	Are you aware that BT"s primary case in this appeal is that condition HH3.1 should be
6		construed as requiring Ofcom to assess cost orientation by looking at the whole circuit
7		purchased including mainlink?
8	A	I think that's my understanding. I have not concentrated much on matters outside of ground
9		2, but I think broadly that's my understanding.
10	Q	Did you have any discussions at all with BT about the aggregation of mainlink together with
11		connections and rentals for the purpose of assessing cost orientation?
12	A	Not to my recollection. From the very beginning I was instructed to consider rentals and
13		connections and that's what I did.
14	Q	What about before you were formally instructed? Were there initial exploratory
15		discussions?
16	A	Not that I can recall.
17	Q	Not that you can recall?
18	A	No.
19	Q	Did you ever ask the question: since your primary case is that mainlink should be
20		aggregated as well, would it not be a good idea for me to address the economic implications
21		of aggregating mainlink?
22	A	No, not necessarily. I have a set of instructions and I follow my instructions.
23	Q	Have you given any thought to what the economic effects would be of aggregating mainlink
24		together with connections and rentals?
25	A	I have not. I don't know enough about mainlink to be able to do so today.
26	Q	Are you aware that the need of communication providers for mainlink are very different?
27	A	I'll take your word for it.
28	Q	Some communication providers have extensive networks and need relatively little mainlink,
29		and some have very small networks and need to buy a lot of mainlink. Are you aware of
30		that?
31	A	I'll take your word for it.
32	Q	Are you aware of the fact that mainlink is charged per metre?
33	A	I was not.
34	Q	So if the price of mainlink is not cost oriented there is an obvious risk of distortion of

1 competition, is there not, between communications providers? 2 Α I would have to think about mainlink in much more detail to make a comment on that. 3 Q Did you see para.67 of Mr. Holt's report at tab 12 when you were considering your response to it? 4 5 Α Which paragraph, sorry? 6 Q Paragraph 67. 7 A Can I just take a second to read it? 8 Yes. (Pause to read) Q 9 Α OK, I see that. 10 Q You do not have any reason to question what he says there, do you? 11 Α In either direction I don't, because I haven't considered the economics and financial position 12 of mainlink; I have no basis to agree or disagree with the paragraph. 13 Are you aware of the fact that a significant number of the factors that you rely on to support Q 14 your conclusion that it is right to aggregate connections and rentals could also apply to 15 mainlink? 16 A I imagine that's possible, yes. 17 Q For example, if we just go back in your first report to the summary, section 2, we see your 18 conclusion at 2.6: 19 "I conclude that connections and rentals constitute two charge elements for a single 20 network access service and that BT's compliance with Condition HH3.1 should be 21 assessed by reference to the combined charge ..." 22 Then you set out eight reasons why you say that is so, yes? 23 Yes. Α 24 Q The first is that these are charges falling into the same economic markets, is it not? 2.5 Α Yes, Ofcom, in the LLCC 2009 review concluded that rentals and connections were in the 26 same economic market; they were consumed together, and for that reason, when making an 27 initial charge control adjustment they aggregated rentals and connections. 28 Q That conclusion applied to mainlink as well, did it not? 29 I cannot recall. A 30 You have read the document, have you? Q 31 Yes. If we go there, I think it was in reference to rentals and connections, as I remember. Α 32 So you do not think that mainlink were in the same economic market? O 33 Α The paragraph that I am remembering. 34 THE PRESIDENT: I think we probably would like to see it. He says he does not remember. It is

1		fair to show Mr. Harman the document.
2	MS I	ROSE: If we go back to 2004, which is when Ofcom conducted it Leased Lines market
3		review?
4	A	Yes.
5	Q	And established the cost orientation provision for AISBO services, and defined the market,
6		that market definition included mainlink as well as connections and rentals, did it not?
7	A	I would have to refamiliarise myself if that's what it said. I don't know. The point that I'm
8		picking up here very clearly is that in the LLCC 2009 it stated quite clearly that rentals and
9		connections were in the same market, and it had used that to aggregate. I would have found
10		it difficult to follow, because they did not aggregate mainlink in that price control, so if they
11		had said these are all in the same economic market; they are all consumed together, they
12		would have also made an adjustment for mainlink, but I don't think they did.
13	Q	Mainlink is only useful if it is bought together with connections and rentals, is it not?
14	A	I don't know. You're asking me questions about mainlink that I've not studied.
15	Q	If you want to use a circuit and you just buy mainlink it is no use to you, is it?
16	A	I don't know.
17	Q	You need both ends and you need a connection.
18	A	I don't know; I've not looked at mainlink; I've looked at rentals and connections.
19	Q	Your second reason that you give at para.2.9 is:
20		" Second, from an economic perspective, connections and rentals are necessarily
21		consumed together."
22		So that is the second factor that you give for saying why the charge needs to be aggregated.
23	A	That is the second reason. It is also the second reason that Ofcom gave for aggregating
24		rentals and connections in the Leased Lines review.
25	Q	But did you not consider the point that there are other services that are also consumed
26		together with connections and rentals, necessarily so, and in particular mainlink?
27	A	No, I mean, I was asked quite specifically to think about two parts of this tariff which were
28		rentals and connections.
29	Q	You also make the point, if you go to para.2.19 (i) that:
30		"CPs are informed buyers and are likely to consider the combined cost of
31		connection and rental charges over the expected life of the service when making
32		purchasing and investment decisions."
33		So you say that they make a whole life of the circuit purchasing decision/
34	A	Yes.

