IN THE COMPETITION APPEAL TRIBUNAL

Case Nos. 1180/3/3/11
1181/3/3/11
1182/3/3/11
1183/3/3/11

Victoria House
Bloomsbury Place
London WC1A 2EB

3rd April 2012

Before:

MARCUS SMITH QC
BRIAN LANDERS
PROFESSOR COLIN MAYER

(Sitting as a Tribunal in England and Wales)

BETWEEN:

BRITISH TELECOMMUNICATIONS PLC
EVERYTHING EVERYWHERE LIMITED
HUTCHISON 3G (UK) LIMITED
VODAFONE LIMITED — Appellants

- and -

COMPETITION COMMISSION — Respondent

- and -

OFFICE OF COMMUNICATIONS — Interested Party

- and -

TELEFÓNICA UK LIMITED — Intervener

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HEARING

APPEARANCES

MR. ROBERT PALMER (of the Legal Department) appeared on behalf of British Telecommunications Plc.

MR. JON TURNER QC and MR. JULIAN GREGORY (instructed by the Regulatory Department) appeared on behalf of the Everything Everywhere Limited.

MR. BRIAN KENNELLY (instructed by Baker & McKenzie) appeared on behalf of Hutchison 3G (UK) Limited.

MRS. ELIZABETH McKNIGHT and MR. ANDREW NORTH (Solicitors, Herbert Smith) appeared on behalf of Vodafone Limited.

MR. JOSH HOLMES and MR. MARK VINALL appeared on behalf of the Office of Communications.

MR. MICHAEL BOWSHER QC and MR. NICHOLAS GIBSON appeared on behalf of the Competition Commission.

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THE CHAIRMAN: Yes, Mr. Turner.

MR. TURNER: May it please the Tribunal, I appear today with Mr. Gregory on behalf of Everything Everywhere. To my right are Mrs. McKnight and Mr. North who appear for Vodafone. To my extreme left is Mr. Bowsher and Mr. Gibson on behalf of the Competition Commission. Two rows behind me Mr. Holmes appears for Ofcom. Mr. Kenelly in the middle appears for 3, and Mr. Palmer appears for BT.

Sir, the Tribunal should have 12 lever arch files. I will just check this. These should have been updated yesterday with the addition of a small authorities file, a fifth authorities file, to which I will refer.

These are EE's (Everything Everywhere) and Vodafone's applications in these appeals supported by Telefonica who do not appear today. Everything Everywhere, Vodafone, 3 and BT appealed to the Tribunal against Ofcom's mobile call termination statement of 15th March last year. The statement imposed maximum call termination charges for a four year period starting on 1st April last year. The grounds of appeal for all of the parties were based on so-called price control matters. They went to the principles applied when setting charges, the methodology, the data, the calculations and what the price control should be. They contended that Ofcom had erred in its approach to setting the price controls in the way set out in the Notices of Appeal. As a result of those errors, in the reasoning Ofcom's conclusions about what the levels of the price control should be were also wrong.

As the legislation requires, you the Tribunal referred these price control matters to the Commission for its determination and that was done on 30th June last year. The Competition Commission (I will refer to for ease as the "CC") published its Final Determination on 9th February.

The CC overturned some of Ofcom's conclusions and it gave guidance, as asked, on what consequential adjustments to the level of the price control it thought was needed. But in other respects, the CC found that Ofcom's methodology was inappropriate and was flawed, but did not overturn Ofcom's conclusions on those points.

Everything Everywhere and Vodafone now contend that in the respects which have been specified in our grounds for judicial review, the CC made errors of reasoning of a kind which means that the Final Determination by the Commission would fall to be set aside on an application for judicial review. In a nutshell, what this means is that the errors in question which we allege are not just disagreements with what the CC has found by way of the merits of its reasoning on the points of appeal, we will show that the CC's understanding of its function in the appeal process, as well as its decision-making process

itself, were wrong in certain respects. Those mistakes led it to endorse Ofcom's ultimate conclusions on points when it should not have done. That was because the CC reached intermediate findings of its own which left it unclear whether Ofcom's ultimate conclusions were right.

We have been allocated, as I understand it, four hours between us, subject to questions from the Tribunal, and we have determined to divide the allocation between us fairly equally, if that pleases the Tribunal. However, both of us are conscious, Mrs. McKnight and I, that there is a great deal to get through and that it will be necessary for us to be disciplined. That does not mean, therefore, that we are either failing or refusing to deal with points raised by the CC in its voluminous submissions, or of the other opposing parties. We are not. What we will do is concentrate only on the essential points which we apprehend are needed to establish our case.

THE CHAIRMAN: Mr. Turner, all the parties can take it that the Tribunal will not look particularly kindly on forensic points suggesting that an argument has not been addressed orally, given that we have imposed a guillotine.

MR. TURNER: I am obliged. Sir, I will open the case by referring to the basic legal framework which governs these proceedings, and then deal with the errors which are alleged in our grounds, those of Everything Everywhere. At the outset, given the constraints of the hearing, I can say that I am going to focus my firepower on grounds 1 to 4 in our grounds. Ground 5, which was the proportionality and the cost modelling points, we will not pursue in relation to points (b) to (d). We do pursue the cell breathing point, but because that overlaps heavily with what Mrs. McKnight is going to cover, she will deal with questions on that orally when she is tackling the errors alleged by Vodafone's grounds.

The Tribunal is also aware that on one issue Vodafone applies in the alternative for permission from the Tribunal to amend its Notice of Appeal and Mrs. McKnight will deal with that as well.

In the present case, the starting point for us to take is the Common Regulatory Framework, which in other words is the suite of European Directives which lay down a blueprint for our system of telecommunication price control. Would the Tribunal be kind enough to take out the first authorities bundle I will take you to one of those directives. The Framework Directive is at tab 7. In this Directive Article 1 on p.38 of the OJ official journal numbering is entitled "Scope and Aim".

It tells us that the European Directive is establishing a:

> "harmonised framework for the regulation of electronic communications services, electronic communications networks, associated facilities and associated services. It lays down tasks of national regulatory authorities and establishes a set of procedures to ensure the harmonised application of the regulatory framework throughout the Community."

The intent is to establish a harmonised framework for regulation. Then one goes to Article 8 on p.41 of the Official Journal numbering. Article 8 is entitled "Policy objectives and regulatory principles". It lays down that:

> "Member States shall ensure that in carrying out the regulatory tasks specified in this Director and the Specific Directives, [which are the associated or daughter directives] the national regulatory authorities take all reasonable measures which are aimed at achieving the objectives set out in paragraphs 2, 3 and 4. Such measures shall be proportionate to those objectives."

If you turn the page you see in particular at para.2 the requirement that:

> "The national regulatory authorities shall promote competition in the provision of electronic communications networks, electronic communications services and associate facilities and services by *inter alia*
>
> (a) ensuring that users, including disabled users, derive maximum benefit in terms of choice, price, and quality;
>
> (b) ensuring that there is no distortion or restriction of competition in the electronic communications sector;
>
> (c) ensuring efficient investment in infrastructure, and promoting innovations ...

So, the conditions put in place by the National Regulatory Authority — and here we are concerned with price control specifically — must be designed to confer the greatest possible benefits on end users and to achieve the other specified purposes. In our case, one of the key issues has been whether the right costs standard to use in the charge control to anchor the prices towards, is pure long-run incremental cost, or "LRIC", as it is called. That is the marginal cost of the termination service, or "LRIC+", the marginal cost plus the contribution to the operator's fixed and common costs on top. In choosing between these possibilities, Ofcom had to consider the benefits and the detriments of each of these two standards judged against these policy objectives. It was a detailed exercise. If some considerations pointed in one direction, for example the interests of investment, dynamic efficiency or those of vulnerable consumers took you towards LRIC+, and others pointed in a different direction, for example the interests of competition inclined one towards pure

LRIC, a balancing exercise had to be carried out to see which of the two costs standards was to be preferred overall from the point of view of conferring the greatest possible benefits on the public. What if the regulatory authority is thought to have got that overall weighing exercise wrong — for example by choosing a cost standard for a price control which does not give users maximum benefits? If you still have the Framework Directive open, I would ask you to look at Article 4. And Article 4 entitled "Right of Appeal" requires there to be an effective appeal mechanism so that an expert body can look into whether the regulatory authority has got things wrong. Article 4.2 provides that:

> "Where the appeal body is not judicial in character, its decision shall be subject to review by a court or tribunal",

and that is exactly the exercise of review which we are embarked upon today. The CC, the commission, is not a judicial body. The Tribunal is the reviewer. This is a review, therefore, within the context of a harmonised European framework.

We can then put away the European Directive.

THE CHAIRMAN: So, Mr. Turner, how do you classify the role of the CC? I understand where Ofcom fits, and I understand where the Tribunal fits. I am not sure in this picture I understand quite where the CC fits.

MR. TURNER: Well, in terms of Article 4.2 of the Framework Directive, you will see that:

> "An appeal can be made to a body which need not be judicial in character",

and here, under our national legislation, I am turning, that part of the appeal function is hived off to the Competition Commission which is not a body judicial in character. That is allowed under this provision, but what it says is that, where this occurs, Article 4.2 provides:

> "that there shall be a review possibility by a court or tribunal within the meaning of Article 234 of the Treaty".

Essentially, a judicial body of this nature. And that has been built into our national legislation, which I will turn to, to show how it translates. But we have faithfully followed what Article 4 provides.

So, our national implementing legislation, the Communications Act, is in the first authorities bundle, also at the first tab. Now, I will take this briskly, because it is common ground that there are a number of provisions in the Act which are relevant to how the Regulator, Ofcom, must discharge its functions when setting a price control. So, for example, s.3 on the third page, entitled "General duties", sets out a list of considerations that Ofcom must take into account. But, if you look on p.4 at para.(4) subsection (4):

"Ofcom must also have regard in performing those duties [that includes the current case] such of the following as appear to be relevant in the circumstances —",

And if your eye moves down to the letter (i) you will see that there it refers to:

"the needs of persons with disabilities, of the elderly [and what is particularly relevant to our case] those on low incomes"

who in the current case have been termed "vulnerable consumers" for the purpose of this exercise. But the central provision for our purposes is s.88. That is on p.120. Section 88 is expressed negatively. It tells Ofcom what it is not to do. It is not to set a significant market power condition that includes a price control of the kind we are concerned with except where certain conditions are satisfied. And, at s88.(1)(b) it must appear that the setting of the condition is appropriate for the stated purposes, promoting efficiency; promoting sustainable competition; and conferring the greatest possible benefits on the end-users.

So, you will see immediately that that reflects what we have seen in the Framework Directive as the European objectives. And it means that, where the regulator is faced, for example, with a choice between two alternative costs standards, it has to consider carefully which of them confers the greatest possible benefits on end-users, and its detailed reasoning can be appealed.

With that, we turn to the appeal provisions of this Statute which are on p.253. Page 250 refers the possibility of an appeal being brought to the Tribunal. At s.192(2) and 192(3) that:

"The means of making an appeal is by sending … a notice of appeal in accordance with [the rules]".

If you turn to s.195 in terms of the decisions of the Tribunal reached in an appeal, you will see that s.195(2) tells us two things: that the appeal must be decided:

"on the merits and by reference to the grounds of appeal set out in the notice".

So, the appeal body must not venture into other areas. In that sense it is not, to coin a phrase, "a duplicate Regulator waiting in the wings" and, second, the appeals on the merits. And the case law establishes without doubt that that means that the appeal body, and it is the Competition Commission so far as we are concerned today, in a case such as this has to give the questions appealed profound and rigorous scrutiny. The question for the Competition Commission, to which the function of scrutinising whether Ofcom's decision was the right one, is hived off, is whether Ofcom's decision was the right one in view of the statutory objectives and the statutory framework, and our essential complaint is that the Competition Commission did not do that. It did give Ofcom's reasoning on the issue of

which costs standard to adopt profound and rigorous scrutiny. It decided that Ofcom's reasoning on the issue was seriously flawed concerning the location, the size and the form of price increases which would follow if you chose a LRIC costs standard. The Commission reached its own separate intermediate conclusions about that — who the price increases would hit, what size they would be, what form they would be likely to take: for example, would they be reduced handset subsidies? Or, would they be increases in call charges out of bundles? How would they be likely to arise?

The Competition Commission's conclusions on all of those matters were almost precisely the opposite of Ofcom's. The Competition Commission also explicitly recognised that further evidence would be desirable to assess how consumers would be likely to respond to the price changes which it concluded would be likely to occur. Nonetheless, having recognised that, the Commission upheld Ofcom's original conclusion rather than answering the question that this Tribunal posed for it in favour of the appellants; and recommending remittal to Ofcom so that the requisite surveys could be conducted. It did this by reference to the appellant having failed to discharge which it said they carried to convince them by all necessary evidence then and there that Ofcom's decision was wrong, as opposed to unsafe. This was, in our submission, a reviewable error on the Commission's part. It needed to be assured, as the appeal body, that Ofcom's decision was right by reference to the statutory criteria before effectively deciding the appeal in their favour. The point can be demonstrated quite neatly by reference to a very recent case that all of the opposing parties cite against us. It is the *Talk Talk* case, with which, sir, you will be familiar. That is in the fourth authorities bundle at tab 62. Sir, I am going to take it that although you are well familiar with this case your colleagues may not be and so a degree of explanation is required.

In this case the allegation was that there had been a failure by Ofcom to consult before deciding whether there had been a material change in the market. It was also alleged that Ofcom had been wrong in any case to decide that there had been no material change. At para.75 on p.35, the Tribunal points out that its role as the appeal body is to assess, third line, the correctness of Ofcom's decision. The Tribunal points out that it may be clear, (a) and (b), that there had been a material change, and it may be clear that there has not been a material change.

In the following paragraph, para.76, the Tribunal recognise that without consultation it may also be "unclear" whether there has been a material change. In such case, on an appeal, the

proper course could be to remit the matter to the decision maker, Ofcom, with directions to do a proper consultation. That is para.76.

Now, if you turn forward to p.54, you have para.131. Again the Tribunal returns to the point that there may be cases where the procedural deficiency which has occurred is sufficiently serious to render it unsafe for the Tribunal to conclude "on the merits" that Ofcom has reached the correct decision. Looking at the last sentence:

> "In such a case, where (because of the deficiencies in Ofcom's decision-making process) it is impossible to say one way or the other whether Ofcom's decision was right or wrong, it may be that the only appropriate course is to remit the matter back to Ofcom for Ofcom to carry out its decision-making process again."

Ofcom, in its skeleton, points to the following paragraphs on p.55. At para.132 one sees that the appellant, Talk Talk sought to raise, the fifth line down:

> "… the spectre of other changes in the market of which Talk Talk, Ofcom and by implication the Tribunal will be unaware …"

Talk Talk's counsel, as one sees from para.133, referred to Donald Rumsfeld's statement about known unknowns and unknowns and unknown unknowns.

At para.134, the Tribunal responds to this. It states:

> "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."

That is different from the present situation. Ours is not a case of appellants referring to a spectre or known or unknown unknowns. Ours is a case where the appeal body itself, the CC, has stated that important evidence on which a Regulator could be expected to rely to reach a safe decision is missing. It is a case where the CC, Competition Commission, cannot be assured that Ofcom's decision was right within the terms of para.31 of this judgment. To illustrate the point, I would ask you to compare the emphatic terms with which the Tribunal in this case, *Talk Talk*, dealt with the appeal against the terms with which the CC says in its skeleton it dealt with our case. If you go to p.50 in the judgment the conclusion is in the middle of the page at para.118:

> "For the reasons we have given, it is our unanimous conclusion that Ofcom reached the correct decision which it concluded in the WBA Charge Control Decision, that there had been no material change with the meaning of s.86(1)(b) of the 2003 Act …."

"It is our unanimous conclusion that Ofcom had reached the correct decision", absolutely right.

Now compare the way that the CC describes its ultimate conclusion. If you have their skeleton, it is the 86 page one, it repeatedly describes the way it has reached its conclusions in the same terms throughout the document, but one example is at para.124 – I am afraid I do not have page numbering on my copy:

> "In view of the above, it is clear that the Commission did not decide the appeals on the burden of proof, rather the Commission made a positive finding on the evidence before it that neither Vodafone nor EE had persuaded the Commission that Ofcom had erred in relation to the matters alleged as errors in their appeals."

In other words, leaving aside a linguistic issue as to the use of the term "burden of proof", they are not saying that Ofcom reached the correct decision, they are saying that on the evidence then available the appellant had not been able to demonstrate that Ofcom's conclusion was wrong, as opposed to unsafe. The CC is wrong to say, as it does, at the end of this paragraph, that there is nothing wrong with this approach, it is the way in which an appellate body functions, because it is generally the case that if a decision maker's conclusions are unsafe and if it is recognised that further information is needed to get to the right answer, the right course is normally to remit.

One example from this Tribunal's parallel jurisdiction under the Competition Act may be of assistance. That is in the fifth authorities bundle at tab 70. This is a called *Freeserve*, it is also a telecommunications case, but under the Competition Act. If you turn to p.37 you will see an extract from the reasoning of the Tribunal about its function there in an appeal. Paragraph 110 at the bottom of p.37, the Tribunal said:

> "It follows, in our view, that whether it is an infringement or a non-infringement decision …"

that is of the Competition Rules –

> "… the Tribunal has, in principle, jurisdiction to hear an appeal on the merits, that is to say to decide whether the Director has made an error of fact or law, or an error of appraisal or procedure, or whether the matter has been sufficiently investigated. That conclusion is not affected by …"

a provision we need not be concerned with.

> "111 However, the way in which the Tribunal exercises its jurisdiction is, in our view, likely to be affected by the particular circumstances. As the Tribunal said in its judgment on admissibility in [an earlier case] *Bettercare*:

> ‘Nonetheless, in our view this Tribunal is essentially an appellate Tribunal, not a Tribunal of first instance. In complainants’ appeals (as distinct, for example, from appeals against penalties) it seems to us that the primary task of the Tribunal will usually be to decide whether, on the material put before by the complainant, the Director was correct in arriving at the conclusion that he did. If it turns out in the course of the appeal that the Director was insufficiently informed, in our view, the appropriate course will usually be for the Tribunal to remit rather than to attempt to investigate the merits for the first time’.”

We do not say, of course, that you are exercising the same appeal function as the Tribunal was in that case, but it is a good illustration of the fact that in this, as in many other contexts – one need only think of the Court of Appeal in a civil context, let alone in a criminal context – if the decision of the first instance court is found to have been unsafe, and if a conclusion as to the ultimate issue cannot be given, there is a power to remit which is often exercised.

That takes us to the role of the Tribunal in this case. You are exercising a dual role: first, today you are exercising a review or judicial review function, and it is therefore wrong for the Competition Commission to have suggested that this in some way, I think they used the words, “a tertiary appeal”. This is the first occasion when the new reasoning and decision making of the CC will ever have been tested by a court.

What is the intensity of the review that you should carry out? The European context of our case is important, because the aim of the European legislation which you have seen is clearly that the right result should be achieved with the appeal process designed as a built in safeguard to help in that, but the ordinary standard of a judicial review in our national law is certainly intense enough for the purposes of the present case. If you still have the fifth authorities bundle to hand and turn to tab 71 you will see that.

Tab 71 is a case called *Unichem*. That concerned a decision by the Office of Fair Trading not to refer a proposed merger to the Commission. There was a challenge to it based on judicial review principles to the Tribunal. If you turn to para 169 you have a section entitled “*The Tribunal’s approach*”. The Tribunal notes that this not a case concerned with policy or political issues where a more hands off approach might be appropriate. If you look at para.174, five lines down, they said this:

> “In the present context, the Tribunal’s review may properly be more intense than it would be if issues of policy or politics were involved. Indeed, it appears to be common ground that the Tribunal has jurisdiction, acting in a supervisory

> [that is a review] rather than appellate capacity, to determine whether the OFT's conclusions are adequately supported by evidence, that the facts have been properly found, that all material factual considerations have been taken into account, and that material facts have not been omitted."

In our case, our allegation is that because of the Competition Commission's wrong approach material facts have been omitted from the decision made as to whether Ofcom's conclusions were right. That is the Tribunal's role today.

