



Determination to resolve disputes between each of Cable & Wireless, THUS, Global Crossing, Verizon, Virgin Media and COLT and BT regarding BT's charges for partial private circuits

Determinations and Explanatory Statement

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Contents

Section		Page
1	Summary	3
2	Statutory Scheme for the Resolution of Disputes by Ofcom, and Application to the Disputes	9
3	BT's relevant regulatory obligations	19
4	Appropriate Level of Service Disaggregation to Resolve the Disputes	23
5	Ofcom's approach to assessing overcharging	43
6	BT's costs of providing PPCs	71
7	Assessment of overcharging claims	104
8	Repayments	136
Annex		Page
1	Determination to resolve the dispute between BT and Cable & Wireless	151
2	Determination to resolve the dispute between BT and THUS	156
3	Determination to resolve the dispute between BT and Global Crossing	161
4	Determination to resolve the dispute between BT and Verizon	166
5	Determination to resolve the dispute between BT and Virgin Media	171
6	Determination to resolve the dispute between BT and COLT Telecommunications	176
7	Constituent parts of a PPC	181
8	Key provisions of the legal and regulatory framework	182
9	History of negotiation between the Parties	198
10	Summary of the RGL Report	203
11	The Economics of cost orientation	205
12	PPC financial data	214
13	Undertaking combinatorial tests	226
14	BT's approach to estimating SACs	228
15	BT's SAC estimate calculations	229
16	Glossary	230

Section 1

Summary

- 1.1 Ofcom has resolved the disputes brought by Cable & Wireless UK (“C&W”), THUS plc (“THUS”), Global Crossing (UK) Telecommunications Limited (“Global Crossing”), Virgin Media Limited (“Virgin”), Verizon UK Limited (“Verizon”) and COLT Telecommunications (“COLT”) (collectively, “the Disputing CPs”) against British Telecommunication plc (“BT”) regarding BT’s charges for services known as partial private circuits (“PPCs”) (“the Disputes”). We have concluded that BT has overcharged the Disputing CPs by £41.688 million for certain PPC services (2Mbit/s trunk) and that BT should refund this money.
- 1.2 These Final Determinations do not resolve the Disputes in relation to BT’s charges for 140/155Mbit/s terminating segment services and for 34/45Mbit/s trunk services. As we explain in **paragraph 1.25**, we now have concerns about whether BT has overcharged for certain 140/155Mbit/s terminating segment services and for 34/45Mbit/s trunk services in light of actual financial information becoming available for 2008/09. We therefore intend to issue a separate draft or final determination to resolve the Disputes in relation to these services once we have obtained further data from BT to enable us to assess fully these services and identify whether overcharging has occurred and what, if any, repayments should be required.

Introduction

- 1.3 On 25 June 2008 C&W, THUS, Global Crossing, Virgin and Verizon (collectively “the Altnets”) submitted disputes regarding BT’s PPC charges (“the Altnet Disputes”). COLT submitted a similarly worded dispute on 20 October 2008 (“the COLT Dispute”). The Altnets and COLT alleged that BT had overcharged them approximately £180 million for PPC services.
- 1.4 PPCs are the wholesale inputs used to create leased lines, which are fixed permanent communications connections providing capacity between two points. There are two main parts to PPCs – terminating segments and trunk segments. PPCs are purchased as either a terminating segment or as a terminating segment combined with a trunk segment. Communications Providers (“CPs”) are able to combine PPCs with their own networks to offer leased line services to their own customers.
- 1.5 On 25 July 2008, we decided that it was appropriate for Ofcom to resolve the Altnet Disputes on the basis of section 186(3) of the Communications Act 2003 (“the Act”). On 27 August 2008, we published the finalised scope of the Altnet Disputes as being whether, in the period from 24 June 2004 to 30 September 2008:

“i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

*iii. whether and by how much BT should reimburse the Parties.*¹

- 1.6 On 2 December 2008, we decided that it was also appropriate for Ofcom to resolve the COLT Dispute on the basis of section 186(3) of the Act. On 3 December 2008, we published the scope of the COLT Dispute that we proposed to resolve.² The wording was identical to that for the Altnet Disputes, apart from reference to the Altnets being replaced with references to COLT. No comments were received from BT or COLT as to the scope of the COLT Dispute.
- 1.7 Under section 188 of the Act, Ofcom must resolve disputes within four months of the date of the decision to handle the dispute, unless exceptional circumstances apply.
- 1.8 In this case, Ofcom decided that there are exceptional circumstances, most notably BT's restatement of its regulatory financial statements. Within the original four month period for resolving the Disputes we were informed that the PPC financial data published in BT's regulatory financial statements which formed the basis of the Disputing CPs' Submission was not reliable. Reliable financial data did not become available until October/November 2008, with the result that there was a significant delay in our ability to assess whether there was overcharging. Ofcom could not use data which we knew to be inaccurate and being corrected by BT's auditors, and so the need to await the restated data exceptionally justified us taking longer to reach the determinations.
- 1.9 On 27 April 2009, we published draft determinations and an explanatory statement ("the Draft Determinations") setting out Ofcom's proposals and rationale for resolving the Disputes, guided by our duties and Community obligations in sections 3 and 4 of the Act. In reaching our Draft Determinations, we also considered the arguments raised by the Altnets, COLT and BT (collectively "the Parties").
- 1.10 Interested parties were given until the deadline of 29 May 2009 to comment on the proposals set out in the Draft Determinations. The deadline was extended until 5 June 2009 following a request for an extension from the Parties. The Disputing CPs submitted a collective response on 2 June 2009 ("the Disputing CPs' Response"). BT submitted its response on 5 June 2009 ("the BT Response").
- 1.11 Ofcom provided non-confidential versions of these responses to the Parties and invited comments on the representations made in the responses. BT provided comments on 25 June 2009 (the "BT Comments") and the Disputing CPs provided joint comments on 26 June 2009 ("the Disputing CPs' Comments").
- 1.12 The Parties raised several new arguments in their responses to the Draft Determinations.
- 1.13 BT argued that distributed stand-alone cost ("DSAC") was not the correct test for overcharging because the method of calculation (in particular the way in which common costs are allocated) means the calculated charge ceiling is too low. It proposed some alternative estimates, based on its view of the "true" stand-alone cost ("SAC") for trunk services, which were higher than the DSAC figures used by Ofcom. BT accepted that as part of this approach, it would also be necessary to carry out "combinatorial tests", that is tests for whether prices for combinations of trunk and other services were above the SAC of those combinations of services. In addition to

¹ The scope was published in Ofcom's Competition and Consumer Bulletin - see http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_992/

² See http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_1002/.

the estimates of SAC for 2Mbit/s trunk, it provided the results of a sub-set of combinatorial tests which it had carried out.

- 1.14 BT additionally argued that even if overcharging had taken place, what it described as “*mitigating features*” existed that should lead us to conclude that it was inappropriate to require repayments to be made. Specifically, BT claimed, first, that Ofcom had somehow approved the structure of PPCs prices, because we rejected BT’s proposals to rebalance charges in 2004; and second, that any repayments would only benefit the Disputing CPs, rather than the consumers who had ultimately faced the higher charges for leased lines.
- 1.15 The Disputing CPs accepted that DSAC is a reasonable benchmark for assessing overcharging. But they argued that, having identified that overcharging is occurring using DSAC as a benchmark, we should use a different benchmark to calculate the level of the overcharge and/or repayment. The Disputing CPs proposed that FAC would be a more appropriate benchmark for calculating the level of overcharge and repayment, as it represented a better balance between the interests of the Parties.
- 1.16 Having taken into account the points made in the Disputing CPs’ Response, the BT Response, the BT Comments and the Disputing CPs’ Comments, Ofcom has now published final determinations to resolve the Disputes (the “Final Determinations”) (subject to the matters set out in **paragraph 1.25**). In reaching our conclusions we were guided by our duties and Community obligations under sections 3 and 4 of the Act.