- 1 Q But if they are purchasing a circuit that includes mainlink, their calculation will include
- 2 mainlink, will it not?
- 3 A That may well be the case.
- 4 Q But again, you did not consider the implications of that?
- 5 A No, because I was asked to look at the economic and financial characteristics of rentals and connections.
- Was the reason why you were instructed not to consider mainlink that BT could not put forward a credible economic argument --
- 9 THE PRESIDENT: You are asking the reason why Mr. Harman was instructed. That is not something he would know.
- 11 MS ROSE: It might be. Were you ever given a reason why?
- 12 A You would have to ask my instructing solicitors as to why that's the case.
- 13 | THE PRESIDENT: It is a question for BT, I think.
- MS. ROSE: Can we now go to section 3 in your report. You raise the issue of potential
- unintended consequences of disaggregating connections and rentals?
- 16 A Yes.
- 17 | Q If you go to para.3.24 you can see the heading "Unintended consequences"?
- 18 A I can.
- 19 Q You deal with that in the following paragraphs down to 3.28?
- 20 A Correct, and again in my second report.
- 21 Q You argue that Ofcom's approach could provide an incentive to BT to charge a single price
- for connection and rental and that this could have unintended adverse consequences is that
- 23 point?
- 24 A Yes.
- 25 | Q You identify the adverse consequences at para.3.27?
- 26 A That is correct.
- 27 | Q Can we look first 3.27(i). Can you explain exactly what the concern is at 3.27(i)?
- 28 A Let me just re-familiarise myself. (After a pause) I think that the overall concern here is,
- and it's very much linked to my cost allocation arguments, that if it is difficult for BT to
- ensure that connections and rentals have the right cost allocations associated with them then
- all other things being equal, if that leads to an overcharge that they cannot control, they may
- try to limit that overcharge in the future by going to a single tariff because at a single tariff
- level they would have more certainty about the costs which are allocated to it and they
- would avoid the fine. Simultaneously, that is actually bad for BT. Even though it is

incentivised to do so, it is bad for it to do so because when it is thinking implementing a new service, and it has to take risk and incur capital, then all other things being equal it would prefer to charge a connection charge up front because that front loads some expenditure and that de-risks the decision for BT. So the issue that we have here is one of, if you are incentivised towards a single tariff then BT may delay the offering of new services because it is unable, or it's not as financially as rewarding in the short term to do so because it's no longer offering a connection charge. I think that is inherently the trade-off here, that if you do charge a single tariff then BT doesn't front-load any of its investment in prices.

- Q You say it might be bad for BT, but you also say it might be bad for downstream competition, do you not?
- A Well, I do think that it is ultimately that is bad for downstream competition because the new services didn't provide it.
- Q You say:

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"setting lower upfront margins than on-going margins for Ethernet services contributed to the effective roll-out of LLU services. In this way, competition has been increased in the downstream markets (in particular, for retail broadband services) and has been fully aligned with Ofcom's principal duty and its policy goals."

- 20 A Correct.
 - Q Is the point that you are making that having a relatively low connection charge and a relatively high rental charge may assist entry of new entrants?
 - Well, I actually think that it does, and I have reflected on this recently. Why is that the case? As I understand it, most CPs, if not all of them, engage in whole life pricing. I have read that in the transcripts from last week and in the witness statements. That means when I'm about to implement a new service I do an NPV, net present value, calculation, if you like, of the impending cash outflows associated with this purchase. That calculation necessarily contains an upfront connection and some rental charges. In NPV terms, all other things being equal, if I lower my connection charge and increase my rental charge, and those rental charges are now further out into the future, because that's effectively what we're talking about here, and it's probably just helpful to orientate what I'm meaning by aggregation, is that if we start with a situation where there are two prices for connections and rentals of 10 and both of those equal DSAC, so there is no distortion in this world because price equals DSAC, if BT had charged a connection charge of 7 then the

aggregation effect of this, this alleged additional pricing flexibility would allow you to increase your rental charge above DSAC by the corresponding amount of the decrease in connections. That decrease in connections is recovered over a number of years, so let's just assume that the recovery is over three years, what I would do is I would take my two prices at 10 and I would reduce my connections charge down to 7 and I would increase my rental charge to 11, 11, 11 in the following three years.

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That is, in effect, what is happening with this additional pricing flexibility. You apply slightly lower connections and then you recover that slightly lower connection over a number of future rentals. What actually happens in this situation and why this is helpful for CPs for having a lower charge at the front is simply this: what goes out of the door is 7, which was lower than the 10 in terms of the connection charge, and then each of the three years there is a slightly higher rental charge, 11 versus 10. In NPV terms actually the one that highest net present value is when I didn't use that disaggregation but I paid 10 in the first year for connections, 10 in rentals and then a following two 10s, because what actually happens is that the discounting effect of those higher rentals in the future have a lower value today.

So actually the lowering of the connection charge has a positive NPV effect. I was very interested to see in the transcript of Mr. Morawetz that he says what actually would put him off connecting is actually a very high connection charge upfront, and I think that theory that I have just articulated is the reason for that. People concentrate on costs going out of the door today and they're less concerned with potentially higher rentals in the distance.

- Q I want to come back later to the question of the balance between connection and rental, but the question I am addressing here is why you see a potential adverse effect on competition if BT adopts a single charge instead of a separate connection and rental charge, which is the point at 3.27.
- A I think that 3.27 has two parts to it. One I think was a reply to Ofcom originally, or the thinking of Ofcom originally where they said that that would lead to a higher rental charge in the future. There are arguments, I think, either from Dr. Houpis or Mr. Holt that say that flexibility does increase rental charges. Obviously a single charge is a higher rental charge. Therefore, if I was to believe Mr. Holt and Dr. Houpis, going to a single charge because that rental charge, that single charge, is higher, that would have an adverse effect.
- Q You are not saying this is what Dr. Houpis says here, are you, you are saying, yourself, that you consider that charging a single price might have unintended consequences, including decreasing downstream competition. That is what you say in this paragraph?

A Well, I do think, as I said in my first reply, the reason why going to a single tariff can potentially have an impact is because BT is less likely to want to offer a new service where all of the repayment for a large capital investment is in the future. It is better for BT, when it is striking its balance, to have some upfront recovery in connection charges because it gets its money sooner rather than later. Pushing BT to a single tariff would have the effect that it would slow down the offering of new services which would have an impact on downstream competition, because you wouldn't be able to have this.

PROFESSOR MAYER: This is only applying if there is an impact on the NPV - is that right?

A Sorry, could you say that again?

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- Q There is only an impact if you change the NPV in terms of the balance between connection and rental?
- A That's absolutely correct, and I understand that, from an NPV perspective, the differences may be small may but I think actually, from BT's perspective, moving to a single tariff delays the money into the future which will have a lower NPV for BT today rather than being able to charge for the whole of the service upfront in a connection charge. If it could offer a new service and say, "I want the CPs to pay for that service all today", it would recover the same absolute amount of money but today, and obviously that is going to have a higher NPV for BT today, and it would be more willing to introduce services if it could get that capital recovery very quickly. In a single charge where it's recovery of capital is a long way in the distance, then that's going to have an impact on BT's incentives.
- Q Rentals and connection charges could be structured in such a way as for a typical purchaser are NPV neutral, could they not?
- A I suspect that's the case. I think what the challenge is here, and it is something that we will come to later, is that we are not dealing with a typical two part tariff here, where there is a fixed cost and then some kind of variable component to be recovered. When you have those types of costs situations there are very clear efficiency arguments for having a two part tariff. What we are actually dealing with here is the recovery of a very large fixed cost in terms of capital equipment, and then that's very difficult to get the right structure of charges. It's something that Ofcom itself admits to, and it says it's very, very difficult to come up with an optimum structure.
- MS. ROSE: If we could just go back to your report at 3.28, you say that the two factors that you have identified at 3.27 have to be:
 - "... balanced against any other potential distortions, which I consider below in further detail in paragraph 3.68."