There is a further specific feature of our Statutory Framework, which means that both the Tribunal and the Competition Commission need to be concerned in the overall appeal process to make sure that Ofcom re-takes the charge control decision at the end of the day and reaches the right decision in relation to the matters subject to the appeal. The CC and the Tribunal have to be assured that the directions given to Ofcom at the end of the day mean that the objectives – I will call them the s.88 objectives – will, in fact, be met in relation to the choice of the cost standard, which was the matter subject to appeal.

If you turn back to the legislation, you will see the distinctive way in which it works in this case. Can we go back to authorities bundle 1, tab 1, and turn back to s.195. which is on p.253. You will see from ss.195(3) and (4) what is to happen:

> "(3) The Tribunal's decision must include a decision as to what (if any) is the appropriate action for the decision maker to take in relation to the subject matter of the decision under appeal.
>
> (4) The Tribunal shall then remit the decision under appeal to the decision maker with such directions (if any) as the Tribunal considers appropriate for giving effect to its decision."

Then you have s.195(5):

> "The Tribunal must not direct the decision maker to take any action which he would not otherwise have power to take in relation to the decision under appeal."

In view of that sub-section Ofcom can only obviously make a new charge control which meets the s.88 objectives. As a result, the Tribunal and the Commission, when they are exercising their appellate functions, must have that in mind because they are the ones who remit to Ofcom with directions as to what it must do.

The scope of this obligation on the appeal bodies has been considered before. It was considered in a recent case, which is in the fifth authorities bundle at tab 72.. This is a judgment which you will see is entitled on the first page, "Judgment on the scope of the

Tribunal's powers on disposal of the appeal". It was the first round of appeals against Ofcom's mobile call termination decision from 2007 in which this was placed. Towards the end of the Competition Commission's determination process in that case the parties returned to the Tribunal for guidance and an adjudication on a particular point. The issues that they raised for the Tribunal to consider included a question about whether the Competition Commission and the Tribunal had either a power or a duty to adjust the price control at the end of the day so that it reflected the policy objectives in the European legislation and in s.88 of the Act.

If you go within this to p.23 you will see that from para.66 (a), (b) and (c) the Tribunal divided up its consideration of the issue in various stages, and above 67 it asked is there a duty to make a section 88 criteria adjustment? For clarity, that term referred to the question whether, looking at the unelapsed future period of price control, it was necessary to configure it to take account of the fact that there had been an error in the past so as best to achieve the policy objectives of the legislation.

At para.67 the Tribunal said:

> "As regards whether there is a *duty* to make a section 88 criteria adjustment, the argument runs as follows. Sections 87(9) and 88 provide that Ofcom *must not* set an SMP condition except where it appears to them appropriate for the purposes of fulfilling the criteria in 88(1)(b). Given that section 195(5) provides the Tribunal *must not* direct Ofcom to do something it does not otherwise have power to do, this means the price control that the Tribunal directs Ofcom to adopt on the disposal of the appeal must be a price control which fulfils those criteria [those are the charge controls]. In determining the TACs for all four years, the CC must therefore direct its mind to how those criteria are to be fulfilled. In doing so, the CC should take into account that the TACs prevailing in Years 1 and 2 were at the level set in the 2007 Statement. Clearly if there is a duty to ensure the ultimate price control condition is the best fit with the section 88 criteria, there must be a corresponding power on the part of the Tribunal to do so."

Then 68:

> "The conclusions of the majority of the Tribunal on this point are as follows. The obligation to set an economically efficient price control condition at the conclusion of the appeal must be interpreted in the context of the overall constraints of the appellate process. One can envisage circumstances in which,

despite that obligation, the disposal of the appeal could lawfully result in the setting of a price control which is less than optimal in terms of the section 88(1)(b) criteria. For example, the grounds of appeal raised by the appellant may be very limited in scope. There may be other aspects of Ofcom's decision which the Tribunal or the CC would have found were wrong but which were not challenged by the appellant and which cannot therefore be corrected by this appellate process."

So they are saying if something falls outside the appeal parameters then obviously we do not try to meddle with that and correct for that as well. At 71:

"If sections 195(5) and 88 really prohibited the Tribunal from arriving at a price control condition which is less than optimal in all the circumstances prevailing as at the date at which the modified condition is published, then the appeal process would need to be very different from the process that has been laid down in the 2003 Act. The obligation imposed by section 195(5) and 88 is an obligation to arrive at a price control which is as good as it achievable within the limits of the powers conferred by the Act and which is consistent with the orderly conduct of the appeal."

That is the key proposition which the majority of the Tribunal articulated.

The majority decided that in the circumstances of that case, it was too difficult to require an adjustment to be made to the price control consistent with the orderly conduct of the appeal. One member of the Tribunal, Professor Bain, dissented on that point. He thought it was straightforward to make an adjustment and that the fears of the majority were exaggerated. But he effectively agreed with the basic proposition that the Tribunal and the CC, the appeal bodies, should aim to complete the appeal in a way that means that the ultimate price control condition fulfils the statutory criteria within the parameters of the appeal process.

If you turn to paras.92 and following on p.31 you have Andrew Bain, the reasons for dissent from majority opinion, at 92 he said:

"At paragraphs 68 to 72, the majority consider whether there is a duty to make a section 88 criteria adjustment. I agree that there is no duty under the Act to make a section 88 adjustment to substitute a price control that takes account of matters outwith the grounds of appeal or of changes in circumstances since the Ofcom Decision.

"(93) The point of disagreement is whether, <u>within the parameters set by the appeal</u>, the task of the Tribunal is to ensure that the ultimate price control

condition fulfils the section 88 criteria. In my opinion, the primary task of the Tribunal should be to ensure that the SMP conditions over the control period taken as a whole serve the purposes of the Act ..."

If you turn the page and look at para.95 he says:

"In my opinion, the duty of the Tribunal is to do the best it can in the circumstances to pursue those objectives, in particular those of furthering the interests of consumers and not favouring particular forms of electronic communications networks. The choice of an appropriate SMP condition should not therefore be constrained by the remedies sought by the Appellant. It is not appropriate to restrict the SMP conditions to those which the Appellant perceives to further its own narrow interest rather than to impose conditions which in the view of the appropriate expert body - in the case of a price control appeal, the CC - best serve the purposes of the Act."

To conclude, the outcome of this case, which went on appeal and where the point about s.195 (should it become necessary to show the Tribunal) was essentially endorsed, is that the Tribunal and the CC are part of a wider process under the machinery of the Act. Your appellate function is to ensure, consistent with the European framework, that what you do in resolving the appeal is designed to achieve the right result so far as conferring the greatest possible benefits on end consumers and so forth is concerned, but within the parameters of the appeal. So to the extent that there is a difference between ourselves and the opposing parties, it may be about that phrase "within the parameters of the appeal".

Our contention, as I have outlined, is that an ordinary appeal process requires that where a conclusion has been found to be unsafe, where the expert body recognises the need for more evidence to get to the right answers the remittal process needs to be taken advantage of in order to achieve the right result.

THE CHAIRMAN: Would you say that we should be remitting to Ofcom, to the CC, or that it depends on the circumstances of the matter that is being remitted?

MR. TURNER: It depends on the circumstances of the matter remitted in this case. We will come on to what exactly is the missing piece of the jigsaw is. It is survey evidence which the CC regretted it did not have and it said it had to do the best it could without it.

The CC fairly makes the point that it does not have statutory information gathering powers, unlike Ofcom. That may have been a legislative oversight. Nonetheless, the Tribunal, in resolving this appeal in accordance with s.195, must remit to Ofcom, and in the circumstances which I have outlined as the legal framework it is Ofcom which should carry

out the further surveys in order to achieve the right result: to be assured which costs standard is correct.

In our case, our central proposition is that the CC's approach, which you have seen from their skeleton, flaunted this objective. Having identified errors and additional evidence that was required to be assured of the right result, they should not have left Ofcom's decision to stand.

THE CHAIRMAN: Mr. Turner, does the additional evidence that is identified have to meet certain criteria? Is it simply a criteria of materiality to the overall decision, or is it more stringent than that?

MR. TURNER: If the appeal body says that in order to reach a clear view on an issue which is needed to weigh in the balance which of the costs standards is correct, then that evidence is material to the final conclusion, and that should be evidence which, on a remittal, the decision maker is asked to gather. Here (and we will turn directly to it) the CC pretty well explains what sort of evidence is needed and it is clear from the reasoning in the Final Determination.

THE CHAIRMAN: I am sure we will be coming to the specifics, I am sure you will take us to that, but I am just interested to articulate in a more general way what criteria have missing evidence which by definition no-one can know what it means and what it says, what criteria those have to meet in order to require the CC to require Ofcom to dig a little further?

MR. TURNER: Sir, if you are asking for further help on the distinction between this and the *Talk Talk* case, where one is looking at unknown unknowns or known unknowns, then the answer is that where the appeal body itself identifies particular material which is relevant to reaching the right answer on the question that the regulatory authority has to arrive at, then that is a task which, on remittal, this Tribunal should set for the decision maker.

THE CHAIRMAN: This is a hypothetical question. Suppose certain evidence is identified as desirable and would be helpful to discern the outcome one way or the other but it will take time to obtain, can the CC weigh one factor (the desirability of having the evidence) against another (the undesirability of delaying the process)? Can the CC reach a view on that, or would you say that in every case where a material gap has been identified remission must follow?

MR. TURNER: I understand the question. The first observation I make is that we are not in that territory in this case. This is not a case where the exercise which we envisage the decision maker would need to undertake is expensive and would, for example, take half a year or years and thereby flawed the introduction of a new price control at a correct level. Plainly,

if the objective of the legislation is precisely to introduce a new charge control at a correct level, then if this Tribunal requires a process to be undertaken which will mean that no charge control can be introduced for that period, there would be a collision between the procedural and the substantive objectives.

Leaving aside that extreme case, and we are not in that situation, the legislation requires that the solution imposed is one that confers the greatest possible benefits on end users. Where, in a manageable timeframe (and here we are talking about a matter of months at best), it is possible to arrive at a solution which means that the charge control going forward is the right one, that is what the appeal bodies should aim to achieve.

THE CHAIRMAN: But even on your "months not years" to get the evidence scenario, the CC would presumably have had to make an application to the Tribunal to vary the timetable that the Tribunal laid down for answering the questions that were set.

MR. TURNER: No, because the CC has pointed out that it is not in the position to arrive at the right answer based on the information at its disposal, and that it does not have information gathering powers. The right answer for the CC to have reached would have been to say that the reference question should be decided in favour of the appellants, based on the approach which the CC itself recognised at one point in its determination — in other words that the methodology of Ofcom had been overturned on the material point: then the appeal should have been allowed (or should be allowed) and the matter can be remitted to Ofcom with a direction that Ofcom, which does have statutory information gathering powers, undertakes the requisite process. So, it will not be the CC but Ofcom that does that.

May I make a second and additional observation, which is this: the problem with leaving things as they stand is that in default we have a price control where one cannot be assured that it meets the criteria that the European legislation demands. That is the default position. We need to correct that position. The appeal process has put the matter in issue. It is therefore appropriate for it to go back to the decision maker so that a correct charge control can run for the remainder of the period.

THE CHAIRMAN: So, just to understand how you say the process should have run in this case, what should have happened, you say, is that the CC should have reached precisely the opposite conclusion that it did on this question, and should not have, because it could not have, carried out further investigations. The matter would then have come to us on a judicial review and we would then, were those criteria met, have remitted the matter to Ofcom for the additional survey to be carried out. Is that how you say the process should have run, or am I getting it terribly wrong?

MR. TURNER: No, with one exception, I would agree with that. Do you first the CC's determination? The first part of it is in bundle A1.

THE CHAIRMAN: That is core bundle A, is it not, Mr. Turner?

MR. TURNER: Yes, that is bundle A1, tab.2 at p.12, that is 2-12 pagination. You will see the paragraph which we referred to in our grounds as correctly stating what the CC should do.

> "The CC agrees that it must determine whether Ofcom made the 'right' choice and that the appeal should succeed if the appellant can demonstrate that Ofcom applied a methodology which was so unsound as to create a real risk that the decision was wrong".

That was absolutely right. They should then have answered the reference question in the opposite way to the way that they did, which is that we cannot say that this is safe. It comes back to the Tribunal and, under s.195, not as part of a judicial review function, you have a statutory duty under s.1953 and 1954 in every case — every single case — to remit the matter back to Ofcom for directions.

What I am saying is that in the remittal that you then make (nothing to do with judicial review) the directions that you give have to be ones which are designed to ensure that Ofcom, s.1955, takes a decision that it has power to take. That is a decision which needs to be compliant with the overall objectives; and to achieve that, therefore, leaving aside judicial review completely, you should give directions requiring the requisite further work to be done so that the correct price control can be put in place for the remainder of the charge control period.

THE CHAIRMAN: So, in an ideal world the answer to the first question would be the decision of Ofcom is wrong, it has reached an inappropriate conclusion.

MR. TURNER: Yes.

THE CHAIRMAN: And that is clear. But on question 7, where we seek the CC's assistance in terms of how to go forward in the light of the earlier answers to questions 1-6, the answer there will be, "Well, we can't help you any further because we don't have these powers of investigation, but we recommend that Ofcom be tasked with a direction to carry out the following survey or the following quest for evidence?

MR. TURNER: Yes, and I am glad that you have referred to that because, of course, the CC is in a good position in relation to that reference question to say what, in its view, is needed in a targeted and tailored way to be done by Ofcom on the remittal. The problem is that the CC in this case appears to have been very anxious simply to close the case down without taking into account the way in which the overall machinery is intended to function. It saw its task

as essentially to reach a final answer come what may in relation to the question of right or wrong as a binary matter. That was wrong. Its function is adjectival or subordinate in the appeal process, and it is required to comply with the overall duty to try to reach an answer which means that the right result is eventually reached within the parameters of the appeal.

THE CHAIRMAN: But, again, sorry to press you with a hypothetical question, but suppose the CC's view was that, obviously it could not anticipate what this further evidence would say one way or the other, because, to quote Mr. Rumsfeld, "It's a known unknown", but it takes the view that the evidence is potentially material, but may not be. And weighing against that it decides that finality is important and so it decides to conclude its investigation at that stage, reach a view on, if you like, burden of proof, and make a final decision on the earlier question without making any suggestion that matters be remitted to Ofcom and further investigation simply decides the matter because although it would like the evidence, it recognises that, given the process that are all in, time is also important and therefore it does not wish to delay matters any further. Now, would that be something which a body like the CC could properly take a decision like that? Or is that something you would say would be a decision it simply could not take?

MR. TURNER: I would say two things in response to that.

* The first point is an institutional point which is important to grasp. It is really for the Tribunal, when the matter returns to you as the body determining the appeal, to make that sort of judgement. The CC's function is as an investigative body to process a particular kind of issue within the statutory framework. It needs to decide whether Ofcom got the price control matter right or wrong. It then returns the matter to you and, if such a judgement falls to be made about whether it is proportionate and right to require that to be done on remittal, it is your decision as the Tribunal. You remit, and you decide that. The Tribunal can give guidance because it has been asked to do that by reference to question 7, but its statutory function is more limited. It should not get ahead of itself and consider that that is part of its role.

* Secondly, on the substance, when the matter does return to the Tribunal, the considerations which I have outlined will then come into play. I can imagine an extreme situation where the amount of work that one would require the decision maker to do would be so voluminous that, essentially it would mean nothing could be put in place for the remainder of the charge control period. But one has

to take into account that the prevailing situation is that we have a charge control which one cannot be assured is the right one.

And, as I say, the job of the institutions in this process, including the appeal bodies, is to try to correct that issue where it is appropriate to do so. This, as I will show you, is a situation where it can and should be done. So, we will not, therefore, be entering on that sort of territory at all.

THE CHAIRMAN: I understand what you say in terms of it being for this Tribunal to police the process, but does not the Tribunal itself suffer from a statutory straightjacket in that the Tribunal is bound to accept a CC decision on the merits under s.1936 unless, applying the principles of judicial review, the CC's determination is set aside?

MR. TURNER: Yes. But what you are doing is looking into their merits on the question which the legislation gives them to answer. And unless their determination falls to be set aside on review principles, then of course you live with that. And our precise complaint in this process is that it does fall to be set aside on review principles because they have misunderstood their function.

THE CHAIRMAN: Yes.

MR. TURNER: So, yes, if they were to have decided, let us say on the basis of methodology with which we have no complaint, that Ofcom's decision was not merely unsafe but it was wrong, and that they were satisfied on reliable evidence that the right answer was something different and that comes to this Tribunal, you must implement that unless, of course, the appellants can show that there is some deep flaw which has occurred. What has happened in this case is that they had not carried out that function. They have carried out a different function of asking themselves, in the presence of admittedly imperfect and inadequate evidence, what should be done, and they say, "There is not enough here, we will stick with the original conclusion", and then send it back to you. That is wrong if that is the case.

MR. MAYER: Mr. Turner, could I just ask you to clarify what you mean by the term "unsafe"?

MR. TURNER: Yes. I mean that the question whether the, let us say here, the LRIC cost standard as opposed to the LRIC+ cost standard, the LRIC cost standard is superior to the other one and confers the greatest benefits on end-users carrying out a full weighing exercise. It is unsafe to conclude that that is the case because, in order to make that judgement, the CC itself has recognised that there is further material which would normally be important evidence on the question which it does not have. Therefore (one can almost take the crude analogy of a criminal court) the conviction is unsafe. I mean it in that sense. We do not know what the right answer is because there is more material out there which the

expert needs in order to reach a clear decision. And I contrast that with a finding that Ofcom was actually wrong, which would be a situation where the expert does have all the relevant material available and uses it to arrive at a decision that Ofcom was either right or wrong. But where in the appellate process we arrive at a situation where you do not know because you are suddenly starting from a new point never envisaged by Ofcom or any of the parties when they were previously gathering their evidence, we do not just stick with the original conclusion. You get the relevant further evidence now that you have made your intermediate findings in order to determine what the right answer is.

MR. MAYER: And, is there a balance there in trying to determine that degree of risk against the risk of not reaching timely decision?

MR. TURNER: Not reaching a final decision in —

MR. MAYER: A timely decision.

MR. TURNER: A timely decision. Yes, this overlaps with the point that the chairman was making. As I say, if you imagine circumstances where no decision can be reached because the task imposed on the remittal is so onerous that it will essentially take you over the full period for price control, the four-year price control, something of that kind, then you would have to take that into account. That is similar to what the Tribunal in this disposal powers judgment referred to as "needing to try to reach a result which is consistent with the orderly appeal process" — do not want to reach an absurd result. But, that is an extreme case. Here, we have a situation where there are specific concrete points on which further evidence has been identified as useful in order to get to the right result; and the clear intention of the legislation is that the appeal bodies should see that that is done.

Sir, I am conscious of the time but I think I am making reasonably good progress. What I have attempted to do is to lay out for the Tribunal, without responding to everything in their skeletons, the essential legal building blocks of our case, and now I propose to make that good on the facts by showing you in clearer detail what actually happened so that you can apply what I have been saying to the facts of the case.

THE CHAIRMAN: That is very helpful. I think, in accordance with our normal practice, we will rise for five minutes and then you can resume with the specifics. Thank you, Mr. Turner.

(Short break)

THE CHAIRMAN: Mr. Turner, before you resume, a point of information, you have used up 48 minutes, I am reliably informed.

MR. TURNER: If it comes to it, I may need to fall on the Tribunal's mercy and ask for some indulgence, but I am going to go as briskly as I can, but I should be done before the short adjournment.

THE CHAIRMAN: You are going very briskly, Mr. Turner, so we may be indulgent.

Secondly, there was a question following on Professor Mayer's question about "unsafe". The essence of your argument is that this additional evidence had to be obtained in order to be assured one way or the other that the right answer was achieved. Does it not follow from that the Competition Commission, in answering the question remitted to it, would actually have to say, "We cannot answer this question, we do not know", rather than plumping for one answer rather than the other?

MR. TURNER: Yes. That may raise a technical question, but only a technical question, about the precise way in which the appeal questions were framed. That would be the tail wagging the dog to determine this issue. You are of course right.

May I conclude, myself, on the matters that we were covering just before the break with the following three observations, and then, if I may say so, Mrs McKnight has reminded me that when she makes her submissions she may have something additional to say which is relevant on this point.