Overall conclusions

- 1.17 In resolving the Disputes we have concluded that the issues under dispute should be dealt with using our dispute resolution powers and that there are no grounds to accept BT’s claim that we should “*summarily dismiss*” the Disputes. We considered that the Disputes are disputes between CPs relating to network access, in accordance with section 185(8)(a) of the Act. We did not consider that alternative forms of dispute resolution were likely to be effective. It was therefore appropriate for us to decide to handle the Disputes, and to conclude that we were under an obligation to make a determination for resolving them in accordance with section 188(2) of the Act
- 1.18 On the basis of the scope set out in **paragraph 1.5** above, we have concluded on the following approach for determining these Disputes:
 - i) firstly, we determine whether on the facts BT has overcharged the Parties for PPC services in the relevant period, and if so, determine the level of it; and
 - ii) secondly, we exercise our discretion as to whether and if so, by how much, BT should reimburse the Parties, in light of our powers under Section 190 of the Act.
- 1.19 We have concluded that it is appropriate for us to consider BT’s PPC charges on a disaggregated basis, meaning that we considered the charges for individual terminating segment services separately from those for individual trunk services. Our rationale for doing this is based on an assessment of the obligations³ imposed on BT as a result of the 2004 LLMR Statement⁴ and 2004 LLCC Statement⁵ and the

³ For more details, please see below in **Section 3** and **Annex 8**.

⁴ *Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*: <http://www.ofcom.org.uk/consult/condocs/llmr/statement/>.

economic principles and duties that underlie those obligations. The key reasons for assessing PPC charges on a disaggregated basis are:

- i) Cost orientation obligation and the meaning of Network Access – under the SMP conditions in place during the period of the Disputes, trunk services constituted Network Access in their own right (as well as terminating segments) and the cost orientation condition required that “*each and every charge*” for Network Access should be reasonably derived from the costs of provision;
- ii) Market definitions and regulatory provisions – trunk and terminating segments are treated as separate markets in the 2004 LLMR Statement, with distinctly different regulation being applied to each market separately;
- iii) Purchasing patterns for trunk and terminating segment services – customers of BT’s PPC services do not purchase trunk and terminating services in fixed proportions. Where they buy terminating segments, they make decisions whether also to buy trunk services from BT or whether instead to self-provide or purchase such services from another network operator. BT’s prices for trunk services are a material factor taken into account by potential purchasers in such purchase and investment decisions;
- iv) Regulatory certainty –both BT (as reflected in its regulatory financial statements) and the Disputing CPs appear to have understood that the SMP obligations relate to individual services;
- v) Charge control incentives – allowing BT to combine some markets which were subject to RPI-X charge controls with those that were not, would reduce BT’s incentives to improve efficiency and grow volumes, and therefore undermine the main rationales for implementing charge controls. These efficiency gains benefit consumers through lower prices in future control periods. Allowing aggregation would therefore appear inconsistent with our duties and Community obligations; and
- vi) Economic harm – high prices for either trunk or terminating segments give rise to the potential for economic harm. There could have been an adverse effect on consumers through distortions to retail consumption decisions, investment or competition between CPs.

1.20 In determining our methodology for resolving the Disputes, we have examined primarily whether BT’s charges for PPCs were in compliance with the regulation in force at the time, in particular with BT’s significant market power (“SMP”) cost orientation obligation.

1.21 Our methodology can be summarised as follows:

- (i) As a first order test, we assessed whether the charges levied by BT for each PPC service under dispute exceeded the relevant cost ceiling, i.e. the DSAC⁶, for that service. This is the cost ceiling test that we established in the *Guidelines on the Operation of the Network Charge Controls* (the “Guidelines”) published by Oftel in 1997 and 2001.⁷ BT appears to have

⁵ *Partial Private Circuits Charge Control*:

www.ofcom.org.uk/consult/condocs/ppc_charge_control/statement

⁶ The concept of DSAC and how it is calculated is set out in **Annex 11** below.

⁷ *Guidelines on the Operation of the Network Charge Controls*:

http://www.ofcom.org.uk/static/archive/oftel/publications/ind_guidelines/pcr1201.htm

applied the Guidelines in that BT's regulatory financial statements recognise DSAC as being the relevant first order test for compliance with cost orientation.