1 A Yes.

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- 2 Q And the other potential distortions that you are referring to are, in particular, pricing
 3 distortions caused by a lack of balance between connection and rental if they are separate
 4 charges is that right?
 - A That's one, but there's another very big potential distortion here which has to be balanced, and it's what I consider in chapter 4, and that is around cost allocation. Effectively, what I'm saying there is that the allocation of costs between rentals and connections specifically this is not just a discussion about overheads, which we have been hearing about over the last two days, is quite subjective. These costs, I would contend, could either be allocated to connections and they could be allocated to rentals, but the problem that we have here when these costs can be allocated either way is a distortion that you are finding an overcharge by reference to a costs standard or a cost that has no meaning. For me, that is the primary distortion at a disaggregated level, that you do not know with certainty whether the price is above or below the DSAC measure, and if you made a repayment on that basis that would quite clearly distort the market.
- Q Just to be clear, that is not the distortion that you are referring to at para.3.28, is it? 3.28 says:

"These factors to be balanced against any other potential distortions which I consider below in further detail at para.3.68."

- A That's right in that paragraph, but I think that I make quite clear in the executive summary, this report and the executive summary of the second report, that one of the primary drivers of my findings is around the costs allocation issue.
- Q We will come on to the costs allocation issue but at the moment I am just exploring this point ----
- 25 A That's fine.
- Q -- which is the potential negative effects of the aggregated or disaggregated approach and I
 think the principal problem that you identify is that if Ofcom assess cost orientation on a
 disaggregated basis it could incentivise BT to adopt a single charge for connection and
 rental yes?
- 30 A Yes.
- And that could have adverse effects on innovation and downstream competition. That is what you are saying in this paragraph?
- 33 A That's what I say in this paragraph, and as I have said ----
- Q And just a minute you are saying that has to be balanced ----

1 A Yes.

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- Q -- against the potential pricing distortion if there is an imbalance between the costs of
 collection and rental separately charged, which is what you are discussing at 3.68?
- 4 A That's true, but I just want to make absolutely clear that I think when we get to that paragraph they are only potential distortions, because you have to consider the cost.
- 6 Q It is a question of weight?
 - A No, what I am saying it is a question of weight, but what I am saying is that there are potential distortions, but those distortions are only potential distortions. I have to be clear that consumers may prefer a higher rental or a lower rental, or a higher connection and a lower connection, and they may prefer those even if they are aligned with costs such as there can be no distortion people still may prefer a higher rental. So that is not the kind of distortions that we are thinking about here. When we start to get into the discussion as to whether it is distortive you have to ask the question whether that price is actually above DSAC. So when we start to talk about there are higher prices and they can have separate signals, you first have to get across, you have to get over the point you know with certainty that price is above the DSAC, and as I go into in ----
- 17 Q That is your section 4 point?
- 18 A That is my section 4 point.
- 19 Q I understand that you want to come to your section 4 point, and I promise you we will ----
- 20 A Good.
- 21 | Q -- but I want first to look at your section 3 points.
- 22 A Sure.
- Q So what you have done at 3.27 and 3.28 is to identify adverse effects on competition of BT levying a single charge for both connection and rental, have you not?
- A I have there but I also was talking about the fact that I think that BT's ability not to price down in connections and increase rentals is also a distortion, because I think that lowering the connection charge, all other things being equal, and increasing the rental charge into the future has a positive benefit on CPs because they face a lower NPV. I think Mr. Myers picked that up in his report where he said that that is, potentially, one of the benefits of being able to aggregate in that you are able to flex those prices and if you do it on a single basis then you lose that ability.
- Q All right, but you are here identifying the adverse effects of combining the charges into a single charge?
- 34 A On a single charge, but ----

- And you have just said that in your view and we will come back to whether it is right or not you think that there is something to be said for having low connection and relatively higher rental. We will come back to ----
- 4 A Yes.

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- Q -- whether that is right or not. You are accepting in that proposition, are you not, that
 connection and rental charges, although purchased together, do have separate economic
 meaning for the purchasers?
- A I accept in my report that individual charges can have economic meaning as I have just caveated; because they have economic meaning does not mean that they are distortive *per se*. But it is also true that a combined price also has economic meaning and one has to determine whether CPs act primarily on the aggregated price or they act primarily on a disaggregated price and the evidence that I have reviewed suggests a whole life cost.
 - Q What you have just been saying to the Tribunal is that you think it is beneficial to have a relatively low connection charge and a relatively high rental charge because you think that CPs give more weight to the upfront cost than to the cost some years in the future. So that is suggesting those two charges do, indeed, send separate economic signals. Is that not right? That is your thesis?
- As I said, I think that individual prices can set separate meaning. Whole life costing reduces that. I have only ever said that whole life costing reduces this problem, but CPs do consider the total cost on NPV basis over the life, which suggests that in aggregate connections and rentals have economic meaning, as do separate prices ----
- 22 | Q But you are also accepting they have ----
- 23 THE PRESIDENT: You are saying they have economic meaning together, but also individually?
- A Individually, and I guess my question is, on balance, what do CPs see, and what do they react to, and I believe on a general approach they look at the whole life cost first because they are consumed together and they are in the same market.
- MS. ROSE: The adverse effects that you have identified at 3.27 and 3.28 come from a hypothetical situation in which BT is incentivised to change its charging structure and have a single charge instead of a separate connection and rental charge, right?
- 30 A Yes.
- The possibility of that situation occurring and having adverse effects on competition is premised on your understanding that this is something that BT would be free to do under the regulatory system, is it not?
- 34 A Yes, and ----

- 1 Q We can see that at 3.24 you have quoted a passage from Ofcom's Determination?
- 2 A I have.

3 Q Where Ofcom said:

"In any market there is always a choice to be made about how many distinct charges should be levied. In this case, we are reflecting BT's choice to levy separate connection and rental charges ... We are not specifying how many separate prices BT must set."