So three points: the first, obviously we are dealing here with a very weighty matter indeed, both in terms of private interests and the public interest. It is in relation to the private interests of the companies on whom a price control was imposed that one really needs to consider issues of proportionality, and I have not so far made much of this, because, in my submission, it is sufficient for the Tribunal to consider the objective of the public interest.

In relation to the private interests of the companies you are talking about a choice between two constraints, caps, controls, the difference between which could mean many millions of pounds. Now, BT says there is no real difference in proportionality terms between one rate and another rate. That is not correct. We are not talking about market rates, we are talking about controls, maximum rates imposed by a Regulator. One control which is very tight may be much more intrusive, much more burdensome, than another which is much looser. It seems to me to be obvious.

From the point of view of the public interest, which is where I have directed most of my energy, there are also very important effects because if one costs standard could mean hundreds of thousands of people, including vulnerable consumers, having to reduce their usage of mobile phones or giving up usage completely, that is an important matter to be

considered. If, in order to find the right answer from the point of view of both the private and the public interests, more work is required then it should not be easily dismissed.

My second point is this: the legislation envisages, on its face, that the Competition Commission might reach a flawed decision. It is built in in s.193(7). If that occurs – if we are right in this case, for example – necessarily it contemplates some delay while the matter is sorted out.

Thirdly, and perhaps even more importantly, even if there is no flawed decision by the Competition Commission and the appeal process runs true to form, Ofcom, whose decision is appealed, may be found to have got it wrong, so the Competition Commission just reaches the conclusion that not only is Ofcom's methodology completely wrong, but they say, "We are also satisfied that the conclusion is completely wrong". If that then comes back to you, that is one thing, but what if the Competition Commission were to have said, "Ofcom got everything wrong in the way it approached it, and we do not have, it is nobody's fault but we do not have the material to know what the right answer is". That is such a profound problem.

The ordinary process, if that occurs, in an ordinary appeal envisages that there is a remittal and that on the remittal the decision maker has to gather the missing information. It is the situation that we now face. Because of this, because this is a normal situation which may occur, envisaged by the legislation, we urge the Tribunal that there should be no form of unspoken bias or slant against the appellants for raising the points that we do. It is something which is legitimate and envisaged by the legislation as may be necessary.

With that I turn to the facts. May I start with Ofcom's statement which I need to take you to only very briefly. It is in bundle B1 tab 3. Unlike other documents in files which you have, this one has been printed double sided and despite that it occupies a large width. That is my first submission! It is necessary to start here in view of the suggestion which I have seen in some of the opposing parties' skeletons (albeit muted) that the points which we are canvassing in this challenge today were not material to the reasoning which underpinned these price controls, because that is incorrect. As I mentioned at the outset, one of the main points in this exercise is a proposed move in the cost standard to which the mobile call charges are oriented from the LRIC+ to the LRIC standard. I have explained what that involves. The question of which of these two standards best fitted the s.88 duties was a key issue for Ofcom.

The key reasoning for all of that is at Sections 7 and 8 and Annex 3 in this big document. If you turn to p.107, which is the numbering in the bottom corners, you have Section 7 entitled "Empirical analysis of consumer effects".

THE CHAIRMAN: Sorry, Mr. Turner, we need to ensure we are all on the same page.

MR. TURNER: It is Bundle B1 tab 3.

THE CHAIRMAN: What page are you on now?

MR. TURNER: I am on p.107. You will see that this is the start of a chapter which is concerned exclusively with the empirical analysis of consumer effects, the likely impacts on consumers of a switch from the LRIC+ standard (which was prevailing) to a pure LRIC costs standard in terms of prices, the ownership, and the usage of mobile phones.

If you look at para.7.9 on p.108 you will see under the heading that they consider how the four national mobile companies would be likely to respond when faced with low mobile termination rates, and the effects this would be likely to have on consumers. If you turn to p.116 para.7.49 you will see that one of the impacts that they refer to is that

> "... all MCPs will receive less revenue for terminating non-M2M calls. We estimate that this could be around £0.2bn less revenue across the mobile industry. The waterbed effect means that all MCPs will try to recover this shortfall in revenue from their own retail customers, by adjusting their overall mix of charges so that profits remain as high as possible."

So the idea is that the lost revenue, which is very significant, they will try to claw back from the retail side and the question is how will they do this? Where will the impacts fall? What would they be likely to be?

If you turn to p.169, after that empirical assessment of the issue, the next chapter (as you will see from para.8.1 and from the title) now concerns the weighing exercise of all the factors, the assessment of LRIC+ against pure LRIC. At p.173 there is a heading: "Framework for assessment". You will see in 8.25 they refer to the criteria which they used: economic efficiency (two kinds); competitive impacts; effects on vulnerable consumers; and commercial and regulatory consequences. At 8.27 first sentence they conclude "that these are the right criteria to apply in our assessment". Then they go ahead and do that. At 8.32 there is a reference to Annex 3 to the statement which "considers in detail the economic arguments presented by the stakeholders on the issues discussed in this section." I draw that to your attention only to mention that it is later on in the bundle, and it alone runs to another 85 pages.

At p.201 you have the conclusions. 8.158, having done the overall assessment they believe "that pure LRIC is the appropriate cost standard". You will see that they "believe it confers the greatest possible benefits on consumers". At 8.159 "the arguments in this section and the detailed economic analysis in Annex 3 show that pure LRIC best promotes sustainable competition, as it will intensify retail price competition". At 8.160 "significant benefits for consumers"; at 8.161 they "specifically consider the likely effect on vulnerable mobile-only consumers. Our economic analysis in Annex 3 (summarised in this section) shows that such vulnerable consumers are unlikely to be significantly adversely affected". At 8.162 that "adopting the pure LRIC cost standard is also consistent with the 2009 EC Recommendation" which was guidance from the Commission which needed good reason to have been departed from that the LRIC standard should be adopted. Those were their conclusions and they chose the LRIC cost standard. As you can see, it was a major issue in Ofcom's decision.

We turn, then, to our Notice of Appeal. For brevity, I refer only to our own. It is in bundle B2 tab 6 p.8 p.24. We summarised the outcome of the overall weighing exercise which Ofcom had carried out and its conclusions. Essentially, that on allocative efficiency grounds there was no clear support either way; dynamic efficiency may marginally favour LRIC+; competition considerations favoured pure LRIC, and vulnerable consumers not likely to be a significant effect. On p.13 para.40 there are our three grounds of appeal. You will see ground one, which is the argument that Ofcom was wrong to have adopted pure LRIC. At p.18 there is a section which begins at para.62 looking at Ofcom's analysis of the likely effects of reducing termination rates on retail prices. At paras.62 and 63 you will see the reasoning. At 62, if one takes it up from the second sentence, three lines from the bottom of the page:

> "Ofcom found it harder to generalise about pre-pay customers, but did not consider that pre-pay usage charges are likely to increase materially, considering that price increases to pre-pay customers were '*more likely to come about through reductions in handset subsidies and/or additional fixed charges.*'"

Pausing there, they identify the contract customers as being the ones who are likely to be hit. If the pre-paid customers are going to be hit at all, they referred to reductions in handset subsidies or additional fixed charges as being what would be likely to happen.

> "More generally, Ofcom considered '*it makes commercial sense for each MCP to target price increases as far as possible towards those whose demand (for*

subscription and usage) is less price elastic (post pay users), and limit (or completely avoid) price increases for those who are more sensitive to price changes (particularly for subscription) such as some pre-pay users'."

So their theory was that the companies would try to put the burden of price increases where people were least price sensitive and they thought these would be the contract customers. At 63:

"EE considers that this prediction is wrong, and that it is more likely that usage charges as well as fixed charges will increase."

At 64 we said that they disregarded a number of important aspects of the retail mobile market. We said at 64.4 p.20 that the effects of the cuts would be different:

"... to remedy the problem MCPs are likely to raise prices to those customers [pre-pay]. The main category of customers affected in this way is low-value pre-pay customers."

So we say Ofcom's essential conclusions about what would happen are wrong and this is what would be likely to occur. At p.23 there is a section starting at 69 where we attack Ofcom's analysis of the effects of retail price changes on the levels of usage and subscription. You will at para.70:

"In relation to the level of mobile subscription and ownership, Ofcom considers that '*the effect of lower MTRs on ownership is likely to be limited, as demand is generally inelastic and any retail price increases are likely to be directed more towards those post pay and pre-pay users who are less price sensitive'."*

Paragraph 71 in our contentions as to why this was wrong you will note that we refer, among other things at 71.5 p.24 to a customer survey, a customer survey undertaken for Ofcom which found that "9% of pre-pay customers would be likely to stop having a mobile phone in response to a £10 increase in handset prices". I dwell on that because that is an illustration of the fact that at this stage we do not know exactly where the price impact will be, what the right survey evidence will be, but in attacking Ofcom's reasoning we do the best we can with the available survey evidence ourselves. Here, we are referring to a possible increase in handset prices and evidence of what that would be likely to bring about. In other words, we can commission surveys, but we cannot commission surveys taking into account the unknown later findings of the Competition Commission as the starting point. Page 27, there is a section starting at para.82 which attacks the analysis of the competition effects. And you will see at para.85 our contention that LRIC+ did not lead to any appreciable distortion of competition. Page 38, paras.125-127 looking at the likelihood and

scale of effects. We said it was necessary to take into account the likelihood and scale of any competition effects and balance those against the other considerations in the pot, such as allocative efficiency. Page 40, you will see a heading on 134, the effects on vulnerable customers. On p.66, para.241, the relief that we sought. Reference of the price control matters to the Commission, and then for the Tribunal to determine the appeal in accordance with sections 1936-1937 and 195 of the Act by upholding the grounds of appeal as appropriate and then remitting with the appropriate directions because, as I say, this statutory machinery always envisages a remittal. So those — this document and the parallel ones from Vodafone and the other appellants — are the operative documents by reference to which you and the CC have to decide the appeal.

You then made the reference on 30th June and, to summarise what happened after that point when for the Tribunal the trail probably ran cold, subject to one or two applications, the other parties put in response pleadings including Ofcom's defence, statements of intervention, and they came in in late August and September last year. Then the CC process really got under way.

And the point which I would ask the Tribunal to note, is that the CC's process strictly limited the introduction of any new evidence beyond that which was already attached to these pleadings. The first stage involved the parties making what the CC called "core submissions" to them, and that was in late September last year. The CC's guidance is in the first authorities bundle, we pick that up at tab.6. This is their guidance entitled "Price control appeals under s.193 of the Communications Act". If you turn in it to p.13, you will see there a heading, "Core submissions" on the right-hand side. And 4.4-4.7 are the relevant paragraphs for present purposes.

In essence they said that, once these primary pleadings had been in, core submissions needed to be made to the Commission. These essentially supersede, as you will see in 4.5, the requirement for an appellant's reply, a reply pleading. Strict limitation on their submission, 4.6; and, at 4.7, that they must not include new grounds of appeal or defence, nor should it contain new evidence. In the exceptional circumstances that new evidence is required to respond to new points made in the defence or any statements of intervention, put it in an annexe, core submissions must be cross-referenced to the arguments in the pleadings to demonstrate admissibility. So, you see that there is strict control.

And, while you are in that document, it is probably efficient also for you to turn back to p.11 which relates to the slightly later stage, consideration of remedies after the Competition Commission has arrived at a provisional finding or provisional determination.

If you look at para.3.24, well, actually we will start with provisional determination beginning at 3.21, you will see that what is envisaged is that they will produce a provisional determination with their intermediate conclusions; and at 3.22 (four lines down):

> "At this stage the parties will not be permitted to provide new evidence or argument".

THE CHAIRMAN: Yes.

MR. TURNER: Then, go to what happens in relation to remedies (just above 3.24):

> "If the CC has provisionally determined that Ofcom has erred, and the CAT [the Tribunal] has included consideration of remedies in its reference, it will generally be necessary to determine whether and how this error should be corrected. This is termed the 'remedies stage'".

At 3.25:

> "Subject to and in accordance with the … reference, the CC expects to identify a clear and precise remedy to any error identified. This will include, as far as practicable, determining an adjustment to the level of the price control. However, the setting of price controls often involves matters of considerable complexity. The CC will, therefore, engage closely with the parties".

Then, 3.26:

> "In some cases, the nature of the CC's provisional determination might clearly suggest how the error should be corrected and the remedies issues would be largely related to the appropriate implementation of the correction".

At 3.27:

> "Other cases may be more complicated. Establishing that Ofcom had erred might not of itself establish what Ofcom should have done".

And that is the situation, in my submission, which we are in in this case. The CC recognises it may find an error without the appellants having demonstrated what the right answer should be. So, we can put that away. And to situate the Tribunal back in the history, there were then, after the core submissions in September, a series of bilateral hearings, one on one with each of the parties. And those happened in October. Then, in December, the Commission issues its provisional determination. And it did so in two slices. The tranche which contained its conclusions on reference question 1, which we are concerned with, came on 21st December. The cover letter, which the Tribunal might want to look at, is at B4 at tab.48. It should be right at the very end, a single page. You will note

the date, just before Christmas. The provisional conclusions land and the last sentence, under the heading "Response to the provisional determination":

> "Responses to the provisional determination must only refer to comments on factual accuracy or errors in reasoning; this is categorically not an opportunity to provide new submissions" —

Could hardly be clearer. But, on 21st December last year, only a few months ago, we have the first opportunity to know what the Commission's conclusions are on the likely nature and incidence of price increases if you adopt the LRIC costs standard. The CC's conclusions overturn those of Ofcom. They substitute new and different views. The parties are given no chance to advance new evidence about those. And if you turn to our response to the provisional determination, it is in the same bundle B4 as you have just been looking at, at tab.37. And in the interests of time I am going to take this more quickly.

On p.3 you have the heading "The likely effects". You will see at para.8 that we put in a table, the fundamental errors which have been found in Ofcom's chain of reasoning which provided the basis for its findings. And we compared the different findings of the Commission and Ofcom about which customer groups were likely to face increases. If you turn over the page, we made the point that our evidence and arguments were targeted at Ofcom's position (9, this is) and were therefore not based on the CC's reasoning or tailored to identify its implications. And you will see what the CC had said in the provisional determination:

> *"we start from the premise that prices will change in line with our conclusions above, whereas some of the arguments start from Ofcom's position on price changes, and are thus difficult to apply".*
>
> *"Part of [the appellants'] claim is based on their view that Ofcom's reasoning on the pattern of price changes is incorrect. As we discussed above, we find force in that view. However, that also means that some of the arguments made start from Ofcom's conclusions on price changes rather than the position we have taken. Therefore we apply the parties' logic and evidence as best we can".*

We make the point in para.10 that we could not advance revised arguments and evidence, spelling out the implication of the CC's findings. And, at footnote 14 we point out the truncated timetable which we then faced before they had to deliver their final determination. At para.11 (a paragraph which I will return to in the final determination) that:

> "The CC has also commented on the absence of robust empirical evidence on the … price increases which it considers likely for prepay customers:

'Since the question of consumer responses to price increase is a key issue in this determination, we would normally expect a robust survey to be important evidence that a Regulator would seek to rely on. In this case, there does not appear to be any reliable survey evidence that directly addresses the magnitude of consumer loss that would flow from the type of price changes we expect to observe'".

So, we point that out. Then, at p.8, paragraphs 27 and following, so, 27-32 we point out the need to balance the competing factors to get to the right result. If they point in different directions, you have to weigh them up. And if one looks at para.32, there is no such assessment in the provisional determination. What is required if the CC is not to fall into error is an assessment by the CC or by Ofcom on remittal, balancing potential positive competition effects against the adverse effects it has predicted on mobile subscriptions and usage, and also vulnerable consumers.

At para.33 we refer to the need for such an assessment and, in particular, to size up the competition effects, because the CC refers to competition effects, says, as you will see, that they may not be large and therefore they are not put into a balancing exercise.

At p.15, under the heading "A material risk that Ofcom's findings were wrong", we make the points which essentially I have been outlining this morning.

If you turn to paras.64-65 on p.16, we say at 64:

"The fact that the CC might not consider the appellants to have convincingly demonstrated the correctness of their own contentions within the limitations of the appeal process is relevant, but to **remedies**".

And we say what the appropriate course is, which involves remittal to Ofcom. And at 65 we refer to that part of the guidance which chimes with that approach.

Now, what I would like to do now — again, noting the time — is to take you to the final determination to show you these points.

THE CHAIRMAN: Yes.

MR. TURNER: It is in bundle A1 at tab.2, which contains the first part of the final determination, which emerged on 9th February 2012. If you turn in it to p.2-101, that is Ofcom's position. There is a nice summary of Ofcom's on the points at issue now. 2.585 refers to the loss of what Ofcom estimated would be around £200 million, and how the waterbed effect meant that they would try to get that shortfall in revenue back from their retail customers.

Over the page at 2.586 they record Ofcom's reasoning that:

"… [the] post-pay users would see an increase in subscription charges and a decrease in usage charges. Ofcom was less confident about the effect on pre-pay charges; it believed that MCPs would avoid increasing fixed charges for consumers who were sensitive to paying a recurring access charge, and it noted that many consumers were moving away from pre-pay tariffs and the market might be shifting more towards bundles of minutes …"

and so forth.

"2.588 Ofcom therefore said that MCPs would target price increases as far as possible towards those with less elastic demand for subscription and usage (Ofcom described this group as post-pay users), and would limit or avoid price increases for those who were more sensitive to price changes ('such as some pre-pay users')."

If you turn over the page to 2-103 – I mention this because the Tribunal asked about the waterbed effect and its significance – 2.595 at the bottom of the page:

"'*assessment on the strength of the waterbed effect*

We do not consider Vodafone to have demonstrated that the waterbed effect is likely to be complete …"

in other words, any shortfall would be passed all the way into higher retail prices –

"… and therefore we find that Ofcom's view of a strong but incomplete waterbed effect is reasonable based on the evidence made to us."

For illustrative purposes the Competition Commission referred to a waterbed effect of 80 per cent. I will just give you the references, 2.837, 5.52, 5.55 and 5.56, but I do not propose to go there.

The CC disagreed with all of this. It upheld the appellant's reasoning on who would be the victims of retail price rises. If you go forward to p.110, 2.624:

"*Assessment on likely impact on usage and subscription charge*

We understand Ofcom's position to be that retail price rises will be focused primarily on post-pay customers (and especially high-usage post-pay customers), whereas the appellants' views are, broadly, that price rises will be focused on customer groups with net incoming calls, namely pre-pay customers (and especially low-usage customers) and to some extent low-usage post-pay customers. For the reasons explained below, we agree with the appellants.

2.627 The effects on prices of the changes in the value of customers may come in various forms …"

They consider the different ways in which you might find it translating through into an impact for people

> "… including call prices, monthly charges, handset subsidies, acquisition costs and other charges – but we would expect the overall effect to be higher prices for pre-pay users, especially low-usage pre-pay customers; lower prices for high-use post-pay customers; and probably higher prices for low-use post-pay customers."

So pausing there, it is very useful, but we now know for the first time how they see these impacts hitting consumers.

Then 2.632:

> "We do not believe it likely that MCPs will increase prices for high-end post-pay users in order to keep unprofitable pre-pay users on their networks, and Ofcom has not convinced us that it had fully considered whether it would be profitable to increase prices to the former group at *all*."

So there you have a disagreement with Ofcom on that point.

At 2.634, over the page:

> "For these reasons, we find force in the appellants' arguments that Ofcom's reasoning on retail price changes is not sufficient to support its conclusions. Having considered the evidence on this point, our conclusion is that we agree with the applicants' arguments that prices will rise for pre-pay customers as a whole (especially low-usage customers) and for low-usage post-pay customers, while prices for high-usage post-pay customers will tend to fall."

It is exactly the opposite of the conclusions of Ofcom.

Then if you go to p.2-116, at 2.657 they say:

> "Based on the arguments and evidence assessed in the preceding sections, we found that the appellants' depiction of the effects of MTR [mobile termination rate] changes on marginal costs, revenues and thus CLVs …"

customer lifetime values –

> "… for different customer segments is well aligned with both basic economic principles and the available evidence … We therefore agree with Vodafone's view that Ofcom has misunderstood the mechanism by which the waterbed effect operates and the likely effects on prices, and we summarise our reasoning below."

