IN THE COMPETITION APPEAL TRIBUNAL

Case No. 1212/3/3/13

Victoria House,
Bloomsbury Place,
London WC1A 2EB

17th October 2013

Before:
PETER FREEMAN CBE QC (Hon)
(Chairman)
CLARE POTTER
JOANNE STUART

Sitting as a Tribunal in England and Wales

BETWEEN:

COLT TECHNOLOGY SERVICES — Appellant

-supported by-

EE LIMITED
HUTCHISON 3G UK LIMITED
TALKTALK TELECOM GROUP PLC
VERIZON UK LIMITED
VODAFONE LIMITED

Interveners

- and -

OFFICE OF COMMUNICATIONS — Respondent

- supported by-

BRITISH TELECOMMUNICATIONS PLC — Intervener

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HEARING DAY FOUR

APPEARANCES

Mr. Kieron Beal QC (instructed by Baker & McKenzie) and Mr. Richard Pike (Solicitor-Advocate of Baker & McKenzie) appeared for Colt Technology Services.

Mr. Josh Holmes and Mr. Ravi Mehta (instructed by the Office of Communications) appeared for the Respondent.

Mr. Daniel Beard QC and Mr. Robert Palmer (instructed by BT Legal) appeared for British Telecommunications PLC.

THE CHAIRMAN: Good morning.

MR. BEAL: Could I just pick up on a couple of very short comments on some points I made yesterday. I feel I gave the Tribunal a comment which is true, but I did not provide the source for the truth of the assertion I made. Could we please turn to BT folder 2, tab 1/6/C, the first divestiture in bundle 2, and the Review of the Wholesale local access market. Could I ask you very briefly to turn to paras.7.1 to 7.3, p.100. The purpose of me taking you to this document is to show where the issue of passive remedies for leased lines was raised in the previous review and was essentially hived off for consideration at the BCMR level. 7.1 to 7.3 make a number of salient points. Firstly, a duct is: a physical infrastructure that is costly to deploy and constitutes a large proportion of the overall capital expenditure in an access network. BT has an extensive physical infrastructure on a legacy basis. Thirdly, in the consultation document Ofcom had proposed a new remedy which it called Physical Infrastructure Access or PIA:

> "… which would require BT to allow other communications providers to deploy NGA networks in the physical infrastructure of its access network. Allowing BT's competitors to use this physical infrastructure in BT's access network would promote competition and investment in NGA network deployment by removing a significant barrier to [entry] …"

So that chimes with many of the submissions I was making yesterday.

What did Ofcom do? The answer is at 7.4, they looked into a number of things. They conducted research into the use of physical infrastructure sharing in other countries. They carried out a second sample survey of BT's access network, infrastructure to assess its suitability and capacity to accommodate NGA deployments, and they carried out an external assessment of the economics of physical infrastructure access. We say that stands in contrast to the steps that are being taken in this case when examining the parallel issue. At 7.5, the conclusion was that whilst there were practical difficulties to be overcome the remedy was nonetheless going to be granted for the reasons set out there. With your permission I will leave that for your light reading in due course.

Could I, however, please then turn to para.7.13. In contrast with the present case, in the consultation document in the WLA review, Ofcom had set out the proposed characteristics of a potential remedy. It sought and obtained submissions on a variety of the practical issues that have been raised in this particular appeal. That included at para.7.14 a consideration of pricing. The upshot was that a LRIC plus standard would be adopted.

At para.7.16, they had a graduated approach to infrastructure, so the historic legacy infrastructure was dealt with in one way and the new NGA roll-out was dealt with in another. So that must have, therefore, assumed a differential treatment between different types of infrastructure asset, which were then able to be priced accordingly so as not to impact unduly on the investment incentive.

At 7.17 we see the implementation arrangements for the offer process. The process essentially involves BT coming up with a reference offer, industry review, updated response, service launch, Ofcom consultation.

At 7.23 Ofcom envisages that there may be issues concerning implementation and the Reference Offer. It builds in to the review process an overarching industry wide review so that you do not have a series of individual spats between competitors with BT which then need to be picked off through the dispute settlement process.

Can I then please turn to paras.7.48 and 7.49, which deal with geographic scope, and this is where we see the arguments coming in that the PIA remedy should not be limited to the access side of the exchange, i.e. exchange to residential premises, it should be rolled out more widely for the benefit of, for example, business broadband services, which would require D-side access primarily.

> "Some respondents have argued that the geographic scope of PIA should not be restricted at all, enabling CPs to use it for backhaul and potentially core networks as well as access networks. Others suggested ways of widening the geographic scope …"

and so on. 7.49:

> "We have proposed PIA as a remedy to promote effective competition in the WLA market and therefore the geographic scope of the remedy that we can impose is restricted to the WLA market … It would not therefore be possible to extend the scope of PIA to include backhaul or core network infrastructure as part of this market review. However, we recognise that fibre NGA networks will be free from the copper network transmission limits and may therefore adopt a different topology, particularly in relation to their reach."

At 7.54, that was then translated into a restriction on the use of the remedy which was confined to all intents and purposes to residential broadband services by virtue of a restriction on the geographical scope within which duct could be offered. So it was the D-side of the exchange within which the duct could be offered.

7.57, in all fairness I should point out that Ofcom does mention the inefficient entry point from a leased lines perspective. It is only right that I draw that to the Tribunal's attention. 7.58:

> "Given this, it is our view that it would be inappropriate for us to extend the scope of PIA without assessing the need for and impact of a PIA remedy in the business connectivity market. We have therefore decided to maintain the scope of PIA as proposed in the consultation document, allowing it to be used for the deployment of access networks for broadband and telephony services and also for the SLU backhaul services between cabinets and the local NGA exchange. We will consider the case for allowing PIA to be used for leased-lines in the next business connectivity market review, which we intend to commence in the first half of 2011".

So at this stage Ofcom did not think it was right to consider the question of a passive remedy in the context of leased-line services as part of this review. What they said is, "We will build it into the next review". Now, of course, following on from your point yesterday, sir, if they now turn and say, "Well, of course we can't deal with it without considering impact on other services such as local access services", then we are chasing our tail from review to review with the issue never being dealt with.

THE CHAIRMAN: That is the point Dr. Maldoom made, I think.

MR. BEAL: That it all needs to be dealt with in one go.

THE CHAIRMAN: Yes, well I think he said it had been referred from WLA over to BCMR and you cannot really then say "too many effects on WLA", because you had already made the reference over.

MR. BEAL: The advantage of the remittal that we are seeking on this point would be that the nettle can finally be grasped and the work can be done, and the issue can be fully squared with other areas or sectors can be brought within it if necessary on an *ad hoc* basis.

THE CHAIRMAN: What about Mr. Holmes' point that you have not queried the principles of BT's common cost recovery as a ground of appeal?

MR. BEAL: Well, it is true that we have not challenged the setting of prices by reference to a basket. The impact on common cost recovery is of course not an impact on that active remedy *per se*. It is an impact on BT's recovery of common costs that is permitted within the flexibility of the basket. With respect, we do not challenge that on a stand-alone basis. In the event that a passive remedy is not granted, then we have no grounds for challenging that that we have sought to advance, and if we did advance it, then we would accept that a

challenge to the calculation of the basket of prices would be a price control matter. But that is not our case. Our case is you should have offered a passive remedy.

THE CHAIRMAN: It sounds like quite a complicated remittal.

MR. BEAL: It is a remittal that it requires BT to carry out the sort of (Ofcom, I beg your pardon).

THE CHAIRMAN: Freudian slip there, Mr. Beal!

MR. BEAL: It is very important that Ofcom carry out the sort of analysis that they have done for this review, and Mr. Culham very frankly and very fairly in his evidence yesterday accepted that they had not done that degree of work. That is part of our case on both ground 1 and ground 3.

But in terms of the jurisdiction point, which is essentially the point Mr. Holmes was making, he was saying, "You can't get your hands dirty with working out what the common cost recovery is". Our point is not that the common cost recovery as implied by the current active control is wrong *per se*. It is the disruption of the common cost recovery which is a matter for BT is not, in truth, a justification for refusing the remedy that we have sought. And that is something that is squarely before the Tribunal and does not raise any jurisdictional difficulty. So the short answer is that the phantom of jurisdictional difficulty simply does not arise because we are not inviting you to make any finding on the nature of the active remedy that is being set. We are not saying that you have to look at the individual baskets and work out what the sub-categories should be and what the components should be and how it should work. We are simply saying, "You, Ofcom, cannot rely on a potential or actual disruption to common cost recovery to justify the refusal of the remedy we seek".

THE CHAIRMAN: So you are not saying in terms that the principles for common cost recovery which are involved in the active remedies are inefficient, promote inefficiency. You are not actually saying that.

MR. BEAL: Well, firstly, the common cost recovery is set by BT not by Ofcom. How it attributes its common costs, fixed costs, between a basket of services is a matter for it. It may well be steered by the regulatory framework, but it is not the regulatory framework itself that sets the common cost recovery.

THE CHAIRMAN: No, but the regulatory framework allows it to happen and depends in part upon it.

MR. BEAL: If the Tribunal's question — which I understand it to be, so I will get to the point — is essentially, "Is there anything wrong with having common cost recovery based on a bandwidth gradient?", as a matter of principle that is not necessarily wrong.

THE CHAIRMAN: No. Some of the interveners' material that we have been referred to does suggest that. But you are not adopting that.

MR. BEAL: Their point is essentially a slightly different one, which is that common cost recovery is overloaded in the top end of the business services, with the result effectively that there is excessive pricing at the higher bandwidth levels for leased-lines services. That is not our case. We do not advance that case. We say it is irrelevant as such, for the simple reason that what we are doing is analysing the reasons that are advanced as to why passive remedies should not be granted, and that takes as read the pattern of common cost recovery subject to the circularity point that I will come on to, but it takes as read that pattern, but what we say is that is not in fact evidenced as a detriment to the market, disruption of it, because it is based on twin assumptions that drive the conclusion without actually providing an evidential basis for it. That is the circularity argument.

Secondly, we have a series of arguments as to why justification based on disruption does not work. So that assumes disruption, and disruption must necessarily be on the basis that the bandwidth gradient is disrupted. So I hope that answers the question, perhaps not as directly as a “yes” or “no”, but I hope it explains our position.

THE CHAIRMAN: Yes or no answers are quite elusive in this case, I think.

MR. BEAL: “The Snark”. That was essentially my point as to why it is no answer to turn around and say, “Well, we can deal with it at the next review”.

Could I just cover a couple of very short points, that are probably already well within the Tribunal’s collective mind, but I would for the sake of avoidance of doubt like to make them.

First, there is this issue about whether or not we need to show a business plan or an investment, and Mr. Holmes in opening (Transcript Day 1, p.47) said there were no substantial investment plans over the period of market review. Now, if that is the standard to be insisted upon, we say it is too high a standard because no business in its right mind is going to devote too much time and energy to rolling out a fully costed business plan when the remedy does not exist. As a matter of fact, we disagree with Ofcom that the nature and level of our investment was insignificant, insubstantial and ultimately I cannot improve on the submissions I have already made on that, it is a question that the Tribunal will no doubt answer yes or no.

With respect, the final point made by Mr. Holmes on ground 4 was that there was not a separate finding of demand; it was a final cross check, doors-to-manual type decision. That final cross check I am afraid mischaracterises the nature and extent of the reasoning of the

BCMR statement. We say there was a clear finding that there was no evidence of a substantial demand for the remedy, and that is borne out by the twin usage of not only demand but also no likely innovation, because of course if you do not have demand, you will not have the innovation. And so pairing the two together as Ofcom has done, shows beyond doubt, we say, that they were in fact considering the question of likely uptake of the remedy.

If I can then please move on to ground 2, on this particular ground Dr. Lilico and Mr. Culham agree that there is no requirement to show that passive remedies are clearly better than active remedies, and nor is there any presumption that active remedies are to be preferred to passive remedies, and that is in Lilico 2 at 7.7.

We do nonetheless maintain that Ofcom took the wrong starting point because the BCMR at paragraphs 8.6 and 8.49 made clear that the overall approach that Ofcom had adopted was to take as a starting point the existence of active remedies and require passive remedies to demonstrate that they would clearly be better in the round. So what you actually end up having in the end is here is the *status quo* and you, the passive remedy proponent must show clearly, and substantially, that the remedy that you are proposing will, in the round, lead to a better outcome than the current competitive situation. For the reasons we will advance in Ground 3 we say we have surmounted that threshold, but, even if that were not right there is a fundamental problem with that which is that the overall approach is inconsistent with the regulatory framework, and I will make some core submissions and then give you a reference without turning up the document, because I went through the documents in opening, but I have tried to distil the core principles.

Principle one is that regulation at the deeper level is a good thing, and you get that from notice of appeal file 2, annex 3, tab 5 p.2.

The second principle is that competition based on infrastructure tends to give greatest benefits in terms of the mix of lower prices and faster innovation that the consumers and businesses want, and you derive that from notice of appeal file 2, annex 3, tab 5, p.18.

Thirdly, promotion of competition at the deepest level of infrastructure is desirable since it would assist in overcoming the recognised and enduring economic bottlenecks in fixed line telecoms, and might well lead to the removal of *ex ante* regulation downstream, and that is notice of appeal file 2, annex 3, tab 5, p.18.

In the ERG's report, June 2009, the overall view is that a passive remedy is better for true competition than active remedy. As a matter of principle, with respect, that must be right. With a passive remedy you are freeing up market players to take the market decisions; with

an active remedy you are imposing a price control on them. So in terms of intervention in the market clearly one is more interventionist than the other, that is notice of appeal 1, annex 2, tab 4, p.1.

Finally, the principle of the ladder of investment has, in fact, been recognised in a series of different communications. All the references are in my skeleton and it does not serve any purpose to read them out now.

Dr. Maldoom, in para. 42 of his report, recognised that a bottleneck in a vertically integrated market might well be a candidate for regulation. So there he and Colt are on the same page. Where we parted company was whether or not the ladder of investment was a useful or worthwhile analytical tool. He suggested it simply did not work for leased lines. There, with respect, if his advice were followed by Ofcom he would put them in breach of, amongst others, Article 3(3c) of the Framework Directive which requires Ofcom to take utmost account of BEREC opinions. One of the BEREC opinions that I have cited in our skeleton clearly sets out why the principle of the ladder of investment is an appropriate analytical tool.

Turning then to the NGA recommendation, and again Mr. Beard went through this in his opening, I went through it in mine and I do not propose to turn it up. A series of recommendations – Article 13 of the recommendations suggests access to duct could be an important remedy where there is SMP. Article 16 of the recommendation suggests that any person rolling out new network should build in additional capacity to allow people to have access to it. Recommendation 17 suggests that an incumbent maintain, or a person rolling out the additional duct maintain a database of its availability.

In conclusion on Ground 2 what we say is the better approach from Ofcom, would have been to treat the passive remedy as a viable proposition, absent any evidence that it did not work, so in a sense it proceeded from the wrong starting point. As a result we say it has adopted a clearly wrong approach and it is appropriate to mark that down as an error in the exercise of discretion.

What is the remedy that we seek? We seek remittal on that point because we recognise that it is not for this Tribunal to exercise its own surrogate discretion, it simply needs to recognise that the exercise of discretion proceeded on an incorrect approach by reference to the CRF and the principles set out there in.

The example of LLU is also, we say, significant. In Ofcom's review on the wholesale local access market in notice of appeal file 2, annex 3, tab 8, p.1 at para. 1.1, Ofcom said this:

> "Competition has driven the success of the current generation of broadband services. This has been shaped by regulation and the availability of local loop unbundling which has allowed communications providers to compete using regulated wholesale inputs from BT. The result has been greater choice, innovation, lower prices, and high levels of broadband adoption."

We say that by parity of reasoning the same could be anticipated of a passive remedy in the leased lines market.

Unless the Tribunal has any questions those are my submissions on Ground 2, which brings me on to Ground 3.

On Ground 3 we put the case in two different ways. First, and in a sense reiterating, I hope without undue repetition the submissions I made yesterday, and I do not mean this in a pejorative way, it is simply a statement of fact, Ofcom did not do the work. It did not look at with sufficient rigour and detail at the nature or extent of the likely detriment to the market. That is important because Mr. Holmes in opening (transcript: day one, p.42) said:

> "If there were a way of amending matters so as to preserve this efficient recovery of common costs, Ofcom would certainly have done it."

So that is a recognition that if there had been a way through the concern about disruption in efficient entry Ofcom would have done it. So there is no objection in principle to a passive remedy, it is all loaded up on the risk of an inefficient outcome by virtue of an inefficient entry. That is highly significant because we say if, in fact, you were to conclude, in the light of Mr. Culham's evidence, and in the light of the documentary evidence you have seen, that a sufficient level of analytical procedure was not brought to bear on the core question of: can we amend the existing remedies so as to allow passive remedies to be introduced, or is there another way of working around the disruption problem? If that exercise simply has not been done then it is appropriate to remit so that Ofcom can ask itself the right question which is: is there a way of amending matters so as to preserve the efficient recovery of costs?

Secondly, and in the sense that the first point is something of a procedural one, the second point is more substantive, we say that there was a clear error of approach; making allowance for regulatory judgment there was a clear error of approach in weighing up the benefits and detriments associated with introducing a passive remedy. For your note, in terms of when I have referred to the evidence of Mr. Culham – I am afraid I only received the transcript 30 seconds before I was on my hind legs, but Mr. Pike has valiantly given me some references to the transcript – it is day 3, closed session, pp.9, 10, 33 and 34.

The second substantive way we put the case is simply that there has been a clear error of approach.

The benefits that Colt has identified can be broken down really to four. First, we say there is an increase in infrastructure based competition. Our skeleton argument gives concrete examples of situations where the roll-out of passive remedies in other jurisdictions has brought tangible benefits. You will be familiar with the evidence in the confidential material as to the impact of duct access in other jurisdictions, not just from Colt, but also from other market players. We say, understandably, if you allow competition at a different infrastructure level, i.e. duct access level, that will generate competitive benefits, simply in terms of there being an extra layer of competition so long as the costs of competition are not excessive, you will generate a pro-competitive benefit.

Secondly, increased innovation and service differentiation. We think it is clearly accepted by Ofcom in substance and, indeed, it was by Dr. Maldoom that, as a matter of principle and, in all likelihood, in practice a passive remedy would bring enhanced benefits of competition through further innovation, product differentiation and choice. If you have a look at Ofcom's defence at para.57 there does not appear to be a great deal of dispute. There was, I think, probably a minor dispute as to how much innovation is likely to result.

I think the criticism was made by Mr. Beard - if I am mis-attributing, I apologise - well, what sort of innovation is it likely to be because the underlying products are not likely to be any different. That, with respect, is a rather technical approach to innovation. What would be clear is we would be rolling out Ethernet access services on a different architecture with different service level agreement conditions in place with lower latency we would hope, with greater resilience we would hope, and essentially aiming more at what our particular customers want.

What Colt is proposing to do is entirely different from simply rebranding or repackaging the existing service on offer by BT. This is not a sort of a roll-out of a white good. This is a roll-out, or it would be if we were allowed to do it, of a genuinely different product with a different market, an admittedly high end market, a market that is nonetheless crying out to be served with a better service than it is getting at present.

A lot of BT's evidence was directed towards what logically would drive a conclusion that no one else could want anything other than the BT basic product because you can do everything you want to do in the market. With that product you do not need anything else. I fully accept that it is very nice to have pride in one's product, but this rather ignores the wider market aspects. In reality, one player cannot cater for all aspects of demand, you

cannot be all things to all people all of the time. Once that is recognised, as Mr. Reid appeared to fleetingly accept, if only to then give a justification that took on a slightly different hue, you cannot simply stop there and say nobody could ever want anything else.

The third benefit we have identified is improved capacity and coverage. Colt, through Mr. Sinclair's evidence, Sinclair 1 and Sinclair 2, explains exactly how the passive remedy would enable the expansion of the existing networks so that higher bandwidth coverage can be offered. The evidence of the passive remedy being rolled out in other European countries is not simply that it has worked, it is that it has worked alongside the existing active remedies and brought competitive advantages to bear. So higher consumer take-up greater bandwidth capacity, all of the matters that we have looked at in the closed material. For your note see Sinclair 1 at 11 to 35, and Sinclair 2 at 31 to 35.

The fourth benefit, more efficient use of network assets. What we say is, as a matter of potentiality, you could use duct space to roll out both business and residential services in the same way that BT has. You could replicate their offering. In addition, we say the evidence of Fournier 2 at para.22 and Peplow at 5 to 14 show how the network assets can be managed more efficiently and provide better levels of service for customers if a passive remedy is imposed, because you can break away from some of the inherent constraints in the BT network architecture and the BT level of service.

The consultation response from one particular respondent, defence file, tab 21, p.5, also confirms that the imposition of a passive remedy would at least potentially be of benefit to both the wholesale and the retail markets.

Those then are benefits. Just as a general statement, it is quite rare to find a regulator looking at an incumbent who has a dominant supply of a particular service turning round and saying that actually, if you allowed access to one of the essential infrastructure requirements for the provision of that service, there would be an anti-competitive detriment. That is the result of Ofcom's logic in this case. They are saying, "Regardless of the fact that it is only BT who has access to ducts and regardless of the fact that we accept that you can have passive and active remedies operating alongside each other, we think it would be contrary to our competitive aspirations to allow access to that passive infrastructure", and that is a counter-intuitive result and one that would therefore need to be justified by looking at precisely what the nature and extent of the risks are.