You then say:

"Accordingly, BT could combine rental and connection charges in the future."

So you conclude from that passage in the Determination that what Ofcom is saying there is

BT is free to combine connection and rental?

- A That is one of the pieces of evidence that I used to reach that conclusion. The second piece of evidence is that over time Ofcom has accepted pretty much that all of the costs that have been allocated to connections could have been allocated to rentals, so there have been changes in the cost allocation methodology over time. For example, the electronics component has now been allocated to rentals. The electronics component did account for circa 95 per cent of the costs of connections, which means to all intents and purposes by allowing that charge to come across to rentals it means there would be a very, very low connection charge which, all other things being equal means that virtually there is a single tariff just by the changes in cost allocation.
- 21 Q That is your s.4 point again, is it not?
- 22 A That is my s.4 point, but it goes to this point here ---
- 23 | Q Right, you do not make that point here, do you?
- 24 A Not written there but my report is ----
- 25 Q What you say is ----
- 26 A -- is one report and ----
- 27 | THE PRESIDENT: Let him explain. You say it goes to this point?
 - A Yes, I think in my mind the fact that BT has considerable flexibility in the way in which it allocates costs between connections and rentals means there is a strong case that they could construct a single tariff and they could support it, and the reason why they can support it is that the majority of these costs are capital costs, fibre, duct, electronic cards, which all had the same economic basis. They are all equipment that is required to consume the service, and they are consumed over time. The economic logic of that dictates that you could support a single tariff.

1 MS. ROSE: But the whole point you are making at 3.27 and 3.28 is that BT, having such a tariff 2 might adverse economic consequences including adverse effect on competition - right? 3 Α Yes. 4 Q You are not suggesting, are you, that if BT introduces single tariff that had adverse effects 5 on competition Ofcom would not be in a position to prevent it from doing so? 6 I think if the tariff can be supported by costs allocations - clearly, if there was a cost A 7 allocation that was completely unreasonable then I am certain that Ofcom would object. 8 However, the two major cost components of connections have been allowed to have been 9 recovered through rentals in the past, and/or currently, and therefore BT can, I believe, 10 based on historical precedent of what Ofcom is allowed, would be able to generate a single 11 tariff. 12 Q This is not about cost allocation, this is about your proposition that a single tariff could have 13 adverse effects on competition. If a single tariff had adverse effects on competition you are 14 surely not suggesting that Ofcom would not be able to do anything about it, are you? 15 If the single tariff is aligned with cost I don't understand why BT, under its current Α 16 undertakings wouldn't be allowed to do it, because the condition says that the charge has to 17 be reasonably derived from cost. 18 Q You are just looking at condition HH3.1? 19 A Yes. 20 Q Have you looked at the statutory scheme? 21 Α In the past, yes. 22 Q Have you looked at Ofcom's power to impose SMP conditions under the Statute? 23 That may be the case, but I think that to get there what Ofcom would have to determine is Α 24 that this tariff was not reasonably derived from cost, and I am saying that a single tariff can 2.5 be reasonably derived from cost, and because a single tariff can be derived from cost then 26 aggregation cannot provide any more distortions than what they could achieve. 27 Mr. Harman, I think you are misunderstanding. Ofcom's power to set an SMP condition is Q 28 not limited to setting a condition which is based on cost orientation, is it? 29 No. Α 30 Ofcom would have the power to set an SMP condition on BT, which precluded it from Q 31 setting a single tariff for connection or rental, if Ofcom concluded that that was a 32 proportionate way of meeting its statutory objectives, could it not? 33 Α Yes, but I don't think that we are talking here about something that is so fundamentally

material that Ofcom would object to it. When I talk about it could have unintended

1		consequences that does not mean that those consequences would not be allowed by Ofcom.
2		Quite certainly, there could be a reduction in the amount of services that BT provide, but
3		that is the nature of their business. They do not have to provide something. They do not
4		have to provide a new service if they do not want to provide a new service, and all I am
5		suggesting is that if they were compelled to recover any new service at a single price that
6		would be a distortion to competition.
7	Q	You are hypothesising an adverse effect on downstream competition. Are you saying that
8		would be significant or not?
9	A	It may well be.
10	Q	And, if it was significant, do you accept that Ofcom would have the power to prevent BT
11		from doing it?
12	A	I just do not see why a single tariff would be prevented as long as it was cost oriented.
13	Q	I thought we had just established that SMP conditions were not just about cost orientation.
14		Do you understand the point?
15	A	Yes, I do understand the point, perfectly well.
16	Q	You reiterate this point in your second opinion, it is at tab 7 para. 3.84. You are here
17		responding to Mr. Myers?
18	A	Yes.
19	Q	If you go back a page to p.30, para. 3.79 we see the heading: "Unintended consequences"?
20	A	Yes.
21	Q	You record the fact that Mr. Myers stated that Ofcom did not consider in its Determinations
22		the question of whether:
23		"it would be permissible, either under the cost orientation obligation or other SMP
24		conditions, for BT to set a single combined charge for connection and rental."
25		So that is Mr. Myers' evidence on behalf of Ofcom?
26	A	That is but, as you will just note, in the first paragraph that you asked me to read, the first
27		quote, it was Ofcom stating that they did not set a requirement on BT on how many charges
28		it had to set.
29	Q	Let us just see what you say at 3.84. You say:
30		"Ofcom indicated in its Statement of Combined Defence that it was BT's decision to
31		set separate connection and rental charges. Ofcom also indicated it does not specify
32		how many separate prices BT must set. This contradicts Mr. Holt's assertion that such
33		a charge structure may be open to regulatory challenge".
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- 1 Q You are not, in fact, asserting, are you, that such a charge structure would not be open to regulatory challenge? You accept it might be.
- A It is possible, based on the discussion that we have just had, but what I want to make clear is that Ofcom has allowed BT to change its cost allocation to a rentals so that electronics, which is a very significant component of cost, it has allowed that to be allocated to rentals.

 That one change in of itself has the same impact of my aggregation over time. So whilst you may say that it may decide not to allow a single charge, it would allow a much higher
 - rental charge and a significantly lower connection charge based on the costs that it has
- 9 already allowed.