The CC then tries to assess the effect on ownership and subscriptions given its new conclusions about the pattern of price changes. If you turn to p.138, I will turn to its overall assessment of the effects on mobile ownership and subscriptions, para.2.731:

> "The appellants argued that Ofcom had underestimated the effects on mobile ownership and subscriptions. Part of that claim is based on their view that Ofcom's reasoning on the pattern of price changes is incorrect. As discussed above, we find force in that view. However, that also means that some of the arguments made a start from Ofcom's conclusions on price changes rather than the position we have taken. Therefore we apply the parties' logic and evidence as best we can."

In other words, they recognise that everybody had been proceeding on a different basis, but they say, "We will do the best we can with the evidence that we have".

> "2.732 One of Ofcom's overall conclusions on allocative efficiency is that the effects of lower MTRs on mobile ownership and subscriptions will be small. These effects depend upon the scale, targets and form of retail price changes and we discuss these under two headings below."

In short, the assessment of the likely effects on ownership and subscriptions was not properly informed. It depends on the scale, the targets and the form of the price increases and some of the arguments in the evidence, including Ofcom's. Take as the starting point Ofcom's incorrect findings on these points.

Turn over the page to 2.734, "*Scale and targets of price changes*". They refer there to Ofcom's repeated figure in the appeal, you will see from the third line down, that there would be only an impact £2.50 per subscriber per year as wrong, essentially.

At 2.736, they say:

> "When considering the effect on the number of users or subscriptions, we consider it likely that certain groups will be most at risk of giving up their subscriptions, and that in general those groups will be relatively low users."

They say that the low users have limited ability to scale down their usage and they are more likely to give up their phones or to be inactive or barely active. That was consistent with Vodafone's survey evidence.

Then at 2.737, having rejected Ofcom's £2.50 figure as the impact, they give their own view, and they say that you should divide the effect by the number of pre-paid subscriptions, and they would be roughly £5 per subscription per year. You might not be able to get that all back from people who do not use their phones of course. If you take that

into account you have to look at the number of active users, that is around £8 per active pre-pay user per year. There is a footnote to which one of the opposing parties has referred saying, "Aha, but this ignores that the waterbed was not entirely complete, and if it is only 80 per cent then you might be looking at either £4 or £6.40, not £5 or £8". That is fine, the point is taken, but it is not relevant in this context.

So having found what the average effect is across all of the pre-pay users, if you turn to 2.742, the CC reaches this conclusion:

> "Taking into account all the evidence we considered above on calling patterns, we did not find convincing evidence that there are groups of customers – and especially low-usage customers – whose net income from mobile termination charges forms a large proportion of the revenue that MCPs earn from having them as subscribers. This suggests that price increases for these customers would be modest relative to the level of charges they were already paying and, in turn, that if price increases take the form of increases in usage charges (which we consider below) then the effect on number of subscribers will be relatively small."

So the CC considers it is unlikely that there are groups of users who are going to face particularly high charges to maintain profitability, and if price changes take the form of increases in the usage charges the effects on numbers of subscribers will be relatively small, but importantly the CC recognises that the effects on price rises on the level of ownership and subscriptions is not simply a matter of impression, it is a matter on which empirical evidence is desirable and should usefully be considered.

The Competition Commission looks in detail beyond this paragraph at the empirical evidence on the effects of price rises which it has predicted on mobile ownership and subscriptions. If you go back to p.118 you see that exercise. You see the heading, "*Effects on mobile ownership and subscriptions*", and if you turn to p.122 in that section and look at the bottom of the page under the heading "*Evidence on mobile ownership and subscriptions*", they say:

> "We have been show three types of evidence which are directly relevant to assessing the effects of price increases.
>
> * The first is studies showing the elasticity of demand for mobile subscriptions and usage. There is a body of research on this subject, although it is complicated by not knowing what form price increases will take.

* The second is survey evidence. In this case, there have been several surveys, the most robust being ICM's second survey for Vodafone, which nevertheless may be difficult to apply."

The third was a piece of work commissioned by CEG by Ofcom investigating cross-country relationships.

The CC is therefore noting that each of these evidential sources is unsatisfactory in one way or another, in particular because they are not tailored to the Commission's intermediate findings on the scale, targets and the form of price increases.

Over the page at p.124, para.2.678 there is a heading, "*Assessment of evidence on elasticities*". In this paragraph down to 2.680 they look at the evidence which they do have which relates to the entire market for everybody in it, and say that that indicates, if you apply it directly, that there might be a loss of 800,000 pre-pay subscriptions.

At 2.681 they go on to look at the survey evidence and see what that may mean. You will see that at 2.691 – so we have done elasticity and we are now on to the survey evidence – they look at a GFK survey that was carried out for Everything Everywhere, and at the bottom of that paragraph they find that the scale of price increases surveyed was higher than the CC had found would be likely. As a result, the absolute size of customers' responses is not informative, probably uninformative. So we have done our best, but without knowing the precise scale that they have found, but our survey misfires.

Then 2.692, an important paragraph:

"We reviewed the criticisms of ICM's methodology in its second survey for Vodafone and we found [it] was reasonable, and that ICM conducted sensible research … It is always possible to argue that respondents may not behave exactly as they say they would. While we should not treat survey results as definitive, we believe that a well-designed survey can provide useful and reliable evidence on consumer behaviour."

Turn the page to p.128, para.2.695, although they found that Vodafone's survey is not perfect, given their findings, they say:

"Nonetheless, purely for illustration, it implies moving from LRIC+ to LRIC would lead to a reduction in mobile ownership in the range of 230,000 to 275,000 people. This would be approximately 0.5 per cent of mobile users, or 0.3 per cent of subscriptions."

Over the page at 129 is a key paragraph, para.2.700. This is their overall assessment on customer responses, as you can see from the heading:

"We accept that care must be taken when assessing survey results. We do not accept that a well-designed survey provides no relevant information. Since the question of consumer responses to price increases is a key issue in this determination, we would normally expect a robust survey to be important evidence that a regulator would seek to rely on. In this case, there does not appear to be any reliable survey evidence that directly addresses the magnitude of customer loss that would flow from the type of price changes we expect to observe."

At 2.701:

"The evidence that Ofcom has relied on, primarily about customers' attitudes to mobile phones, is of limited use.

If you then go forward to 2.731, p.138 you have a paragraph which was foreshadowed in the provisional determination (I have referred to that):

"The appellant argued that Ofcom had underestimated the effects on mobile ownership and subscription. Part of that claim was based on their view that Ofcom's reasoning on the pattern of price changes is incorrect. As we discussed above, we found force in that view. However, that also means that some of the arguments made a start from Ofcom's conclusions on price changes rather than the position we have taken. Therefore we apply the parties' logic and evidence as best we can. "

"(2.732) One of Ofcom's overall conclusions on allocative efficiency is the effects of lower MTRs on mobile ownership and subscriptions will be small. These effects depend position the scale, targets and form of retail price changes and we discuss these under two headings below."

So the CC fairly recognises that some of the parties' arguments obviously made a start from Ofcom's conclusions on price changes. Where they did not, they were based on our best appreciation of what they would be, but we did not know what these intermediate conclusions would be.

It is useful, at this stage, to see how the CC in its skeleton argument for this hearing deals with our point, that it recognised that better empirical evidence, in particular on elasticity for the pre-pay customers and for vulnerable groups, was appropriate but was missing.

THE CHAIRMAN: You are talking about survey evidence, are you not Mr. Turner, because evidence on elasticity and demand will require --

MR. TURNER: Yes, that is right. What I am doing is referring to the two main pieces of empirical evidence, as the CC described them in this Determination. It split out elasticity evidence and survey evidence, asking people what they would do directly if certain things were to occur. It treated them separately, but you are absolutely right, I refer to both of those because the CC said that in relation to both what it had was not good enough for its task.

THE CHAIRMAN: No indeed, it is only fair to say that I have seen Professor Valletti in the *080* matter. He was an expert witness there. He was very helpful in showing the limits of postulating elasticities when one did not have the empirical data, as it were, to reason from.

MR. TURNER: Yes, that is precisely our point, but it is not merely our point. As one sees from the CC's Determination it was the CC's point as well because, from their point of view you have worked out where the price cuts are going to fall, you have worked out how they are going to fall (you have got your view on it). Then you go back and say: what evidence have we got about what this will actually mean for giving up phones, giving up subscriptions; we want to have empirical evidence; the parties' evidence on it is inadequate; Ofcom's evidence is inadequate? Their approach is: we are going to make a decision and we are going to do the best we can with what we have got, while recognising that normally (para.2.700) this is important evidence that you would expect a regulator to use to reach this decision.

As I say, it is useful to see how the CC itself deals with this elasticity point in its skeleton argument. I did raise it in my ground. It is para.138. 1(b). What they say there in the second sentence is this:

> "The Commission does not exclude the possibility that using such elasticity estimates [the ones which it was bound to use because there was nothing else] may understate the scale of adverse effects, but does not accept that they would necessarily underrate those effects in the manner suggested by EE."

That is a rather awkward sentence and, to my mind, tells you all you need to know about the position of the CC, which is that they recognise really that there could be an understatement because the cross-industry figures will not reflect the position for the pre-pay people, for the vulnerable people within that category, and that further evidence to see what the elasticity evidence relating to those important groups are would be useful. They do not decry that in their skeleton.

I am conscious of the time. The key section with the overall assessment on allocative efficiency begins at p.156 at the bottom of the page: Overall assessment on allocative efficiency. If you turn to p.157 I will take a few of these paragraphs. 2.816:

> "It seems likely that reducing MTRs to LRIC will lead to retail price increases which will be focused on pre-pay users (especially low-usage customers); and to some extent low-usage post-pay customers. This is based on both economic theory and evidence of price changes in response to falling MTRs, as set out in the appellant's submissions (although we interpret the latter cautiously). We expect these groups to be more likely to be marginal customers (ie more likely to give up their phones in response to some form of price increase).

Again, that tells you that the overall elasticity approach is not likely to be entirely on point. 2.817:

> "We think that Ofcom has underestimated the average size of price increases for these relevant groups, which suggest that it also underestimate the effects on mobile ownership. One important issue is the form that price increases for pre-pay users would take ... Hence we consider the MCPs are unlikely to be able to increase pre-pay prices without reducing ownership, usage or both.
>
> "(2.818) However, the available evidence suggests that price increases for low-usage customers are still likely to be modest. A reasonable assumption would be that the average price increase for pre-pay users is in the range of £5 to £8 per year (depending on whether MCPs are able to impose significant price increases on inactive/barely active subscribers and second subscriptions). Since this is the average, there is a possibility that some customers would see increases well above this level. In particular, if we believe that there is a sizeable category of pre-pay users who make a low number of outgoing calls, but receive a large volume of incoming calls, and that price increases could be targeted at that category, we might expect that it would receive above-average price increases leading to reduced ownership. However, data on calling patterns (which informed the price changes customers are likely to see) does not suggest that a sizeable category of this type exists."

Pausing there, they appear to be saying we do not think that there are going to be above-average price increases loaded on to a particular category so let us stick with our £5 to £8 figures. We then move on in a key paragraph, 2.819:

"We have also considered evidence on the responsiveness of consumers to price increases. We would normally expect this question to be addressed using empirical evidence, but Ofcom relied on little relevant evidence in its decision and we found that the evidence of the appellants did not allow us to make a reliable assessment on the scale of reactions to price increases. This is further complicated by the fact that most evidence refers to the number of subscriptions rather than the number of subscribers. We did not think that any of the evidence demonstrated that moving from LRIC+ to LRIC would lead to significant reductions in subscriber numbers, relative to the level of subscribers in the UK today."

May we go to 2.823, which is their conclusion in this section. After all of their reasoning this is what they say:

" Overall, in light of the available evidence we find certain aspects of the reasoning of EE, Vodafone and Telefonica convincing and prefer it to Ofcom's, particularly regarding the form of price changes that are likely to follow a reduction in MTRs. We believe that Ofcom's reasoning has led it to underestimate the negative effect on mobile ownership of adopting LRIC in preference to LRIC+. We also consider that there are no good grounds to expect LRIC to cause an increase in mobile usage (an increase or decrease are both possible); and Ofcom may have overstated the increase in fixed usage. However, the appellants have not provided convincing evidence that the scale of decline in the number of users would be significant; and the appellants have not demonstrates that this constitutes a significant negative effect on allocative efficiency. Most of the evidence available relates to the number of subscriptions, and we treat it with caution for three reasons: (1) most of the available evidence is not robust, is not aimed at the difference between LRIC and LRIC+ or both; (2) it is not clear how a decline in subscriptions translates into a loss of users; and (3) as we set out above, the loss of a subscription that was being subsidised (ie its owner valued being on the network less tan the cost of being on the network) is not necessarily allocatively inefficient. To the extent that there is some loss of 'efficient' users, that has to be set against all the other effects of higher MTRs (such as higher FTM prices). Therefore we agree with Ofcom that allocative efficiency grounds alone do not provide a clear answer as to whether a LRIC or LRIC+ cost standard should be preferred. For

> these reasons, bearing in mind the statutory framework within which Ofcom was required to make its decision and the burden being on the appellants to provide that Ofcom erred in its conclusion that LRIC was, in particular, appropriate for the purposes set out in section 88(1)(b) of the Act, and notwithstanding those matters on which our conclusions differ from the conclusions reached by Ofcom under this part 2(a), we do not believe that Ofcom was mistaken in respect of the appropriateness or otherwise of its choice for promoting efficiency, in choosing a LRIC cost standard."

So this paragraph, in my submission, shows the following four things. First, that evidence on the scale of decline in the number of users would be informative (you have seen that from the reasoning; second, that the available evidence in terms was not adequate, that the important evidence required to get the right result was missing; third, despite finding that Ofcom's reasoning on a principal issue raised by the Notice of Appeal was wrong and that further evidence would be informative for s.88 purposes, the CC upholds Ofcom's conclusions by reference to the appellants in the appeal not having managed to discharge the burden of proof. Therefore, fourth, we say that the CC confuses the question of error with the question of remedy. The position which is set out at para.2.59 of this big document which we looked at when I was talking about the legal part of the case, how they really should resolve their job, is correct. Moreover, the challenge that was mounted in our Notice of Appeal to the choice of LRIC over LRIC+ was not just concerned with allocative efficiency. We pointed out that the choice to be made at the end of the day by the regulator as to which was better requires weighing up the different considerations: the dynamic efficiency, impact on vulnerable consumers, and the scale and the importance of competition effects.

We challenge Ofcom's findings on those other issues. The weighing exercise, therefore, is not able to be carried out when you do not have the relevant evidence to be able to perform it. If you turn to p.162 (sticking with vulnerable consumers) you have a heading "Vulnerable customers", and you see the people whom Ofcom classed as vulnerable at 2.843 to 2.845. At 2.844(a) "People with annual income of less than £11,500; and (b) people who belong to the socio-economic groups D and E."

At p.172 the CC finds that vulnerable customers are disproportionately likely to be pre-pay users, as you see from 2.899. Having overturned Ofcom's essential reasoning that the pre-pay people will not face price increases, the CC turns to consider whether the vulnerable

users (coming back to elasticity) might be more sensitive than the industry average. The CC finds that they are more likely to be price sensitive.

If you go 2.902 p.173 "Will a significant number of vulnerable customers give up their mobiles?", they say in the second sentence?

> "It seems plausible that a greater proportion of vulnerable customers would give up their mobile phones; partly because we believe that vulnerable customers are disproportionately likely to see price rises (since they are more likely to be pre-pay users), and partly because we believe that vulnerable customers are disproportionately likely to be income constrained."

And at the bottom of the page, 2.905 and 2.906:

> "Customers will give up their mobile phones in response to a price increase if either (a) the mobile phone no longer provides value for money, or (b) the customer cannot afford to continue to use the mobile phone at higher price. We do not claim that (a) is disproportionately likely to apply to vulnerable customers, but (b) clearly is.
>
> "2.906 While we accept that care must be taken when assessing the survey evidence we have seen, it suggest that low-income customers may be more likely than others to give up their mobiles in response to price increases. However, we did not think that the survey evidence provided a reliable indication of the number of low-income customers that would be likely to give up their mobile phones in response to a move from LRIC+ to LRIC."
>
> "2.907 Since we believe that price increases to pre-pay user (and hence to the majority of vulnerable customers) are most likely to take the form of increase usage charges, we are not persuaded that a significant number of vulnerable customers would give up their phone in response. Most customers would have the ability to reduce their usage in response, allowing them to remain within their budget constraint. As to vulnerable customers on post-pay contracts, they may be able to switch to a less expensive package, or to a pre-pay contract under which they can save by reducing their usage. Hence it does not necessarily follow that they would respond to a price increase by giving up their mobile phone. Therefore, we do not think it has been demonstrated that the effect on mobile take-up among vulnerable customers would be large."

So in this paragraph the CC notes that most customers would be able to reduce their usage and says it does not necessarily follow that they would respond to a price increase by giving

up their phone. Therefore we do not think it has been demonstrated that the effect on mobile take-up among vulnerable would be large. This conclusion is expressly couched in terms of what follows and what has been demonstrated on the available evidence.

It is obvious that vulnerable people, some of them, would choose to scale back their usage (itself, by the way, a detriment), but the extent to which vulnerable people will give up the mobile phone in response to the kinds of price changes which the CC now considers to be likely has not yet been the subject of evidence. It could not reasonably have been beforehand.

Before the Provisional Determination we could not adduce evidence that would have been regarded by the CC as reliable because until then we did not know what would be found about the scale, the form, the target, the price increases. The CC expressly recognises that customer responses to these price increases is a key issue on which a robust survey would normally be important evidence for the regulator. I take you back to 2.700 on p.129. They should not therefore purport to decide that LRIC is the appropriate cost standard based on the burden of proof that we carry and anticipating an exercise which should rightly be conducted by Ofcom after a remittal.

Sir, I am very conscious of the time. If I may, I will spend two minutes concluding this point, which are essentially our submissions on ground one which is the biggest ground in the case. If you will permit me, I think I can finish on the remainder of it within no more than five to ten minutes after the short adjournment.

THE CHAIRMAN: Do you want to finish ground one now, and then we will resume after the short adjournment.

MR. TURNER: I will do that, yes. Let us turn to the CC's overall assessment of reference question one on p.178. It is at 2.929. Here you see how the overall balancing exercise that does need to be carried out lies. At subparagraph (a):

> "We summarize our conclusions on the challenges to Ofcom's competition assessment in paragraphs 2.518 to 2.524. We do not agree with the appellants that Ofcom erred in its assessment of the relative merits of LRIC and LRIC+ from the standpoint of competition. ... We note that at its core the results of our analysis of arguments in relation to the competition assessment is that, though the scale of effect may not be large, our conclusion is that the effect favours the adoption of LRIC."

So the only point there is the scale of the effect may not be large, so to the extent that you are looking at pros and cons that one is in the LRIC side of the scale, but the scale has not

been assessed and it may not be large. "(b) We summarize our views of the challenges to Ofcom's allocative efficiency assessment in paragraph 2.823. " That was the one we looked at "and (c) vulnerable consumers". Both of those are decided on potentially a flawed basis that insufficient evidence has been produced. They do not provide, therefore, a solid basis for the weighing exercise to be conducted to know which of the two cost standards provides the greatest possible benefits to end consumers.

Our submission is that it is Ofcom who will be able to conduct that weighing exercise after a remittal to obtain the evidence. This is not seeking a full *de novo* investigation. This is, as I said at the outset, a self-contained exercise which can be done relatively expeditiously.

Finally, I would ask you to look at para.2.931 at the end of this section. The CC says there:

> "There are issues where we find some force in the apellants' arguments. However, in order to find that Ofcom erred in adopting LRIC rather than LRIC+ as a cost standard, we would need to find errors that would materially affect Ofcom's judgement."

That point, which reflects things that were said in previous cases (in particular the *Carphone Warehouse* case) is unexceptionable, but it is about discounting trivial errors that do not affect Ofcom's judgement. In this case, Ofcom has made errors and the CC has found that it has, which would materially affect Ofcom's judgement. CC's reliance on a burden as the basis for sticking with Ofcom's rudderless conclusion was wrong in principle. That is why we say that this is an important and compelling judicial review error.