Turning to those perceived risks, there are four essentially. I am going to take them in a slightly different order from the defence and from the statement for ease and also because two of them substantially overlap. The first is duplication of investment. The second is

undermining existing and discouraging future investment in infrastructure. The third is inefficient entry, which is strongly linked in with common costs recovery. Those two issues, inefficient entry, in a sense one is driven by the other, so the risk of inefficient entry is largely driven by the perception that common costs recovery would not be sustainable in the event that a passive remedy was granted.

Turning then to duplication of investment, Mr. Culham in his evidence accepted that this has not been a primary focus of Ofcom but he had recognised that it was a factor to take into account. The investment that we are essentially talking about is rolling out fibre optic cable through somebody else's duct. There is already electronic communication equipment on either side of the line, as you get from Mr. Peplow's witness statement, para.30, so the aspect of duplication there simply does not exist as a matter of fact because no CP is able simply to rely upon the service from BT without having its own electronic overlay to ensure what the nature of the service that is being received is. With that fact in mind, of course if a passive remedy is granted and there is only one box on the line then that represents the reverse of a duplication of assets, it is a saving, electronic communications equipment being used by the market.

In any event, what we are essentially talking about, therefore, is fibre, and nobody really anywhere in the evidence has suggested that the duplicative costs of running two cables through a duct rather than one is a major or significant issue. What we do not have is anything more than a direction of travel. I am not suggesting it should be precisely quantified, but one would at least want to know what sort of ball park figure, or at least just the scale, whether it is big, small or medium compared to the other things that one is comparing it against so that you can compare like with like.

Again, Mr. Pike valiantly has come up with a reference from yesterday which is, on duplication of investment with Mr. Culham, it is transcript day 3, p.4 to 5.

I should just say, this goes back to the point I was just making. If duplication of investment were perceived to be a significant detriment to a market intervention which permits competition then, in a sense, we would always end up in a natural monopoly situation with large infrastructures that have scale monopoly. Why would that not apply equally to the water industry, the electronic industry, the gas industry, train services, and so on. The idea that somehow you sit back and say, "Because there is already somebody there who is doing it, and therefore if there is a second competitor you are adding to the competitive costs of entry, it does not, *a priori*, establish an analysis as to why you should not do it. It is pretty rare for a regulator to say that you should not dislodge an incumbent, or at least try and

undermine and incumbent because there will be additional costs of somebody else challenging their position.

THE CHAIRMAN: I think we understand that competition can involve duplication. It is just one of the factors in the balance.

MR. BEAL: Yes, I will press on. Undermining incentives to roll out, competing infrastructure: that would only happen if somehow the pricing for incentives to invest made a disparity between the underlying cost/benefit of investing in a whole roll-out and investing in duct, as long as there is a parity of costs factors to be taken into account then market players can work out what the benefits and burdens are and can compare the two. That is the first point. The second point is that, in any event, as a matter of fact, the incentives to invest have tangibly been very, very low for the last ten years, because there has not been any roll-out of significant infrastructure in this market over the last decade.

THE CHAIRMAN: Mr. Culham said that was because of Ofcom's success in reducing prices.

MR. BEAL: The prices ought to reflect the cost of inputs, so that is actually slightly circular logic, because if the costs of one of the inputs decreases then one would expect - it simply reflects a changing analysis of the benefits and burdens of investing in infrastructure.

THE CHAIRMAN: What new investment will be at risk of undermining it? I want to be quite clear about that. Is it investment in full infrastructure?

MR. BEAL: Yes, that must be Ofcom's case.

THE CHAIRMAN: Because if you get a cheaper passive remedy option then it is even less worthwhile building your own completely parallel infrastructure. Is that the argument?

MR. BEAL: The argument is that, given that nobody seems to be incentivised to build in terms of infrastructure, any particular risk of damage seems pretty low. Inevitably there will be a small knock-on impact on the incentives to invest in full blown infrastructure, because you are introducing an intermediate market, therefore it is not A versus B, it is A versus B versus C. But I do think we would need to at least understand what the scale and scope of the potential risk was, and that if as a matter of fact nobody has been acting on any incentive because of the high costs of civil infrastructure, then I think we can infer that the alleged impact of that particular factor is pretty minimal.

If I then move on to inefficient entry and common cost recovery, we have four responses. The first response is that Ofcom has assumed that which should be proved, which is essentially the circularity point; the second point is that disruption is not necessarily a bad thing. The third point is that, even if it were a bad thing, it can be avoided; and the fourth point is that even if it were a bad thing and it cannot be avoided, the detriment is in fact

outweighed by the benefits — or at least there is no evidence that the benefits are outweighed by the detriment.

Turning then if I may to what has been called "the circularity point", I did not do a very job, I confess, of putting this point to Mr. Culham yesterday, and in any event he, I think, said he did not understand Dr. Lilico's reasoning. So here is my second and I hope slightly more effective attempt.

Firstly, the point boils down to essentially two twin assumptions by Ofcom. Those assumptions are both that the inevitable result of the introduction of a passive remedy would be the disruption of common cost recovery, and that the introduction of a passive remedy would drive a uniform price which would effectively be the means by which there was a disruption to common cost recovery. That is the first point. Uniform price would result. The second point is that there is a welfare benefit from having common cost recovery and disruption of it would therefore cause a loss. Now it follows if you assume that there is a bandwidth gradient and that the duct access price will be uniform, that you will disrupt the common cost recovery along the bandwidth gradient. So in a sense that follows in every case with those two twin assumptions. You cannot make an assumption that bandwidth recovery will be disrupted because there will be a uniform price and not but reach a conclusion that there will be a detrimental disruption of common cost recovery. What that does not do, with respect, is provide any analysis of exactly what the nature and extent of that detriment would be. So it is, in a sense, two assumptions and a conclusion, but the conclusion does not actually substitute for a proper analysis of the nature and extent of the detriment. Simply saying that it would be disrupted does not identify the extent or magnitude of the detriment. If I can spin this out into a parallel context rather than bandwidth gradient — say a regulator is overseeing a dominant incumbent for monopoly and that monopoly has substantial economies of scale. Imagine the regulator is considering whether or not to intervene by adopting ("intervention A" we will call it) in that particular firm in order to promote competition. We say it would not be an objection for the regulator to turn round and say, "We can only introduce that intervention A if in doing so we did not disrupt the monopolist's economies of scale".

Now, it would stand to reason that any intervention would disrupt the economies of scale because it follows as a result of economic logic. But that does not mean you have actually worked out what the detriment associated with disrupting the economies of scale would be. We accept, of course, that disrupting economies of scale could give rise to the static efficiency loss. Because economies of scale are a good thing, does that mean that they are

therefore bigger than the benefits of promoting competition? The answer is you simply do not know. There is no way simply of stating that you are disrupting economies of scale to follow from that saying, "It must be a big loss and therefore we are not prepared to put in place the intervention". So that is, in a sense where the twin assumptions that Dr. Lilico has identified drive you to. There is also an inherent tension in those twin assumptions which I mentioned in my opening, which is if you are assuming that bandwidth gradient is good that you have a uniform pricing for duct, you are imagining a competitive counter-factual which is at odds with the pricing recovery that you are permitting in the present state of the market if you hypothesise a nominal intermediate market between the two.

But that would simply mean, that would simply drive the result that you have a natural monopoly and there are scale benefits with a natural monopoly and also costs recovery that fits with a natural monopoly because the natural monopoly is able to price more closely according to the specific demands of different consumers. So it would be the second form of price discrimination argument that Mr. Culham has identified.

It would follow then in the same way that if one re-applies the logic of scale economies to bandwidth gradient, then you cannot actually simply say disrupting the bandwidth gradient is a bad thing without begging the very question that you need to ask which is, "Well, actually, how bad would it be compared to the benefits of competition?" And I am afraid it is there that we have the full impact of my first argument which is Ofcom has not done the work. They have put in place — and I do not mean it in a disparaging way — something that is little more than argumentation of a thought experiment, have not actually done the analysis. That, for example, we saw flagged up in the WLA review, where they commissioned an economic survey to work out what the respective costs and benefits would be; that was the thrust of the point I was taking with Mr. Culham yesterday (Transcript day 3 p.10). Now, it is true that Mr. Culham in his evidence performed some *ad hoc* maths when he sort of hypothesised some figures. The difficulty is that of course none of that was ever made public or put to stakeholders. We have not had the dialectic of the response from stakeholders to the particular argumentation he developed and deployed, so I am afraid it would be difficult for the Tribunal to put too much weight on that rather *ad hoc* maths intervention that Mr. Culham performed. That is the first point, that is circularity.

The second point, we say disruption is not a bad thing *per se*. Firstly, disruption was not a problem for local line unbundling. There must inevitably have been a disruption to BT's suite of common cost recovery because there is a regulated entity in a number of different markets, different services. There must have been a disruption from LLU but it was not

perceived to be the massive problem that Ofcom are saying it is for this particular market. Secondly, it was not a problem for the NGA PIA remedy. There was no perceived problem there that it would disrupt common cost recovery from BT to such an extent that it should not be imposed. The LRIC Plus standard that was imposed enabled BT to reorganise its common cost recovery on an appropriate basis. What you do not see in the PIA remedy is any suggestion that BT cannot monitor the usage. I accept that it is geographically limited between the exchange and the premises; but at the same time there is no concern being expressed by Ofcom as a regulator that this is a remedy that is going to be impossible for anyone to police. That was a point, in fact, when you look at the submissions made by some of the people who were opposed to the remedy or opposed to the demarcation of the remedy being limited to residential services *de facto* that was a point that was raised, but Ofcom did not think that that was insuperable.

Thirdly, it is not a problem for WECLA. WECLA lead to a competitive market entry through the second type of competition which is full infrastructure roll-out. That must have disrupted BT's common cost recovery, but again it was not perceived to be a problem. Indeed, it led to downstream services in WECLA being classified as being effective and sustainable competition.

Fourthly, this problem must have arisen not only in other industries, such as water and electricity distribution but also in other jurisdictions with other incumbents, France, Portugal, Spain. Again, it was not perceived to be a sufficiently large problem that it justified not allowing the passive remedy.

Of course, if FRAND were mandated then we say BT would be left in charge of its own destiny, it could allow such flexible cost recovery as it felt was appropriate across the range of services it was offering.

Two further points. First, there are in fact some benefits of disrupting common costs recovery come what may. First, it weeds out subsidies, insofar as there are some, and the difficulty with relying on a regulator to spot subsidies is that they do not have perfect knowledge of the pricing structures of the incumbent.

Secondly, it weeds out undetected anti-competitive behaviour. We say, as a matter of principle, Dr. Lilico was surely right to say it is better to leave the market to deal with competition concerns insofar as it is able to do so. These are all points of response to an argument that common costs recovery justifies denial of the remedy. None of those points, we say, properly construed, is a challenge to the underlying active remedy itself and that is

very important because that deals both with the jurisdiction point and also, to a lesser extent, with the pleading point that is being taken against me.

The third point is that even if disruption were likely to follow, Ofcom has not actually considered whether or not it could put in place systems or procedures which would enable that disruption to be avoided and/or minimised. So FRAND is the obvious answer - not a question – FRAND is at least an option. It is deserving of better and further consideration and we say, actually, it is open to the Tribunal to direct FRAND because there is no intrinsic objection to it other than the practical one. The practical point is it will lead to spats further down the line between industry players. You saw how that was dealt with in the WLA Access Review where Ofcom simply built in its own industry-wide review process after the reference offer had been finalised. In other words, sweep up all the complaints about the reference offer and deal with them in one go, and then FRAND is free to proceed on unmolested.

The other option is the 'high price option' as Mr. Holmes called it. You set a price that is the maximum common cost recovery on both the geographical and the bandwidth basis and then you let the market work out whether or not it is justified.

In terms of monitoring, in the NGA PIA Ofcom has said in terms that the remedy cannot be used for leased line services. I accept that there is a geographical restriction, but that also does imply a form of ensuring that the duct space is not diverted for use beyond that which is subscribed by the remedy.

We say also that for the reasons set out in Dr. Lilico's first and second reports we can find a way round this, or at least this work that needs to be done, that would enable a way to be found round it in principle. The work carried out by Mr. Mantzos was designed to show that you can actually derive some form of price if you put the work in.

A couple of objections to this, principally, I think based on monitoring. One objection is that somehow BT would get to know its competitors' pricing and contractual arrangements. There is no reason why that should happen. For dark fibre, for example, BT can simply monitor the volume of traffic passing across the fibre. There would be no need to have any form of depack inspection or anything other than an analysis of the level of the fibre optic light passing along the cable.

Secondly, we can think of means in which a usage could be set. The one that I put to Mr. Culham yesterday was that you could have a contractual rate which was based on the highest price, and then you would allow the customer to prove their entitlement to a rebate under contractual terms to be negotiated between the parties, which reflected a lower level

of usage such as to maintain in force a form of price discrimination according to usage, i.e. a form of rebate system.

The final point on this is that, even if disruption were bad and cannot be avoided, we say there is no evidence that the benefits of competition are outweighed by the detriments, because whilst we have the analysis that there would be a detriment associated with disrupting the common cost recovery what we do not have is any sense of how big that disruption would be and what the loss to the market would be in contra-distinction to pretty well-founded ground for saying actually this would be pro-competitive and lead to advantages. Yesterday, I put to Mr. Culham: "If you are saying there would be only small entry there would be only small losses". It follows that the downside of allowing a remedy is that the gains may not be great but if that is the case then the losses would not be great so, in a sense, what is the harm? The answer to that was that Ofcom will have to be involved in the regulatory process. It already is involved in the regulatory process, all that we are doing is saying: "Please can you relinquish some of your empire to enable free competition to take the place of managed competition for a particular type of infrastructure?"

We think there has been good reason to support the proposition, based on the evidence that you have seen, that innovation and competition would be at least as well served and, indeed, better served by passive remedies rather than active remedies and, more importantly, we say Ofcom has not established the converse. Ofcom cannot have satisfied the Tribunal that competition is at least as well served by active remedies as it would be by the passive remedy. There is simply no case that I have seen advanced as to why innovation, for example, product differentiation, is better served by the active remedies that are in place, than they would be by the introduction of a passive remedy. So, in terms of the calculus we do seek to suggest that there is a clear error of approach, and it is appropriate to remit on that basis.

Can I then please move on to geography – it is a sub-issue really of the efficiency debate. BT says that Colt has wilfully neglected this. The reality is that unlike BT we simply did not think geography was an insuperable problem (see Dr. Lilico's second report at para.7.43). There, with respect, we seem to be on common ground with Mr. Culham, when, at day three, p.33,line 13 I asked:

> "Moving on to geographical issues, did you look at whether geographically the average pricing would be possible?"

Answer:

> "I think that our view on this was that it would be possible."

So if that is the case then the claim based on geography as a distinct issue rather falls away. In our view, with respect the issue rather falls away anyway because there is nothing intrinsically more intensive about the use in Newcastle than there is in London, it actually depends on how much traffic is going through the cables, so geography is a bit of a red herring. First, you can actually price separately for the duct in different geographical regions because you know where they are. Secondly, insofar as it is based on underlying usage no separate argument in truth is articulated that is distinct from the arguments about differential usage within a particular cable location.

So, some points about geographical arbitrage: first, we say the problem does not arise with FRAND. Secondly, it was not prevented by the PIA remedy, it was not an articulated argument as to why the PIA remedy should not be rolled out.

Thirdly, an element of geographical differentiation is tolerated in the wholesale market as it stands in any event (see Mr. Sinclair's second witness statement at para. 38). So it is already a feature of this market.

Fourthly, we think that some form of geographical variation could be built into BT's pricing. The suggestion made by the learned Member, Ms Potter, for a geographical premium was one that actually no witness seemed to have a fundamental objection to. For your reference, I think that was something that arose on day 3, p.40, lines 20 to 31, and then, over the page, p.41, lines 1 to 4.

Fifthly, if geographically average pricing were adopted then there is an unresolved issue as to the extent to which that might be a cross-subsidy and therefore not welcome, which is something that came out with Mr. Culham's evidence. What we do not have is any analysis of the welfare damaging effects of having geographically de-averaged prices, and indeed Mr. Culham (first witness statement, para.36) recognises that WECLA is an example of the geographical de-averaging of prices, and yet it is held up as an example of an effective and sustainable competitive market.

Sixthly, if duct access were priced on the basis of circuits, we recognise that you would need some sort of conversion factor to reflect usage. That has been built into Mr. Mantzos' proposed solution (para.35).

Seventhly, there is no necessary inter-dependence between geography and usage levels. You could have an out of town business park and you can have a purely residential area where there is very little loose lines activity. There is no necessary connection between the two.

Finally, of course, we have the price architecture which, in any event, would deal with the risk of disruption.

Could I, in the couple of minutes left available to me, with your indulgence, please tackle a series of miscellaneous points which really have arisen as a result of the opening submissions. Reference was made to our consultation documents and concentration was levelled at the first line of the first paragraph. If you would be so kind as to read the whole of our response to the passive remedies point, it is broader than is suggested, and in any event, what we were looking at was the impact potentially of very high bandwidth residential services eating into the business market. So it is a different point.

Secondly, jurisdiction: unless you would like me to do so, sir, your question earlier to me dealt with that point. Can I come back in reply if there is any particular point that is still unsatisfactory?

The bottom line is, yes, we have not challenged the BCMR active price remedies. There is no point because we have not got a passive remedy, it is only the interaction between the passive remedy and a separate issue which is common costs recovery which is put forward as a reason why the passive remedy should not be granted.

A pleading point: it is suggested that somehow our pleadings have not encompassed the points we have been making. There are two points to that. Firstly, a number of the points that we are making are actually responsive. I mean no discourtesy when I say that reading Mr. Culham's first witness statement, one gets a different impression of the key factors driving this decision than one would from a dispassionate reading of section 8 of the BCMR statement. We do say that the focus has changed, understandably, because they choose to bring out different points that they think deal with our argument. That is not, of course, a criticism, I am simply saying that that is the way it is.

Secondly, and in any event, the allegation that the scope of our arguments is not pleaded in terms of failure to do the work, failure to take into account relevant considerations is wrong, because one need only see paras.6.8, 6.10 and 6.12 of our notice of appeal to see that whilst the issue was not framed in the way it is now because we have had distillation of the issue through the dialectic of each party's argument, nonetheless we did say that you should have done the work and you were not looking at the right things, because one of the key complaints we make is if you are saying that disruption to the active remedy is a bad thing, why did you not look and investigate whether or not the passive remedy could be tolerated alongside the active remedy with necessary modifications if needed?

So we do end up with this rather curious situation where a regulator of an incumbent is trying to preserve the incumbency against an intervention of ring competition, notwithstanding that there are clear benefits recognised to derive from competition at a different level of the infrastructure. With respect, we think that is a real shame because Colt thinks it can offer a genuine product differentiation, a genuinely new service to meet genuine demand.

Thank you.

THE CHAIRMAN: Thank you, Mr. Beal, very timely. Mr. Holmes, we could break now, if you wish.

MR. HOLMES: Sir, it might be useful to have just five minutes to order my notes.

THE CHAIRMAN: That would be reasonable, and we will see how you do against the lunch hour.

MR. HOLMES: Yes, sir, I shall certainly do my best, but there is a lot of ground to cover.

THE CHAIRMAN: That is all right, we will continue after lunch.

(Short break)

THE CHAIRMAN: Mr. Holmes?

MR. HOLMES: Sir, I will begin with a couple of short introductory remarks and then I will go through the grounds of appeal picking up Ms Potter's question to me in opening under Ground 3, if I may. First, competition: this is where Mr. Beal began his closing address, and it is a good place to start. It is at the heart of the Common Regulatory Framework, and it is specifically mentioned in Ofcom's main statutory duty.

The Tribunal has been understandably concerned during the course of this hearing to understand how competition can best be enabled in this context. Mr. Beal invoked Mr. Adam Smith, a man whose insights have not gone unheeded in the Competition Appeal Tribunal. If we were dealing with Scottish corn or cloth merchants of the kind Mr. Smith was observing in 18th century Edinburgh, life would of course be very simple. There would be no need for Ofcom to debate whether and on what terms Colt should be given mandated access to another company's assets, but in network industries, and I appreciate the Tribunal well appreciates this, the equation is more complex. Some network assets may be capable of efficient replication, and where that is the case competition can and will spring up. The Tribunal will have noted that in much of the UK people have put in their own infrastructure and compete with BT in the supply of leased lines.

Investment of this nature is capital intensive and it tends to come in waves. As Mr. Beal has rightly pointed out, over the last few years capital has not been readily available for projects

of this nature. The assets from the last wave of build-out still remain and are used by competitors to provide leased lines in many parts of the country in competition with BT, including in the area covered by the City case study on which Colt relies in its evidence. Other parts of the network are not capable of efficient replication in this way. The Tribunal heard the evidence of Dr. Maldoom and Mr. Culham on this point. There are still many parts of the country where the economics of network duplication do not stack up. There may, therefore, be stubborn bottlenecks.