- 10 Q So you are averting to your cost allocation point?
- 11 A It is a very strong point.
- 12 Q It is not a strong point at all, is it, Mr. Harman, because what we are talking here is whether
 13 Ofcom has the power under SMP conditions ----
- 14 A But hang on ----
- 15 | Q -- when BT ----
- THE PRESIDENT: I think Mr. Harman will say, he is not a lawyer so he is not submitting to interpret the Communications Act, that even if, as a matter of law, they could impose an SMP condition saying, "You must set separate connection and rental charges", that he thinks that such an approach would be inconsistent and is therefore unlikely because of the fact that Ofcom has permitted the change in the allocation of electronics which has such a significant effect on the balance between rental and connection. That is the logic of that line of thinking, that you would not expect that they would do that.
 - A Yes, that change happened in 2010 and 2011 and whilst Ofcom has gone back to look at errors in cost allocations, it has accepted the reallocation of the electronics equipment to the rentals thing. We could decide not to aggregate, but if we agreed that that is a sensible allocation then that allocation should be backward, agreed over time, and if one was to do that we would end up with the same reduction, or significantly with the same reduction, that I have come up with.
- 29 Q Because it has such a significant effect.
- 30 A Yes.

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- 31 MS. ROSE: Shall we now turn to Section 4 of your report, the question of costs allocation,
- which, as I understand it, is really the prime point that you are now pushing. Is that right?
- 33 A It is not the prime point that I am pushing.
- 34 Q It is your principal argument?

- A I have taken a balanced view. One significant argument, and I call it my primary argument in the second one, is that the allocation of costs between rentals and connections is subjective, which makes any discussion about distortions irrelevant well, not irrelevant but much less meaningful. The second point which I think is fundamentally important is the fact that CPs whole life cost. The third fact that I rely on, and I think is important, is that Ofcom had the opportunity to consider these factors in the LLCC 2009 and then again later in the ISDN 30 price controls, where using very similar arguments to the ones that I am advancing in terms of same economic markets, things are purchased together, difficult to understand the right balance, decided that it was appropriate to make a starting charge based on an aggregation of rentals and connections. Those to me are all very powerful indicators of the need to aggregate. There has been a discussion about potential distortions which, in my second report, I engage with in a little bit more detail to see whether I believe that they are meaningful distortions or not, and I conclude that they are less likely to be on the facts of this case, but are kind of undone by the fact that cost allocations are quite subjective.
- 15 Q So let us look at what you say about subjective cost allocation, starting at para.4.4.
- 16 A We are in 6, aren't we, now?

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17 Q This is at Tab 6, para.4.4, and at para.4.6 you set out what is the essential factual premise for this argument, do you not?

"I understand that for a high proportion of costs relating to Ethernet services it is equally reasonable to allocate the costs to either connections or rentals".

Then you give the example of electronics.

- 22 A I think that is right.
 - Q So that is the essential factual premise of your argument in relation to this point, is it not?
 - A I think there are three things to bear in mind. I think that that is a primary case because I think that the electronics component is quite significant. Later in the section I point to service centre provisions which have also changed allocation over time, and Ofcom has indicated that it can see a case for the allocation in either direction, or at least that is my interpretation of the quote that I have provided. The third thing is, and I have not touched on this in the same detail, but Dr. Maldoom was also talking obviously this morning and yesterday about overheads. I have not focused on overheads but obviously that is an additional layer on top of this electronics and service centre costs.
 - Q Those are the examples that you give, primarily electronics and service centre costs, but the essential factual premise is the first sentence, is it not?
 - "... for a high proportion of costs relating to Ethernet services it is equally reasonable

1		to allocate the costs to either connections or rentals".
2	A	That is correct.
3	Q	That is the key point?
4	A	Yes.
5	Q	You elaborate on this argument in your second report, if you go in Tab 7 to para.2.7, in the
6		summary. You say:
7		"Cost allocations are highly uncertain in that all of the costs associated with
8		connections could be allocated to either the connection or rental charge".
9		Yes?
10	A	I think if I used the term "all", I could possibly refine that to "substantially all".
11	Q	I see. Did you discuss the understanding that you record at para.4.6 with Mr. Dolling of
12		BT?
13	A	No, I did not.
14	Q	Do you know who Mr. Dolling is?
15	A	I believe that he is a senior person in their regulatory finance team.
16	Q	He is the director of BT's group regulatory finance department. That is the department
17		responsible for producing the RFS, is it not?
18	A	Correct.
19	Q	He is a trained accountant, is he not? You may not be aware of that.
20	A	I do not know.
21	Q	He takes overall responsibility for the allocation of costs to services, does he not?
22	A	I understand so, yes.
23	Q	But you did not speak to him about this issue?
24	A	I spoke to the regulatory finance team, James Werner, I spoke to at great length.
25	Q	Are you aware that Mr. Dolling gave evidence to this Tribunal last week?
26	A	I am.
27	Q	Have you read the transcript of his evidence?
28	A	I have.
29	Q	I would like to turn to that transcript, please, the transcript of 30 th October. Do you have
30		that?
31	A	I do. Which tab?
32	Q	It is Tab 2. If you could go in Tab 2, please, to p.32, line 30, so this is Mr. Dolling giving
33		evidence, and the question is asked:
34		"BT has a significant discretion, does it not, in the way that it allocates its costs as

between different services?"

And he says:

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"I do not think we have a discretion as to how we allocate the costs or, for that matter, assets between services. We have a duty to act within certain principles to identify how we can actually make that allocation in a fair way, which again is then tested by such things as the audit, the processes and systems that we have to ensure we do this in a fair, cost causal and objective manner".

If you could just read on down to line 21 on this page you will see what else he says about this. In fact if you go down to line 23. So he says:

"When they take a decision there is one correct answer because one of the attribution methodologies is superior to the other options that we actually adopt".

Then if you look at p.34, line 22, do you see the question:

"In some situations there may be two equally appropriate attribution methodologies, might there not?"

And he says:

"I have never come across when there is two equally appropriate where we have to get to the point of flipping a coin. No, if we come to that we have our AC group and our methodology group. Where we cannot make a decision because we have not had sufficient evidence it is up to me, my colleagues in my team, to actually test further those attribution methodologies until we can make a decision as to the appropriate one".

He is saying there, is he not, that BT makes a series of structured judgments as to how to attribute costs but that costs are not equally attributable to different services. Is that not right?

- A That is what he says.
- Q And he says that he is unaware of any instance, any situation, in which costs are equally attributable to two different services. That is his evidence, is it not?
- A I find that challenging to believe for one very good reason. If I was to accept that it would mean that at any point in time it would always have been right to have selected that methodology. But the fact that electronics changed from being allocated one way to another way over time implies that there must have been a difficult decision to make on the allocation of those costs, because if it was the case that you would have known with certainty and you would not ever have to think about it, there would have been no change.
- Q Okay, well ----

A At the same time, if I may finish ----

Q Just pause there for a second. You say the fact that it changes over time implies that. That question was put to Mr. Dolling and if you go back to p.34:

"In different years BT has sometimes changed the way that it attributes costs to the services, has it not?"