Sir, those are our submissions on the first ground. As I say, I can be very quick on the others after the short adjournment.

THE CHAIRMAN: Thank you very much, Mr. Turner. We will resume at two o'clock.

(Adjourned for a short time)

THE CHAIRMAN: Mr. Turner, before you resume with the remainder of your argument, just one question arising out of how fresh evidence could have been obtained. Let us go back to 21st December when the provisional determination of the CC is circulated with the injunction not to adduce further argument, and to keep things very limited. At that stage, would it have been open, in theory, to EE to say, "We want to put further evidence in, it is vital that you do so given the line that the provisional determination appears to be taking. You should hear this evidence". And, had the CC refused, would it have been possible to then take that point to the Tribunal for the point to be determined by us?

MR. TURNER: Yes. The first point is that that would not have been necessary. What the Competition Commission could and should do is to decide its part of the appeal in the way

that I have outlined because, given that Ofcom is the body which has the information gathering powers and is best placed to do the survey work which is needed, it is appropriate for it to decide its part of the case in accordance with para.2.59 of its determination and how it says that should be done. It comes back to you. You, having allowed the appeal on the point because Ofcom's methodology has been comprehensively undermined and new conclusions have been put in its place, you then remit to the decision maker for them to deal with. So, it would not have been necessary to say to the CC, "Given the point we have reached, to prevent a fundamental problem you must now allow us to adduce new evidence before you because there is a different way of doing it envisaged by the legislation". Had it been necessary for the CC as the appeal body to consider further evidence at that stage, the CC would almost certainly have needed to ask you for an extension of time for it to fulfil its function, and in my submission that would not have been the best way for it to proceed. It may have attempted to do so and it may, indeed, have been able within that constraint and within a short further period to gather the relevant evidence. However, that would not have been the necessary way that it would have had to proceed.

THE CHAIRMAN: Because, I seem to recall that there was in fact in this case an evidential application from Vodafone to put in further evidence which we granted. I think that is right, is it not? I see Miss McKnight is nodding. That was in an earlier phase, of course.

MR. TURNER: Yes, that would have been at a much earlier phase, and I do not have the details of that to hand. What the CC is doing is sticking to a formula which, in a sense, works reasonably well except in exceptional circumstances. By the time it publishes its provisional conclusions and people can see what it has found, if it has found that Ofcom's methodology and findings need to be overturned, one can then address those. By that point the CC is approaching the end of its determination about whether there was an error or not, and subject to exceptional circumstances, one would not expect it to be receptive to an application that further evidence needed to be obtained to deal with something new.

THE CHAIRMAN: I do see that. I can see that there are important practical considerations, and that it is by no means an automatic answer that new evidence should be admitted. But, given that in this case, and it may be a wholly exceptional case, in this case you are saying that actually because of this absent evidence, the CC's correct answer was actually to say "I do not know what the answer is". One instinctively feels that if there is evidence which will assist the CC in reaching a conclusion one way or the other, it would have been in that particular exceptional case, appropriate actually to seek the evidence before the CC's final determination.

MR. TURNER: Yes. Well, let me take that in stages.

* The first point is that this is not perhaps an exceptional case. It is true that there was an appeal in relation to which Ofcom's findings and methodology have been overturned and said to be completely wrong on this point. That may be the outcome of numerous appeals in this field. Then, just as in this case, one may have a situation where, to work out what confers greatest benefits on consumers, given what we now know to be the findings, more survey evidence needs to be conducted. So, I would not say first that this is necessarily an exceptional case.

* Secondly, in terms of how to deal with it when it arises, I take the point on board that it may be possible — may have been possible — for the CC to say, "We think, given what has happened, that we must now apply for an extension of time for completing our task, during which period we will seek further evidence and it can be put to the parties and then we can reach final findings in relation to which of the two costs standards is to be preferred".

However, it is preferable, in my submission, for the CC to stick to its traditional function of deciding that the error has occurred; deciding it in the way that I have outlined; and for further work to be carried out by Ofcom, which is in a very good position, better position, than the CC to do this. That should not be, in a sense trouble some at all. It is part of the appeal process where an appeal succeeds in a case of this kind.

So, those are my submissions in relation to ground 1. Obviously, when the other parties have had their go, I will come back on points in reply.

I turn, then, to grounds 2-4. I have said that I am not pursuing ground 5 except in relation to one point which Miss McKnight is going to field anyway, and that was cost modelling.

Grounds 2-4 I would make an initial comment that these are not make weight points. I have to deal with them quickly because of the constraints of the hearing procedure, which means that I cannot spend substantial time on them. But my purpose in the next ten or so minutes, is to illuminate the points so that you have them clearly and can see their significance.

The first point, then, is ground 2 which is paragraphs 90-99 of our written grounds. (I do not ask you to turn those up). If you would start by opening the final determination, again, in bundle A1 and turn within it to p.153. This is the starting point for the argument. You will see it is recorded at para.2.799. At the foot of the page there is a heading, "Implications of changes in subscribers and usage for allocative efficiency", and here the CC dealt with an issue about whether, even if you lose subscribers, if usage drops this can be said to be

necessarily inefficient in terms of allocative efficiency. They say in 2.799 at the foot of that page (second sentence):

> "Ofcom's assessment, and the arguments of various parties, appear implicitly to assume that *any* reduction in ownership or usage would have a negative effect on allocative efficiency. We do not consider this to be necessarily the case on principle. In particular, Ofcom did not appear to have taken into account costs of supply".

They then go into that issue, and at paras.2.803 and 2.806 on p.155, they consider that losing a customer who may be costly to serve, may not necessarily lead to a decrease in allocative efficiency. On the contrary, it may improve it.

And, at 2.806 they refer to handset subsidies, and they say that some people who would only have a phone because of a subsidy, eg a handset subsidy, and who are lost may therefore not lead to a reduction in allocative efficiency is essentially their point. Now, we agreed with the position in Ofcom's statement, the implicit assumption that was referred to. We did not challenge it in our notice of appeal; nor did any of the other appellants on any side, they have different interests, challenge it in their notice of appeal. Therefore, the documents by reference to which the Tribunal has to decide the appeal did not flag this up as an issue to be grappled with at all. Nor, in Ofcom's defence or in the statement of intervention in support of Ofcom, did any other party challenge that and assert that losing ownership, or a drop in usage, could improve allocative efficiency. I am aware that 3 faintly maintains that it has done so, but on inspection if they maintain that, I will show that to be wrong. The point was not any part of the reference question which went to the CC and which directed the CC to decide the price control matters by reference to the particular paragraphs in the notices of appeal. Nonetheless, the CC have assessed that point as part of their reasoning, and you will see (I will not go back to it in detail) at para.2.823 which we looked at before the short adjournment, on p.159 that it is part of their final reasoning. About two-thirds of the way down that big paragraph which is their conclusion under (1), (2) and (3), they point out that:

> "… the loss of a subscription that was being subsidised (ie its owner valued being on the network less than the cost of being on the network) is not necessarily allocatively inefficient."

It is part of their final reasoning as well. They should not have done this because it fell outside the parameters of the appeal.

What do the CC say about this? They point to para.2.807, if you go back to p.155. "We asked Vodafone about this in its hearing", and then there is a reference to what representatives said about it. It was aired orally, in other words, in that bilateral context. This is not, in our submission, a proper basis for introducing a significant new issue into a multi-party appeal if it is going to have any role, as you have seen it has done, in influencing the final conclusions. The CC did not give either EE or Vodafone any proper chance to address the point. The first time it was crystallised in writing is the provisional determination on 21st December. At that stage, sir, you have the point, no more scope for putting in new evidence. That was reinforced by the letter to which I took you before lunch. We would have sought to attack this particular point and we have been deprived of the chance of doing so, and that is undoubtedly wrong and unfair. It is an error in the decision making process.

In their skeleton the CC engaged in an element of back-pedalling. If you turn to their skeleton argument and look at para.158(2), they say that we have misread that paragraph as making a finding:

> "The Commission was drawing attention to the unsupported assumption made by Ofcom that a reduction in ownership, for example, must lead to a reduction in allocative efficiency. The recurrent use of the subjunctive 'may' makes clear that the Commission was here noting the *possibility* that no reduction in allocative efficiency would occur. It was the lack of any evidence to support such an assumption that troubled the Commission."

If the CC felt that there was an issue relevant to ascertaining whether Ofcom had got the cost standard right and which had not been properly looked into, that again points towards a remittal. You have seen that it does feature in, and feed into, their eventual conclusions and you have seen the limited way in which it emerged as a point which we could grapple with in the process. That, in short, is our case on ground two.

I turn then to ground three. Ground three, paras.100 to 108 of our written grounds: under ground one, I have expounded on the point that there was missing survey evidence about how people would respond to the price rises. Take the price rises, £5 to £8 on average, as a given, if you like, across all groups, how are different sorts of people going to respond to those? Even if vulnerable consumers face similar sorts of price rises and similar shapes of price rises to other people, how are they going to react? We are talking about people whose income is £11,500 a year or less, and in socio-economic groups D and E. We are, therefore,

talking about people whose consumption decisions are rather different to people in this room more generally.

One needs empirical evidence to ascertain how such consumers would respond. In that connection, we have drawn attention to a further error in relation to vulnerable customers beyond the point I have already made about how the CC decided the issue on the basis of insufficient evidence.

If you turn in the final determination to p.174 there is a paragraph that I have already trailed in which, at the end of a section considering whether a significant number of vulnerable customers will give up their mobiles, it is said that most customers would have the ability to reduce their usage in response to price increases, and at the end:

> "Hence it does not necessarily follow that [vulnerable customers] would respond to a price increase by giving up their mobile phone. Therefore, we do not think it has been demonstrated that the effect on mobile take-up among vulnerable customers would be large."

So they have said they would not be persuaded that a significant number of vulnerable people would give up their phone in response to the price increases, yet elsewhere the Commission referred to the evidence on elasticity of demand across all consumers. Can I take you back to p.124, para.2.680, there they refer to the unsatisfactory nature of the data that they already had, and they said, "We do not know if the industry data is the same for pre-pay users, let alone sub-groups such as vulnerable customers". They also make the point that traditional elasticities are not well suited to the question before us, pointing out that low users pay a small amount each year which may represent a large percent price increase. What is small for one person in absolute terms will influence their behaviour. The only suggestion that they have made is that the elasticity, the likelihood of a vulnerable person giving up their phone or dropping their subscription, would be higher than average. You see that from p.157. I will simply go through the references very quickly. You will remember para.2.816, the last sentence, they expect that the vulnerable people are more likely to give up their phones in response to some form of price increase.

Over the page at 2.819:

> "We have also considered evidence on the responsiveness of consumers to price increases. We would normally expect this question to be addressed using empirical evidence, but Ofcom relied on little relevant evidence in its decision and we found that the evidence of the appellants did not allow us to make a relevant assessment on the scale …"

Then they said it was further complicated by the evidence that they did have. If one goes to p.173, 2.902, they record there that it is plausible that a greater proportion of vulnerable customers would give up their mobile phones for the reasons we have discussed.

2.905 and 2.906 I covered before the short adjournment, making exactly the same point, and repeating throughout that low income people, one would think, are more likely to give up their phones in response to price increases – in other words, the elasticity is greater for such people.

In contradiction to what is said in the earlier paragraph, there seems to be no evidence for the proposition that no significant number of vulnerable customers would give up their phone in response to price increases. It relates to an empirical matter on which they do not have the evidence.

So three points essentially, it is a matter on which the survey was deficient – they say so in terms. There is no evidential basis for finding that vulnerable customers are unlikely to give up mobile phones. It takes you back, thirdly, to para.2.700 on p.129, which is the paragraph where they say that because this is a key issue in the determination "we would normally expect reliable survey evidence".

That is ground three. My final ground, ground four, paras.102 to 118 of our written grounds, this relates to the glide path issue. The Commission's assessment is in the second bundle, A2, para.5.48, which is p.5-10. That means that it is in chapter 5, quite some way, para.5.48 and following. What happened here was that Ofcom had a longer glide path getting down to the cost standard of four years. They say in 5.48, "While we accept that there is regulatory judgment involved in Ofcom's decision but we disagree with it". They reduced it by a year. They said, "We can do so if the reasons given for its choice are manifestly unsound or if Ofcom has failed to adequately justify its choice of alternatives", and that Ofcom on the face appears to have adopted an inferior solution.

They then give their reasons in the following paragraphs. We agree that this is a matter of regulatory judgment, but the CC dismissed the point that was made in Ofcom's decision that a shorter glide path might lead to undesirable structures or levels of retail prices, which a more gradual decline in termination rates would avoid.

Our point is this: in reaching their own decision you see nothing to suggest that the Competition Commission took account of the potential harmful effects of a more sudden slope, a shorter glide path, the potential harmful effects on the pre-pay customers who are going to bear the brunt of these more sudden price increases. Our point is that if the Tribunal certainly accepts our ground one point that the issue of pre-pay responses to the

price increases is a matter that should be remitted to Ofcom for investigation then the glide path issues should also be remitted for similar reasons.

Sir, I have trespassed on the Tribunal's patience too much. I am not going to cover ground five, as I say. The remaining point will be addressed by Mrs. McKnight.

THE CHAIRMAN: Thank you very much, Mr. Turner. Mrs. McKnight?

MRS. McKNIGHT: Thank you. I understand from the Tribunal staff that you intend to sit until no later than 4.25 today.

THE CHAIRMAN: I am afraid that is right, yes.

MRS. McKNIGHT: That gives me, if there were no questions, just about two hours. Perhaps we can review, as the afternoon progresses, how I am getting on, and consider whether there will be any latitude to go into tomorrow morning if that is necessary.

Given the time constraints I intend to rely for the time being on the written reply that we put in to grounds A and C, and to focus my oral submissions this afternoon on ground B, which is the modelling ground. I will take that as fast as I can, but I fear there comes a point where going too fast means that we will just get bogged down.

THE CHAIRMAN: We have to keep up with you, Mrs. McKnight.

MRS. McKNIGHT: Yes, I was trying to judge my pace as we progress. I do not want to go over all the case law that Mr. Turner went through, but I do want to go through some of the case law. I think it is very important to establish at the outset what we say is the proper question that the Competition Commission should have been asking itself in respect of the modelling grounds of appeal and what in fact they did.

We start with the question of proportionality. Vodafone has argued that in setting *ex ante* price controls and MCT services and in setting those charge controls on a LRIC basis Ofcom is obliged to adopt a very carefully designed methodology and to implement that methodology with a high degree of care and refinement. The reason for that is because it is making a decision to impose a very intrusive remedy, one which is governed not just by the statutory provisions on SMP remedies generally but on the s.88 considerations to which Mr. Turner took you this morning. It is a complex matter and a lot turns on the ultimate decision and some figures were quoted as to the difference in moving from LRIC+ to LRIC. We say that therefore Ofcom is subject to a very heavy duty and that, more, this brings to bear the test of double proportionality which another composition of the Tribunal formulated in the *Tesco* case. I would like to take you briefly to the *Tesco* case which is at your authorities bundle volume 3 tab 51. Could we go to para.139 p.46 of the judgment.

As the Tribunal knows, in this case the Tribunal was looking at a statutory appeal from a

decision of the Competition Commission in a market investigation about supermarkets. Again, it was on a statutory, JR basis.

The question was whether, in formulating a remedy which would have limited the opportunity for major supermarket chains to build extensions, or new supermarkets, in local markets which were already highly concentrated, the Competition Commission had fulfilled its duties to act proportionately. Had it looked properly at the costs and benefits of the remedy to establish whether it was justified as being net beneficial as well as being the least intrusive means of achieving the objective.

What the Tribunal said here was, two-thirds of the way down the paragraph:

> "In this regard it may well be sensible for the Commission to apply a 'double proportionality' approach: for example, the more important a particular factor seems likely to be in the overall proportionality assessment, or the more intrusive, uncertain in its effect, or wide-reaching a proposed remedy is likely to prove, the more detailed or deeper the investigation of the factor in question may need to be."

So what they were really saying is that proportionality has a substantive element: is this the least intrusive remedy; are the benefits such as to outweigh the detriments or the costs? But there is also a question of proportionality of process. Where you are going to make a decision which could have very heavy implications, you have to look carefully at the way in which you evaluate those factors.

We are saying that here, Ofcom was under a duty in setting a price control and setting it at a LRIC level, to do the job carefully with a high degree of refinement. It is said against us that this rule of double proportionality is somehow limited to the function of the Competition Commission in market investigations. I would like to take you to tab 54 in the same bundle, which is the *Barclays* case, and to para.21 of the judgment on p.9.

This was also an appeal against a market investigation, judgment of the Competition Commission, in this case by Barclays in respect of Payment Protection Insurance. In para.21 four lines down the Tribunal says:

> "The 'double proportionality' approach referred to in paragraph 139 of the *Tesco* judgment does not, it is agreed, introduce any new legal principle. It is simply a convenient label for the common sense proposition that, within a wide margin of appreciation, the depth and sophistication of analysis called for in relation to any particular relevant aspect of the inquiry needs to be tailored to

the importance or gravity of the issue within the general context of the Commission's task."

So they said this was not new law; it was an insight into the rules on proportionality anyway. Before leaving, I would want just to refer to those words at the top of p.10 "within a wide margin of appreciation". I would suggest that in the present case you should not attach great importance to those because, of course, this was a case where the Competition Commission is charged with investigating a market, deciding what the issues are and what it needs to investigate. It does have a wide margin of appreciation, but when it comes to remedies it has to meet the double proportionality standard.

We would say that Ofcom certainly has a margin of appreciation; we are not saying that there is only way they can properly set a price control. But the breadth of their margin of appreciate may be somewhat less. I will come on to exactly what we think they did wrong, and we can then judge whether it was in a margin of appreciation.

We would say that the double proportionality principle is a general principle of public law, it is not limited to market investigations, or the Competition Commission performing one particular task. We would say that it follows that in assessing whether Ofcom's methodology for setting this charge control was sound or unsound the Commission had to ask itself whether Ofcom had adopted a sufficiently diligent and refined approach to setting a LRIC charge, particularly when (as we have heard from what Mr. Turner said this morning) in moving from LRIC+ to LRIC they were going as low as they could possibly go whilst still allowing mobile network operators to recover the incremental costs of providing call termination, and there would have been a real jeopardy to attainment of the statutory objectives if, through the adoption of an unduly rough and ready approach, the computation of LRIC took it too low so that it was actually sub-LRIC.

I want now to touch upon a question of how the Commission should have approached assessments of the way in which Ofcom exercised judgment or discretion in setting the charge control. It is clear that the Competition Commission is not just applying a judicial review approach of the assessment of whether Ofcom exercised its judgment and discretion appropriately. The Competition Commission is called upon to substitute its own judgments for that of Ofcom because it is a merits appeal. So it is not a case where the Competition Commission should decline to intervene unless it is convinced that what Ofcom did is irrational or beyond the bounds of what was permitted. They are asked to look at the range of decisions that Ofcom could have made on particular points and to decide whether Ofcom made the best decision to achieve the statutory objective. They should only decline to

intervene where either they think it is the best judgment, or where of a range of available judgments none is to be preferred over any other and therefore it is a matter of indifference. We rely for that proposition on *Hutchison 3G v. Ofcom* at the same bundle tab 44 para. 164. This is actually one of the judgments in the previous MCT case where Hutchison was an appellant.

> "However, this is an appeal on the merits and the Tribunal is not concerned solely with whether the 2007 Statement [the previous MCT statement] is adequately reasoned but also with whether those reasons are correct. The Tribunal accepts the points made by H3G in their Reply on the SMP and Appropriate Remedy issues that it is a specialist court designed to be able to scrutinise the detail of regulatory decision in a profound and rigorous manner. [I think Mr. Turner referred to 'profound and rigorous' in his response.] The question for the Tribunal is not whether the decision to impose a price control was within the range of reasonable responses but whether the decision was the right one."

We say this is directly relevant to our ground (b) because Ofcom and the Competition Commission portray Ofcom's design and implementation of the 2011 model as a series of individual decisions on how to deal with particular modelling issues where there is judgment or discretion to be exercised. They say it is our judgment, it is a matter of regulatory judgment. We say that the Competition Commission should not have just deferred to that judgment; it should have been willing to consider whether it was the best judgment available on the particular issue.