- (ii) We did not apply the above DSAC test mechanistically but also considered:
 - a. The magnitude and duration of the amounts by which charges exceeded DSAC; and
 - b. Whether charges above DSAC could have caused economic harm to BT's customers or to the consumers of retail leased line services.
 - (iii) We also took into account evidence on rates of return on a fully allocated cost ("FAC") basis, as providing a useful indicator of potential overcharging, when used in combination with the other approaches above.
 - (iv) As regards charges below DSAC, we considered whether they nevertheless constituted overcharging, taking into account whether the charges were included in a price control, the magnitude and duration of the shortfall compared to DSAC, the rates of return, and any evidence of the effect in the market.
 - (v) We assessed other potentially relevant types of evidence, but concluded that they were not sufficiently relevant or reliable in this case to alter our conclusions. This evidence included:
 - a. BT's cost data on individual service SAC and a sub-set of combinatorial tests;
 - b. BT's circuit analysis; and
 - c. The evidence on international benchmarking submitted by BT.
- 1.22 As a result of our analysis, we have concluded that BT overcharged the Disputing CPs for 2Mbit/s PPC trunk services in the period April 2005 to September 2008. BT's charges for 2Mbit/s trunk services were substantially above DSAC for the entirety of this period. We consider that, not only did BT's charges for 2Mbit/s trunk services have the potential for causing economic harm, but also that it seems likely that such harm would have occurred. BT earned very high rates of return (in excess of 100%) on these services.
- 1.23 We have concluded that BT did not overcharge for 2Mbit/s trunk services in 2004/05 as its charges were below DSAC in that year.
- 1.24 BT's circuit analysis is predicated on the basis of aggregating trunk and terminating segment services, whereas we have concluded that the assessment of overcharging should consider such services on a disaggregated basis. Although international benchmarking data provided by BT suggested that BT's charges were not out of line with those in other European countries, we have concluded that this information is no substitute for actual cost and price data for BT's PPC services in the UK. Furthermore, in this case the benchmarking data available was not sufficiently reliable as it compared only prices and not costs, compared countries with different regulation and topographies, and trunk prices were not available for four of the nine benchmark countries.

- 1.25 In the Draft Determinations we proposed to conclude that BT had not overcharged for any other PPC services during the period of the Disputes. However, there is new evidence available to us since the Draft Determinations, because BT published actual PPC financial data for 2008/09 in its 2008/09 regulatory financial statements. In the Draft Determinations we had estimated PPC data for 2008/09 because actual data was not available at the time. Having reviewed this new data, we now have concerns that BT may have overcharged for certain 140/155Mbit/s terminating segment services and for 34/45Mbit/s trunk services. We therefore intend to issue a separate draft or final determination to resolve the Disputes in relation to all 140/155Mbit/s terminating segment services and 34/45Mbit/s trunk services once we have obtained further data from BT to enable us to assess these services further and identify whether overcharging has occurred and what, if any, repayments should be required.
- 1.26 We have concluded that BT did not overcharge for the remaining PPC services (i.e. all the 64kbit/s, 2Mbit/s and 34/45Mbit/s terminating services and 140/155Mbit/s trunk services) over the period of the Disputes as its charges did not exceed DSAC or only did so for one year of the five relevant financial years (with evidence that the accounting cost in that year may not have provided a true picture of underlying costs). The rates of return earned on these services were not sufficiently high to support a conclusion that overcharging had occurred.
- 1.27 We calculated the total level of overcharge on 2Mbit/s trunk services to be £51 million. This is the difference between the benchmark by which we assessed overcharging in the first order test (i.e. the DSAC) and the amount that BT actually charged external customers. As the Disputing CPs do not account for all of BT's external 2Mbit/s trunk sales over the period, we assessed that the level of overcharge related to them is £41.688 million. There is a minor difference between this amount and that which we identified in the Draft Determinations (approximately £43 million), which results from our decision to use the actual data which is now available for 2008/09 (rather than the estimated data used in the Draft Determinations) and changes we have made to some of the adjustments to BT's financial data.
- 1.28 If other BT customers approach BT seeking similar repayment of any overcharge for PPC services, we would expect BT to take account of our conclusions in the Final Determinations.
- 1.29 We have concluded that it is in accordance with our powers under section 190(2)(d) of the Act, our duties and our Community obligations to exercise our discretion and require BT to repay the overcharge to the Disputing CPs. This overcharging represents money that BT acquired which it was not entitled to under the regulation imposed on it. BT is additionally required to pay interest on the repayments at the Oftel interest rate.
- 1.30 We would encourage the Disputing CPs to pass on any refunds to their customers where they have previously passed on the higher trunk costs.
- 1.31 These conclusions, including the direction on BT to make repayments to the Disputing CPs, are set out in the Determinations in **Annexes 1 to 6** of this statement.