This is not the end of the road for competition. As we all know the owner of the bottleneck assets is not left to use its property freely, subject only to the private law of the land, as Mr. Adam Smith's wool merchants may be left to do. It is made subject to stringent regulatory obligations. The network owner's prices are regulated to stop it making excessive returns and to drive productive efficiency, while also ensuring that it makes enough to keep its network up to date and maintained in all parts of the United Kingdom. The network owner is also required to give its companies access to its network on regulated terms.

The specific product we are dealing with here is leased lines, and there is no particular magic about these, as the Tribunal has heard. They are bits of fibre that run from A to B with electronic equipment at either end to transmit and receive information. To use a plumbing analogy, they are fairly standard pipes that are used by big companies and communications providers as a network component.

This case is not an argument about whether BT should be mandated to give access to its network for the purposes of providing leased lines. Leased line products are, themselves, largely a product of regulation. They are, in themselves, a form of access to the incumbent operator's network; unbundling of elements that were once provided only as part of BT's integrated retail offering.

There is a large and established industry that has grown up around this access. The Tribunal will recall Colt's views during the consultation process. It considered that the United Kingdom offered "world class business connectivity options", and it expressed general satisfaction with the current regulatory framework. The issue in this appeal is therefore a much narrower one, not whether a monopoly provider should be regulated at all, but rather a choice between a selection of different forms of access which could be combined or selected between.

The different form of access which is specifically in issue is whether BT should be required to allow competitors to enter its duct space and install their own fibre, or to use fibre that

BT has installed, but which is not currently lit - that is to say it does not have the equipment at either end to send the optical signal and receive the optical signal. So Colt wishes access to the ducts and/or the fibre, and to attach equipment that it has purchased instead of the equipment that BT purchases at either end of the fibre.

Mr. Beal rightly points out that, and Ofcom has consistently recognised the fact, that this type of entry could bring certain benefits. It does not spell the end of regulation in any sense. This is still regulated access to assets that are owned, installed and maintained by another company and the price for such access would also need to be regulated in order to prevent BT simply switching off this form of access by setting an unduly high price.

However, there could still be some incremental benefits over active access remedies despite the fairly generic nature of these products insofar as a company was enabled to get access to the cable, the fibre, and then to procure for itself the opto-electronic equipment at either end of the fibre. In this case Ofcom therefore looked carefully at whether to introduce passive access. But Ofcom also had to weigh carefully the consequences of passive access for the existing model of access regulation and for the other type of access product which is already available and is widely used.

The Tribunal has heard about the knock-on effects of passive products on the pricing of active products. The concerns were brought into focus for Ofcom by the explanations that were provided by the communications providers who were seeking passive access with the most enthusiasm during the consultation process. A material part of their reason for wanting passive access was clearly because of the dissatisfaction they felt with the active prices that they were paying. Understandably, they wanted to pay less for business inputs and they believed that passive remedies would be priced in a way that would reduce their costs. Now of course bringing prices down is generally something that Ofcom very much wants to see, but overall in mandating access to BT's assets Ofcom needs to make sure that BT has a fair chance to cover its costs, and price reductions for some may lead to price increases for others. Ofcom needs to consider whether these changes in pricing are economically efficient and whether they accord with its other statutory duties.

Equally, competitive entry is generally a good thing, even where it is messy. But if the entry is largely in order to exploit an arbitrage opportunity, it may be less desirable than if it is to compete on a level playing field by reference to innovation and incremental costs.

The Tribunal has heard the evidence, and there is no real dispute that Ofcom's concerns are real and legitimate ones for a regulator to have. As Dr. Lilico put it in cross-examination, nobody denies that there are losses from having the intermediate market, that is to say the

passive access market, in principle. (That, for your note is at Day 2 of the transcript, p.22 line 32).

For his part, Mr. Beal recognised in his closing submissions yesterday, that the real battleground of this case is therefore ground 3, whether Ofcom adequately weighed matters in the balance. My submission today will be that it did, and that the appeal should be rejected. For now, my point is simply that to invoke the spirit of Adam Smith is not in itself an answer to the complexities with which Ofcom and the Tribunal must grapple.

My second introductory remark concerns the process that Ofcom followed. You have my submission that Ofcom consulted fairly and with an open mind. Mr. Beal suggested yesterday that the call for inputs was opaque and that Ofcom had already decided against passive remedies by the time of the consultation document. Neither allegation is correct. The call for inputs was exactly that, a broadly framed opportunity for companies to shape the matters to be considered by Ofcom from the beginning of the process. The consultation document set out Ofcom's views in detail including its thinking about the benefits and the potential difficulties involved in introducing passive remedies. Colt understood Ofcom's concerns about passive remedies, and it responded. Its response was to accept that cherry-picking or arbitrage-based entry would happen but to say that it would happen anyway on account of PIA in WLA. Mr. Beal suggested in closing that this was a different point; but, with respect, it was an elaboration of Ofcom's central concern. The point that Colt was making was not that there would not be arbitrage in relation to leased lines, it was rather that there would be arbitrage in any event but with a different group of communication providers benefiting — namely those that provided residential services pursuant to the PIA remedy. So there was no failure to put Ofcom's concerns. Ofcom explained very clearly what its concerns were. Mr. Beal tried to show the inadequacies of the consultation by reference to various consultees' responses. Now, if no-one had grasped Ofcom's concerns, it might be possible to draw certain inferences as to the adequacy of the consultation. But as Mr. Beal's own examples showed, CPs did in many cases understand Ofcom's concern, and Colt was among those operators.

The Tribunal has before it Ofcom's published consultation documents, and it can draw its own conclusions as to what was or was not raised. Ofcom's submission is that it properly explained the difficulties which it had in mind, and a number of CPs sought to address those difficulties. Nor had Ofcom closed its mind at any stage of the consultation procedure. Giving a provisional view is consistent with fair consultation. Ofcom was open to re-consider that view in the light of the responses it received. Now, the fact that passive

remedies might have implications for other market reviews would not have stopped Ofcom from pursuing matters further if the responses had changed its views as to the balance of benefits and detriments in relation to the introduction of passive remedies here. A number of procedural options would then have been open to it. But what is clear is that it would not simply have proceeded to the negative decision regarding passive remedies which it took in the BCMR statement and which is the subject of the present appeal.

Thirdly, let me briefly deal with the PIA remedy in WLA, a point on which Mr. Beal has relied in several circumstances. Mr. Beal's argument is a simple one: "If there is a remedy for WLA why not also [for leased lines, that I think is his core point]. Surely the same risks would be run". The answer is this: in WLA Ofcom introduced PIA for a very specific purpose. It was to allow a new operator to come along in parts of the country where BT was not rolling out superfast residential broadband and to get access to BT's ducts in order to be able to do so.

Now, Ofcom recognised that the capital costs involved in doing this would be big and that it would be a very demanding exercise. The expectation was that it might be done using grants from central government aimed at overcoming the so-called "digital divide", the inequalities of access in different parts of the country to the latest communications infrastructure. For areas where BT has rolled out, or is rolling out, superfast broadband, Ofcom introduced a different product, an active product called "VULA", to enable others to compete with BT on the downstream retail market. So, the reason why PIA is unlikely to be used where BT has not rolled out is because wherever BT does roll out there is an easier route to market. I can show you that by reference. I think it might help if we go to the relevant document. I know you were shown it by Mr. Beal in closing, but there are a few passages I would just like to draw your attention to. It is in BT2 at tab.1 and this is the statement at the conclusion of the WLA market review. So the equivalent document for WLA is the BCMR statement. And if I could ask you, first, to turn to the summary in section 1, at paragraph 1.5 it is explained that:

> "The new regulatory model rests on [several] elements. [One is] VULA which will allow competitors to deliver services over BT's new NGA network, with a degree of control that is similar to that achieved when taking over the physical line to the customer.

Another is:

"Physical infrastructure access ("PIA") which will allow competitors to deploy their own NGA infrastructure between the customer and the local exchange, using BT's duct and pole infrastructure to provide broadband and telephony. A third is local loop unbundling.

At 1.6 Ofcom explains:

> "We expect the new regulatory remedies to be used in different circumstances. VULA is likely to be the most attractive for communications providers where BT has already upgraded its local access network; PIA will be attractive to companies wishing to address market opportunities in advance of BT and may also be of particular interest to companies wishing to provide service in locations which may be in receipt of public funding support."

This was the point about public funding to fill the gap.

There are just a few passages that I would like to show you in the document. If you could turn forward to p.5 at 1.26. There you see confirmation of the point I was just making.

> "At this point, we consider that VULA is likely to be the main basis for NGA competition over BT's network …"

That is the active product.

> "… to supplement the continuing effectiveness of LLU, at least over the next four years. Our economic analysis suggests that VULA is very likely to be the most cost effective NGA remedy and the remedy most likely to emulate the level of competition currently delivered by LLU. However, we think that access to BT's duct and poles, and, to a lesser extent, SLU (sub loop unbundling) could also play a part in supporting competition, as well as investment in NGA. Partly, this is because VULA will only be available where BT deploys its NGA network."

If I could ask you to turn forward to s.7, which is the section which considers specifically physical infrastructure access, there are some points to be made by reference to that as well. The first point to note is that in the penultimate bullet of 7.5,which Mr. Beal fairly invited you to read at your leisure, there is an explanation of the high fixed costs, the expense and difficulty in other words that will be involved in providing PIA, and the fact that those costs are higher than the GEO product, another active product supplied by BT.

Turning forward to 7.49 we see the point that I think Mr. Beal took your attention to. We propose PIA as a remedy to promote effective competition in the WLA market, and therefore the geographic scope of the remedy that we can impose is restricted to the WLA market, i.e. the local access networks.

Then moving further through you have the point that Mr. Beal showed you in 7.57 about the risk of disruption to prices if PIA were to be introduced into BCMR. Then at 7.58 Ofcom's view that it would be inappropriate to extend the scope of PIA without assessing the need for and impact of a PIA remedy in the business connectivity market.

This was in support of a point made by Mr. Beal yesterday, to the effect that there was an element of circularity in saying on the one hand that WLA was not the right place to address PIA as a remedy for business connectivity and, on the other hand, saying in the context of business connectivity that it is a wider issue which raises matters of relevance to WLA.

That is what I understood the argument was. It means basically ----

THE CHAIRMAN: The issue gets batted back and forth.

MR. HOLMES: Kicking the can down the road. Whatever may have been the evidence and points that emerged during the hearing, it was no part of Ofcom's reasoning to say in the business connectivity market review that it wanted to defer the decision on passive remedies because of any implications for other markets. Its point was it had considered benefits and detriments, and it had concluded that the case for introducing passive remedies in business connectivity markets was not made out, so Ofcom did not defer the decision, it took the decision and that is the decision which is under appeal today. So, I do not think that is a fair criticism that can be levelled at Ofcom, if I understood it rightly.

THE CHAIRMAN: No. You could ask whether Ofcom in the business connectivity market review decision made enough references to the WLA decision previously because, as has been put to us, the WLA decision is essential background, if you like. It explains, in part, why the issue comes up. The other part is obviously the previous BCMR review. With hindsight, one might perhaps have expected the odd paragraph. Are you saying that is there or not?

MR. HOLMES: I am afraid I will have to check on that point and get back to you with references if I may.

THE CHAIRMAN: I think that is where it comes in.

MR. HOLMES: I understand. Thank you, sir, I am grateful for that. Moving forward, I understood and, again, I hope that I understood correctly, that Mr. Beal was suggesting that monitoring was not identified as a difficulty in the WLA context. If you could review para. 7.62 just before we leave this document, you will see that there was some consideration of practical difficulties, and you will see that there were some suggestions for dealing with it. It certainly was not the case that Ofcom conclusively determined that there was scope to monitor.

THE CHAIRMAN: What about Mr. Beal's point about the pricing mechanism? Are you going to deal with that?

MR. HOLMES: Sir, you will have to assist me in explaining his point about the pricing mechanism.

THE CHAIRMAN: It is not my job to explain his point. I think he made the point that it was envisaged in the PIA remedy in the WLA decision that prices might not automatically be arrived at and that there would be a mechanism and a dispute mechanism.

MR. HOLMES: 7.23.

THE CHAIRMAN: I think he said that therefore meant that some of the points you had made about the difficulty of FRAND in particular, might be overstated. I think that is what I got from what he said.

MR. HOLMES: I understand, sir. It is correct that BT was left to come up with a reference offer, if I understand rightly. That reference offer could, of course, be the subject of a dispute reference if any communications' provider were unhappy with it. But because of the nature of the PIA remedy there is not the same concern, in our submission, about directly analogous products being supplied at the active level in relation to which arbitrage would arise.

THE CHAIRMAN: This is your argument about differing incentives, or it may be Mr. Beard's argument, I cannot remember.

MR. HOLMES: Yes, sir, indeed. We can come back to that if necessary, but I think for now I do not want to get too bogged down in the introductory comments as I see I have already spent quarter of an hour.

THE CHAIRMAN: A case may lie in the introduction, you never know!

MR. HOLMES: You never know, sir; you never know. I must say I sometimes struggle to know quite where this case does lie, but I am sure that is my own shortcoming.

The key point then was that PIA was a demanding remedy and it was not expected to have much role to play.

Let me now hand up a recent Ofcom consultation document which shows the Tribunal the state of play as of December 2012. The document contains some confidential material and so in consequence I must ask that it be confined to those within the confidentiality ring when I pass it to my learned friends. (Same handed) Sir, this is a recent Fixed Access Market Review. The world moves on. As you observed, sir, this is a process like painting the Forth Bridge. As soon as one market review ends the next one begins, and here we have a consultation in certain markets. At 11.533 you see the state of play at the date that you see

the date in the red passage of the extent of PIA use. So that, across the entire United Kingdom, was the extent to which PIA was being used as of December 2012.

THE CHAIRMAN: That is not because of difficulties of agreeing the price?

MR. HOLMES: No, sir, I think the reference price was published, and I do not believe that there have been any complaints or disputes referred to Ofcom. The reason we would say, sir, is because it is very, very demanding to go and do what PIA envisages, you would have to dig to a lot of customers to make it worthwhile.

THE CHAIRMAN: It is still quite early days.

MR. HOLMES: It is, sir, we fairly take that point. You have seen that PIA, it is a demanding remedy, it is an economically difficult remedy to be met, and certainly at this stage there is no take-up. I suppose the highest I can put my point is we cannot draw any general conclusions about the extent to which arbitrage would arise.

MS POTTER: Particularly given the end of 11.5.33 anyway, which talks about the fact that a main use has not yet, in fact, transpired?

MR. HOLMES: Yes, that is correct, no BDUK funding been conferred on those other than BT. BT's network build-up has been faster than perhaps was anticipated.

THE CHAIRMAN: Thank you.

MR. HOLMES: So the answer is that PIA was always understood to be of limited scope and it has proven to be of very limited scope so far. If an operator had taken up PIA there would almost certainly be a problem of arbitrage, we submit, as Colt recognised in the consultation response, but the risk was understood to be a contained one and in practice it has not yet arisen.

So let me now turn, if I may, to the grounds of appeal. It would be fair to say that Colt's position has evolved over time. Not only is the appeal itself in marked contrast to the consultation response, but during the course of the appeal Colt's arguments have developed, and new criticisms have arisen of Ofcom's Decision. What I propose to do in relation to each ground is address, firstly, the ground of appeal as it is put in the notice of appeal, because that is the document by reference to which the appeal has to be decided, and I need to make sure that I hit all the bases, and then assist the Tribunal in relation to my understanding of the way the case is now being put.

In order to make sure I address the original formulation of the case it might be useful to open the core bundle at tab 4, which is the notice of appeal, which contains at p.4 a helpful summary of Colt's case. This is a document to which I shall return in relation to each of the grounds of appeal, but at 1.4(a) you see the summary of the first ground:

> "Ofcom is wrong as a matter of assessment to view passive and active remedies as necessarily alternatives and to reject passive remedies as a result."

You have my answer to that. Ofcom made clear throughout that it did not regard passive and active remedies as necessarily alternatives. On the contrary, it expressly recognised that they could be combined and sought to grapple with what would be the consequences of doing so in this case. In the call for inputs, for example, Ofcom flagged as one of three issues what would be the implications if passive remedies were to be introduced alongside passive remedies. In the 2012 condoc Ofcom stated in the summary conclusion on passive remedies, "Imposing passive remedies either in isolation or in combination with active remedies could carry significant risks of worst outcomes", again a clear recognition that passives and actives could, in principle, be combined, and the reference is para.8.43, second bullet of the condoc.

In the BCMR statement in the summary in section 1 Ofcom began its discussion by saying, "We have also considered the case for imposing an alternative or additional set of requirements known as passive remedies". That is at para.1.40 of the statement.

In his opening submissions, Mr. Beal suggested that there were aspects of the Decision which showed why Colt could be forgiven for having thought that Ofcom was treating passive and active remedies as alternative rather than complementary. He also contended that Ofcom's Decision amounted to an internal *fait accompli*, and that Ofcom had decided *in limine* that a passive remedy could not be accommodated alongside an active remedy.

In his closing submissions this, together with an argument that Ofcom had not taken account of relevant considerations in consequence became Mr. Beal's new Ground 1. We say that the new Ground 1 is without foundation. In opening, Mr. Beal developed this new Ground by reference to various passages in the statement itself, and we should briefly look at those. Could I ask you to take up the additional materials bundle and turn to tab 8. He began by looking at paras.8.4 and 8.6, which is conveniently on the first page of this tab.

THE CHAIRMAN: Are we keeping the summary as well?

MR. HOLMES: If it is possible to do so conveniently, I would be grateful if you could. In the final sentence of 8.4 Ofcom summarised its conclusion:

> "If we were to impose passive remedies then, at least in the short term, we would need to manage the co-existence of the two types of remedies (both existing remedies and passive remedies)."

So in passing Ofcom's conclusion there is further evidence that it did not regard passive and active remedies as necessarily alternatives. On the contrary, it recognised that they could, in

principle, be combined with active remedies, but the co-existence would need to be managed.

It was para.8.5 that Mr. Beal relied upon. Ofcom stated:

> "However, imposition of passive remedies is likely to be inconsistent with important aspects of the package of remedies which we are imposing, including the form of the charge controls. In other words, imposition of passive remedies would be likely to be part of an alternative, rather than a complement, to that package of remedies. In reaching the decisions in this Statement, we therefore needed to decide which approach we considered would be likely to be more consistent with securing or furthering our statutory duties."

This, Mr. Beal said, showed an internal *fait accompli* on Ofcom's part. The allegation is that the active remedies are taken as a given, leaving no room, in light of that, for a passive remedy. That I understood to be his submission.

We say that when you look at para. 8.5 it is densely reasoned, but actually it says quite the reverse. It makes absolutely clear that the two decisions were being taken in the round, the decisions about the price control and the decision about the passive remedy.

Let me unpack that by going through it sentence-by-sentence. Ofcom first refers to the likely inconsistency between passive remedies and the form of the charge controls which are simultaneously being set in the same document. By the form of the charge controls Ofcom means the basket approach and the pricing flexibility which it allows to BT, so the particular design of price controls in this case. The reason for the inconsistency is, of course, the cherry-picking concern which is later developed in the substance of section 8.

Ofcom then continues in the second sentence:

> "… [the] imposition of passive remedies would be likely to be part of an alternative, rather than a complement, to that package of remedies …"

meaning the remainder of the remedies being simultaneously adopted in the BCMR statement, and then in the final sentence Ofcom explained, that in reaching the decisions in this Statements - that is "decisions" in the plural, not only the decision in relation to passive remedies, but also the decision as to the design of the price controls. Ofcom needed to decide between possible alternative approaches. The alternatives were to adopt the package which it did with the price controls in the form ultimately selected; or to adopt a different package which included differently designed price controls and passive remedies. So, para.8.5 we accept is quite condensed, but if one reads it carefully it shows very clearly that Ofcom was not taking anything for granted. On the contrary, paragraph 8.5 shows that the

decisions in the statement, plural — decisions in the plural referred to in the final sentence both as to the form of the price control and the introduction of passive remedies were taken in the round.

Mr. Beal also placed some reliance on the reference to Ofcom's current approach to remedies in the third sentence at paragraph 8.6, but again this does not show any *fait accompli*. It simply reflects that the former charge control that Ofcom adopted to maintain in place in the BCMR statement was a continuation of the existing regulatory framework. They were current prior to the adoption of the new package of remedies. It does not show that Ofcom pre-judged the matter or did not decide afresh on the appropriateness of that form of charge control at the same time that it decided against passive remedies.

Mr. Beal referred to paragraph 8.9 of the statement where Ofcom noted that:

> "Overall, the imposition of passive remedies would be likely to require significant regulatory changes and intervention, and we would therefore need clear evidence to justify such an approach. Having carefully considered the evidence before us, it is not clear at present that imposing passive remedies would lead to better market outcomes in the round than the package of remedies we have decided to impose. We have therefore decided not to impose passive remedies".