So our challenge is that there are basic structural problems with the models.

THE CHAIRMAN: Can you help me on this. Suppose one has, as Mr. Turner adverted to this morning, various factors pointing in different directions, that those various factors are different in quality. In other words you cannot say apples and apples but apples and oranges, and so there is a range of different directions but weight is very much a question of policy rather than any kind of empirical assessment. In that sort of case how far would you say that on an on the merits the CC ought to go on substituting its judgment for that of Ofcom?

MRS. McKNIGHT: We would say that you start from the basic principle that it is the Commission's task to decide whether Ofcom made the right judgment. But I do agree with what I suspect you are getting at, that where the factors that fall to be evaluated in deciding which is the right judgment include matters that are substantially matters of policy, one can

more readily imagine that the Competition Commission might conclude that it would be hard to impugn the choice that Ofcom has made. I do not think that is going to be an issue that is particularly troubling in respect of ground (b), except in one possible respect that I will address. For the most part, we are saying that where Ofcom had to decide how to deal with the modelling question, whether to calibrate, what calibration adjustment to make where there was a choice, what they have done is simply wrong. But there will come a point where we will say in some cases they did something simplistic and that lacks foundation in principle; it is simply too rough and ready to meet the high standard of diligence that double proportionality requires in this kind of decision.

The question then is what should they have done instead? Like Mr. Turner, we say it is not for us necessarily to decide or to prove what they should have done instead; it is sufficient for us to prove that what they did was fundamentally unsound. But we have to be careful that we are not portrayed as just demanding perfection, a degree of perfection that is not available. So there is a balancing to be had where you say the model is an approximation of reality; we say it is an improbably bad approximation, but if we cannot say what exactly should have been done to make it good, there is a judgment to be made as to whether it would have been possible to do it substantially better within the bounds of the resources of time and effort that is available.

But again we say that the CC simply overlooked quite important considerations as to how these matters could have been improved, and misdirected itself in concluding that Ofcom could not have done anything. So we do accept there is a balancing to be had, but it is not a balancing which the Competition Commission undertook by reference to all relevant and no irrelevant considerations. I hope that is a helpful prelude to what is coming.

We say that, when it comes to the ultimate judgment: is the model good enough to meet this double proportionality test, and to provide a sound underpinning for a LRIC charge control? We say the Competition Commission has not tested the robustness of the model with sufficient rigour to determine whether Ofcom met the standard of proportionality that was required of it.

I have, in answering your earlier question, begun to trespass on something I was going to say about the legal test and what we have to prove. We say that we do not have to prove that Ofcom was wrong in saying that the LRIC charge is 0.69 pence per minute; it should have been 0.75 — we have to show that the model on which they rely to say that 0.69 is a trustworthy figure in which we can have confidence, that that is not so. We have to say the model is so unsound in some particular respects, that one can have no confidence that 0.69

is the right answer. And, of course, there is absolutely no reason to think that 0.69 is the right answer unless you have confidence in the model. It has nothing else to recommend it as a figure. So, the robustness of the model, its design, specification, implementation, is clearly as much as we can expect you to attack.

And we say that the approach that I have advocated, that we have to show that the model is not sound enough for you to be confident that it produces a robust answer is borne out by the case of *Vodafone v Ofcom* which, again, is in your same volume 3 of the authorities at tab 46. Now, in this case (Vodafone was the appellant here) the Tribunal was asked to consider or to decide whether Ofcom's decision to adopt a new system of mobile number portability should be set aside in a merits appeal on the ground that the cost benefit analysis by reference to which the decision was justified was unsound. So, again, Vodafone was not saying, "You should not have gone for this system of mobile number portability, you should have gone for another one", it was saying "The underpinning for this choice is simply not sound enough to justify a conclusion that it should be this system".

So, I would like to take you to para.36 of that where we say:

> "Vodafone reminded us that their challenge is brought under the same section of the [Comms Act …] as that considered [in the Mobile Call Termination case so it is a s.192 appeal] and is to be decided on the merits … [So, it is the same test]. The test set out by the Tribunal in that case was whether Ofcom's analysis could stand up to 'profound and rigorous' scrutiny … This is not a judicial review …; it is more intensive. Vodafone accepted that Ofcom enjoyed a measure of discretion as to exactly how they conducted the [cost benefit analysis] and submitted that their appeal does not amount to saying that there is only one way that Ofcom could have carried out their analysis and that they were not entitled to deviate from Vodafone's preferred view. The question for the Tribunal was whether the cost benefit analysis, which was the foundation of all that followed, was sufficiently secure".

So, that is what the Tribunal was looking at. If we go to para.46, we see here (it is halfway down p.20) I am sorry, if you start at the final line:

> "Vodafone accepted that there were a number of approaches open to Ofcom in arriving at the Decision. However, it is still incumbent on Ofcom in the light of their obligations under section 3 of the CA 2003, to conduct their assessment with appropriate care, attention and accuracy so that their results are soundly

based and can withstand the profound and rigorous scrutiny that the tribunal will apply on an appeal on the merits …".

Then, 47, Ofcom submitted that:

"There was not a legal standard of 'robustness' as proposed by Vodafone. [That has been talked about as soundness, or unsoundness, today]. Whatever linguistic label is applied to the legal standard to be adopted, we do not find in practice there to be a meaningful distinction between a 'robust' analysis, and one that would withstand 'profound and rigorous' scrutiny. The essential question … is whether Ofcom equipped itself with a sufficiently cogent and accurate set of inputs to enable it to perform a reliable and soundly based CBA … It is the duty of a responsible Regulator to ensure that the important decisions it takes, with potentially wide ranging impact on industry, should be sufficiently convincing to withstand industry, public and judicial scrutiny".

Then we have references to various cases. And I think I would invite you at some stage to read up to para.49, where the Tribunal concluded:

"The Decision of Ofcom does not meet the test of profound and rigorous scrutiny as adopted by this Tribunal … We do not consider it necessary, in the circumstances, to address further the question of whether a higher standard applies in the context of prospective analysis",

because elsewhere there have been discussions about if one is setting a charge control or something similar for the future, one has to be particularly careful. So, we would say that that bears out the point that we are making that we do not have to sort of prove the answer is 0.75 pence per minute or 0.69. We just have to prove that 0.69 is not soundly based.

So, we say that the Commission has, because it has approached the matter on the basis that we have to show a positive different number to be a correct answer; we say that the Commission has not examined Ofcom's model to see whether Ofcom did the job with sufficient rigour to underpin a decision of this type, this importance; Ofcom did not meet its double proportionality standard and the CC has not examined that; that in so far as the Competition Commission looked at Ofcom's methodology, it required Vodafone to show that Vodafone had some clearly superior alternative. It is in para.3.33 of the final determination, and it is repeated in para.175 of the CC's skeleton for today. The CC has not contemplated the possibility that we might not have a clearly superior alternative but we might show a real unsoundness. And I think because the CC has been somewhat obsessed by the desire to come up with an answer that can mechanistically be implemented by Ofcom

in short order, they have focused on whether we can prove what the right answer should be, and they have overlooked the fact that the proper function for the CC, if it concludes the decision is unsound, is to recommend or suggest that you should direct that the matter be remitted back to Ofcom for Ofcom to remedy the unsoundness of the model — or, indeed, if it cannot be remedied within the present price control period to create a sound basis for setting a LRIC price control, the proper thing to do is to set a LRIC+ based charge control. This is not a situation where Ofcom has to set a LRIC based charge control. It has to set a LRIC charge control if it thinks it is the best thing to do and can be done soundly; but the next best thing that can be done is to set a LRIC+ based charge control if it cannot do LRIC properly and can only do it in a manner that creates a serious risk of under-recovery. So, that completes my submissions on the, sort of, substantive considerations that the CC should have had in mind. But I want to touch briefly on what form of reasoning we can legitimately expect to see in the Competition Commission's determination. And, I will not take you to the case law. The case law, in our submission, makes clear that in judging whether the Commission's reasoning is adequate, the Tribunal should be applying two broad principles. What is adequate will depend on all the circumstances, and here we have complex issues with expert judgement allegedly being applied by the Competition Commission, and we would expect to see some discussion and evaluation of why one party has succeeded and another has not in the submissions they have made on particular issues. And they should address all the issues, or all the main issues, raised in the proceedings. And I am going to be taking you to various of the submissions in evidence that were placed before the Commission — not with a view to asking you to consider the merits, that is clearly not appropriate — with a view to showing you that there are important issues raised in the evidence in submissions which are simply not addressed in some of the key elements of the Commission's decision.

Now, the case law we rely on principally is *Number 1 Poultry* which is at authorities bundle 1 at tab.19. You might want to keep bundle 3 vaguely at hand, because I do want to go back to it, I am sorry!

The *Number 1 Poultry* case is a planning decision that went on judicial review, a decision of the House of Lords where, from the head note at the beginning we see that:

> "The owners of a group of buildings in the City of London proposed a redevelopment … The local planning authority refused their applications … On the owners' appeal the Secretary of State, accepting his inspector's

> recommendations, held that the architectural merit of the proposed replacement building were such as to override his stated policy",

and he therefore allowed the planning application. But when the case got to this stage we see that:

> "On a challenge … to the adequacy of reasons given for a planning decision [it was held that] the burden of proof was on the applicant to show that he had been substantially prejudiced by the deficiency in the reasons, by showing a failure to disclose how an issue of law had been resolved or a disputed issue of fact decided, or by demonstrating some other lack of reasoning which raised substantial doubts over the decision-making process".

And if we go into the body of the judgment, on p.162 we see that in the final paragraph, sections G and H:

> "There is no doubt that the expression of the Secretary of State's reasons for his decision lacks the clarity and precision which one would have wished to see".

This was a case, of course, where the planning inspector had issued a detailed report of recommendations to the Secretary of State. The Secretary of State then in his decision letter set out briefly why he had decided to accept the recommendations.

On the following page, 163, we see at G that the first instance judge:

> "accepted the argument that, by singling out the landmark points in the inspector's reasoning process, the Secretary of State had adequately demonstrated his substantial acceptance of the essential elements … I think that he was right to take this view".

So, an indication here that where the Secretary of State's decisions were very brief, it could be inferred that he was adopting the more elaborate reasoning in support of those particular points in the inspector's recommendation.

Then, at 165G:

> "I accept entirely that decision letters should not be construed as statutes".

That is a point that is often made also about CC reports, and we accept that. Page 166, the indented passage at the beginning is a quotation from a previous judgment, a previous case, by Lord Justice Woolf (as he then was) but further down the page, at halfway down F, we say:

> "I certainly accept that the reasons should enable a person who is entitled to contest the decision to make a proper assessment as to whether the decision should be challenged".

But then he rejects the notion that there are sort of different levels of reasoning required according to whether you have got legal advice and who you are. I think those are the main points that I want to make. So, we say that the principal standard is — do you know enough to know whether a decision should be challenged? And we say that in this case it is particularly important. Does someone reaching a decision know essentially whether it is soundly-based; whether it is correct in law and in its disposal of the issues? And the reason we think it is particularly important here is that we would refer to the *Mabanaft* case and I do take you back, I am afraid, to bundle 3 at tab.52.

I think, sir, in your letter to us before the hearing you suggest you might want to hear our submissions on whether there is a higher standard required in a case that has an EU law origin as to proportionality or anything else. And we will be saying here that this case does suggest a higher standard of reasoning is going to be required or a more elaborate explanation of the reasons because of the EU law origin of this case. Now, in this case there was an underlying EU law Directive which required member states to adopt rules to ensure that oil refiners and importers held certain stocks of oil, of petroleum, for strategic reasons, and a question arose as to how that system of maintaining strategic stock should be funded, on whom the cost should fall. The particular challenge that was brought was brought by I think an importer who said that the system that the Secretary of State had adopted did not meet requisite public law standards. And there was a suggestion that higher standards had to be met of proportionality in a case where the UK was implementing obligations under an EU Directive.

I would take you to para.13, where the first instance judge, Mr. Justice Beatson, has said:

> "The judge held that a stricter level of review applied to decisions taken pursuant to Community obligations than decisions taken under purely domestic law, and that the test of proportionality had to be met".

Now this, of course, I think, was at a time when there was not a widely recognised test of proportionality per se as a principle of English law. But, of course, it was part of EU law. Now, if we go to paras.29-30 we see that the court moved on to consider exactly how the Directive worked and what obligations it did impose. It says:

> "The 2006 directive recognises that its implementation can be achieved by leaving the matter to the member states"

and that there was essentially a principle of subsidiarity. Then in para.30:

> "This decision was taken pursuant to art 3(2) of the 2006 directive. It is therefore subject to judicial scrutiny in accordance with the principles of judicial

> review laid down by Community law. These are in general stricter than the test of *Wednesbury* unreasonableness … and are not lower than that test, and so it is common ground that we need only concern ourselves with the question whether the Secretary of State's decision should be set aside under Community law".

If we go to 31 to 34 it explains what the directive required and I will not take you through all of the text here, but what the court concludes is that the principle object of the directive was to require member states to have a system to provide for the maintenance of strategic stocks. It was not so interested and was not seeking to regulate how it would be costed, and therefore there was no particular reason to interfere with the way in which the Secretary of State had done this on Community law grounds that what he had done imposed costs by reference to reasoning on particular industry groups, but was not going to be set aside as not meeting some higher standard because the directive really had nothing to say about that. Now, we say that in the present case the more general proposition that EU law requires high standards of proportionality in decision-making is of more relevance here than the particular findings that there was no deficiency in the Secretary of State's judgment in this case — the reason being that we are operating, or the Tribunal, Competition Commission, are operating under the Communications Act which is itself in this regard giving effect to the Community regulatory framework. Mr. Turner took you to Article 4 of the Framework Directive which sets down what are the requirements that the member states should implement as to appeal proceedings, and he took you to the actual request, I think, to Article 4(2) which looks at the situation where part of an appeal, or indeed a whole appeal, is handled by a non-judicial body. And it specifically says there that

> the non judicial body must give written reasons for its decision.

We must attach some importance to that. It is a general principle of Community law that a Community body making a decision must give reasons. But the written reasons here are, of course, intended to enable you as the judicial body with oversight to test properly whether what the Commission has done fulfils its duties. And I will be taking you to particular parts of the Commission's final determination and inviting you to conclude that either they are self-contradictory if reading one way, or if read in a somewhat different way (which I think the Commission advocates) they really provide no reasons at all for a very important element of the case that the Commission had to decide. And we would say that the *Mabanaft* case, taken together with Article 4, does envisage that although it forces the NRA to make price control decisions, it is clearly contemplated that EU law insists that there be a rigorous system of appeals to ensure that those price controls are properly set.

So, against that background of the case law, I would like to go straight into the sort of substance of what we call "the time shift argument", ground B.

So, I am going to address I think four major points:

* The first is I will have to take you to the background to the network costing model, and this is why I am slightly concerned about the time limits, because there is quite a lot just to acquaint you with about the model.

I will then want to look at when did this argument that we call the time shift argument, when did it first arise in these proceedings; and when did it assume significance such that we were in a position to answer it? And I will be explaining, as is made clear in the summary, our tabulated summary, of our grounds that we sent to you earlier in the week, last week, that we did not raise this in our notice of appeal. The reason we did not is that it was not clear from the Mobile Call Termination Statement, and we say is still not clear from that Statement, that Ofcom place any reliance on this argument to justify its model as being sound. It was only in the course of the appeal proceedings that other parties suggested the model was sound to produce a LRIC number because of this time shift characteristic. Once that was raised, we immediately answered it and said "No, it is not" and there has been complete disregard of the issue which thereby arose. So, I am going to talk about how it all arose. [***Suggest new paragraph here (3rd point)***] I am going to talk about what is this conundrum that arises from the time shift argument and why does it lead to a conclusion of the CC has said is self-contradictory or vacuous, I mean, it does not set out reasons. [***Suggest new paragraph here (4th point)***] And also we will have a scrutiny of the CC's reasoning. [***Suggest new paragraph here***] I will not take them in exactly that order, because they are sort of mutually informative, and it may be more economical to sort of build them together somehow.

So, I want, first, just to look at really the nuts and bolts of the network costing model in a minimal way. So, first of all, could I take you to the core bundle, bundle 1 at tab.3. So, vol.1 (B1), tab.3.

THE CHAIRMAN: So, it is core bundle B, is it?

MRS. MCKNIGHT: Yes, core bundle B1, tab.3

THE CHAIRMAN: Yes.

MRS. MCKNIGHT: And if we could turn up annex 6, para.A6.33, it is on page number 169 of the internal numbering. Now, here we have a diagram figure A6.2 which sets out the overall model structure, and bullet points for those who prefer words to diagrams, which

explains that there is a scenario control module which sets chosen parameters used to define the different scenarios that are being modelled.

There is a traffic module that contains the demand forecasts and network coverage assumptions; a network module that forecasts 2G and 3G network deployment required to support the input level of demand and coverage requirements that come out of the previous modules; and then there is a cost module that produces the network costs, which obviously looks at the asset deployment coming out of the network module and then applies unit cost figures to the different kinds of assets; and then an economic depreciation module that essentially converts the previous figures into a profile of recovery; and the HCA/CCA module covering gross book value and net book value, which is used only for the purpose of model calibration. Now, most of what I am going to talk about is really focused on the network module, but possibly to a lesser extent the costs module. So, that is the basic structure.

Now, essentially, what the model is trying to do in the network module is to look at engineering evidence, how do people build networks to meet certain levels of demand? What assets do they deploy? And can we convert the underlying causation factors, what causes an extra transceiver to be installed? What caused an extra cell site to be deployed? Can we convert that engineering insight into a set of mathematical formulae that would then predict what kind of asset deployment we need to meet a certain volume and profile of demand?

And I can take you, for example, to para.A6.48 in this document, where we see a heading (and there are several of these headings) "Responses to the April 2010 Consultation", and I do not want to take you through the detail of this particular set of paragraphs, but this is typical of what has happened. Ofcom has put out a version of the model in April 2010 which contains its efforts to update the situation from April 2007, and Vodafone and then other parties, Everything Everywhere, you will see the next heading, H3G, raise points and said, "Well, your attempt to develop and refine the engineering rules are not quite right. Let us tell you what is really happening and you can sort of adjust your rules accordingly". And there might be concerns; this is about how incoming traffic is handled and whether it correctly reflects the routing of calls coming from off-net, coming from on-net, crossing from a 3G to a 2G network — this sort of thing. But we do not want to under-estimate the work that Ofcom did because Ofcom I think in their skeleton point out that if we are applying profound and rigorous scrutiny to whether they did a diligent job to the requisite standard, they did not sit on their hands, there was lots of amendment going on here, and we

accept that. So, if you were to look through the rest of annex 6 you would see a lot of suggestions as to how the engineering rules converted into a mathematical formula be improved.

But, we then see that, with the best will in the world, engineering insight peters out at some point. One cannot get enough out of the engineering insights of all the operators to come up with a set of rules that correctly predict asset deployment in the real world. Something else is happening that is not captured in those rules. So then, the rules, the designed rules, the designed parameters that one sees here are adjusted via calibration and if I could take you to bundle B3, this is core bundle B3 at tab.30, I would like to explain to you or show you some of the explanations of why and how the model is calibrated. It is bundle 3, tab.30, if we could go to p.86.

Now, what is happening when we calibrate the model is that we say we have a set of design rules, design parameters, that tell us what sort of asset deployment we would expect to see and what resulting costs through the costs module we would expect to see if we were applying the rules set out in the network module. But it does not predict the out-turn figures. So, what we then do is we get, Ofcom gets industry data. It says to all the mobile operators, "Tell us how many of this kind of asset you deploy in your network at your market share. Tell us how many of these things you have. Tell us what each of them costs". You then examine the extent to which what is predicted by the design rules is a mis-match to out-turn assets or out-turn costs, and you adjust the design parameters to get a closer match. So, we see that in this bilateral hearing, when Ofcom was in front of the Competition Commission, they were asked some questions about this. At p.86, line 18, Mr. Whiticar, who is one of the panel members of the Commission (and it seems from the various hearings that he was the gentleman who took most responsibility on the panel for dealing with these questions):

> "With regard to reference questions 2 and 3, we would like to ask you a number of questions about asset calibration, and some general modelling issues as well".