And he says:

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"It has because times change, economics change".

"And judgements change?"

"Judgements change as to what is appropriate. So, for instance, if a piece of machinery is used across the country in different instances fully utilised and, because the market changes, we find some of the equipment at a later date has not been fully utilised and it may be appropriate to allocate maintenance costs on the basis of utilisation as opposed to a unit and the piece of machinery".

So he is saying that the fact that attributions change over time does not mean that it is simply a subjective change of view. He is saying it is the result of changes of circumstances and a reassessment of what is appropriate at the time, is he not?

It is a shame that this question was never asked of electronics, in the most significant costs category, because I fail to understand, and there is no explanation, as to what would have changed over time to have changed the allocation from connections to rentals. Let's just think about the economics of this item are. Rentals is about renting fibre and duct. The electronics equipment is a piece of electronics that goes on to the end of the fibre to complete the service, so that the service works. Those two are used together over time to complete the service. The electronics isn't some kind of one-off cost; it is something that is consumed over the period. In fact, BT itself depreciates the electronics cost over time. It has the same capital nature of both services. From that perspective they are the same; they are two pieces of capital equipment that are being used over time. I have done cost allocation across regulatory industries for circa 20 years, and when you understand what electronics are and fibre, you can see instantly that there is a problem of how you recover this. There are two different mindsets. I am going to explain this and then I'm going to come back and try to interpret what Mr. Dollings is saying.

The first way of thinking about both fibre and electronics is that at some point in time a CP requires those costs, requires that infrastructure. They are both the same: I need the electronics and I need the fibre to consume over the period that I'm going to rent or consume. I could have a logic that says: Mr. CP, you can recover them all on day one; I'm

2 kind of one philosophy. The second philosophy says: you want to use this over time and 3 therefore I will charge you over time. 4 This is a perennial problem of regulators in thinking about how to structure those two 5 things. Do I frontload them? Do I end load them? You can come up with any justification that you like, depending on the lens that you look through and what you want to achieve. 6 7 That's the problem with this capital equipment: it can be on one end of the spectrum; it can 8 be on the other; it could be half and half. I think that as BT has gone through this they may 9 have had a problem, or at least they were looking at it through a particular lens at a certain 10 particular time that I think that it's right for us to frontload the costs. 11 If you go into this decision making like Mr. Dollings is doing on a day to day basis, and he 12 is looking at it through that lens, he may decide that that is the right way of doing it when 13 that is the way in which he is thinking about it. As soon as he thinks: actually, I recognise 14 that this electronics equipment is being consumed over time, then he changes his 15 philosophical thinking about cost allocation and then there is no judgment for him. Once he 16 has changed the way in which he thinks about it, then the cost allocation follows. 17 So for me, that's very much what he is saying: when I'm thinking about the problem in a 18 certain way, then the cost allocation is clear. For me here, the fact that electronics changed 19 without any reason suggests that you do not have one right way of doing it at any one time. 20 Q Mr. Harman, when did you first see the transcript of Mr. Dolling's evidence? 21 Α On Friday. 22 O Have you since then been puzzling how to reconcile your thesis with his evidence, and is 23 this what you have come up with? 24 A No, because I have spoken to BT finance about this in the past, as to why would you 2.5 allocate a cost one way or the other? It's the regulatory dilemma that I've said to you: there 26 are two different ways of recovering a fixed cost. If there was a fixed cost and a variable 27 cost, then my two-part tariff is very clear. When it is a fixed cost you either front load it or 28 you end load it, and there are lots of regulatory examples of regulators either bringing that 29 cost forward and recovering the cost of it quickly, or delaying it. I've spoken to BT finance. 30 That is why I believe that electronics is the same activity, it is the same economic activity as 31 fibre. 32 Do you accept the evidence of Mr. Dollings that there has never been an occasion on which 0 33 it has been equally reasonable to allocate costs to one charge rather than another? Do you

going to put the whole risk on to you; you want this service; you pay for it up front. That's

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accept that is his evidence?

- A I think if he has a certain philosophy in his mind then I accept that he could always have a reason to allocate one way or the other. But that does not mean --
- Q So you say that we should assume, although there is no evidence of this, that Mr. Dolling is operating in accordance with this philosophy that you hypothesise?
 - A I think that's absolutely right. It actually correlates with the economic fact. Over time he changed. That suggests to me that there was a wrong way of doing it and potentially a right way of doing it. The thing that I would say is that he still may find that that's the best way of doing it. But that still doesn't mean that there isn't an equally reasonable way of doing it, sufficiently reasonable for the calculation of overcharge to consider that way. I tell you why I also disagree that there's one right way of doing it. It is because all of the experts in the witness statements say that they believe that BT actually does have flexibility in the way in which it allocates costs. So it's not just me who thinks that costs can be allocated between the two.
 - Q There is a difference, is there not, between saying that there are judgments for BT to exercise, and saying what you say, which is that the costs could equally well be allocated to one or the other without any preference for one or the other?
 - A No, I didn't say that. I didn't say that you could do it without any economic justification. What I explained quite clearly is that electronics (which is 95% of the connections charge) is a piece of equipment which is consumed over time, in combination with the fibre. They are both pieces of capital equipment consumed over time. It is the rental it is my desire to rent that causes these costs to be incurred, and they are consumed together over time. The economics says that there is a reasonable basis for allocating costs to the rental charge.
 - Q You say it is a shame Mr. Dolling was not asked about electronics. He was asked about the provisioning costs, call centre provision costs, was he not?
- 25 A I think so.

Q If you go to p.51 you see that the question is from Mr. Harrison. It starts at p.50.in relation to provisioning costs, methodology and calculation, and the point about moving from allocating to connections rather than rentals. Specifically, he is asked about allocation at p.51 line 25:

"Q I see, so this is similar to transmission cost - I just thought the adjustment was the way it was allocated between the cost relating to the connections, a decision being made that it should be done on a rentals basis. I did not realise that you were re-stating and re-capitalising. Perhaps I have misunderstood it then?