Now this, as we understood it, was basically the core of the new ground 2, which I will come to. He said that this put the onus on those favouring passive remedies to make out their case. Now, all that Ofcom is saying here is that before making big changes to the regulatory framework applicable to a large and established industry, it would need to be clear that the changes were for the better. And this was the appropriate course, we say. There was no error in that direction. What the passage of the statement also makes clear is that Ofcom did carefully consider the evidence as to benefits and detriments of passive remedies. On balance, however, Ofcom was not persuaded that they would lead to better market outcomes, that balancing exercise under Ground 3, that is really the subject of ground 3.

Mr. Beal then took the Tribunal to paragraphs 8.43 to 8.50 of the statement which begin in p.649. He described these paragraphs as, "In a nutshell, why Ofcom took the view that it was not appropriate to allow a passive remedy and an active remedy to co-exist". We say that this is incorrect. On the contrary, Ofcom states in the second sentence of paragraph 8.43 beginning "imposition".

> "Imposition of passive remedies may also be inconsistent with the parameters and design of the charge controls we are imposing on BT's wholesale services, and, if so, we would need to change them".

In other words, passive remedies might well be able to co-exist with active remedies, but the form of the active remedies would need to change. The point is picked up again in para.8.47:

> "Overall, therefore, if passive remedies were introduced, a period of transition is likely to follow in which active remedies are restructured, which may lead in the medium to long term to the withdrawal of some or all of the active remedies".

So Ofcom was not here stating any kind of conclusion that passive and active remedies cannot be combined; nor was it stating any settled conclusion about passive remedies. It was pointing out the complexities of managing the transition and saying that clear evidence would be needed of a better overall outcome to justify the change. The substantive assessment is then contained in the next part of section 8 which you see on the other side of the page, beginning on p.651 whether competition based on passive remedies would be more effective. The reasoning which Mr. Beal did not take you to in opening the case, Ofcom's reasoning in that part, is the subject of ground 3 so I will leave that for now.

For the purposes of ground 1 it is simply enough to note that Ofcom did undertake that assessment, there was no *fait accompli*.

Mr. Beal's final point in opening on ground 1 was to suggest that a *fait accompli* could nonetheless be inferred from the absence in the decision of any detailed consideration of how a passive remedy could have been made to work alongside an active remedy, and in his closing submissions this grew into a claim that Ofcom had failed to take account of the relevant consideration, namely, whether passive and active remedies could be made to work together.

Now, we say that there is no missing step in Ofcom's reasoning. Ofcom considered that passive remedies were likely to involve flat rate pricing (I have shown you that passage in the statement) and that this would be inconsistent with an important feature of the existing active downstream remedies, namely BT's pricing flexibility which Ofcom regarded as likely to result in more efficient pricing and cost recovery. Ofcom had specifically consulted on this issue, and its conclusion was consistent with the responses it received. The Tribunal will recall Colt's consultation response, "cherry picking will happen anyway", and the various CPs who saw passive remedies precisely as a way of escaping BT's differentiated common cost recovery assuming a flat rate upstream price.

On the basis of what Ofcom was being told at the time, there was no clever way in which passive and active remedies could be combined to avoid the tension that it had identified. Ofcom nonetheless went on to consider whether passive remedies offered benefits sufficient to justify removing this feature or allowing the disruption of this feature of the existing active price control. Ofcom decided that passive remedies did not offer sufficient benefits. So the chain of reasoning did not involve taking anything for granted. It was a sufficient basis for Ofcom's decision to keep active remedies in their existing form and to reject passive remedies.

In closing, Mr. Beal placed reliance on other materials from the consultation, and I covered these largely in opening. The main basis for the claim that Ofcom had closed its mind between the call for inputs and the consultation document appeared to be a meeting note between Ofcom and a mobile network operator. I dealt with this in opening. The Ofcom official concerned stated in terms that his views, the views he was stating were subject to consultation. It was also suggested that Ofcom had not put to the mobile operator in question Ofcom's concerns, the concerns that been expressed to Ofcom by BT. Now, there is no obligation, to be clear, as a matter of consultation, to put views expressed by one consultee to another consultee, otherwise consultation would be utterly impossible. But in any event, in this case this was all before the consultation document in which Ofcom did set out its views. And to cap it all, if one reads the note, one finds on p.3 that Ofcom did explain the pricing concerns in a passage that Mr. Beal did not take you to. So we say there is absolutely nothing that can be derived from that meeting note.

Mr. Beal also relied on the evidence of Mr. Culham, in which he expressed the view that the issue of leased-lines was too broad to tackle within a single market review, and Dr. Maldoom expressed a similar view.

The evidence as to the scale of the change that Colt is asking the Tribunal to entertain is certainly very striking. It does not, however, provide any support for Colt's contention that Ofcom had already firmly decided by the time of the consultation document against introducing passive remedies. That allegation is simply incorrect. There is not a shred of evidence to support it. Ofcom consulted sincerely and with an open mind. It stated its own provisional conclusions, that it was open to what operators had to tell it, and if Ofcom had reached a different view on the balancing of benefits and detriments Ofcom would simply not have made a negative decision.

Mr. Beal also argued that Ofcom's consultation was insufficiently transparent, but this was done by reference to the call for inputs and there was then a very well-reasoned consultation

document. So, in our submission there is no more merit in Colt's new ground than there was in the pleaded version and it should therefore be dismissed.

We now turn to ground 2, and I can be very brief about this. If we could now go back to Colt's notice of appeal, core bundle 1, tab.4 p.4. You see that the allegation that is encapsulated in ground 2 is that:

> "Ofcom erred, as a matter of law and/or assessment in not proceeding from the starting point that it should regulate as far upstream as possible".

So the case was there put on the basis of a positive presumption to which Ofcom was subject, a presumption to regulate as far upstream as possible. As we understood Mr. Beal's submissions in opening, this ground has effectively been conceded. He said that the proper analysis of the framework and structure governing passive remedies in principle gives you, if not a positive presumption that a passive remedy should be allowed, at the very least not the obverse. He is now putting his case, not in support of a presumption but against a contrary presumption.

Ofcom's position is that it correctly applied its statutory duties in assessing whether to introduce passive remedies.

The material cited by Mr. Beal, you will recall the various NGA documents, the BEREC reports, and Ofcom's previous statements, those are all qualified, they support infrastructure access where the entry in competition that results are efficient and sustainable. So they are subject to those caveats. The devil is always in the detail. This is the Adam Smith point. Ofcom concluded in the present case that passive remedies risked promoting inefficient entry. Dr. Lilico for his part clearly accepted that the correct approach is to proceed on a case-by-case basis considering the specific facts and circumstances as one finds them in his oral evidence, that was clearly his position. Ofcom, for its part, rightly asked itself whether there was clear evidence to justify change to the existing regulatory framework, which involves billions of pounds of business annually. Ofcom was not starting from a clean slate and it would have been wrong for it to pretend that it was. It needed to be careful.

The passage which I showed you before, which is now the focus for the allegation that there was a contrary presumption raised against those that favoured passive remedies – I will not say Colt because that was not strongly Colt's position during the consultation process – the need for evidence was entirely legitimate, and it was considered. So no error has been shown, we say, and the second ground should therefore be dismissed.

Colt's third ground of appeal concerns the balancing exercise, and it is here that the substance of the case is really to be found. If you could turn back to Colt's notice of appeal at tab 4, this ground is summarised at para. 1.4 as follows:

> "(c) Ofcom is wrong, as a matter of assessment to believe that active remedies are likely to promote innovation and competition at least as effectively as passive remedies."

Put in this way we say that the ground fails from the outset simply because Ofcom never did find that active remedies are likely to promote innovation and competition at least as effectively as passive remedies. Its finding in the statement, to which Ms Potter rightly drew my attention was that active remedies could achieve similar outcomes, and I propose in one moment, if I may, to address you as to how Ofcom reached that conclusion. It was by reference to a careful consideration of the evidence I will submit.

The final sentence of (c) does make clear, in fairness, this ground also covers the detriments identified by Ofcom, which are said to be without justification. Although, it would be fair to say that the case in the notice of appeal on those detriments is extremely limited and, as Dr. Lilico accepted, really misses the point on the key issue of inefficient entry.

Ofcom submits that there was no error in its assessment of the balance of benefits and detriments.

Let me, at the risk of a slight detour, begin my discussion of Ground 3 by recapping why Ofcom rejected passive remedies on balance, providing now relevant references to the expert testimony which, we say, fully supports that case.

The first stage in Ofcom's reasoning was its finding that uniform pricing may be impracticable by reference to use because of the difficulties of monitoring and constraining the uses to which duct and fibre are put once access is given. The reference for your note is the BCMR statement para. 8.82, a paragraph with which, I am sure, the Tribunal is already well familiar. This is a conclusion that Ofcom was entitled to reach on the evidence. It was consistent with what Ofcom was being told during the consultation process. Ofcom's conclusion about the impracticability of limiting use was set out at para. 8.91 of the consultation document and it was not contradicted by anyone. Colt consultation response tended to confirm it. Other operators implicitly or explicitly proceeded on the basis that there would be a flat rate charge set at the passive level allowing them to escape the bandwidth gradient.

The evidence of Colt's expert, Dr. Lilico was that it was appropriate to start from the suspicion that passive access would be at flat rates, subject to his proposed work-arounds. The reference for your note is day two, p.26, lines 3 to 6 and 18.

It is notable that Colt has not suggested in evidence that the passive remedies in other European States are on any basis other than a flat rate. On the contrary, Mr. Fournier's evidence assumes uniform rate access in his city case study, which is benchmarked by reference to rates in other European countries.

The new proposals for working around the bandwidth gradient have been devised by Colt's economic experts in evidence in reply, so the very last stage of the appeal process with one exception which I should perhaps briefly deal with. The full function entrant proposal, which Dr. Lilico rightly pointed out in cross-examination had been briefly mentioned in consultation by Fujitsu and, sir, you rightly observed that this is referred to at para. 8.112 of the statement.

Dr. Lilico suggested that Fujitsu had suggested that differentiated pricing of passive products was possible. With respect, it did not do this, but it did mention the possibility of full function entry, we accept that. This was the only one of the work arounds which received any mention. The suggestion was very briefly flagged and was not developed or explained in any detail and, as Dr. Lilico himself noted, the proposal is perhaps more speculative.

Dr. Lilico otherwise accepted that the work arounds were all of his own devising and were not based on any technical expertise or industry experience of negotiating contracts. (Day two, p.38 lines 20 to 28).

In Ofcom's submission it cannot be faulted for not having considered them at the consultation stage, and the Tribunal should approach them with scepticism given that no one in the industry has actually put them forward as workable. In any event, none of them provides a satisfactory solution for reasons which I shall return to when addressing Mr. Beal's case.

The second stage of Ofcom's reasoning was its conclusion that if uniform pricing is introduced at the passive level this would not be consistent with the current downstream price differential so this is beginning with the conclusion that you cannot have uniform pricing because of the difficulty of monitoring usage and preventing people using for one purpose and not another.

MS POTTER: But you have to have rather than you cannot have uniform pricing?

MR. HOLMES: I am so sorry, did I say ----

MS POTTER: Yes.

MR. HOLMES: Forgive me, madam, I am grateful, yes, that is quite correct, you have to have uniform pricing. The reason why is, as I have said, you cannot monitor to see what someone is using it for, so you cannot sell at one price for one use and another price for another use.

The second stage is to say, based on that conclusion, this would not be consistent with the current downstream price differentials. The differentials in the active access products. Again, this is not in dispute. There is no doubt that Ofcom's economic reasoning was sound on that. Dr. Lilico accepted that, assuming uniform prices at the passive level, the result would be to disrupt downstream price differentiation (day two, p.29, line 12). He also said that the bandwidth gradient would be difficult to sustain if you have large amounts of passive entry. (Day two, p.29, line 15). The inconsistency would lead to several adverse consequences as Ofcom set out in both the consultation document and the statement. For so long as BT tries to continue with differentiated pricing some inefficient entry may occur. Dr. Lilico accepted that this was the case. (Day two, p.30, lines 23 to 26). Sooner or later, however, price differences would be eroded, leading to downstream tariff rebalancing. In order to need the entry BT would have to change its downstream active prices for the products relied on by the £2 billion worth of business already in the market.

Again, this was accepted by Colt's expert, Dr. Lilico. If what is happening is that you are tending to undermine the higher bandwidth common costs recovery, then for a given total costs recovery BT will have to raise its prices on the lower bandwidth products. So you tend to get some evening out, and if you have enough passive access you would eliminate the bandwidth gradient altogether - day 2, p.31, lines 9-15.

This would in turn disrupt a pattern of common costs recovery of the downstream level that Ofcom regarded as likely to be more efficient - key findings in sections 18 and 20 of the statement. As to this, Dr. Lilico again accepted, day 2, p.21, that price discrimination can be socially optimal and in many markets is so.

The potential price increases for users would be focused on those that make the lower contribution to common costs, and the result, Ofcom found, would be higher prices for entry level low bandwidth products, such as those used by smaller SMEs. It would also lead to a geographical de-averaging of tariffs with prices varying across the country. In considering this potential consequence, Ofcom was mindful of its statutory duties, and I would refer you to s.3(2)(e) of the Communications Act, s.3(4)(e) of the Communications Act, and s.3(4)(l) of the Communications Act.

This in turn reflects the duty recognised in the Article of the Framework Directive on which Mr. Beal placed some emphasis, Article 8.5., for Ofcom to take account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within a Member State.

For his part, Dr. Lilico accepted that such geographical de-averaging of prices was to be expected (day 2, p.32, lines 12 to 30, p.38, lines 1 to 7, and during re-examination, p.44, lines 19 to 21).

Mr. Culham's evidence was that Ofcom generally regarded geographic averaging as a positive thing. Mr. Beal referred you to a passage from the cross-examination of Mr. Culham which he said counted in support of his case on geography. Mr. Culham was asked:

> "Moving on to geographical issues, did you look at whether geographically de-averaged pricing would be possible?"

And the answer was, yes, Ofcom's concern was geographical de-averaged pricing, it is no answer to Ofcom's response to say that Ofcom accepts that geographical de-averaging would take place. It thinks geographical averaging is a good thing.

He then goes on to say, confirming the point I have just made, that it would be something that one would regard as an adverse consequence of the introduction of passive access, but one might live with that nonetheless if the passive access turned out to be, or were identified as being, sufficiently large. The reference for your note is in the in camera portion of yesterday's proceedings, p.33, lines 15 to 18.

In summary, Ofcom concluded that there were a number of potential downsides of introducing passive remedies.

The third stage of Ofcom's reasoning was to consider whether the potential downsides of introducing passive remedies might be outbalanced by potential benefits of doing so. It accepted that passive remedies could provide more scope for product innovation and service differentiation in some cases. Its analysis is worth examining in more detail than has so far been done. I would like to take the Tribunal briefly through the relevant passages of the consultation document and the statement, and in the process I hope address your question from day 1, Ms Potter.

In assessing what weight to assign to these countervailing considerations, we say that Ofcom looked carefully at the uses to which it was told during the consultation that passive remedies might actually be put. There was a considerable focus on the potential use of passive remedies in relation to mobile backhaul, but not much else of any specificity. You

will recall that Colt did not bring forward the level of detail that it has during the course of this appeal. Ofcom therefore considered mobile backhaul in some detail to see whether it showed a sufficiently pressing need for passive remedies to outweigh the downsides that it had identified. Ofcom's careful and detailed analysis emerges clearly from a consideration of the consultation document from June 2012, which is in core bundle 2, tab 3, and I would ask you now to open that, please. The passage begins on p.424, which is somewhat counter-intuitively after p.425 at the front of the tab.

Firstly, and we need not review them now, you will see at the top of the page, from 8.61 to 8.63, a summary of Ofcom's concerns about the negative consequences that flow from passive access. The Tribunal has my point that these were clearly the subject of consultation.

At para.8.65, Ofcom explains that it is turning:

> "… to consider whether competition based on passive remedies is likely to lead to better outcomes for consumers than the current remedies, with reference to specific issues raised by stakeholders."

In what follows Ofcom looks at the particular applications or uses that have been identified by respondents to the call for inputs, and the Tribunal will recall that Ofcom specifically sought views on the benefits of passive remedies and the role that they could play in the market. So Ofcom first turns to consider backhaul for mobile network operators' radio base stations, in relation to which there was some clamour. This is indicated in the heading above para.8.66, and at 8.66 Ofcom notes that:

> "An important specific issue raised by stakeholders is MNOs' need to support cost-effectively the increasing bandwidth demands of users of mobile data services."

It notes that Ethernet-based backhaul connections for this purpose are likely to be needed in each of several thousand radio base stations.

Ofcom then turns to consider how far the existing market arrangements are faring in terms of delivering solutions for MNOs. The focus is upon whether there are serious shortcomings in the current arrangements available under active remedies.

At para.8.67 and 68 it notes that fibre is not required everywhere. There are some alternatives. There is copper which tends not to be great because it does not carry the capacities, there is also microwave which where line of sight constraints are not an issue will serve and where there are not planning problems.

Then at 8.69, Ofcom explains that in late 2008 BT wholesale launched a managed service for RBS backhaul known as Managed Ethernet Access Service ('MEAS'), and it notes that 12,000 RBS sites have already been reached (that is radio base stations).

At para.8.70 Ofcom also notes that there is evidence of recent competitive entry in mobile backhaul. Virgin has come into the market and is providing mobile backhaul to a confidential number of RBS sites for a particular joint venture. It is not confidential, that is MBNL.

Then in 8.71 there is evidence of further competition from another fixed line operator delivering Ethernet connectivity to further RBS sites for another MNO.

The evidence, therefore, suggested to Ofcom that in terms of service delivery the market was getting Ethernet to RBS sites. The Tribunal will recall that these are effectively pipes and they are being delivered.

At para.8.72 Ofcom sets out the consultation, its provisional view on the basis of the evidence that the scale and pace of deployment of BT's MEAS, together with the early evidence of entry by competing providers, such as Virgin Media, suggests that the industry is currently likely to deliver fibre based services to the RBS sites where MNOs require them within a reasonable time. Then, by way of caveat, it noted that the competing providers only operated in parts of the UK, and that therefore BT's competitors are likely to depend on Openreach's provision of wholesale Ethernet access service to a significant proportion of sites.

So that was availability of service at RBS sites.

Ofcom then turned to consider the service quality provided by BT at 8.73. Ofcom notes various issues raised by MNOs at (a), (b) and (c) of that paragraph, namely delays in commissioning service to be some RBS sites, slow pace of development of solutions to certain technical constraints, and charges for increments in bandwidth that appear to be significantly higher than the corresponding increments in costs. The last point is, of course, the bandwidth gradient.

8.74 then discusses the first point, namely MEAS commissioning delays. Ofcom noted in that paragraph, the final sentence:

> "MNOs and BT told us that these difficulties have now been largely resolved. BT Wholesale published data in a recent analyst briefing which appears to confirm this …"

and the reference is given at the bottom of page.

At 8.75, Ofcom records its provisional view that the resolution of the difficulties in deploying MEAS:

> "… suggests that BT currently has significant incentives to deliver this service successfully. We do not consider at present that BT's operational performance in delivering MEAS is by itself evidence either of failure of the current remedies or of failure in a market downstream of those remedies. For example, it is not clear that greater competition in the provision of managed services for RBS backhaul would have provided more effective incentives to resolve the difficulties than any appropriate contractual provisions between the parties."

Ofcom then turned to the pace of technical development at 8.76, issue (b) at 8.73:

> "Some MNOs are concerned about the pace of technical development, which, in their view, is too slow. They point to the time taken by Openreach to provide support for technical standards which could allow more cost-effective synchronisation of RBS sites."

At 8.77 Ofcom notes that Openreach was then preparing to introduce a variant of its EAD product. We know that that has subsequently been subject to further difficulties.

At 8.78 one then has bandwidth limitations on MEAS, and at the end of the paragraph, the final sentence at p.426 carrying over to 4.27:

> "Whilst we understand MNOs' reservations about the pace of BT's product evolution towards a more fit-for-purpose solution, we also understand that the technical solution which Virgin Media intends to deploy is expected to address these technical issues and to provide other technical advantages over the MEAS solution."

Pausing there, this infrastructure-based competition of the kind I described in my first opening remark was obviously significant because it provided some competitive spur to BT to innovate its product, and although the infrastructure competition only covers a part of the UK that competitive pressure to innovate would benefit all purchasers of BT services.

Then at para.8.79 Ofcom sets out in the consultation, its views on the issues identified by MNOs with BT:

> "We recognise that it is important that the industry resolves as rapidly as is reasonably possible the technical issues raised by MNOs to enable delivery of appropriate quality of service to consumers cost-effectively. However, from the evidence available to us, it is not clear that the industry is currently failing to do so. We note that BT Wholesale appears to have been first in deploying fibre-

based Ethernet backhaul to RBS sites on a large scale in the UK, and, despite some early issues, appears to have deployed solutions using modern technical standards while developing new features and enhancements. Meanwhile, Virgin Media's recent announced entry suggests that it intends to deploy solutions which meet substantially similar requirements."

The following paragraphs discuss the bandwidth gradient issue, and you have been taken to some of them already by me. At para.8.85, we have a more general provisional conclusion about mobile backhaul:

"In summary, we consider at present that the benefits hat imposition of passive remedies in business connectivity markets may bring to meeting the need for more bandwidth in backhaul to RBS sites are likely to be limited because:

(a) The extension and speed of BT's deployment of fibre-based Ethernet backhaul is already significant, together with early signs of developing competition, suggests that the industry is currently likely to deliver fibre-based services to the RBS sites where MNOs require them within a reasonable time.