So, he takes us through the calibration process, one that has been of concern to the appellants:

> "In your defence, you address a number of points to that … about three models"

And we have Mr. McIntosh, "Thank you. Will Godfrey [of Ofcom will answer those questions]".

And Mr. Godfrey says:

"Of course. The model, as you know, is effectively a hybrid model, so it looks at bottom-up cost volume relationships to try and model the cost of those in question. The important exercise is to make sure that the model as a whole makes sense in terms of the level of the costs. So it is in regard to the levels of the costs overall, and, for example, the level of key assets that the calibration exercise comes in".

That is a point I am going to come back to because, of course, that makes perfect sense, that the only out-turn costs and asset deployment numbers that the mobile operators can report are what is the total of assets that they deploy to meet whatever level of demand the particular model's year is looking at, because the model builds the networks separately for each year. So, you can say, "Well for this year that is your total demand that you are meeting and what did you deploy". It would be much harder, it would almost be pre-judging the answer of the LRIC question if you said, "Well, how many of those assets do you need just to do services without mobile call termination?" You can only essentially calibrate at the total demand level. He then goes on:

"As to how one undertakes such an exercise, it is essentially an iterative process in which you would first build your model and specify the parameters [that is the best you can get out of the engineering inputs]; then you would identify those metrics which you can use to, in inverted commas, "match to" some of the metrics that you observed from the operators. So whether that is the financial metrics, so for example the gross book value of the operating costs, or whether that is at the level of the asset accounts. Now, in so far as you are looking across lots of those different metrics, depending upon, if you like, where you see a gap, then that will guide which parameters within the model you might tweak. So, for example, if you are out on the cell sites [ie if there is a mis-match on the cell sites predicted by the design parameters and the actual number deployed] one of the things you might look at might be, for example, the cell radii, because that will affect the way that the network builds sites".

So, as you can imagine, I will be coming on to cell radii. You will hear more than you perhaps want to about that. But, as you appreciate, a radio cell is installed in one place, provides coverage over a particular area, and if you found that your model design parameters predicted that you needed a thousand cells to cover the country and provide a certain level of traffic capacity but in fact there were 2,000 cells in use for the outturn assets, you might think the cell radio I have proposed must be too big, they must have

smaller cell radii and you would adjust your rule. So the calibration is an attempt to tweak -- Sir, you look perplexed.

THE CHAIRMAN: It is an attempt to make the model fit the reality with reference to factors that we do not really understand.

MRS. McKNIGHT: Sir, yes exactly. But the reason I will not just leave it at that is that I am particularly interested in how they do that, and tweaking the cell radii is a point that we are going to revert to, but you have understood.

THE CHAIRMAN: It seems to someone who has very little to do with modelling, that this calibration is an acknowledgement that the model does not work.

MRS. McKNIGHT: If only you had been on the Competition Commission, sir! There was one person on the Commission who said that. But to be fair it is wrong to jump to that conclusion, but it raises a question, yes.

Page 95, if we could go straight there, at line 9, this is Mr. Godfrey again, so he is the person who has been put forward by Ofcom to answer the questions on calibration:

> "I think -- I mean, so it is correct to say that in any given year, you cannot calibrate a network without termination traffic, because no one's got such a network [i.e. you have not got any outturn figures]. But the reason we thought the model without MCT is sufficiently accurate for these purposes is because when you look at how costs have changed over time, when you look, for example, at the various charts that we have in our March statement [the final MCT statement], but also in, for example, Annex C of the defence, and how the model predicts how, for example, total costs, such as gross book values, and so on, or for example in terms of asset accounts, and how that tracks over time."

I think it should say "... yet when you look at that you think it is all OK".

> "If it is doing a reasonable job there, then at least in principle, the concept of taking out a traffic service has parallels with, if you like, a time shift in your total service cost model. So if your model is calibrating well at the total service level, then taking out a service in principle should not be different to moving at different points in time between the total service model."

So this is actually not the first mention of total time shift, but it is perhaps Ofcom's best explanation of it. What I think they are saying is imagine that total mobile traffic is growing over time, so in Year N you might have a total demand of 1,000 units, then four years later, N+4 you might have 1500 units. For each of those modelled years you have calibrated the model to adapt the design parameters to match roughly the outturn asset

deployment and costs to meet that total demand in the year in which that was the total demand. So he is saying if you have a model which seems to calibrate well in year N+4 for 1500 units, and Year N for 1,000 units, you can be pretty confident the design rules as adjusted by calibration must be correctly reflecting the underlying causation, the causes of greater asset deployment as volumes grow. If you say: can I be confident for Year N+4 that when I take the 1500 units and say let us take out mobile call termination it will only be, say, 1100, if the model I have for Year N+4 has 1100 unit demand, can I be confident that the design parameters are working well to determine what asset deployment I would have, and if I use that in my subtraction, because the difference between the 1500 and the 1100 is the cost of call termination, can I be confident that has given me a robust answer? He says yes, because if it is working at all these different levels it is a bit like saying the demand in Year N+4 for all services less call termination is similar to the demand that was being modelled in Year N for 1,000 and it was working then, so is not the model working well? That was the time shift being portrayed as a way of looking at the way in which the model measures the assets deployed and cost of providing services other than call termination. May we then just go to the next bit. Mr. Kaltenbronn, who is a staff member of the Commission who was working on the modelling, says:

> "Maybe just a sort of follow on question from that. If the model was - if the parameters, the network build and design parameters in the model were correct over time, then you would not need to do any calibration. [I think this is the point you were anticipating, sir.] So the fact that you do calibration indicates that the parameters in the model are not that accurate. So if you then say, over time, we will calibrate it, then presumably that means that without calibration, it would not be quite right. But then you say, when you go to ex MCT, then these are not quite right underlying, these parameters are suddenly sort of appropriate to calculate increment. I am just wondering if you can explain why you think that is the case? (A) (Mr. Godfrey) I think it is important to recognise that the calibration process is an iterative process, so you build the model, you run it, you compare the outputs to the real world. If it looks about right, you'd stop there. It rarely looks about right on the first pass."

Now, we agree with that. We do not blame him for that because we do not think engineering insights can provide the whole story.

> "So you then, as I say, adjust the model parameters until you reach this satisfactory outcome for the total cost model. [So when he says adjust them, he

means via calibration.] But, I mean, it is important to recognise that in many cases - I mean, fundamentally, for example, the cost drivers in the model are largely basically fixed for periods of time. So therefore the adjustments [that is the calibrations] that you make are those which apply to different time periods. [Then his conclusions.] So in principle, if the model is tracking costs well over time, it should be racking well how costs would react to taking out a service. And there are one or two exceptions, but as a generality, that is what's going on."

I think that is possibly one expression of the root of the problem that we face because Mr. Godfrey clearly believes in good faith that if the model is calibrated to total outturn demand in each year of the modelled period, then the rules that are there must be reflecting what is really happening as more assets are deployed to meet more demand. But the point that he seem to be missing, and his language is a little vague, is that different calibration adjustments are made in different years to achieve that match. I think we accept that if you made a common set of calibration adjustments and the result was that the model for the same post-calibration adjustment rules predicted the correct, or close to correct, outturn at every level of demand that has been observed from year to year, one could be pretty confident that the rules were correctly reflective of the underlying asset causation drivers. But if you are making different calibration adjustments from year to year there really is no reason to be more confident that the post-calibration rules are right than if you just had one year. No single year is corroborative of the correctness of any other year.

It is not quite explicit in what Mr. Godfrey is saying. I am not suggesting for a moment there was any concealment. I think it is just one way of explaining what is going on. But it is not clear from what he says that you have got different calibration adjustments. So just to make good that point, that they are different calibration adjustments, could I just take you in the same bundle to tab 24. This is para.3.2 on p.9. This document is the second witness statement of Mr. Roche, who was Vodafone's principal witness on the modelling matters. I do not particularly want to take you through the context of what point he was answering, because I will be coming to that separately, but if on p.9 we look at the table in Table 3.1, "model parameters over time", we see that what he has done is he has set out different years: 1996/97, 2000/01 and so on across the top, and then in each row he has looked at a different design parameter. He has looked at what rule does the model apply in any particular year for the maximum cell area that is achieved in areas that are designated as Urban 1. What you will appreciate is that the model applies to so-called geotypes, it treats

the Great Britain landmass as being topographically diverse, so urban areas exhibit certain topographical features of tall buildings that block signals; rural have a plateau that might have hills and valleys. So it applies different rules. It says that there are a certain number of geotypes , and the landmass is allocated to different geotypes, and each geotype has its own rule as to what cell radius would be achieved, what sort of cell coverage area would be achieved.

So for Suburban 1, the maximum cell area for an 1800 MHz network varied from 2.10 to 2.02 in that period; the Rural 1 varied from 4.00 to 3.84; then what percentage of traffic is conveyed on macrocells, which have a different cost from microcells, that varied from 99 percent down to 93 percent. He has given examples of design parameters which would vary from one year to the next by virtue of differential calibration. This, therefore, we say creates a significant question as to whether Mr. Godfrey's explanation that you can trust the model because it is calibrated at different levels of demand is sound. We say it is not. I will show you where we specifically say this was contradictory to what Mr. Godfrey said. That is essentially what I wanted to show about how calibration works.

PROFESSOR MAYER: May I just stop you. It seems to me there is a difference between saying you are taking parameters and then you are trying to make them fit the model as best you can and that they are varying over time so that there is doubt about the validity of the model, from saying that you are taking externally given parameters like these one you have quoted in Table 3.1, putting them into the model, and those vary over time but then the model fits well. Because it is not as if you are deliberately trying to identify parameters that are going to fit the outcome; you are taking external data and then putting it into model. Reasonably enough, the maximum cell load is going to change over time as populations change. So there might be good reason why some of these parameters do change.

MRS. McKNIGHT: Yes. Our case is that they should vary over time. I am not saying there is something wrong because they vary over time. On the contrary, we go on to explain that we think more variation over time should have been recognised in one sense. But what I am saying is that if they vary over time, they only vary over time from calibration. I think Mr. Godfrey said if the underlying rule is fixed for periods of time, so the variation arises from calibration. What we are proposing is that you have a model which does not perfectly reflect the underlying causes of asset deployment. We have done our best for the engineering but we do not know whether it does accurately reflect the underlying causation rules. What do you do? If you made a single set of calibration adjustments across all years and by making the same calibration adjustments you matched it to outturn at different levels

of demand, you might then think (this is what Mr. Godfrey is saying, I think) you can be pretty confident that post-calibration the rules are accurate in their predictive capability and that suggests they are working well. So if you chose, then, to run the model for some intermediate level of demand it would work. If you just take each year and say in Year 1 it seems to be 20 per cent out on cell sites, so let us vary that; or in Year 10 it seems to be 30 per cent out so let us just vary it to make it a different adjustment for cell sites to get it to work, given that you cannot assume it is a one-part rule - and we will come on to look at the facts - the way that cell sites are deployed is you have to have enough cell sites to provide coverage which is variously the ability of one person to make a call anywhere in the country or some modest level of demand, then you add cell infrastructure to carry extra traffic, you might have a two-part rule. You might have to have a minimum number of X number of units and then you add for traffic. Once you introduce that sort of complexity and vary these rules differently from year to year we say you cannot have any confidence from the mere fact that there is a multiplicity of years that have been calibrated that the rules are working.

PROFESSOR MAYER: I understand that, and that is what you are saying has been going on?

MRS. McKNIGHT: Yes, we are saying that Mr. Roche's table illustrates ways in which it has been going on. But we cannot rule out the logical possibility that this variation achieved post-calibration is spot on, and different considerations applied from one year to the next. Of course, I am just thinking about how this is fitting with my proposed order. What I can say is I will be covering in a few moments that if someone were to say, "Let us posit that these changes over time in the rules are correct, they reflect underlying reality, why could they be different?" One reason that you could have different rules that might be appropriate is that in different years you are meeting a different level of demand. It could be that if you are using cell radius as an input to the model – I will be taking you to evidence that there is essentially with limited spectrum a trade-off between the area of coverage you can achieve with a cell and the level of traffic it can carry. If you wanted a cell to carry lots of traffic it has to be covering a small area. One argument is that if you only ever wanted to build a network that would carry very, very little traffic you could have widely dispersed cells and that would be pretty minimal.

We consider that if you have cell radius as an input to the model, one of the design rules, in later years when you have more traffic to carry, you would expect the cell radii to be smaller, and indeed that is what is happening here.

That might imply that it is correct to have these different values for the cell radius, but it is a function of traffic. So that would mean, of course, that in the later year – let us look at 2010/11 – if you are saying that at the total traffic volume for 2010/11 the correct rule is that you need an extra cell area for every 2.02 of whatever unit of measurement that is, when you then run the model for the lesser volume of traffic without MCT, you would say, "Of course that rule was only appropriate because of the level of traffic that was posited, we ought to be looking back to an earlier year when the level of traffic posited was equivalent to ex-MCT traffic for this year and applying that rule", because the difference is traffic driven. I think I am losing -----

PROFESSOR MAYER: No, no, that makes a lot of sense. You are saying the parameters would have to vary depending on what the underlying population ----

MRS. McKNIGHT: I think, in order to do justice to my opponents here, I should say that I was suggesting that the reason that those rules might be correct in each year but different is because the underlying factors that influence cell radius vary with traffic. It could be quite different, it could be that between 1996 and 2010 when that cell radius changed what was happening that empty areas which had never had any coverage were being filled in and this cell radius is being used as a proxy just to make sure that you get the right number of cells to match outturn, when, in fact, some of those extra cells have been added not to serve more traffic but to provide more extensive coverage.

So, looking at those figures, first, you cannot tell whether they are right; second, you cannot tell, if they are, why they are right, whether they vary because of changes in traffic or non-traffic related variations over time. I will be taking you to evidence that says that, of course, sometimes a new building is erected that blocks the path of a signal and in order to provide coverage you have got to stick in another microcell because changes in topography and changes in planning legislation. If planning rules tighten up, which they have, you cannot put cells in the optimal place, you do not get perfect tessellation, it is all imperfect. You would get less efficiency so you would cell radii *de facto* shrinking.

There are lots of factors, we do not deny it. We are just saying that calibrating each year separately gives no cumulative confidence in the correctness of the model for any given year.

THE CHAIRMAN: Yes, but the exercise, I suppose, of having inter-dependent years where one year feeds into the next adds into the whole order of complexity over and above the "take it a year at a time" approach?

MRS. McKNIGHT: Yes, I think what the model does is it assumes that you have to model the optimal network to meet that year's total demand, subject to the rule that you are applying a scorched node approach, not scorched earth which would mean destroy the network at the end of the year and start again in the optimal way, so it is the best you can do given what you had before.

PROFESSOR MAYER: Could I just raise a more general question about this. You are really making the point that it is difficult to determine the reliability of a model like this, but could one not say that it is really incumbent upon you not only to say that it is difficult to ensure that it is a valid model, because one can say that about any model, but to demonstrate that there is something fundamentally wrong with this model.

MRS. McKNIGHT: I do not know about the "fundamentally". The legal submissions that I was making at the beginning about the test that is to be applied said Ofcom has a model, it is supposed to be used for many years to compute total costs to do a charge control. They have now added an extra functionality to it, that they can run it at the lesser level of volume for any given year that reflects total demand minus MCT demand, then they can subtract that from the total. They say, "Hey presto, it is LRIC". What we are saying is, we have raised concerns, and this is one of them, that there is no basis for confidence that the model is applying appropriate rules for the ex-MCT element of the calculation – i.e. total demand less MCT.

Nothing has been done to the design of the model to address that point. It is now being asked to do something completely different, and we are entitled to say that if we show that there is a real concern that the design rules are imperfect based on engineering insight and the calibration adjustment is done in quite an arbitrary way, and I have not got on to that yet, so as to cast real doubt on whether it is measuring the ex-MCT demand by reference to a similar level of efficiency, as is assumed for the total demand.

It comes back to this point, that Ofcom did not have to set a LRIC based charge control. If this model is not good enough, then it should not be doing that, it should be setting a LRIC+ based charge control, which was its other option, until it can perfect this. If I could not think of a possible way it could be perfected then it might sound very theoretical and idle to criticise, but we are saying there are things that could be done and the way in which the Competition Commission looked at the model, they did not really apply profound and rigorous scrutiny to decide how serious these concerns really are, they just said, "Unless you can do it better, we are not interested, we want a clearly superior alternative or nothing." We say that is completely the wrong test, and when we come on to look at why

they rejected particular adjustments we proposed they applied completely the wrong test to those. We would say that we have not got to do the job better, we have got to show that this is not just the complaint of a perfectionist, we are pointing out serious deficiencies.

THE CHAIRMAN: Mrs. McKnight, what is troubling me, and I think it relates to the point that Professor Mayer was making, is that if you roll up your sleeves and are minded to attack any model, whether it be the LRIC model or the LRIC+ model, you are always going to find mismatches between the model and reality because, to coin a phrase, you cannot hold a mirror up to reality. So there is always going to be an area in which the model is going to be deficient to a greater or lesser extent.

MRS. McKNIGHT: Yes, but how great or less is this point, is it not?

THE CHAIRMAN: Indeed, but one sees it in these rather interesting figures here. One is making, inevitably, certain assumptions about land using in the United Kingdom. Obviously those may be right, they may be wrong, depending on what happens in the future.

MRS. McKNIGHT: Yes, the model assumes that GB can be split into seven different geotypes. Clearly that is overly simplified. We do not attack that, we say, yes, judgments have to be made, clearly. We think that causes some problems but we accept it is imperfect. This is a completely different kind of problem.

Can I finish my case on calibration, I think it would be easier to come back to this. I have not told you all the facts which I think bear on this?

THE CHAIRMAN: Do take your own course. Perhaps we will rise for our five minutes and then you can review the position.

MRS. McKNIGHT: Yes, that is fine, thank you.

THE CHAIRMAN: Thank you.

(Short break)

THE CHAIRMAN: Yes, Mrs. McKnight.

MRS. McKNIGHT: Thank you. If I may, I will resume where I left off. I have illustrated the way in which different design parameters post-calibration are used in different years of the model. Although at this stage I am merely explaining how the model is composed, we have already touched on questions as to whether that calls into question the reliability of the model. That was not my attempt to explain the unreliability, that is merely explaining the stages, the initial design parameters, then the calibration.

I would like to take you to bundle A2, tab A at the front, which is the second part, chapter 3 onwards, of the final determination. Could we go to para.6.100, which is p.6-22. Chapter 6

deals with the appeal which 3 brought. 3 argued that although the model was otherwise satisfactory from their perspective, the way in which it had been calibrated to ensure matching of the outturn costs against the costs predicted by the model led to a substantial over-statement of the costs of one particular kind of equipment, some kind of radio equipment. It is not important to understand exactly what it is.

This is interesting, because here the Competition Commission did find that the mismatch between the evidence that 3 adduced as to the procurement costs of particular kinds of equipment showed such a mismatch post-calibration between the procurement cost and modelled cost of particular equipment that they thought the model was in that respect wrong. I should say it was unsound, because they found in favour of 3 on the basis that 3 had shown a real risk that the model was wrong in this respect.

The reason I draw your attention to it is that, of course, the calibration adjustments had been designed to achieve what Ofcom regarded as a "sufficient" match between the outturn asset volumes and costs of those assets. At total levels it was working well. If we look at para.6.99, the CC says:

> "Vodafone argued that the model was a simplification and that there were only 80 asset classes …"

out of the real world of many, many more –

> "… so to represent the whole network the unit costs of these 80 assets must be adjusted upwards."

I think that is self-evident because you are using those 80 assets really as a proxy for all the other assets that are used.

> "We agree that the bottom-up approach …"

that is the approach whereby you model from asset class upwards rather GBV downwards –

> "… will not necessarily capture every cost and therefore understate the cost of the total network. However, this observation does not suggest to us that it should be necessary or appropriate to scale up certain bottom-up figures several times over. If the bottom-up model is predicting such a small fraction of certain costs, it would appear to indicate a significant problem with some of the data or with the methodology.
>
> Whilst we agree that the aggregate level cost data may be more robust (in a general sense) than one operator's detailed cost estimates …"

because, of course, it was 3's evidence of costs that was being adduced in the appeal –

"… we do not think that a general tendency for the bottom-up model to understate costs is a reasonable explanation for the difference between Three's estimates and Ofcom's modelled radio equipment unit costs.