A We are not re-capitalising, we are just actually allocating the depreciation either

1 to----2 Q I see, so you are allocating it to that, and therefore, as far as you are concerned, 3 was it a reasonable judgment for you to have made? Is this just a better judgment, 4 or was the first judgment just wrong? 5 A I think this was a better judgment. As I previously explained as we go along the 6 dynamics of it, at one point we can consider something a better judgment and 7 move on, and there are various uses for that." 8 So he is saying that he thinks that the allocation of provisioning costs was a better 9 judgment? Yes. In my experience of cost allocation these are very complex systems. On day one you 10 Α 11 think that you are going things the right way, based on your understanding and based on the 12 data that you have available, that is right. But the thing about cost allocations is that over 13 time you get better data and a better understanding and you make better cost allocations. So 14 my expectation is that over time cost allocations will change. In this instance we have 15 electronics being reallocated. I think that that is a better way of allocating the costs, i.e. to 16 rentals rather than to connections. If we should do anything we should take those costs and 17 allocate them differently in the prior years. 18 Q Are you aware that when BT is considering adjusting its prices it has internal pricing 19 papers? 20 Α I understand that. Can you take up BT 15, please. Go to tab 45. Somewhat misleadingly you will see there is 21 Q a date at the bottom which is 19th February 2013. I think that is the date this document was 22 printed out. It is actually a document that emanates from 2007. You can see that it is 23 24 headed "Ethernet Price Review Pricing Paper – Ethernet Portfolio Rebalancing" If you go to 2.5 p.6 in this document you see the heading "Financial Impact"? OK. 26 Α 27 Q "As described above the overall aim of this review was to deliver a set of prices that more 28 closely followed the costs of providing the services rather than being based on historic 29 pricing set around the retail equivalents. The underlying principle was not to increase the 30 returns but to ensure a more consistent profile across the bandwidths / elements that would be more easily justifiable to Ofcom & customers." 31 32 So that is what they are seeking to do. 33 "There are 3 main adjustments carried out: 34 1 Local end connection charges have been reduced. These still do not fully reflect

1 the cost stacks as the connection charge also needs to cover an element of the 2 investment costs for providing service. However, they are now more closely 3 aligned. 4 2. Local end rental fees have increased at the lower bandwidths and reduced at the 5 higher end. The lower bandwidth products were previously not profitable on this 6 element, relying on the returns on connections and main link rentals to offset the 7 loss. Price changes now ensure each element is profitable." 8 That is an internal BT analysis, is it not? 9 Α I think so. 10 Q Looking at rebalancing the Ethernet connection and rental charges, yes? 11 A It appears to be. 12 Q On the basis of the costs that are properly associated with each of those charges, right? 13 Α I understand that (and I don't know if it's in Bill Jones' witness statement) it comes out that 14 actually the costing and the pricing teams were at odds with each other. As I understand it, 15 the pricing team thought that the electronics component was allocated to rentals; and the 16 costing team assumed the reverse from a pricing perspective. So they were at odds with 17 each other. So I don't know the history of these types of rebalancing, but I do understand 18 that over time the pricing team though electronics was in rentals and that's why we had this 19 mismatch over time. So even though this document might be assuming that, I understand 20 that the left hand and the right hand weren't talking to each other. 21 Q Just to be clear, what is being said here is that efforts are being made to align the charge 22 with the appropriate costs stack, right? 23 But if this was done by the pricing team – and I think this is a pricing document- and it was Α 24 pulling information from the financial systems, if it thought that the electronics cost was 2.5 being allocated to rentals, then this rebalancing would not have been successful. 26 Q That is a different point. The point that I am making to you is that the exercise that is being 27 undertaken here is aligning the charge with the appropriate cost stack, right? 28 OK. Α 29 What is not being suggested here is that it is entirely subjective which costs you allocate to Q 30 which charge. It is being very clearly assumed here that there are indeed charges that can appropriately be attributed to connections or rentals, and that the attempt that is being made 31 32 is to do that. 33 Α As I said, that is correct, that is what they are attempting to do, but the pricing team at the 34 time thought that the rental charge included the electronics cost stack. To me, again, that is

1		a piece of evidence to suggest that that cost can be subjectively allocated between the two.
2		Part of BT thought it was being allocated somewhere else.
3	Q	You mean just because two teams took a different view, that means there is no better view?
4	A	No, I don't think that's what I'm saying. I'm saying that there is subjectivity in the way in
5		which those costs can be allocated. It is perfectly possible that both of those costs
6		allocations could be supported, and that is my whole issue. When you have one blob of
7		fixed costs which are driven by a particular service it is inherently difficult to allocate.
8		People can come up with a decision to allocate one way or the other and can marshal
9		evidence to support one way or the other, but that does not mean that there is still not a
10		reasonable way, or another reasonable way, to allocate it.
11	Q	If you go back to this document at the bottom of the page, you will see it says:
12		"The rebalancing carried out now means that the prices more closely match to the
13		costs of providing service with all variants being profitable over five years."
14		Correct.
15	Q	That is the exercise BT understands it has carried out?
16	A	As I understand it, the pricing team had one view on the way in which costs were being
17		allocated which differed to the way in which the costs were being allocated in the regulatory
18		financial statements. I think that is in Bill Jones' witness statement.
19	THE	PRESIDENT: Ms. Rose, I think you have rather exhausted that point. You have put the
20		point and Mr. Harman has explained his view.
21	MS.	ROSE: Before we leave this document, could you just go to p.7, you see the heading at 4,
22		"Impact on customers" - yes?
23	A	Yes.
24	Q	"The 10MB Connection price reduction of 15% in year 1 helps with initial
25		investment. Over a 5 year term the increase in rental is 37%. For new connections
26		the impact allows customers to reduce their year 1 price across the connection and
27		rental as it is up to customers to choose how their prices reflect price reductions.
28		For higher bandwidths from 1000G, there are good reductions so no negative
29		impact is expected."
30		That again is appreciating, is it not, that the balance between connection and rental has an
31		impact on customers?
32	A	Yes, and in this sense I think what it is saying is that people would prefer a lower
33		connection charge than a higher rental charge, if I have understood that correctly.
34	O	Are you aware of Mr. Jones' evidence that, in fact, different CPs took different views about