(b) BT has deployed its 21CN infrastructure in the last years, apparently using modern and efficient technologies, to position itself to deliver high-bandwidth Ethernet services cost-effectively. BT Wholesale has a leading position in deploying fibre-based Ethernet backhaul services to RBS sites on a large scale in the UK, and appears to be developing enhancements to improve the efficiency of those services. Meanwhile, Virgin Media's recent announced entry suggests that it intends to deploy a solution which is technically more efficient than BT Wholesale's current services. This suggests that there is some competitive dynamic in the provision of managed services for RBS backhaul [the point I was making about infrastructure competition] and that the industry is addressing key technical developments that could enable delivery of appropriate quality of service to consumers cost-effectively.

And then, lastly, (c):

"MNOs' broader concern that their future backhaul costs could escalate unduly may be addressed over the next few years by a combination of technical development which should enable the effective bandwidth delivered by BT's MEAS product through Openreach's 1Gbit/s Ethernet access tails to increase substantially, and by the operation of any price controls agreed in relation to leased-lines following conclusion of this review".

It is worth noting in relation to (c) that costs have been falling in relation to bandwidth. So while there is a bandwidth gradient, I would not want the Tribunal to come away with the impression that high bandwidth products have remained stubbornly high in their price. Prices are coming down. You may have seen in one of the documents to which Mr. Beal took you, a reference to "a deflationary market". The point that was being made there is that the costs of bandwidth are reducing, and we will see that that was one of the conclusions that Ofcom made in the statement.

So Ofcom then turned to consider two other specific uses for passive access that have been raised by industry parties, but neither of these really involved any suggestion of innovation attaching to leased lines. The first was about incentives to invest in PIA, and the other was a case for either specific niche applications, not identified, or in the case of general backhaul greater competition.

On the former, Ofcom asked for further evidence, that is to say the case of PIA and investment in NGA, further evidence as to unlocking of investment, and on the latter, that is to say the issue of general backhaul, Ofcom was not satisfied that similar benefits in terms of competition could be achieved by price controlling an active product for Sky and others to use.

So, standing back, what we say that the condoc clearly shows is that Ofcom looked at what stakeholders said passive remedies might be used for, an issue canvassed in the call for inputs, Ofcom considered the evidence it got back. It carefully analysed whether there were any specific innovations being proposed and it considered more generally how competition and innovation were progressing in the key use which had been identified by a number of stakeholders, namely mobile backhaul. And it concluded on the basis of the evidence that BT and the competing infrastructure providers were already meeting demand and were innovating; and on that basis Ofcom concluded, paragraph 8.94 at the first bullet point:

> "While we recognise that it is possible that passive remedies could improve the prospects for competition generally, our analysis of the cases put forward by stakeholders suggests that the potential benefits that could flow from doing so could to a large extent be achieved by imposing alternative remedies such as price controls on BT's provision of active wholesale access services".

The Tribunal will notice that this is the analogous terminology to that in relation to which Ms Potter raised a question with me on the first day. So, we say that it is this analysis in the condoc which is then taken forward in the statement, as I will show you in a moment, which served as the basis for Ofcom's conclusion that the current active access products provided

for these pipes were largely or were capable of delivering largely the benefits that might result from passive products.

So let me turn now to section 8 of the statement, to show you how these ideas were developed there. The passage begins at 8.95 of the document. Ofcom again started with mobile backhaul as the main potential use that had been flagged to it in consultation. And at paragraph 8.95, it recognised the MNOS' need for increasing amounts of bandwidth, and in the second sentence it confirmed its view from the consultation that the scale and pace of deployment of BT's Ethernet mobile backhaul solution MEAS together with evidence of entry by competing providers such as Virgin and Cable & Wireless suggested that the industry is currently likely to deliver fibre-based services to the sites where MNOs require them and within a reasonable time.

So, service provision. At 8.96-99 it updates the evidence set out in the condoc, noting in particular the acquisition of a fixed CP by a MNO in order to provision its mobile backhaul. In fact it is not confidential. The acquisition of Cable & Wireless by Vodafone.

Then at 8.100 Ofcom states the view in the first sentence that there are encouraging signs that competition in providing MNOs with mobile backhaul solutions is developing, and then the same caveat as before. Of course infrastructure competition is not everywhere, and in some places BT is the only show in town.

Then Ofcom proceeded slightly differently in the statement from the condoc in that it broke innovation out and considered it separately across products generally. At 8.101 Ofcom acknowledged that access to passive inputs could provide scope for innovation and competition at the active layer and that passive remedies would allow them to differentiate in their product offerings, would allow CPs to differentiate in their product offerings.

In paragraph 8.103 Ofcom recorded its conclusion based on its discussion with industry:

> "… that the market has kept pace with significant technical developments such as PDH, SDH, Ethernet and WDM, increasing bandwidth capabilities and reducing costs per unit of bandwidth".

That is the deflationary market point.

Now, a paragraph like that can be deceptively concise. This is a 1500 page document already, and Ofcom tried to avoid prolix in this document. It was stating a conclusion here that was based on many hours of meetings with industry parties that detailed understanding of the technically available solutions in the market place. This is what Ofcom does, that is what the meetings are about, what the working groups are about; they are about understanding the industry. And so behind that paragraph, in my submission, there is

considerable knowledge and sectoral expertise of which due account should be taken, and its brevity should not be taken against Ofcom.

From the latter point, sorry, let me move on, actually. Moreover, it is a market in which new technologies are being rolled out. Ofcom's conclusion in 8.103 matches with what Colt was telling Ofcom during the consultation process. I have already referred you to that, "world class business connectivity options" which was at p.17 of Colt's consultation response. Ofcom also specifically considered the scope for service differentiation based on the evidence that had been provided to it during the consultation. At paragraph 8.104, it recorded as follows:

> "We recognise that access to the passive infrastructure could, in some cases, give a CP an advantage through more control over the characteristics of the end to end service it offers".

Now this is the point that Colt has brought to the table at the appeal stage, the SLAs. This is Ofcom's view on the basis of the evidence that was before it at the time of the statement:

> "However, the evidence we have seen about the impact of such control in the case of leased lines is not conclusive. The difference in performance attributes between the UK and countries where passive remedies are available, as shown in the diagrams provided by Vodafone, could be due to a number of variables apart from the availability of passive remedies, such as the planning of the radio network, the penetration of mobile broadband use, or the choice of the mobile device used for the measurements, among others".

It then proceeds to acknowledge, in 8.105, concerns about Sync-e and it notes that this is subject to another part of the statement. There were specific proposals made in relation to statement of requirements, the ability whereby operators can request new products from BT at Openreach. So that was section 12. And then "overall" the conclusion at 8.106:

> "Overall it is not clear that imposing passive remedies would lead to better market outcomes in the round than the package of remedies we have decided to impose in this review. We recognise that passive remedies could bring some benefits in the leased lines markets. In particular, imposing passive remedies could:
>
> > stimulate competition in a greater part of the value chain in regions where full infrastructure competition is unlikely to emerge by lowering barriers to entry; and provide more scope for product innovation and service differentiation in some cases".

But Ofcom then went on to say:

"We consider, however, that the package of remedies which we have decided to impose could achieve similar outcomes".

And this was the point about which you asked, Ms Potter, and the answer is, in our submission, that Ofcom looked closely at what markets were currently doing in relation to those specific applications which were being cited to it in the consultation process, and its conclusion is based on its careful examination of that evidence. And we submit that no error has been shown in its assessment. Then Ofcom sets out its concerns.

THE CHAIRMAN: Mr. Holmes, sorry.

MR. HOLMES: Apologies.

THE CHAIRMAN: Just go back to 8.104 for a minute.

MR. HOLMES: Yes, sir.

THE CHAIRMAN: Are we to read this as a recognition that there is the possibility of greater differentiation and better individual service. So the point that you cannot break free from the BT restrictions, Ofcom do accept that, and they then weigh that against other factors. Is that right? Because where they go on to say the evidence is not conclusive, that is based on a sort of regression analysis of what other conditions might be present in other European countries. The actual finding on whether you can differentiate more if you have passive remedies, they agree but they do not give as much weight in the balance as Colt does.

MR. HOLMES: Yes, sir. That is fair, and I think it connects with the way with which the point is put in 8.106. You are quite right to draw it to my attention because there was —

THE CHAIRMAN: The second bullet, yes.

MR. HOLMES: Exactly, sir.

THE CHAIRMAN: It is important because we have had quite a lot of evidence about that.

MR. HOLMES: Yes, sir, indeed.

THE CHAIRMAN: Sorry, please go on.

MR. HOLMES: Thank you, sir. So you have my submission on this. Having looked closely at what was happening on the ground, and having liaised extensively with the industry, Ofcom concluded that no sufficiently clear advantage in terms of outputs generally would necessarily be achieved by the existing model of regulation so as to justify addressing the substantial risks that Ofcom had identified. Now, Ofcom did not have before it the evidence to which you refer, sir, that Colt now deploys in appeal and assisted by the interveners in its support, about the uses to which passive remedies might be put. This was not because the point was not fairly raised with Colt in the consultation document. Colt was invited to comment on all aspects of Ofcom's analysis, and Ofcom's focus on the potential benefits

and detriments, including as regards innovation, it is clear from that document. In any event, in Ofcom's submission the evidence does not provide a sufficient basis to overturn Ofcom's conclusions. It shows the great difficulty, with respect, of attempting to deal with these issues within the compressed and limited prism of an appeal process rather than a full consultation with all parties bringing forward evidence for consideration at the consultation stage.

The table relied on by Colt turned out to be aggregated across the EU and shed no particular light on the constraints imposed by off-net supplies in the UK. Further, the scope ----

MR. BEAL: I am very sorry to interrupt. I am just slightly concerned, I am getting some jittering behind me, as to which aspects of this may be confidential to Colt.

MR. PIKE: (No microphone): Just generally, this section we are using as the confidential version. It does not show what is confidential and what is not. We think the reference to Vodafone might have been confidential, I am not sure, but this is certainly confidential material.

MR. HOLMES: I am very grateful for that and I shall proceed ----

THE CHAIRMAN: I am sorry, Mr. Pike, do you mean Vodafone taking over the mobile operations of CWW?

MR. PIKE: No, the reference made in para. 8.104 to … Vodafone.

THE CHAIRMAN: I am reading from a non-confidential version and that name does appear. I am on less sure ground when we get on to [X], I have to say.

MR. HOLMES: I am grateful. I need not, I think, take this submission very much further. In any event Ofcom considered the evidence that was before it and I think it may be more appropriate to leave it to the commercial parties to make submissions on this point as they see fit.

On balance, Ofcom's conclusion was against introducing passive remedies. Ofcom submits that no error has been shown in that conclusion. Let me now deal with Mr. Beal's submissions.

I am going to take these not in the order in which he made them in his closing today, but the order in which he made them in opening, but I think I will cover all of the bases nonetheless.

THE CHAIRMAN: We are still on Ground 3?

MR. HOLMES: We are still on Ground 3, yes. We are very nearly there with Ground 3. Things will, I hope, move rapidly from here.

THE CHAIRMAN: I just want to get everything in the right basket.

MR. HOLMES: First, the primary answer in opening was FRAND. It was said that this would not disrupt the bandwidth gradient, it would leave the issue of common costs recovery wholly within BT's hands. There are several reasons why FRAND is no answer at all. The first point is that FRAND depends upon the feasibility of monitoring downstream usage. As Dr. Lilico accepted (day two, p.41,line 33) if this cannot be done by BT, differential pricing by reference to the type of downstream usage will not be possible using a FRAND methodology.

MS POTTER: Is it fair to say that differential FRAND depends on this?

MR. HOLMES: Yes.

MS POTTER: A high uniform price would not?

MR. HOLMES: Yes, madam. I am grateful for that intervention, but what that, I think, illustrates is the great difficulties into which FRAND would lead us, because the only high price we have is the one that the experts produced as a sort of armchair calculation at the final stage of the appeal process. They say that it may perhaps be too high to support competitive entry so it has not been market tested in the sense of no industry party is actually aligned with it. There is no business plan based on it or anything of that nature.

THE CHAIRMAN: They say they were just trying to see if a price was feasible to be derived from the ingredients?

MR. HOLMES: Yes, sir. They were seeing if it was a feasible exercise in terms of working out the LRIC component.

THE CHAIRMAN: I do not think they would like to be held to the view that it was too high to allow entry.

MR. HOLMES: No, sir, but they did fairly say that it may be too high to allow competitive entry and that rather suggests that they ----

MR. BEAL: Can I just clarify a factual issue? It was, in fact, our legal team that said that and not the expert themselves.

THE CHAIRMAN: Okay.

MR. HOLMES: I am grateful to my learned friend. In any event, Colt's team presented that as a view, presumably on instruction. Imagine what would happen if BT set a very high uniform price to CPs. We have seen that one of their main complaints was a lack of cost orientation at BT's existing package of downstream pricing. A high price set at a uniform level, regardless of the product being supplied, here we are taking the bandwidth gradient and using it to worst effect against communications providers, because we are taking the highest level of common costs recovery on any product and applying it to the full range of products

that the communications provider would be able to supply downstream. One can imagine where this will end up. It will not end up with agreement. It will end up being brought back before Ofcom through dispute resolution. This is not a belt and braces use of FRAND. It is FRAND as an alternative to a price control.

Anyone reviewing the consultation responses would have to conclude that there is a gulf between the position that BT takes on these issues and the position taken by those who perfectly fairly and properly saw a potential commercial advantage in the introduction of passive remedies. So the idea that there would be universal agreement across the industry, regardless of how BT and Colt might be able to marry, the idea that everyone else would reach agreement is, in our submission, fanciful. So this would come back before Ofcom. What would Ofcom then have to do? There are two aspects to this. On the one hand, it has already set out its current thinking on this in the statement, its view about the desirability of downstream price differentiation. It analysed the consequences of that. In setting a FRAND price it would inevitably be driven to adopt a similar analysis considering any other evidence that was provided, but in the context of a four month dispute resolution, without full consultation of the industry.

Moreover, what you have been told about geographical de-averaging is that it would be complicated and it would be granular. It would involve different costs in different bits of the country and possibly on different ducts, taking into account the capacity constraints to which Ms Potter fairly referred us.

This would be a very complex assessment. BT, anxious to protect its common cost recovery, would, in our submission, have every incentive at the first stage of FRAND, the commercial stage, to be conservative in its pricing in order to ensure that it did not end up with a smaller pot of common costs. That would then come before Ofcom and Ofcom would have to do a margin squeeze analysis in relation to the individual network asset wherever it was being requested across the country. Now, dispute resolution – I think I need not take long to develop this submission – the result would not be an efficient or effective mode of regulation and, in our submission, FRAND is not a regulatory answer. Ofcom assessed these issues and it arrived at an answer. If you asked Ofcom – as no one did – back at the time of consultation "You can just open this up on the basis of FRAND" I think there would have been hollow laughs in view of the concerns and the analysis that they had identified. FRAND would not have provided a solution which would have commended itself to Ofcom then. We say that the same difficulty should weigh in the Tribunal's mind.

Mr. Beal's second point in opening was to suggest that Ofcom could adopt a high price passive remedy, and Ms Potter is right that this could also be done with a FRAND remedy by BT, which was fixed by reference to the highest level of common costs recovered by BT on any product.

It is accepted that the notional price that has been determined does not deal with the geographical issues. So, while it has been possible to arrive at a price that deals with the bandwidth gradient, we still do not know, and we have no basis for being sure how feasible it would be to arrive at differentiated prices. There might be the possibility of bands, but a precise calculation would certainly be difficult. But what the geographical aspect would do is push the price up further from the level that is already being considered, because you would not only need to take the highest amount of cost recovery on any of the products, say the highest bandwidth product, you would also need to take that high bandwidth product and ask: where in the country is the highest level of common cost being recovered by BT currently, if you really wanted to exclude any of these issues, if you wanted to protect the current geographical distribution prices.

The price would be higher than anything we have here. Colt's legal team stated in the document that the price may already be too high to allow competitive entry. There is no evidence before the Tribunal as to the extent to which a price could be arrived at and would actually be of use to anyone.

So we are left under this solution with the suggestion that one should introduce it anyway – just because. We say that is not enough of a basis to impugn Ofcom's careful reasoning. A regulatory solution that has not been shown by any evidence whatsoever to have any real commercial application does not provide a basis, even on a merits review, to justify impugning Ofcom's careful analysis based on the view of how these markets work which was actually contained in the consultation responses which Ofcom received from the industry. Dr. Lilico's contract model depends on monitoring by BT, which is not practicable. For that we refer to the unchallenged evidence of Mr. Lazarus at para. 53 of his statement. Mr. Beal proposed, in cross-examination of Mr. Culham that the problem could be solved by installing smart meters on leased lines. There is no evidence before the Tribunal as to the existence of such a technology, or as to the costs that it would add to the provision of leased lines. I can say on instruction those behind me were not aware of any such technology from their knowledge of the industry. It appears to have been a further elaboration to the case which was already introduced in reply, introduced at the hearing in oral submission by Colt's advocate.

Dr. Lilico accepted that the payments under the contract model he was proposing would have to be sufficient, whatever payments occurred in the event of breach, or other sorts of things, loss of reputation – that kind of thing – would have to be adequate to deter it in cases where it was not spotted, that is to say used for some purpose other than that which was intended which, as you will recall, Dr. Lilico considered was his suspicion about what would happen – this is not like a haircut.

This proposal is flawed because the law does not provide for punitive damages, or permit contractual penalties that would achieve this objective. There is no evidence before the Tribunal that loss of reputation would have a sufficient deterrent effect. Commercial providers tend to have quite thick skins.

In response to a question in re-examination Dr. Lilico mentioned for the first time termination of the contract, full stop, for non-compliance, and withdrawal of some sort of licence. Ofcom has not been able to address these in evidence and there has been no attempt by Colt to explain how this might work legally. Colt would have to explain how the withdrawal of some sort of licence was compatible with the general authorisation regime applicable to telecommunications under the Authorisation Directive, while termination of the contract would give rise to the clear potential for consumer detriment as the passive access seekers' customers got cut off.

Further, as pointed out in Mr. Culham's second statement in 8.3 to 8.4, Ofcom has reasonable concerns about requiring BT to share with its competitors – or BT's competitors to share with BT – commercially sensitive information about the number and location of its customers. The restriction on the use to which passive access could be put would be likely to reduce the associated innovation benefits.

Another suggestion was that a CP wishing to use a passive remedy could be required in exchange to offer a full suite of the same services as BT.

Dr. Lilico accepted that it could well be commercially enormously burdensome. (Day two, p.40, lines 20 to 21).

The premise of this proposal is that it will allow uniform rates upstream to be combined with variable rates downstream, but that creates an incentive for the full function company to focus its marketing efforts on supplying the products with the highest margins, i.e. those on which BT recovers more common costs.

In a world of business connectivity solutions supplied on a bespoke basis there is simply no way of monitoring or preventing this focus on arbitrage. It is not like a chemist where you

can inspect and see what pharmaceutical products are being stocked. The fact that other services are available in principle does not mean that they will be marketed in practice. The proposal also fails to take account of geography as Dr. Lilico accepted in cross-examination.

Mr. Beal's third point was to argue that Ofcom should ----

THE CHAIRMAN: I wonder, "third point" you have another 15 minutes of time.

MR. HOLMES: I will not be more than 15 minutes.

THE CHAIRMAN: We may have some questions for you, it is possible.

MR. HOLMES: Of course.

THE CHAIRMAN: I think we are going to stop here.

MR. HOLMES: That is a convenient moment, sir.

THE CHAIRMAN: And we will reconvene at 2 o'clock, please.

MR. HOLMES: I am grateful.

(Adjourned for a short time)

THE CHAIRMAN: Mr. Holmes?

MR. HOLMES: Sir, before the short adjournment I was coming to Colt's third point in opening, which was an argument that Ofcom should have modified or adjusted the active remedies to accommodate passive remedies. On this we say that Ofcom had good reasons for adopting the active remedies that it did, which are not under challenge in this appeal. No one has suggested in this appeal any way in which the active remedies could be adjusted to avoid the inconsistency with passive remedies without abandoning differentiated common costs recovery. It is, therefore, unclear what further work Mr. Beal thinks Ofcom should have undertaken or what error in Ofcom's analysis is being alleged. If the suggestion is that Ofcom should have removed pricing flexibility upstream, that has not been pleaded, and if it had been pleaded, it would have been a price control matter and sent to the CC. It is plainly not before the Tribunal and in any event the expert witness for Colt, Dr. Lilico, made clear that he was not criticising Ofcom's use of the basket approach. I think, in fairness to Mr. Beal, he made clear in his closing submissions this morning that it was not part of his case to challenge the design of the active remedies in that way. We are not sure what adjustment is therefore proposed at the active level. We have covered, I think, the proposed adjustments at the passive level.