We are persuaded by Three's view that the uncertainties Ofcom described in the radio equipment data are present for other assets too, and we accept Three's point that voice termination uses different proportions of different equipment, so the category to which costs are allocated may be important. Given this, we consider that the bottom-up evidence is important, and we do not agree with Ofcom's that it is too granular to be a basis for rejecting the 2011 Model."

It is that final paragraph that is really important, because this sentence that says that they accept 3's point that voice termination uses different proportions for different equipment, so the category to which costs are allocated may be important. That is really getting at the point that we have touched on earlier, that you could have a situation where at a total level it looks as if the design parameters are causing the model to predict an asset deployment that matches the real world deployment for that level, but there could be underneath that top level errors which mean that when you start trying to model, either for a lesser volume of service or for just particular types of service, not MCT, just call origination data, and so on, the underlying rules are not just good enough.

This was one instance where one specific body of evidence was found to be sufficient to require correction to the model. I think the general point is that it does show that the Commission accepted that calibration at top level is not a complete answer to whether the model is working accurately beneath the surface.

I cite that for that purpose.

Could I then take you to chapter 7 here, the next chapter, 7.21. Chapter 7 is the remedies chapter where the CC works out what adjustments should be made to the price control to deal with the various errors it had found. This page, 7-4, is looking "Correcting for the errors in Reference Question 3". This is where individual modelling errors are identified in respect of the modelling of total level of demand. They did not suggest that the total level of demand was wrongly stated, but they suggested that the busy hour traffic had been stated to be too high. What had happened was that the model had been calibrated against an assumed busy hour level of demand and the calibration had been implemented so as to ensure that the asset deployment matched outturn figures by reference to the model parameters.

Once you decided that, in fact, the traffic was not quite as peaky as Ofcom had assumed, and you reduced the busy hour demand, it was flatter, you found that if you ran the model without further adjustment it would understate the asset deployment relative to the real world asset deployment. So once the errors were corrected, you found that further calibration had to be undertaken to bring it back into calibration with the real world.

At 7.21 we see:

> "In our determination of Reference Question 3, we concluded that Ofcom had erred in relation to the 2G/3G MSC cost driver, the weekend/weekday data split and the historic datacard market share."

So they are the underlying errors. Then they say that they sought submissions.

If we go to para.7.38 we see that Ofcom was invited to propose how the model should be recalibrated to deal with correction of these errors. So you have corrected them, then you recalibrate.

> "Ofcom … stated that the model outputs of the 2011 Model and the revised model of 25 October 2011 …"

that was for the correction of error –

> "… were same for calibration purposes. We consider therefore that Ofcom's comments below referred to the remaining Reference Question 3 errors only. Ofcom considered that after the Reference Question 3 adjustments in the model, the financial metrics remained reasonably well calibrated … However, in terms of asset counts, the 3G cell site numbers dimensioned …"

i.e. predicted –

> "… by the adjusted model were a little low compared with the average of the actual MCP data and diverged further from the MCP forecasts over time … Ofcom therefore suggested the following calibration adjustments …"

What is important here is that they suggested a 1 per cent reduction in 3G's cell radii in all geo types and a 5 per cent in 3G cell equipment utilisation, and they said that the difference between doing that and not recalibrating was a certain amount. They did not think it was strictly necessary, but that was how they proposed to do it. So faced with a large number of potential levers they could pull to bring it back into calibration, to boost up the 3G equipment that was predicted by the model, they chose to shrink the cell radii and reduce the assumed utilisation, so that you needed more to achieve the same traffic capacity. Those two in combination achieved what they wanted.

If we go to 7.53, other parties were invited to comment on this proposed recalibration.

"Vodafone said that recalibration was necessary [because that was in issue] and that the particular focus should be on the quantity of 3G equipment being dimensioned by the model."

"7.54 Vodafone said that Ofcom's proposed recalibration was not appropriate."

"7.55 Vodafone said that the consequence of correcting the remaining Reference Question 3 errors was to reduce the total modelled traffic volume of the hypothetical 2G/3G operator in the busy hour. This in turn led to a smaller modelled network build and a lower modelled total network capital and operating cost expenditure."

"7.56 Vodafone said that because correcting the remaining Reference Question 3 errors led to a reduction in traffic in the model, an adjustment was required to reduce the effective (rather than the absolute) traffic-carrying capacity of equipment ..."

"7.57 Vodafone did not agree with Ofcom's proposed adjustment to cell radii because it implied that a reduction to the peak levels of traffic reduced the area coverage ability of 3G equipment. This was incorrect ..."

Of course, intuitively that seems right, because we have discussed previously the fact that lower traffic levels tends to mean a greater radius rather than a lesser radius. So what Vodafone were saying was that in order to achieve calibration Ofcom was pulling levers almost randomly in a way that did not look as if it reflected the underlying reality.

If we go back to 7.43, the reason we need to go back is that I want to look at what Ofcom's response to that was, and the way in which the CC have set out the submissions they set out everything that Ofcom said including its reply before they set out what Vodafone said.

"Ofcom, in response to Vodafone's suggestion that only the utilization parameters be adjusted, said that it was not suggesting that 3G cell radii be decreased because there was a decrease in data traffic over the 3G network. Ofcom said that its limited adjustment to both 3G cell radii and 3G cell equipment utilization was motivated by the desire to make the smallest changes necessary to align the modelled asset counts with the 2G/3G operator average.

"7.44 Ofcom said that, if we decided that recalibration was required in consequence of any Reference Question 3 adjustment, then a more reasonable approach was to make small adjustments to the two main network parameters driving cell site numbers (ie both 3G cell radii and 3G cell equipment utilization), than to make large adjustments to just one."

They said that a 10 per cent utilisation adjustment was pretty steep. But what we point out is not that Ofcom was wrong (though I think we would say they were wrong but we cannot expect you to make a merits decision on that), what we say is that it just goes to show that you can pull different levers to achieve total calibration but by pulling the lever that says you just reduce the 3G cell radii, I will show you later, you have the effect of increasing the number of 3G cells that you need to achieve basic coverage. So that fewer of the costs are incremental to call termination, because if you are just running the model for total traffic or total traffic minus call termination, you are building quite a hefty layer of assets just to get basic coverage before you start adding enough to carry more traffic.

So what we say is that the fact that Ofcom could just make this decision, motivated only by a desire to get calibration of total traffic levels without regard to the effect on the LRIC computation, shows a degree of arbitrariness that is quite worrying.

Could I take you to 7.114 p.7-24. This is the final judgment that the CC made: would they prefer Ofcom's proposal or Vodafone's?

> "We do not consider that Vodafone's and EEs proposal [because EE made a parallel proposal to Vodafone's] was superior to Ofcom's. We note that Vodafone stated that its proposal provided a better alignment with operator data and the 2011 Model for the calibration period than Ofcom's proposal. However, Vodafone's and EE's proposal leads to higher 3G cell site counts, GBV and opex towards the end of the explicit modelling period (2021) than Ofcom assumed in the 2011 model. We note that Ofcom's recalibration proposal aligns 3G cell site counts more closely to the 2011 Model for than Vodafone's and EE's proposal when looking at the entire modelling period."
>
> "7.115 Considering that Vodafone's and EE's proposals were much less closely aligned with Ofcom's 2011 Model for cell site counts and GBV in the later modelling period than Ofcom's proposal we do not find that Vodafone or EE have provided a superior alternative to Ofcom's proposal for recalibration."

What is clear here is that they preferred Ofcom's proposal because it put the calibration back to the qualitative alignment with outturn, or predicted outturn, that had been achieved in the basic model. So they were not looking at which was inherently superior but which was more narrowly consequential on correcting the Reference Question 3 errors. Their objective was not to get the most perfect alignment with the real world, but to replicate as closely as possible the degree of alignment that Ofcom had originally found satisfactory in the MCT Statement. So the fact that they chose the Ofcom solution is not because of any

inherent merit relative to Vodafone's; it is because it is closer to what they had previously been satisfied to achieve. That is the end of that point.

I would like to look a bit more at the significance of changing cell radii in order to achieve calibration. Could we go back to core bundle B3 tab 22 p.16. I will run through it quickly. I mentioned before that there is essentially a trade-off between cell radius, how much area a cell can have and the traffic it can carry, and also that the reason you might add extra cells so as to make them more densely packed is either to carry more dense, high-volume traffic, or to achieve coverage where there are physical obstacles or you want to fill in what were gaps in the network. This is a technical hearing at which all the parties appeared and put forward their technical staff or experts, just to explain some basic facts to the Competition Commission, so it should be uncontroversial. Looking at p.16 line 22, unfortunately, the speaker is referring to some slides which we do not have but I do not think you need them.

> "What we have first is a macrocell. These are very much the big sites you see out there; [he talks about that, then at line 4 p.17 talking about why you might install microcells and femtocells] You tend to do these for different reasons. You either tend to do it because you cannot build a macro site in the right location. That is one reason to do it. [So it is an imperfect cell site location.] Secondly, you are trying to get coverage or capacity into a difficult-to-put location. [So it is coverage or capacity.] It might be a street-level location, so the examples you can see in these photos are very much locations at street-level. [He then talks about how you would do this about cells inside buildings. Then line 17.] Other sorts of examples when you might do this are if you are trying to do something like cover a sports stadium where you have a very dense usage profile. You are really looking for a very high level of capacity in a very limited space. [Then he talks about increasing capacity. Right at the end of that page.] Then you can expand that site and grow it in a number of ways. How you grow it depends on the technology you are using. [Then there is a long discussion of how 2G works. Then p.18 line 25] Ultimately, when you reach the limit of what you can do on a site, your choice is then really to build another site. What that means is you start densifying your network, you start building a higher level of site per a given area, and that is your ultimate choice for providing more capacity. The cell size and the numbers, in practice, vary on a wide range of factors and I will run through some of them. [He looks at all the factors. Then line 16] The technology you are using has an impact so here we

> are talking about the difference between 2G and 3G technology. In 2G technology you can build a network from a coverage point of view and look at capacity separately in a simple case. In a 3G network you absolutely have to build your cell sites and the space in them looking at capacity as well as coverage, because there is a trade off between the two so it is not a simple relationship. Your coverage will vary depending on how much capacity you are actually using. It is a lot more complex to design and build."

That is something I would invite you to look at later just to understand why installing more sites can either be to achieve filling in gaps in coverage, either gaps that were always there or gaps that have arisen through change in building profiles, or to add capacity, i.e. to carry higher volumes of traffic.

If, in the same document, we could look at p.56 lines 1 to 11, I draw this to your attention because it shows that even when the network is not one that is fully rolled out you can still be adding to coverage:

> "Again, the coverage increases, the coverage targets increase on a yearly basis and, therefore, the number of cell sites would naturally increase on a yearly basis. Similarly, the traffic also increases on a yearly basis and then, again, the number of sites required to meet capacity will keep increasing."

So if we recall that table in Mr. Roche's statement that showed that the effective cell radius was shrinking over time, we can see why that would be: because we are installing more sites to cover more area at a minimal level of usage, and we are adding capacity which causes us to shrink the cell radii.

Could I then take you to tab 24 in this bundle. This is Mr. Roche's witness statement which you looked at before. I would like to look at paras.4.38 and following. This is where we look at whether it is appropriate to adjust the cell radius as an input, because the way in which one might look at it is to say: the way in which you design your network to meet a particular level of demand determines what the resulting cell radius is going to be. So cell radius is essentially an output of your decisions as to how to meet particular demand; it should not be an input. By making it an input, shrinking a cell radius to achieve calibration to the outturn figures, you are essentially doing a reverse causation, that you build the network to meet demand, to provide coverage and meet demand, and that determines what cell radius you can achieve.

So what Mr. Roche says is:

"Symptomatic of this misunderstanding is the point that I made in Roche 1 from paragraphs 3.77 concerning the calibration of the model, where Ofcom, incorrectly and possibly inadvertently pushed up the costs of coverage."

"4.39 At the CC staff meeting on 4th July 2011 Ofcom [Mr. Godfrey] gave an example of adjusting the model's parameters to correct a perceived miscalibration in cell site numbers. The suggestion was that it would be possible to revise the cell radii in the model to adjust the number of sites dimensioned by the model. This is quite true, but would only be correct for the purposes of obtaining a LRIC result if one can be satisfied that the under-dimensioning problem relates to a low 'coverage' outcome rather than a low 'capacity' outcome."

So what he is saying is: if the reason you have to build more sites is to achieve coverage, yes build into your model that that is what it is going to have to do; but if growth in traffic dictates that you have to install more sites to carry the traffic, you should not then be adjusting as an input to the model the cell radius. He was saying use that rule to run that model for a lower level of traffic, the level of traffic without MCT which we call ex MCT run of the model, it is going to tell you that you need a lot of cells because it is working on the assumption that they have a very small radius. What you should be doing is saying that that cell radius input was only appropriate because it was the radius that was achieved if you had a very high level of traffic.

PROFESSOR MAYER: That really was my earlier question. So if we go back to Table 3.1 on p.9 where you were saying that the parameters would vary over time, the question is are those parameter estimates consistent with what one would anticipate on the basis of what you have just been saying should be the radii? Are these externally given parameters or are they simply parameters that are designed to fit the model?

MRS. McKNIGHT: They are designed to achieve calibration with outturn. Could I just say that the way that Vodafone approached it was they did not try to read back and say in 2010, when they were running the model for the ex MCT volume, should we be looking at an earlier year's set of parameters that more closely reflects the demand that we are modelling? They did not really adopt a time shift approach. What Vodafone did (and I will take you to the Notice of Appeal in due course) was they said the model may be well specified to measure the outturn assets needed for the full volume of traffic in any given year, because it has been calibrated to achieve that. There may be misclassifications within it, but at total levels it is right, but you should be building a different model for the network that delivers

services without MCT. What Vodafone proposed was that you do it from first principles with engineering insights and so on. In fact, if not in absolute numbers, directionally this is what you would have got.

PROFESSOR MAYER: I understand that point, but that is a slightly different point. So there is a question as to whether or not these parameters are in some sense right?

MRS. McKNIGHT: Yes, there is a question.

PROFESSOR MAYER: My question to you is: in light of the evidence that one could gain about what one expect the radii to be, are these parameters deemed to be incorrect?

MRS. McKNIGHT: I can ask for Vodafone's view on that if you like, but it is not in evidence in these proceedings.

PROFESSOR MAYER: OK, but I would have thought in terms of questioning the validity of the model, before going on and saying that one should be using an engineering model, you would have been questioning the validity of these parameters.

MRS. McKNIGHT: No, I do not need to because what I am saying is let us imagine that you are trying to work out the difference in the asset deployment in 2010 for full service and for ex MCT. Ofcom does that by running the 2010 year of the model with the 2010 parameters for both full service and ex MCT. I would say that this table, at the least, raises a question as to whether they should have been using the parameters for the earlier year whose full traffic volume better matches ex MCT.

What I am going to be saying ultimately is that in defending the robustness of the model the CC seems to be saying that you can infer from the iterative process that has been going on that these are sound parameters. If that is so, it seems to us completely self-contradictory then not to contemplate using the parameters from the earlier year for the ex-MCT run of the model. What I would say is, we have not examined whether these parameters are sound at these numbers, but what we have done is, "Let us give them the benefit of the doubt, let us assume they are sound, why are they not using the right ones?"

We have looked at 4.38. I think you have got the point I was making there, that the way in which they have calibrated does not really answer the question about how you run the model at ex-MCT volumes.

Could we go to the bilateral hearing, which is in this bundle [CB3], tab 30. Obviously you have got the general impression that we have a bee in our bonnet about the way the calibration works and whether it reveals unsoundness of approach. What I want to show you here is that the Competition Commission recognised this, so Mr. Kaltenbronn, the Staff member, was asking a question of Ofcom here.

THE CHAIRMAN: Which page are you on?

MRS. McKNIGHT: Sorry, p.115, I apologise. Mr Kaltenbronn said:

> "I just wanted to come back to that question about a cell radii adjustment. When the purpose of the calculation is to calculate the incremental cost of LRIC, it just seems to be that – I mean, the approach you have described seems to be just fine for the LRIC+ calculation, but when you specifically calculate a LRIC, it seems to be to make a change that would deliberately switch some costs into LRIC costs, or the way round, would have been something which should have been separately analysed, and then it becomes harder to see why it was justified to make that particular adjustment."

This is where the CC are saying that if you start fiddling with cell radii as an input to the model when the reason the cell radii shrink is in part at least likely to be of growing traffic, you risk understating LRIC. What is happening then is you are applying an assumed small cell radius to run the model for full traffic, then you are assuming the same cell radius for the ex-MCT run of the model, even though that radius was only ever justified because you had a higher traffic. Ofcom says:

> "So when we did the calibration exercise, which is on the full network model, and we faced this question: out of these two parameters, which one would you like to adjust, the decision was made purely on the grounds of how would a network designer try to adjust these parameters to cope with the increase in cell sites. So there was no consideration as to whether the position might be different for a pure LRIC estimate at that point in time."

One reading of this is that possibly Ofcom thought that this was almost a trick question, "Were you skewing the way you calibrated it to bring down LRIC?", and they are saying, "No, no, we were not looking at LRIC".

I think perhaps the question was meaning something else: should you have been looking at the effect on LRIC, because you might have been systematically understating LRIC by making this kind of adjustment.

We say that the Competition Commission was aware that what sort of adjustment you made here did risk impairing the ability of the model soundly to compute the ex-MCT asset deployment, and hence the LRIC asset deployment and cost.

The consequences are the fact that the engineering insight is incomplete, it does not tell you what the model should be, and the fact that the calibration has been done in perhaps an arbitrary way, but certainly a way that seems to raise questions as to whether you should be

going back to earlier years' design parameters for the ex-MCT run of the model. We say that that undermines confidence in the ability of the model to predict the LRIC of MCT service, and we say the key reasons we have no confidence are that each year is calibrated separately so there can be no confidence from the cumulative matching of year on year to outturn figures, that any one set of calibrated adjustments was right.

That the calibration adjustment is designed to achieve a match at total traffic level does not necessarily give confidence that the model can be run for that year at the ex-MCT volume and produce a sound figure. The evidence of section 7 of the final determination suggests that individual calibration adjustments are not improved by accumulated wisdom. When we look at how they did the calibration adjustments to deal with the Reference Question 3 errors, it was pretty rough and ready and did not seem to have any firm underpinning.

I say those are some of the difficulties that come out of the model functions to produce LRIC.

I would like to look now at how this fits in with ----

THE CHAIRMAN: Would that be a convenient moment?

MRS. McKNIGHT: Yes, it would. Quite obviously I have not finished, but I have made substantial progress.

THE CHAIRMAN: We have consulted with the shorthand writers and we can start at ten o'clock tomorrow morning if that would assist. I think that would give you certainly some extra time.

MRS. McKNIGHT: Thank you, sir.

THE CHAIRMAN: I think you can take it that if you are running much beyond 10.45 then you will be running on borrowed time.

MRS. McKNIGHT: Thank you.

THE CHAIRMAN: One point which arises out of your submissions, but I think more generally on which I think we would be grateful for the parties' assistance is the decision of the Court of Appeal which recognised mistake of fact as a separate ground of judicial review. I am thinking of *E v. Secretary of State for the Home Department* [2004] EWCA 49 (Civ), paras.63 and 64 where the Court of Appeal in a judgment of Lord Justice Carnwath (as he then was) the criteria for setting aside a decision on grounds of mistake of fact, and the parameters in para.63 are interesting, but obviously composed with reference to what is a pure question of fact, whereas here I am very conscious that we have got questions which are essentially predictive, forward looking, where one is seeking to work out what elasticity is, what usage of mobile devices may be in the light of price adjustments, and indeed

modelling. I would at some point be grateful for the parties' assistance as to how, if at all, this sort of test for setting aside on a question of fact applies to the rather recondite questions of fact that we have before us today.

MRS. McKNIGHT: Yes, sir, that is a helpful indication, and we will come back to that. Thank you.

THE CHAIRMAN: Thank you all very much, in that case we will say ten o'clock tomorrow morning.

MRS. McKNIGHT: Thank you, sir.

(Adjourned until 10.00 am on Wednesday, 4th April 2012)