1		that depending on the configuration of their networks?
2	A	I thought his witness statement also said that, in general, there was a preference for lower
3		connection charges and I thought that Mr. Morawetz's testimony last week said that higher
4		connection charges would more likely lead to a bill decision.
5	Q	It depends, does it not, on your particular situation as a communications provider?
6	A	Correct.
7	Q	Let us say, for example, that you are a new start-up without any existing circuits. The
8		connection charges would be extremely important to you?
9	A	Certainly, yes.
10	Q	But if you are a communications provider with an established network, perhaps with a
11		substantial number of circuits that migrated from the LES system, you are going to be much
12		more concerned about increases in rental costs, are you not?
13	A	Not if you predict them to be in the distant future, because on an NPV basis those increases
14		become insignificant when they are discounted back to today.
15	Q	What we are talking about is a situation where you have got existing customers and BT
16		rebalances its charges?
17	A	Yes.
18	Q	Which is what we are looking at in this paper?
19	A	Yes.
20	Q	So BT is now cutting relatively, reducing the connections charge and raising the rental
21		charge?
22	A	Yes.
23	Q	That has a different impact on different customers depending on the nature of their network,
24		does it not?
25	A	Well, it may do, but we would have to go through a practical example to prove that. I know
26		that theoretical examples have been put forward. There's been no actual evidence of any
27		distortion, and I believe that for each of those potential distortions the impact is likely to be
28		small, for reasons that I set out in my second report.
29	Q	If you are somebody who already has a large number of existing connected circuits this
30		increase in rental charge is going to be disadvantageous to you, is it not?
31	A	Let me just be absolutely clear of what I am advocating, because maybe this point has been
32		lost. Once any surplus, if you like, between price and DSAC of connections has been used
33		up, i.e. offset against rentals, then the overcharge mechanism that I have suggested would
34		have an overpayment associated with it. I'm not saying that the aggregation of these two
	ı	

does away with any overcharge, far from it. The overcharge that has been calculated by 2 Ofcom is circa 95 million, and the aggregation of connection and rentals decreases then by 3 circa 12 million, so there is still £85 million worth of overcharge. So in instances here when 4 you talk about if we were to increase rentals, and that would disadvantage people, well that 5 has been picked up in the overcharge calculation, and that's very important to understand because actually two-thirds of any benefit from aggregation comes from the first year, and 6 7 the remaining one-third comes from the second and third year primarily. If there is any 8 increase in rentals after those time periods then my methodology would say that there has 9 been an overcharge and that's fine, that's fair. Q We have just looked at two items of information that were not available to you when you

- 10 11 wrote your reports, have we not?
- That is correct. 12 Α
- 13 Q The evidence of Mr. Dolling is the first?
- 14 Correct. Α

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- 15 And the second is the pricing paper we have just looked at? Q
- 16 A Correct.

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- 17 Q Do either of those new items of information cause you to reconsider your opinion in section 18 4 of your first report?
- 19 No, it doesn't, for two reasons. The first reason is that we observed a change in the Α 20 allocation of electronics in 2010/11. That to me suggests that there was a better way of 21 allocating those costs. That's the first point.
 - The second point, that when we actually think about what the nature of these costs are, both of them are capital equipment. That gives, in economics, a challenge on how you allocate them. You can front-load them, you can end-load them, you can have a mix of between, but there is no obviously right answer to that. So from an economic perspective of the nature of these costs, it doesn't cause me to change my mind. Nothing has challenged the economic nature of these costs to suggest that they should be frontloaded as connection costs.
- 28 In any event, the decision as to how to allocate costs was made by BT, was it not? Q
- 29 It was. A
- 30 And that was a part of BT's regulatory obligations? Q
- 31 As I understand it. Α
- 32 The allocation of costs and the publication of the RFS showing how costs have been O 33 allocated?
- 34 Yes, and CPs can see how they've been allocated. Α

- 1 Q Yes, and once the allocations were made, and they are published, people relied on them, did 2 they not?
 - A I think you have to be careful there. I think that primarily people rely on the price signal first, so when you go to take a new service you first of all think about the price that you are being charged and you compare that to your alternatives. I'm not sure in that decision-making what the underlying costs might tell you. CPs are sophisticated users. If they were to use those accounts and observe that one price was below DSAC and one was above, they are sophisticated enough to understand potentially what is happening there and they can factor that into their calculations if they wanted to rely on that cost information. I think, as a primary point, they rely first on the prices, not the costs.
 - Q Your argument essentially at section 4 proceeds from the premise that the allocation of costs is subjective to the conclusion that, therefore, there is no real distortion depending on which way they are allocated?
 - A It says, the condition says that they have to be reasonably derived from costs. It seems to me that if those costs are not reasonably derived, or there could be an alternative reasonable cost then that should be taken into consideration just in the same way that, as when Ofcom looks at the data, they may make changes for errors. For me, this is the same kind of consideration. There's a slight difference because here you're talking something that's an obvious error, but if there is also an obviously different way of allocating it I think, from an economic prospective, that should be taken into account.
- 21 Q There are many examples in the charges that are subject to cost orientation of services that have a significant number of common costs, are there not?
- 23 A There are.

- Q And there will frequently be an element of judgment in the proper allocation of common costs between closely allied services, will there not?
- A I think that's absolutely right for developing a set of financial statements because practically you cannot consider every single alternative, but that doesn't mean that when you come to consider compliance that those alternatives cannot be taken into account.
- Q So your hypothesis is not something that just applies to connections and rental, it has broad implications across the board in terms of the certainty of the cost orientation of BT's charges, does it not?
- A I think that it could, but that's not something that I've explored. I've looked very specifically at connections and rentals which is a specific case where I find that the joint costs between connections and rentals have a higher degree of uncertainty. But you're right, overheads, as

I	a general point as Dr. Maldoom was talking about, also needs to be taken into account.
2	Q Sir, that would be a convenient moment, if it is convenient for the Tribunal.
3	THE PRESIDENT: Yes, it is. Thank you. As regards tomorrow, Mr. Harman, after you have
4	concluded your questions. Ms Rose is it right that Mr. Pickford has some questions and then
5	Mr. Saini?
6	MR. SAINI: I will have very few if any.
7	THE PRESIDENT: So I think that following Mr. Harman in the morning we will move on to Dr.
8	Houpis. Is that a reasonable expectation, Mr. Pickford?
9	MR. PICKFORD: Yes.
10	THE PRESIDENT: So we are reasonably on time.
11	MS ROSE: I think we think we will be running according to time.
12	THE PRESIDENT: Very well. Half past 10 tomorrow morning. Mr. Harman, as you may know,
13	you are not allowed to discuss the case with anyone, including your legal team or
14	consultants. Half past 10.
15	Adjourned until 10.30 a.m. on Wednesday 6 th November 2013
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