Colt's fourth point is to allege that Ofcom has not done sufficient cost benefit analysis. From Dr. Lilico's second report it appeared to Ofcom that the complaint was of a failure to quantify. I am not sure that one needs to turn it up, but in 4.25, but it is tab 9 of the core

bundle, p.13. There appeared there a criticism which you will recall from cross-examination I put to him had not appeared in his first report. The criticism that we took him to be making about cost benefit analysis is crystallised in the final sentence at 4.25, where he states an observation that Ofcom has conducted no detailed and systematic cost benefit analysis either. The "either" there is acknowledging that he has not done that exercise:

> "… e.g. it has offered no quantitative estimate of the social welfare losses it believes would arise from the disruption of the bandwidth gradient, and no estimate of what it agrees are the benefits from passive access."

So it appeared to us on that basis that Ofcom was being criticised for not having quantified sufficiently the costs and the benefits which it was factoring in to its weighing of benefits and detriments.

In cross-examination, Dr. Lilico accepted that, "I don't think you would be able to quantify the gains from innovation with any high degree of precision". The reference is day 2, p.34, line 31. He accepted that considerations associated with competitive processes and dynamic features are things that would be intrinsically very difficult to quantify. That was day 2, p.36, line 1. His complaint about a lack of quantified cost/benefit analysis collapsed into an unpleaded reasons challenge, as can be seen from the transcript, day 2, p.34, where he made clear that he was not claiming that any practical policy maker always has to have a precise numerical estimate of all of the costs and all the benefits and all the risks around the costs and all the weightings which they want to have, and said, "Instead Ofcom should at least give us some sense of why it thinks that the costs outweigh the benefits or vice versa", and he suggested that Ofcom has not done this. In Ofcom's submission this criticism is incorrect. In any event, Mr. Beal has expressly stated on several occasions during the hearing that Colt is not pursuing any reasons challenge.

In his closing submissions yesterday, Mr. Beal denied that he was making any claim as to the degree of quantification in which Ofcom ought to have engaged.

Mr. Beal in his closing submissions took you [X]'s response to the call for inputs and drew attention to certain passages there identifying work that [X] contended that Ofcom should undertake. I am so sorry, I revealed the name of party whose response was confidential.

MR. BEAL: Most of that response is, in fact, open.

THE CHAIRMAN: A communications provider.

MR. HOLMES: This material, we understood to be deployed to suggest that there was further cost benefit analysis that Ofcom should have undertaken. We say that there is nothing in this point. The response that Mr. Beal showed you was before the consultation

documentation in which Ofcom set out its analysis. [X] responded to the consultation document and did not contend that Ofcom should have done further substantial cost benefit analysis.

Mr. Beal today claimed that Ofcom did not consider the scale of losses and benefits sufficiently, and this appeared to us to be a return to quantification. Mr. Beal also alleged circularity by reference to Dr. Lilico's statement. As to this, Dr. Lilico accepted that there were costs involved in establishing an intermediate market and that these should be assessed against possible dynamic benefits. It was on the basis of that assessment against possible dynamic benefits that he accepted that there was no complete circularity, there was only what he described as "near circularity". In our submission, Ofcom understood the balancing exercise that Dr. Lilico on several occasions in his evidence accepted was the appropriate one for a regulator in weighing the costs which he expected to arise in relation to an intermediate market against dynamic benefits.

A further submission made by Mr. Beal was that disruption may not be a bad thing. It should not be presumed to be a bad thing. As I have just submitted, there is no dispute that the disruption at issue here does carry costs, and that a balancing of costs and benefits is needed in consequence of that to assess those costs against the benefits of dynamic competition.

Given the costs here, Ofcom was entitled to ask itself whether any really exciting disruptive effects were on the horizon by reference to information from the industry. My submission today has been that Ofcom did do that, it looked at the areas in which it was proposed to deploy passive access by operators who responded to the consultation, and the balance of evidence did not suggest that these benefits were sufficient to outweigh the costs.

Mr. Beal also identified a series of other situations in which he said that the same concerns would arise but do not appear to have weighed against passive access. So he began by saying that Ofcom's concerns had not been a problem in relation to the introduction of local loop unbundling, the LLU remedy.

There are several points to make about this. Firstly, as observed in the BCMR statement at 8.48 there was in the case of LLU no established industry already in place. This was at an early stage. I think Dr. Maldoom made this point. It was brought in when we were still using dial-up connections to the internet. It was an early stage where you did not have the same risk of disruptive effects downstream on established industry players and the prices that were at that level.

Further, if one looks at LLU, the issue of arbitrage does not arise in any event. First of all, as regards geographical arbitrage, the potential for geographical arbitrage, the issue does not arise because in the LLU field there is regulated common pricing across the UK for the LLU product.

As regards the scope for product related arbitrage, the bandwidth gradient, the products supplied at the LLU level are comparatively low bandwidth when compared with the products that are required by businesses and which are considered in the context of the leased lines review. So the scope therefore for arbitrage from residential LLU, if you like, to business is limited, and so that issue just does not arise.

Mr. Beal then referred to NGA. I covered this at the start of my submissions today. The point is that this was a specific remedy introduced to deal with the problem in the final third, and Ofcom's expectation, which has been borne out by the evidence so far, is that the active product would be used instead.

Sir, I should pick up now a point that you raised with me. I promised to get back to you with some references. The references, for your note, are that the situation in relation to NGA was specifically consulted upon in the BCMR consultation document at para.8.60, and the BCMR statement makes the same point at para.8.50. Would it assist if we were to turn them up.

THE CHAIRMAN: We thought that is what you might say.

MR. HOLMES: The next comparison that was drawn was with WECLA. This is the area in London where there has been substantial infrastructure based competition with the consequence that WECLA has been deregulated. We say that this illustrates a different model of competition from the one that we are considering here. It goes back to my introductory comments. This is for infrastructure-based competition and it has resulted in deregulation, exactly the end goal that Dr. Lilico postulated as the sort of *telos* for regulation, the objective that the regulator should be pursuing, and that Mr. Culham agreed was a desirable outcome, a situation in which the regulator is no longer needed and can bow out.

The situation here is different. We have a regulated access product and what is being proposed is another level of regulated access to BT's infrastructure, and that is a different situation from WECLA where you have parallel infrastructure providing full competition on the merits.

MS POTTER: Can I just ask since this has come up, I think it is of interest if it is possible to provide the information: I am assuming that the bandwidth gradient issue has effectively

fallen away within the WECLA area and that the common cost of recovery in that area as a result of competition has already been disrupted?

MR. HOLMES: That is an interesting question, madam, and one I shall certainly check. Is it premised on the notion that a passive access market would have arisen?

MS POTTER: I think it is premised on the idea that the sort of issues that were being talked about as a consequence of the introduction of potential competition in high bandwidth products would have occurred in the WECLA area.

MR. HOLMES: I shall take instructions, if I may, and get back to you on that. As I understand it, as a matter of principle, and I do not say this on instruction, one can see differentiated cost recovery in a situation where there are several competing vertically integrated providers. (Pause) Madam, I am instructed that there is a bandwidth gradient, and this is on the basis that I was just describing, that where you have vertically integrated operators supplying, in so far as an efficient structure of prices involves a bandwidth gradient, it will be in the interests of those suppliers - you will see a pattern of prices which emerges from the process of competition which involves a differentiation and differentiated common costs recovery -- --

THE CHAIRMAN: It is the suppliers who do it?

MR. HOLMES: Indeed, sir, yes, as BT does it in this case under the discretion allowed to it under the price cap.

THE CHAIRMAN: There is no price cap, so there is no discretion allowed.

MR. HOLMES: Indeed, sir.

THE CHAIRMAN: So we are in a different universe.

MR. HOLMES: The same efficient processes which shape BT's prices, that is to say their awareness of demand, leads to the same pattern of differentiated common costs recovery. A problem would only arise if one of them found it efficient to introduce a new product at the passive level, allowing other competing CPs to provide a service downstream using a passive input, but that would give rise to the arbitrage situation which Ofcom was concerned about in this case.

MS POTTER: And in a competitive situation you would not be concerned about it, it is only really in the regulated market.

MR. HOLMES: Yes, although it is interesting, of course, that the unregulated operators, especially in the light of Dr. Lilico's thought experiment about near circularity, that in a competitive market it appears just on the basis of this exploration of the point. I appreciate it

has not been ventilated before, but it appears that there has not emerged that passive level under conditions of competition.

THE CHAIRMAN: You are beginning to get to the end of your time.

MR. HOLMES: I am so sorry, sir. I am very very nearly there. I am very nearly there. The only other point I think I have to make on ground 3 relates to other jurisdictions. And on this we say simply that Ofcom had to regulate according to the facts it found on the ground in this country, and other jurisdictions are notoriously difficult to draw reliable comparisons by reference to. In particular, the active remedies which play a big role here and that have been very widely used, may not be so well established and bedded down in other countries. So there may not be this issue of disruption to an established model of access regulation that does not exclude, that does not involve someone else buying the kit which fits at either end of the pipe.

So, ground 4, this is very brief. I imagine, sir, that I can do it in five minutes with the Tribunal's —

THE CHAIRMAN: Indulgence.

MR. HOLMES: "Indulgence" is the word I was looking for. Indeed, sir. In the core bundle at tab.4 we see how the point is put in the notice of appeal. The summary is at 1.4. I should say, sir, that Mr. Beard is very kindly indicating that if I do run on slightly, he does not mind it coming out of his turn. I am not sure the Tribunal necessarily wants to curtail him, given they would rather have a change of personnel, but 1.4(d) you see the claim at p.5

> "Ofcom is wrong as a matter of fact and/or assessment to reject passive remedies on the basis of a supposed lack of demand for them".

Now, on this we say in relation to an allegation of error of fact, it matters precisely what fact was found. This is separate from the question of whether Ofcom was right to investigate any particular matter. If you are saying they just got it wrong on the facts, you have to look at what they found. This is neither a semantic nor a sterile point. Ofcom's finding of fact is at paragraph 8.125 of the statement, if I could ask you to turn to tab.8 of the second core bundle, the additional materials bundle, and it is p.662. The relevant paragraph is 8.127, no I am so sorry, I think I was right to begin with. (Yes, I was). Our engagement with the industry, responses to the condocs:

> "… revealed no evidence that any CP would invest substantially in infrastructure based on passive remedies over the forward looking period of the review if we were to impose them in leased-line markets".

So, a simple quantitative enquiry into levels of investment. That is what they were asking. And the claim was that no-one was going to invest substantially.

You then see at 8.127, if you have the confidential version, Ofcom's consideration of Colt's investment plans. Sir, do you have that? I think when you reviewed this before you had a redacted copy that —

THE CHAIRMAN: Give me the reference.

MR. HOLMES: It is 8.127.

THE CHAIRMAN: No, I do not. (Document handed)

MR. HOLMES: And for your note, sir, the Colt investment is described at 8.123 on that same page. Then you have at 8.128 in the final sentence the sentence which we say, the indication we say that this finding about substantial investment was separate and discrete from the assessment of whether better outcomes in the round would arise which was the subject of the preceding part of section 8.

Now, sir, you asked me a question in opening about whether the positioning of that paragraph was unfortunate, because it comes, if you recall, in the bit of the statement which does look at substantial evidence of demand.

THE CHAIRMAN: And you described it as "clunky".

MR. HOLMES: Clunky indeed, sir, and, you know, I do not wish to demur from that description. But I just want to draw your attention to 8.131 which is in the conclusion and which we say makes the same point.

THE CHAIRMAN: Yes. I think I did say that I thought it was repeated in the conclusions.

MR. HOLMES: You did, sir. You did.

THE CHAIRMAN: Right.

MR. HOLMES: So, the finding of fact was therefore not as Colt suggests in the notice of appeal a finding that there would be no demand. Ofcom recognised that demand levels would depend on the price for passive access. If the Tribunal could just turn back to p.649 of the statement, that point is made in paragraph 8.41:

> "The prices of passive products relative to those of downstream alternatives would be a key factor in CPs' incentives to use them".

Ofcom then illustrates that with the example based on an MNO's desire as explained to Ofcom to use passive remedies on the assumption that they would allow it to arbitrage the bandwidth gradient.

So Ofcom also understood that there would be demand at the right price from the point of view of the purchaser and this underlay its central concerns described in the consultation

document as “significant risks”. There is therefore no basis for Colt’s allegation that Ofcom got the facts wrong in the final part of section 8. And the facts indeed remain the same now. We accept that the Tribunal has a merits jurisdiction; it could reconsider the question of significant demand if it thought it particularly pertinent. But no-one has come forward to the Tribunal with any further evidence of substantial investment intentions which turn upon the introduction of passive remedies.

So we say no error of facts, and in any event Ofcom’s analysis of substantial demand was discrete from its balancing exercise, so that Colt must therefore succeed on both grounds 3 and 4 in order to justify remission.

That is not the same as saying that evidence of investment would not also have implications for the balancing exercise, and this comes back to a question that you, madam, fairly raised in opening. If, in the final quantitative assessment of investment intentions Ofcom had found evidence that someone planned to invest substantially, it would of course want to know what the investment would be in, as Mr. Culham explained in re-examination. And this is also the point being made at paragraph 66 of his first statement. If one reads that, we need not go to it now, but if one reads it, it is saying simply that there were two things that Ofcom would need to be satisfied of, innovation and substantial investment, but the balance could shift. If people were going to do something very innovative, or come forward with a lot of money, Ofcom could arrive at a different position. It was not intended, I think, to say anything more than that.

So this evidence would then be added if somebody had come forward with evidence of plans to invest substantially, to the other qualitative evidence already considered in the balancing exercise which we have run through this morning, and would be weighed in the balance alongside the consideration of MNOs’ backhaul, scope to unlock investment in NGA and the niche applications referred to by one operator, and so on. A substantial investment in arbitrage, however, would not sway the balance, and this shows why the two stages of analysis were rightly considered by Ofcom to be discrete and cumulative. The mere fact that someone has a large cheque, whatever the notion is of a large amount of money in this market, would not in itself change the balance, which was the prior stage. You would need to look at what they were going to spend the cheque on.

MS POTTER: Sorry, I am rather sort of pondering on that in terms of if someone was really coming forward with a case for substantial investment, one would be rather thinking there would be an intention to innovate and to compete, in that kind of investment decision

presumably Ofcom would not just be saying, "Look at this amount of money but it's all arbitrage", because obviously one would expect a competitive response from BT.

MR. HOLMES: One would expect a competitive response, yes.

MS POTTER: If it were a large scale investment, you would expect a competitive response which is precisely the concern that Ofcom had that that response would then undermine the common cost recovery.

MR. HOLMES: Yes. Indeed.

MS POTTER: So therefore you would expect the competitive dynamic to work through.

MR. HOLMES: Yes, madam, I think that is correct. Subject to your questions, and I understood that there may be some, those are my submissions.

THE CHAIRMAN: I think you have covered our points, thank you very much.

MR. HOLMES: I am grateful, sir.

THE CHAIRMAN: Mr. Beard.

MR. BEARD: Members of the Tribunal, sir, if I may, I will make one or two comments on the law before working through the grounds. Obviously Mr. Holmes has admirably covered much of the material, and therefore I hope to be comparatively brief.

I will start with a recapitulation, if I may. I will not take the Tribunal to the case, but having heard the evidence the Tribunal has done and in particular the closing of Mr. Beal it is perhaps just worth recalling that paragraph in *H3G v Ofcom* which for your notes is at authorities bundle 1, tab.12 at p.10, it is paragraph 1.33, where the Competition Commission dealing with the merits appeal said:

> "In a case where there were a number of alternative solutions to a regulatory problem with little to choose between them, we do not think it would be right for us to determine that Ofcom erred simply because it took a course other than the one that we would have taken. On the other hand, if, out of the alternative options, some clearly had more merit than others, it may more easily be said that Ofcom erred if it chose an inferior solution".

We would suggest that that is apposite here. The second piece of recapitulation is by reference to the *Everything Everywhere* case. I will ask the Tribunal just to turn that up again. Authorities bundle 2, tab.24, at p.5. Again, I would suggest that passage takes on a greater resonance once the grounds as they are now pursued are considered. It is tab.24 in authorities bundle A2, and it is at p.5 of 14, top right-hand corner. I am just going to go back to the bit, you may well have side-lined it, para.21, I will just start in the second sentence:

"[The tribunal] endorsed its previous dicta in *TalkTalk v Ofcom*, 'Where a decision can be challenged by way of a merits appeal, it is incumbent upon an appellant to show – if necessary by way of new evidence – that the original decision was wrong "on the merits"'. It is not enough to suggest that, were more known, the tribunal's decision might be different.

22 It is beyond question that this is correct, so far as it goes. If the appellant can do no more than show that there is a 'real risk that the decision was wrong' then it has not shown that Ofcom's decision was wrong and the appeal should be dismissed. But there remains scope for dispute as to what is meant by showing that an original decision is wrong 'on the merits'".

And then it goes on in 23, that in order to establish a decision is wrong under 192(6) it needs to be:

"… an error of fact, or law, or both, or an erroneous exercise of discretion. It is for the appellant to marshal … [the evidence] ….".

And then, 24,

"The appeal is against the decision, not the reasons for the decision".

And obviously Mr. Beal is not going in that direction.

"It is not enough to identify some error in reasoning. The appeal can only succeed if the decision cannot stand in the light of that error. If it is to succeed, the appellant must vault two hurdles; first it must demonstrate that the facts, reasoning or value judgments on which the ultimate decision is based are wrong, and second, it must show that its proposed alternative price control measure should be adopted by the Commission".

And when we come on to ground 3 that is particularly apposite. There is one more case that I will go to. I referred in opening to the *BAA* in the CAT. It obviously went up to the Court of Appeal thereafter, the Court of Appeal judgment is not apposite, but if I may,

THE CHAIRMAN: I think I know about this case, Mr. Beard.

MR. BEARD: Yes. The paragraph I just wanted to take you to, I referred you to paragraph 20.8 in opening, which was to do with, read the reports as a whole. But I just wanted to refer the Tribunal to paragraph 20.3. This is Mr. Justice Sales going through some of the key considerations. This obviously was a judicial review. But the comments here are apposite when one is identifying what the error is here, because we say that it is not an error on the part of Ofcom, if it could have looked for information. That is not an error of law or fact or a value judgment, as Lord Justice Moses referred to. And so just at 20.3:

"The CC as decision maker must take reasonable steps to acquaint itself with the relevant information to enable it to answer each statutory question posed to it. Analogously, Ofcom must have enough information that it can carry out its functions in making a market review assessing market definition SMP and remedies. But that is the duty"

and if we turn over the page:

"The extent to which it is necessary to carry out investigations to achieve this objective will require evaluative assessments to be made by the CC as to which it has a wide margin of appreciation as it does in relation to other assessments to be made by it".

And then there is a reference to *Tesco*. And then in the next sentence:

"The standard to be applied in judging the steps taken by the CC in carrying forward its investigations to put itself into a position properly to decide the statutory questions is a rationality test".

And then there is a quotation from the case of *Catton* which in turn quotes a case called *ex parte Biani*:

"The court should not intervene merely because it considers that further enquiries would have been desirable or sensible. It should intervene only if no reasonable public authority could have been satisfied on the basis of the enquiries made".

And we say that when the allegation is being made that more should have been done, more should have been looked at, that is the test of error that you have to apply here. As it is, we say Ofcom did plenty, so it does not arise. But, just so that we are clear about the relevant legal tests.

THE CHAIRMAN: You are saying that applies in full merits review just as it applies in judicial review.

MR. BEARD: Well, because when one is talking about the error factor, error of law or error of discretion, we say that amounts to a question of an error of law. It is not an error of fact, because an error or fact is a mistaken assessment of the facts in question. It can be an error of fact on the merits appeal on the basis of further evidence that is being submitted, we accept that too, an error of discretion can be as to a value judgment that is taken in the decision, but that is different from making enquiries or the scope of enquiries that are to be undertaken. And that is why we highlight this, because we do say you need to be cautious about a submission that is being made of: "You could have done a bit more", because that does not fit properly.

THE CHAIRMAN: It is not asking itself the right question, which was another way Mr. Beal put it.

MR. BEARD: I am going to come on to that. Obviously, there is an error of law if you ask yourself the wrong question and you misdirect your attention; there is no doubt about that. We do not quibble about that. But we do think that there is a danger that there is not a legal framework being put round this alternative way that the case is now being put on a "You could have made further inquiries" basis.

Moving on to Ground 1. Ground 1, as with many things in this case, has changed shape many times, but Mr. Holmes took you back to the original formulation and really there is nothing to see there. No one has ever said that passive remedies and active remedies are necessarily alternatives.

Then, if we deal with the formulation of Ground 1 as being Ofcom asked itself the wrong question, the answer is that it did not ask itself the wrong question, it asked itself precisely the right question. It is important in this context to think about the exercises it is required to undertake in a market review.

In the BCMR, Ofcom was asking itself two broad questions. In relation to business connectivity, does anyone have SMP in a market which means it has to go and do all the market definition and market power analyses? If they do, what shall we do to remedy concerns that arise from any identification of SMP. Of course, Ofcom did a huge analysis of what the problems were and how they could be dealt with. The market definition alone, that exercise is enormously complex, and I think it is worth stressing, we do not agree with that analysis. We are not happy with it. I highlight that particularly because there has been quite a lot of suggestion about competition by CPs being rolled out in metropolitan areas. If one looks at Part 5 of the BCMR, which we are not privileged to have in the additional materials, but just for reference. What you get are lots and lots of detailed analyses about areas of the country where there were two or more operators within reach of particular businesses in a postcode, and those were referred to as "High Network Reach area". So if you are a business in that area you have lots of choice of competing CPs and it drew maps of where those areas were and, not surprisingly, they were not just WECLA, which is the London area running out to Slough, but it is also Manchester, Leeds, Bristol, Birmingham and Liverpool. You can look at the points on the maps and work out where the cities are by looking at those dense areas that are picked out.

So the Tribunal just should not proceed on the basis that seems almost implicit in Colt's case, that without these sort of passive remedies, CPs are not out there competing in

metropolitan areas, and competing from BT's point of view extraordinarily painfully, because in those metro areas you have lots of competing CPs and, as I mentioned in opening, in relation to the City 1 example, that is actually provided by Colt, you actually have 8 CPs in there making offerings to business customers.

Going back to the BCMR. It identified the series of relevant retail and wholesale markets and then it looked at SMP. In some cases it found SMP, but not in all cases, and in some cases where it found SMP it was BT that was the entity with SMP. There are others, particularly in Hull of course, because Hull is special.

THE CHAIRMAN: But not before us, really.

MR. BEARD: No, that is right. Then it goes on and considers the remedies, and it is just important to put the remedial analysis in perspective. As set out in Chapter 9 of the BCMR, they are not just charge control remedies that get put in place here, the focus has all been on charge control remedies, but actually it is a much more detailed package of remedies of which charge controls are a part, an important part – we are not saying otherwise.

Those are all considered in chapters 11 to 13. Then you have the charge controls, and they are intended effectively to deal with a situation where, in respect of BT, BT has SMP and so it would be able to charge, on Ofcom's account, supra competitive charges for its services if constraints are not placed on it. So, when it comes to the charge control, naturally enough the remedies you are focusing on, what do you do to the services that BT is offering in order to ensure that it does not charge supra competitive amounts?

It is worth keeping that in context because sometimes the discussion about passive remedies has been as if one can just approach this outside the framework of a market review and say: "Do we like passive remedies, or do we like active remedies more?" You cannot do it in that way. You have to have worked through the market definition and SMP analysis. You have to be looking at the services that are causing you concerns, and in those circumstances it is not surprising, you then target those particular services and it is conditions on those particular services that are going to be the natural starting point for any analysis. That is not to say you do not consider passives. Of course you can consider passive remedies, but in circumstances where you have carried out that review, you have put in place a series of active services charge control remedies that have not been dropped out of thin air, that have been the product of a vast consultation which do, in Ofcom's unchallenged view, result in efficient pricing that deals with those SMP problems. You are asking yourself the right question when you say in relation to passive remedies: "Do they add?" "Is it an incremental benefit here, or are there going to be substantial problems to the SMP analysis and the

remedies we found for that SMP concern, that we have already come to on the basis of a very extensive consultation." Of course, that analysis has to be carried out in parallel. It was obvious it was done through the Call for Inputs, through the consultation exercise and culminating in the Decision. There is no doubt that Ofcom kept its mind painfully open in relation to these matters, that is why BT was making submissions about it because it had real concerns, that Ofcom did have a very open mind about how it was going to deal with remedial matters. The fact that CPs do not engage to the extent that they would now like to engage with these matters is neither here nor there.

In relation to the way in which we look at remedies, it is important to stress how those basket methodologies, which have been put in place do enable a degree of efficient pricing to work. Now, Mr. Beal has tried hard to say that nothing he says about passive remedies impinges upon that finding, but that really is wrong.

First, he says common cost recovery is a matter for BT. That is just getting it the wrong way around. As you put it, Mr. Chairman, it is part of the regulatory structure. Common cost recovery is the very basis for the constraint that is placed on the BT services as part of the regulatory decision. Now, within that Ofcom has left a degree of flexibility for BT but, broadly speaking, it is the basket of costs that it has been setting the price on by reference to common costs allocated to that basket of services, and therefore a passive remedy that undermines the ability of BT to price across that basket in the flexible manner that Ofcom has envisaged really does go to undermine the SMP remedy that Ofcom has put in place - the price cap mechanism, and efficiencies it brings.

He actually goes so far as to say at one point in his submissions that getting rid of common cost recovery has benefits that should be counted in the analysis. You cannot have it both ways. If you are saying that what we are talking about is an alternative that would undermine the entirety of that efficient cost remedy basis and you should count that as a positive benefit, that is an attack on the analysis that is set out in chapters 17, 18 and 20 in particular in the BCMR.

As I say, Ofcom has identified problems in its view and solved them in its view, and then it asked itself in the course of that analysis what incremental benefits are there from passive remedies, given the scheme of active remedies that we can put in place. It was not required to say, as Mr. Beal says, how do we make passives and actives work together, that is not the right question. It works on a presumption that you do have a potential incremental benefit from passives that should be put in place.

As I say, just to pick up another variation on the Ground 1 case, at times, particularly during closing, Colt's case seemed to turn into: "You did not do enough; you should have looked at other things". I have referred you to para. 23 of the *BAA* case. You can always say: "You could have done more", that is not a good criticism of a regulatory decision.

It is a particularly remarkable criticism of a regulatory decision given the scale of the exercise that has actually been undertaken. It is a counsel not only of perfection but potentially madness if you can come along after these long reviews and say: "You should have done more – Call for Inputs, massive consultation" – and bear in mind the consultation was two huge documents, it was the BCMR and the charge control dealt with separately that were then fused into the final BCMR decision – "you should have done more". That is Ground 1.

I am not going to deal with Ground 2 further, Mr. Holmes I think has covered that more than adequately. That takes us to Ground 3.

One of the points to emphasise from our perspective, and it is an important point, is as Dr. Maldoom has pointed out in his witness statement and, indeed, under cross-examination, multiplications of remedies in relation to a particular service actually increased the chances that one is going to be wrongly priced. Therefore, you do increase the chances of detriments that flow from those multiple access points arising, and there is no challenge to that.

Then we think about what the detriments are, and the first, of course, as well articulated by Mr. Holmes, the collapse of bandwidth gradient, if you have a situation where passive prices are at a flat rate. Well, it is not just a flat rate, but a rate that is insufficiently refined so as to prevent that collapse, because you could have grades of passive prices that still create those problems. Colt has no concerns about that. It was entirely candid in its initial submission, as were other CPs. We do not like the bandwidth gradient, we do not care about BT's costs recovery. Mr. McCann was entirely candid. He is not interested in BT's cost recovery, that is perfectly proper. It is no concern of Mr. McCann's but it really is a concern of BT's, and it is a concern quite properly of Ofcom's.

So the fact that the CPs do not care, and do not make submissions about these things is entirely immaterial. Indeed, it is almost surprising that one or two of them said as much as they did; it may be prescience on their part but, nonetheless, it is a fundamentally neglected part of the Colt analysis that the regulatory structure must, in line with Ofcom's regulatory duties when dealing with SMP situations, afford BT a reasonable opportunity to recover its efficiently incurred costs.

In opening I outlined how it was quite a complicated involved process, but under Ofcom's supervision as to how regulatory financial statements were put forward and cost allocation was done and that was then fed into the regulatory process, and at one or two points during cross-examination there was a reference to a 'recent restatement of the regulatory financial statements'. To be clear, there have been restatements of the regulatory financial statements. It is not entirely stunning that in such complicated documents restatements do happen from time to time. It was done with Ofcom's knowledge and supervision, obviously, and we cannot see how it is remotely relevant but we do make clear that it is right, there has been a restatement.

That cost recovery problem exists. The second cost recovery problem arises because of the risk of geographical de-averaging and that is not just a cost recovery problem that is a consequence to business consumers outside urban areas, and that is a very significant issue. If the world is going to change and the expectations are that BT is not going to have to serve those sorts of people and bear the cost of it, that is a very, very different telecoms' regulatory world that we will be dealing with, and Ofcom quite properly, having regard to its regulatory obligations, has those matters closely in mind when it is thinking about how these regulatory remedies have to be struck. Again, Mr. McCann, perfectly candidly says: "I am not worried what people pay out in rural areas, I have set out I am interested in Colt rolling out in metro areas." Fine. Again, no criticism of Colt or Mr. McCann, but that does not make these matters irrelevant, they are actually critical to the way that Ofcom should deal with these matters.

That, of course, is not the end of the detriments because, as I indicated in opening, as well as those fundamental problems with enabling cost recovery through the efficient pricing mechanisms, that affect bandwidth gradients and geographically average pricing, you have also got risks that you actually increase the costs of the equipment that is being used when passes are rolled out and there has not been any challenge in relation to those sorts of issues. When CPs install kit there is a risk they are installing kit that BT already has in place. Duplication may well be a function of competition but it also has to be recognised that it can also be inefficient having duplication of those sorts of kits because the cost of that has to be recovered from consumers.

Fourthly, there are real risks in relation to what are called "Capacity Grabs". In other words, communications providers trying to get spare duct space or fibre so that they can effectively hold on to it, take advantage of it, and then charge what they want to third parties unconstrained by regulatory mechanism, unlike BT.

The Chairman I think raised an eyebrow in relation to my reference to Morgan Spurlock, he was the man who nobly ate McDonald's for 30 days and every time he went in there he was required to accept a supersizing of his meal. The consequences of that 30 days were documented in his film "Super Size Me", which was both a description of him and the rule he applied. Colt does not refer to supersizing, it refers to "outsize" capacity being taken, but it is the same issue, it is grabbing a lot in order that you can have control over more than you actually need in those circumstances.

Fifthly, you do deter investment. I have highlighted that in relation to cutback issue in relation to cost recovery, but there is also a regulatory uncertainty issue that arises here, and no one has ever really talked about that part of the Framework Directive, but there is a genuine regulatory uncertainty issue that arises. It is contrary to the terms of Article 8 of the Framework Directive, of course that might not bother Colt. I am not for a moment suggesting that the requirements of Article 8 mean that there is "sclerosis", as Mr. Culham very properly referred to it, but he did recognise that there is a virtue in stability.

There is one other reference I should make there, Dr. Maldoom (Day three, p.3 line 21) also referred to the foreclosure of investment effects, just for your notes.

Sixthly, the move to passive remedies will be irreversible – again, not challenged. It would undermine the regulatory schemes that have assessed efficient pricing mechanisms that have been put in place to solve the concerns that arise in relation to SMPs but have been to the benefit of competition in consumers and instead create an inexorable, if chaotic, move to passive remedies; active and passive would not be happy bedfellows.

There is actually an interesting further problem that arises, not just irreversible, but potentially irremovable, because you get a funny situation whereby if you have identified an SMP for an entity, and you put in place active remedies, then as significant market power ebbs away, assuming those remedies are functioning then you can remove active remedies. No one has really thought, so far as we can see, what you do if you put in place passive remedies in a competitive sector of the market, and the SMP declines, and then the party with SMP wants its ducts back, that does not seem to have been thought through at all. There may be some answers but nobody has grappled with them. I should stress that the situation in relation to passive access here is vastly different from the position in relation to PIA. Mr. Holmes has canvassed these points in some detail, but it is important that the fact that PIA has been accepted in the circumstances it has does not tell you against the active remedies that exist, it does not tell you that you should have passive remedies in relation to the business connectivity market. What it suggests is that actually you need to think about

these things rather carefully in relation to the specifics of particular markets. It is no good simply abstracting matters and dealing with things at levels of generalisation which are fun as thought experiments, but they are no fun if you roll those thought experiments out across markets that are very significantly developed. You can draw lessons from the fact that BT does not have an economic case for rolling out NGA services in rural areas, and therefore effectively we are going to ensure that different people can do that, albeit that, as Mr. Holmes rightly said, probably on the basis of subsidies which is when you get into these state aid points, so it is actually overcoming economic problems in those circumstances where you are not going to have alternative infrastructure as compared to situations where you are already having infrastructure competition in relation to these issues, and indeed not just infrastructure competition, but competition more generally in the leased lines market.

One point that was picked up by you, Mr. Chairman, when you were taken to various bits of the PIA or the WLA document looking at PIA wars. A pricing scheme was put in place here. A reference offer was made. That is right, but it is much, much simpler to deal with sorting out a reference offer in relation to an area that you are concerned with enabling effectively one operator to roll out a system than it is trying to deal with the issues of pricing in relation to passive access that we are dealing with here. I will come on to that when I talk a little more about FRAND.

Just for your notes, Dr. Maldoom, day 3, p.18, lines 1 to 10, rather carefully considered issues concerning difficulties with transposing the analysis of one market to that of another. Mr. Holmes has already given you references in relation to how PIA and the comparison between the two was actually specifically highlighted in a consultation document and it was considered by Ofcom and referred to in the Final Decision. So it had that well in mind and it was on the basis of all of that analysis that it thought, no, actually this market is different.

So we have a wide range of significant detriments in circumstances where remedies have already been identified. It is not looking promising for the idea that there is an incremental improvement by the introduction of passives. Colt has broadly three responses. One is, “Let us not worry, you can just set high prices, put them out there at really high prices and it will not cause any problem for bandwidth gradients or anything else”. It is also entirely pointless. It adds nothing in those circumstances. It feels slightly disingenuous because that feels like it is just a start of collateral fight about levels of those prices.

If you set prices at any level that means effectively common costs recovery is protected you are just not adding anything, at which point there is not an incremental benefit, there is nothing to see here.

The other alternative is, of course, FRAND pricing. Mr. Holmes has already spelled out how that would just be a massively complex exercise. Dr. Maldoom, day 3, p.4, lines 13 to 21, and day 3, p.19, lines 27 to 32, explains some aspects of how complex it would be and how much more complex it would actually be than the charge control. In the charge control you are dealing with setting caps or structures of caps for a basket with sub-caps, and on, of homogenous products. You are not doing that when you are talking about different pieces of passive access.

Mr. Holmes has already referred to the fact that if you are going to try and build in some kind of usage-based pricing mechanism you have at the moment, it seems, completely insuperable problems in relation to monitoring. Mr. Beal will not have to stay long at the Bar if he is about to patent a smart meter that will enable this sort of monitoring to occur.

Mr. Culham set out very clearly how the exercise of engaging in FRAND pricing would require hugely granular analysis. I give you the references, day 3, p.40, line 30 through to p.41, lines 1 to 3. It would be an exercise like nothing we have seen in relation to these regulatory schemes. It is nothing like PIA and it creates vastly more problems.

It actually does get a bit worse than that, because unlike when you are dealing with pricing system costs and system constraints, and so on, with passive access you are looking at particular ducts, particular fibres, and Mr. Beal took the Tribunal at some length through various of the reports that were fed into the consideration of whether or not there should be a PIA remedy, and said they say 40 per cent of ducts have space in them, or something of that sort.

That is right, we are not trying to quibble with surveys. They are necessarily imperfect, but they are showing space. The problem is where is the space, where are the difficulties? As Mr. Reid said, if you are asked for a particular route through a set of ducts to access the ducts, you have to make sure that there is room for another cable to run through, and not through most of it, through all of it. The problem is you do not know where the constraints lie in relation to the duct. So you will have to survey. So in relation to any application, quite apart from all the huge problems that FRAND pricing would involve, you also will build in a prior step of the cost of surveys, and so on.

We recognise that sometimes additional costs are part of competition, but this is more and more complexity, more and more uncertainty, more and more disruption in circumstances where there is not any real sign of incremental benefit.

So FRAND fails, high price fails.

The third answer is that the detriments are outweighed by the benefits. Let us just briefly go through what are alleged to be the benefits of introducing passive remedies. I recall again that in its notice of appeal Colt contended that there was substantial evidence of benefits that can be delivered through passive remedies which are incapable of being achieved by active remedies. The first of these was infrastructure based competition. Of course it is not really about new infrastructure, it is different configurations of existing infrastructure, albeit with some digging. It all comes down to arguments about architecture, it seems. Colt said it would develop rings but it was unclear how that worked when all it had was the BT hub and spoke architecture and how such rings would be developed.

Even if it could, the differences between the architecture seemed to boil down to questions of resilience. As Mr. Reid carefully explained, you can have resilience in different ways. He recognised entirely that a ring does have a degree of innate resilience, no doubt about it. There is no dispute there, because you have dug enough to ensure that there are two routes from any particular point. He went on to explain why that really is not all that instructive. As he explained, day 2, p.34, line 30, through to p.35, line 13:

> "Sir, if this was the end of discussing rings I think it would be very misleading just to leave it there because the important point is that BT does not offer pure point to point un protected service, it offers alternative strategy based on dual parenting, which is equivalent to rings.
>
> Q You say it is equivalent to rings, but dual parenting would require two straight lines running parallel to each other, would they not?
>
> A Yes, they go to different places, yes.
>
> Q I understood dual parenting to mean that you were going between the CP providers and the customer's premises, but you were simply running two lines along it?
>
> A No, it provides two routes from the customer premises, one to one BT local exchange and one to another local exchange, such that they have not got any common load failures between them.
>
> Q You say that gives rise to a *de facto* ring?
>
> A Ultimately, I think the ring can be a little bit misleading. The important point is that there you can have multiple paths. A ring will provide you two paths, so more than one path, without having common failures on it. The hub and spoke architecture of BT's network achieves that by providing two paths from a customer premises back to two local exchanges. From there the circuit

can be extended, two circuits can be extended again to maintain the 'supremacy' of routing, such that the full resilience is achieved."

THE CHAIRMAN: Mr. Beard, I thought we heard earlier that Ofcom had accepted that in certain cases, I will read from 8.104 of the statement:

"Could in some cases give a CP an advantage through more control over the characteristics of the end to end service it offers."

MR. BEARD: Yes.

THE CHAIRMAN: So that is in the Decision.

MR. BEARD: That is in the Decision.

THE CHAIRMAN: In certain circumstances.

MR. BEARD: In certain circumstances.

THE CHAIRMAN: Not in all circumstances.

MR. BEARD: Not in all circumstances, but in the circumstances that have been articulated on the evidence in this case the point we are making is actually it does not offer additional benefits.

THE CHAIRMAN: Ofcom must have come to that view on the basis of evidence advanced to it during the consultation and its own regulatory experience.

MR. BEARD: That may well be right, and BT does not accept that that is quite right.

THE CHAIRMAN: Okay, so there you are supporting Ofcom.

MR. BEARD: Of course. We support them emphatically but that does not mean that when we are faced with particular evidence about how constraints arise and how alternative architectures might give rise to additional benefit, when we look at the particular evidence we cannot say, yes, but this suggestion that is being put forward by this appellant does not do that, and that is precisely what we are saying here.

THE CHAIRMAN: But you are not taking issue with the statement in 8.104?

MR. BEARD: We are not going to try and unpick 8.104. What we have is that we note that Ofcom leaves the question of whether or not BT services constrain Openreach in 8.104, but what we have done is look at each of the examples of this as post-constraint, and we say that when you look at the evidence they are not constrained. In fact, Colt appears to have been operating under a misapprehension, both about how we operate our architecture and also the nature of our active services, and that is a very important point, because there are all sorts of submissions made by Colt about scaling up and down capacity, the way you can control customer prioritisation, the way that you can organise your services across our active service offering. They say, "We are constrained by BT". When we have actually

gone through the evidence they are not. In fact, they appear to have misunderstood what you buy when you buy from BT in relation to these circumstances. So Ofcom can be right in the abstract, but when we look at the particulars of the materials that are put forward in this appeal on these merits, we say there are none in relation to Colt's case.

That is architecture and resilience.

Can we just move on to innovation of service differentiation briefly. Ofcom obviously considered this at 8.103. Mr. Holmes has already quoted the various bits from Dr. Lilico and I will not go through those. Dr. Maldoom agreed. He perfectly said that you could never say that you could not have some sort of additional innovation using passives. As I say, when we come to look at the particular innovations it is hard to see what they are.

If we look at the service differentiation issues, as I say, what you have is a situation where there appears to be a misunderstanding by Colt as to what they can do. As Mr. Reid repeatedly stressed, what you can get is a lit capacity from point A to point B, and it does not just have to be to the end customer, with which you can do as you want. If you want links to customers' doors, you can use further links from BT or you can do your own.

Just for your notes, I will give you some references to Mr. Reid's evidence on this: day 2, p.33, lines 8 to 10, where he says the Openreach product is purposefully designed to be an open pipe over which a wide variety of service can be offered. Also p.36, lines 28 to 32, p.37, line 24, and p.48, lines 1 to 18, where he says that there is a full decoupling between the provisioning times associated with the Ethernet service and the flexibility and the timescales and the ability to dial up and down and capacity associated with Software Defined Networks using BT's active services.

Mr. McCann was not in a position to contradict those issues, and indeed when questioned he accepted that he had no idea whether BT products met the same service availability target levels as Colt's own products - transcript day 2, p.12, line 29, and p.13, line 13. He did not know whether Colt repairs were quicker with BT - that is p.14, line 22. He accepted that the tables in question were aggregated Euro tables that we were referring to, that is p.14, 32, a point that Mr. Holmes has already picked up. And we have already got unchallenged evidence from Mr. Reid in his second statement at paragraph 28 that passive remedy arrangements would likely exacerbate fault repair times due to issues about identifying who was responsible for what.

If we move away from service levels, what were the other innovations apparently held back by BT? Well, SDN, first, we have not held that back and we are at the forefront of groups working to enable SDN into working. But, more than that, it is completely irrelevant to a

passive and active remedies question. SDN can be rolled out across active services or across passive services, but it is available, and Mr. McCann fairly accepted that. (Day 2, p.11, lines 5-6).

EAD services, it was alleged they were late. BT had taken time to develop them. Actually, it replaced an earlier named service called WES which did the same thing. We can see that dealt with at Mr. Reid's witness statement No.2 paragraph 17. That was not challenged.

Routing choices, it was said that we were not offering routing choices. We are not in the EAD, but we are in other connectivity services. That is Reid, statement 2 at paragraph 27.

Then we have got the Sync-E developments about which Mr. Reid knew a great deal, and his evidence is dealt with both in his statement, first statement, paragraphs 55-61 and also in the transcript, Day 2, p.46, line 28 through to p.47 line 16. Mr. Reid explained that BT had developed it but there was no great demand. And there was also an issue about complementary or substitutive technologies.

Another issue that is actually referred to in the BCMR decision but has not been highlighted by Mr. Beal, aggregated handovers, that was another allegation of foot-dragging and problems by BT. Reid, statement 1, paragraphs 62-63.

Now, just to be clear, as Mr. Reid said, communications providers do want things faster always. They do want things cheaper always, but the fact that communication provider customers moan does not mean that there is some failure to innovate on the part of BT, indeed BT is proud of its history of innovation; it has been a leader in optical communications technology. And Mr. Reid in his first statement, paragraphs 64-67 makes various further comments about matters of innovation.

THE CHAIRMAN: I think your time is up, Mr. Beard, so you had better conclude quite quickly.

MR. BEARD: I will conclude very quickly. Capacity and coverage I think have probably been covered already. There is no doubt that demand for higher bandwidth is growing but there is no linkage to passive remedies.

Issues to do with network expansion and statements of Mr. Sinclair and Fournier are dealt with, adopted by the statement of Dr. Yardley in the core bundle 1 at tab.14, and in relation to foreign comparators, unchallenged evidence of Mr. Lazarus, core bundle 1, tab.25, paragraphs 70-75.

On the efficient use of network assets, nothing more is being developed. I will not repeat the points made in opening.

And then we move to ground 4, I have already trailed, fully dealt with in the consultation, already trailed in the Call for Inputs. The position was obvious. The fact that the CPs did

not respond is neither here nor there. The interpretation, we say, at part 8 is Ofcom did a balancing exercise and looked additionally to see whether anything it had been told indicated there was some new grand innovation out there which was being held back by the absence of passive remedies. It was the nature of that demand that was as important as anything else.

And the truth is that even after all of the consultation, and then even after all of the evidence that has been submitted, really, all that is being suggested is that there might be some useful arbitrage opportunities. In the circumstances, there was no incremental benefit from the introduction of passive remedies. This Tribunal does not need to go that far. But, plainly, the Ofcom decision was, in this respect at least, entirely unimpeachable.

Unless I can assist further, those are the submissions of BT.

THE CHAIRMAN: Thank you, Mr. Beard. (To Mr. Beal) Do you want to pause briefly before —

MR. BEAL: No, no.

THE CHAIRMAN: You are raring to go again.

MR. BEAL: Kicking off a reply submission after a four day trial is always a bit like the last batsman in at the end of a Test Series. The disadvantage I have of course is I do not know the score card, so I do not know whether I have got a valiant run chase on my hands or whether it is simply playing for pride. But there we are.

THE CHAIRMAN: This is the reply to the reply to the reply, is it not?

MR. BEAL: Exactly. So we are some way down the track.

THE CHAIRMAN: Draw the line somewhere.

MR. BEAL: What I am proposing to do is simply deal with the balls that I see fit to despatch as far as I can, and then leave you to decide who is the winner.

I shall do that comfortably within half an hour. If you are looking for a structure to these submissions —

THE CHAIRMAN: Twenty minutes is what we allowed you.

MR. BEAL: Twenty minutes, I am sorry.

THE CHAIRMAN: See how you get on.

MR. BEAL: I shall do it within 20 minutes.

THE CHAIRMAN: Appeal against the light, I suppose.

MR. BEAL: Yes. First point, chasing the tail in terms of the reviews. It is not right, I think Mr. Holmes suggested, well, none of this is relevant because in fact we simply took a decision in this review and that is enough. We say, “Actually, when you look at what they

are deciding, part of their reasoning, part of Ofcom's reasoning, is that it has an impact on other markets", so there is this potential cross market issue, it has clearly been flagged as a cross market issue, and the fact that they chose not to examine the issue in the WLA review means that actually, insofar as it is a relevant consideration, it is appropriate to bear in mind that that was their conscious decision the first time round.

Arbitrage, Mr. Beard in his usual eloquent fashion finished on a rhetorical flourish in which he mentioned, yet again, the concept of arbitrage and cherry picking and so on. Arbitrage in itself is of course not a bad thing and it is what effects it produces on the market that is potentially problematic. Arbitrage in the form of a parallel importation between different member states or indeed finding kinks in the market which enable prices to be lowered is a competitively good thing. The question is whether or not it leads to inefficient competition in this case.

Next point, ground 1, the demand ground, I am sorry, the alternative versus complementary issue. There was a great deal of sort of going through the decision with a fine tooth comb on the part of Mr. Holmes to try and justify his position, and indeed not just on that ground but on other grounds as well. And there does come a point at which actually he is at risk of falling into the trap that Mr. Beard said we must not fall into, which is construing the decision like a statute, as if it is a statute. We say in relation to a number of points as to what the decision says needs to be looked at in context and you simply need to read the natural and ordinary meaning of the words and see what the import of those findings was.

The next point I need to deal with relates to PIA, and I think one of the points that was made by Mr. Holmes was that PIA would necessarily have to be determined by dispute settlement if and when it arose, and just on that I would remind the Tribunal of course of paragraph 7.23 where Ofcom seems to have seen that one off at the pass by at least putting together an industry-wide consultation procedure — sorry, 7.23 of the LLU review, not the BCMR review.

Now, the other thing that Mr. Holmes raised, he said, "Well there's been no take-up of PIA". Well, insofar as that is relevant what that would mean of course is that he is envisaging that there would be no take up of the passive remedy here. If that were right, we default into my earlier submission that the costs associated with the exercise would be minimal, but at least the opportunity is there, at least you are building in the availability of competition in principle.

There was a suggestion made, I think, that I had not referred you to p.3 of tab.6 in the supplemental bundle. It is true I did not refer you to it. The reason I did not refer you to it

was because in fact the submission that I made was not that the point had not been put to that particular communications provider, and this becomes clearer once you look back at the document, that was a meeting between communications provider I think "A" I call it in my closing submissions, and Ofcom. Communications provider A had already done a detailed submission which the meeting was then following up. So communications provider A had already spotted the point that needed to be dealt with on Ofcom's case. That is the reason I did not refer you to the fact that an individual from Ofcom was pointing out what the case was, the communications provider already knew what it was.

Turning to ground 2, in a sense there is not an awful lot more I can say on this, other than that you have my submissions; you have seen the way it was put in the notice of appeal; you have seen how the argument has developed; and you have seen how I now put it. We say that the way I now put it is within the scope of the essential point that was being made in ground 2, regardless of whether or not a presumption comes into it, there is a question of which is the better approach to adopt in the light of the regulatory framework? Those are my only submissions on ground 2.

Ground 3, unfortunately here I do have a series of points. In relation to uniform pricing, the suggestion was made I think that as matters stand a geographically de-averaged price would lead to the risk of geographically different retail prices in the downstream market. That, of course, is exactly what Dr. Lilico did not say in his re-examination on day 3. So, as matters stand, the learned member's comments, Ms Potter's comments, on the geographical premium and the geographical premium being applied at the level of leased-lines does not mean that that would necessarily feed through to geographically different pricing in the retail market. It does not necessarily follow from that for the simple reason that there would not necessarily be a determinative factor from where you end up with pricing for the wholesale product into the pricing for the retail product.

The next point I think was that it was said we had not brought forward details of our level of investment with any degree of detail. I think the suggestion was made that our level of detail had not in any way been itemised with particularity, and there was new evidence that had supplemented it. With respect, at the level of our particular investment in the market this has been suggested throughout and has remained unchanged, what has changed is that we have, in order to make the point that what we are seeking is not entirely pie in the sky, we have sought to thrash out a few more detailed analyses of how it might play out in practice and what its consequences may be for a given price. The potential underlying level

of our interest in the remedy has not changed. I may have misunderstood the point that was being made, but I thought for some reason —

THE CHAIRMAN: Was it not a question of how much of the European wide sum would be devoted to the UK?

MR. BEAL: That has never been articulated in terms. All I would invite you to look at is the business plan that you have already had a reference to. And in terms of market opportunities that are identified, you can draw your inferences as to where the target might well be.

I am reminded also that one of the other points was what we had said in terms of the nature of the investment that we might make and, for your note, there was a briefing document that we provided to Ofcom (notice of appeal 3, annex 6, tab 7) – I am not suggesting you turn it up now, but in due course it would be worth looking at – which indicates what we envisaged in terms of our involvement with the market.

A further claim was made by Mr. Holmes, dealing I think with the Tribunal's question as to the extent to which the existing active remedies were capable of satisfying innovation, demand for substituted products and so on. Clearly, the existing active remedies cannot satisfy a demand for differentiated products at the same level because it is a single product.

In terms of the innovation, my learned friend, Mr. Holmes, took you on a fairly prolonged route through the consultation document and then, to a letter extent, the BCMR statement.

The reality, it seems to us, however, must be that in addressing the concerns that were expressed by, for example, communications providers who are MNOs (telecoms providers) the con doc did not deal – and one may say understandably, but the fact is it did not deal – with a demand for innovation and differentiated product service from people outside the backhaul market, for example; from people who simply wanted a better quality, different terms in terms of SLAs, fault reliabilities and so on. That whole different area of innovation was not catered for in the con doc, so that is an area that simply has not been addressed by Ofcom.

There is a slightly curious logical conclusion one must draw from the submission on innovation in relation to the existing active remedies, that the regulator is essentially saying: "We have looked at innovation based on the active remedies and we are satisfied that innovation will happen." It is a very strange position for a regulator to be taking. They are saying: "We do not think the market needs to be more innovative" which is quite a bold statement for a regulator to make.

I was quite worried, for example, when BT said that you do not have to have any other alternative product because everything we provide is all you could ever need always for the

best in the best of all possible worlds. I was more worried, actually, when Ofcom seemed to subscribe to that view in their closing submissions and endorse it, and say it from the viewpoint of innovation we have no concerns but that the existing active remedies are sufficient to meet everyone's needs. It is a very strong submission and I would therefore encourage you to view it with a degree of suspicion. There is also an inherent conflict here because Ofcom does, in fact, accept that rolling out a passive remedy would bring benefits from innovation and product differentiation and choice. So if that is the choice then in a sense does that not already prove the fact that the ground is not covered by the existing remedies that are on offer?

The final point on the innovation side of things in terms of Ofcom's submissions was that the statement of a requirements procedure could be used to drive innovation and, again, I am afraid I expressed some scepticism as to how that might work out in practice, because (a) innovation is not usually driven by a fairly hide bound contractual procedure, and (b) there are concerns as to whether or not a market competitor would wish to reveal the full extent of its innovative plans, even to a functionally separate entity such as Openreach.

FRAND – in our view, and with respect, it is accepting far too much simply to think that if FRAND terms are offered we inevitably default into a very protracted and very detailed dispute settlement procedure.

That may be the outcome, I am not saying it would not happen, but I am saying it does not give the parties much credit in this market if that is the knee-jerk response from Ofcom. It seems to us that Mr. Culham, for example, recognised in his evidence that one of the purposes of the FRAND terms was to impose some form of *ex ante* margin squeeze analysis, so the idea behind the FRAND terms is to make sure BT has taken a view as to whether or not it would be susceptible to allegations of margin squeeze and it then deals with them in the terms that it offers.

If that task is taken responsibly by the incumbent, and I have no reason to doubt that it would be then, of course, that narrows the scope for dispute and it would only be if Colt were seeking somehow to gain the FRAND terms against the incumbent for its own reasons that that would be an issue as far as we are concerned.

You have heard the evidence from Colt time and again. What we are after is satisfying genuine demand with a genuinely innovative service that does involve slash and burn tactics on the basis of the margin, and that is our game plan, and we have said that throughout, and nobody has suggested to the contrary.

In any event, you have the point that in the WLA review, para. 7.23 catered for the risks of disputes in what seems to us to be a fairly sensible way.

The next point was that the price may be too high for competitive entry, and you will recall that I intervened at that point, with regret, to point out it was not in fact the experts that said that, it was the legal team, and we put the caveat in for the obvious reason that lo and behold, against all my submissions to the contrary, we do end up potentially having a dispute on what the terms might be, we are not somehow estopped by virtue of the price that we have put forward in this appeal. Candidly, that is the purpose of putting that caveat in. It does not mean that somehow we are coming up with pie in the sky solutions that have no basis in fact, but nor do I wish to be tied to a figure that Mr. Mantzos has come up with, and nor would Colt.

The truth is that while his analysis was detailed and a fair crack of the whip it was nowhere near as detailed, and it did not have cross-border, cross-stakeholder input into the actual figure that is arrived at.

Commercially sensitive information – the short point here is, at least in principle, Openreach is functionally separate from BT. If we provide details to Openreach as to our usage of the ducts and the bandwidth that is going through them, that should not be remitted to BT Wholesale, and I have no reason to suspect that it would be.

There is, of course, also the regulatory power given to Ofcom to require communications providers to give details of services that are offered and the level of data, so they can also act in a regulatory capacity to confirm the usage and, of course, giving data to Ofcom for that purpose would be data protection compliant because of the terms of the Data Protection Act and the Data Protection Directive.

Vodafone – one of the points that was made in para. 8.104 of the statement was the difference in performance attributes between the UK and countries where passive remedies are available, as shown in the diagrams provided by Vodafone, could be due to a number of variables apart from the availability of passive remedies. What Vodafone was dealing with here was essentially Vodafone saying: “You will get a better broadband performance if you allow the passive remedy, look at the figures for other Member States, that backs up what we are saying”. Vodafone was not there dealing with product differentiation and the different types of services you can get beyond a basic performance related analysis. So I think Mr. Holmes suggested that that was somehow evidence of Ofcom taking into account the innovation point, the extent to which you could get innovation from the existing active remedy. Simply in context that evidence does not support that proposition.

High price – it was said that that is the worst possible thing. To that I would only add that actually digging out a new infrastructure could beat it, it depends on the figures. Certainly, high prices is the least good alternative apart from digging.

Geographical pricing - you have my point that there is not necessarily correlation between the geography of the duct and the intensity of its usage. Actually, what matters, for the purposes of the allegation that there would be disruption to the common cost recovery, is the usage because, of course, it is the usage of a particular circuit that gives rise to the margin and it is the margin that then attracts people in and they are then able to undercut BT's prices if the logic is followed. So pure geography in and of itself is not going to determine where the points of high common cost recovery are. Similarly, the suggestion that you simply add on the intensity of usage for a particular duct and then add on more for the geography risks substantially overstating the amount of common cost recovery that is properly attributable to that particular duct, it is not a question of having both of them together and coming up with double sums. What you would have to do is work out the extent to which the geographical position, if at all, already reflected or did not reflect an intensity of usage.

Non-disruptive pricing. I think it was suggested that we had not actually come up with what would be a sensible proposition for non-disruptive pricing. It is true that we have not pinned the tail on the donkey with the degree of accuracy that would be necessary. As I have made clear from my opening that has not been part of my game plan, but we have, nonetheless, made an effort to at least draw the donkey and provide a tail, whereas regrettably Ofcom are saying: "We are not even going to play the game."

Next is providing information for regulatory providers, I have covered that.

I think it was suggested at one point that we did not identify with specificity the modifications that would be needed to the active remedies, or I think this was actually part of the jurisdiction point and, as I understood the point, had we troubled ourselves to say which modifications were needed to the existing price control that would have been a challenge to the existing price control and, for jurisdictional reasons it would have required to go to the Competition Commission.

So, if I have articulated the argument correctly, our response is simply this: it is true; we have not articulated what modifications would be needed to the existing price control because those were set at the end of the process. What we say is that earlier on in the process you should have identified the fact that modifications could, in principle be made and allowed those modifications to permit a complementary passive remedy to be imposed.

So there was space for that decision making process to take place. It did not happen and it should have happened. You can phrase that in a number of different ways and I think my learned friend, Mr. Beard, alighted on one. The reality is I tried to identify the legal hooks that are relevant for that particular issue. None of those legal hooks means that you do not have jurisdiction to deal with this issue. I have deliberately formulated the challenge so that it is, I hope, within the scope of both the standard of review and the normal mechanisms for review before this Tribunal, but also, more importantly within the scope of the grounds of appeal that we formulated.

THE CHAIRMAN: Well, let us hope you are right.

MR. BEAL: Yes, and if I am not then you will rule it inadmissible.

THE CHAIRMAN: We are very near the end.

MR. BEAL: I am right up against the limit, I appreciate that. Could I ask you to look at para. 6.8(c) in the notice of appeal for the simple reason that also sets out how we have particularly put the point. 6.8(c):

> "Any possible impact of passive remedies on demand assumptions could and should have been taken into account in the development of the price controls imposed in the Decision."

No passive access in London – factually, I am afraid, that is inaccurate. There is passive access in London and, in any event, there is no evidence of that, it was simply Mr. Holmes giving evidence.

Mr. Cullen, day 3, p.9 accepted that at least one factor in the decision was the absence of demand, and we say that fits with the decision itself.

8.1.32 also confirms in the Decision that demand was a separate issue.

THE CHAIRMAN: This is Ground 4 now?

MR. BEAL: This is Ground 4. In relation to the suggestion that, even if that is reinforced by Mr. Culham's evidence at para. 66, if it is right that you cannot step into the regulator's shoes then there is a slippery slope with Mr. Holmes' suggestion that you can simply turn round and accept that there was a separate, entirely tenable discrete decision that can be upheld. *BAA*, I think, sir, you have already got the point that the CC's jurisdiction, it is a judicial review of the CC's jurisdiction, and therefore it is not comparable. You are the equivalent of the CC for the purposes. Profound and rigorous scrutiny, a variety of other legal ----

THE CHAIRMAN: Sorry, I did not follow that. The *BAA* case?

MR. BEAL: The *BAA* case was a challenge to a decision of the Competition Commission on judicial review grounds.

THE CHAIRMAN: Yes, all right. Leaving aside the judicial review and the merits appeal difference, it is exactly the same, but the point being made was that the Competition Commission was in that sense a regulator and the issue that Mr. Justice Sales was looking at was whether the Competition Commission should have investigated more as to demand in the south-east, as I recall. I can see the analogy.

MR. BEAL: Our point, simply put in relation to that, is that we are not saying in terms, "Here is the final product, you have got some deficient reasoning here, that deficient reasoning can be made good if you have taken into account this material". What we are saying actually is, "You addressed the wrong issue at the prior stage, you addressed the issue as to whether or not passive remedies should be rolled out and whether or not they would disrupt active remedies, but you did not address the question of whether or not they could be tolerated alongside the existing suite of active remedies, or what modifications might be made to the active remedies at that stage".

It was said that I did not challenge Dr. Maldoom, or we did not challenge Dr. Maldoom, on independence of factors - see Lilico 2, para.7.55 and 7.56.

It was also said that there was a duplication of kit. My learned friend Mr. Beard said there would at least be duplication of kit. See Peplow, para.30 is the short answer to that one.

Capacity grabs: my learned friend Mr. Beard said that there was a risk of capacity grabs. The evidence from Dr. Maldoom was that capacity grabs would at least allow you to go from monopoly to duopoly. That is the answer to that.

It is said that it would be an irreversible remedy, and that was not challenged. In fact, I did raise with Dr. Maldoom the prospect of time expiring on a duct rental and alternatively revocation of the terms of occupation of the duct. Plus also, if you look in the WLA review at para.7.13, bullet 4, there are capacity reservation rules.

In terms of the debate between ourselves and BT as to dual parenting rings and innovation, may I leave you, please, to look at the evidence in the round and ----

THE CHAIRMAN: If you have a final rhetorical flourish, Mr. Beal!

MR. BEAL: I am not sure I have got one at the moment! You may have bled the well dry, I am afraid!

It remains for me to thank you very much for allowing me the five minutes in the timing schedule, and unless there are any further questions, like the Forth Bridge I am now finished, because, in fact, that was my rhetorical flourish! The Forth Bridge is, in fact, finished!

THE CHAIRMAN: Does anybody else have anything they wish to apply for? No.

MR. HOLMES: Does the Tribunal have any applications in mind that are necessary at this stage, just to check!

THE CHAIRMAN: Not after day 22. Of course, we shall reserve judgment and we shall deliver judgment as soon as is reasonably possible.

Thank you very much to counsel and to everybody else. Thanks particularly to counsel for the comprehensive and courteous way in which you have presented your cases and your responses and the way in which you had the patience to deal with our often very naïve questions. Thank you very much.

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