Section 2

Statutory Scheme for the Resolution of Disputes by Ofcom, and Application to the Disputes

Dispute resolution

Ofcom's duty to handle disputes

- 2.1 Section 185(1)(a) of the Act provides (in conjunction with section 185(3)) that in the case of a dispute relating to the provision of network access between different communications providers, any one or more of the parties to such a dispute may refer it to Ofcom. Section 186 of the Act provides that where a dispute is referred to Ofcom in accordance with section 185, Ofcom must decide whether or not it is appropriate to handle it. Section 186(3) further provides that Ofcom must decide that it is appropriate for it to handle a dispute unless there are alternative means available for resolving the dispute; a resolution of the dispute by those means would be consistent with the Community requirements set out in section 4 of the Act; and those alternative means would be likely to result in a prompt and satisfactory resolution of the dispute.
- 2.2 In summary therefore, where a dispute which falls within section 185(1)(a) of the Act is referred to Ofcom, and there are no alternative means for resolving the dispute, Ofcom must decide that it is appropriate to handle that dispute.
- 2.3 Section 188 of the Act provides that where Ofcom has decided that it is appropriate for it to handle a dispute, Ofcom must make a determination resolving the dispute within four months, except in exceptional circumstances.⁸

Ofcom's powers when determining a dispute

- 2.4 Ofcom's powers in relation to making a dispute determination are limited to those set out in section 190 of the Act. Except in relation to a dispute relating to the management of the radio spectrum, Ofcom's main power is to do one or more of the following:
 - a) Make a declaration setting out the rights and obligations of the parties to the dispute,

⁸ We note that under section 188(5) of the Act, Ofcom must resolve disputes within four months of the date of the decision to handle the dispute, unless exceptional circumstances apply. We believe that exceptional circumstances did surround these Disputes, most notably BT's restatement of its regulatory financial statements. As we discuss in **Section 6**, the PPC financial data published in BT's regulatory financial statements at the time that the Disputes were brought, and which formed the basis of the Disputing CPs' Submission, was not reliable. Reliable financial data did not become available until October/November 2008, with the result that there was a significant delay in our ability to assess whether overcharging was taking place. Ofcom could not use data which we knew to be inaccurate and being corrected by BT's auditors, and so the need to await the restated data exceptionally justified us taking longer to reach the determinations.

- b) Give a direction fixing the terms or conditions of transactions between the parties to the dispute,
 - c) Give a direction imposing an obligation to enter into a transaction between themselves on the terms and conditions fixed by Ofcom, and
 - d) Give a direction requiring the payment of sums by way of adjustment of an underpayment or overpayment, in respect of charges for which amounts have been paid by one party to the dispute, to the other.
- 2.5 A determination made by Ofcom to resolve a dispute binds all the parties to that dispute (section 190(8)). Whilst Ofcom's dispute resolution powers can therefore only bind the parties to a dispute on a bilateral basis, we would expect dispute determinations to be read across and followed as appropriate in situations where other parties who were not a party to the dispute, are facing similar questions vis-à-vis one of the parties to the dispute which has been determined.

Ofcom's duties when determining a dispute

- 2.6 The dispute resolution provisions set out in sections 185 to 191 of the Act are functions of Ofcom. As a result, when Ofcom resolves disputes it must do so in a manner which is consistent with both Ofcom's general duties in section 3 of the Act, and (pursuant to section 4(1)(c) of the Act) the six Community requirements set out in section 4 of the Act, which give effect, amongst other things, to the requirements of Article 8 of the Framework Directive.⁹

Summary of the disputes brought in this case

- 2.7 The disputes under consideration in this matter were brought separately by the Altnets and COLT against BT.¹⁰ They relate to BT's charges to them in respect of PPCs.
- 2.8 PPCs are leased lines which provide dedicated symmetric transmission capacity between customer sites and can be used to carry voice and data traffic. CPs compete to provide retail leased line services to business customers.
- 2.9 Wholesale leased lines are used by CPs as inputs to their retail leased lines services. These may take the form of complete circuits connecting two or more end-user sites, or PPCs connecting customer sites to points in the purchasing CP's network.
- 2.10 PPCs are the most widely used wholesale leased line in the UK. In simple terms, PPCs are comprised of terminating segments (which run between the customer's premises and the core network) and trunk segments (which run across the core network).¹¹

⁹ Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, 7 March 2002.

¹⁰ The Altnet Disputes were collectively submitted on 25 June 2008 by Olswang (on behalf of the Altnets) ("the Altnet Dispute Submission"). COLT made an initial submission to Ofcom on 3 October 2008. This was supported by further information submitted by COLT on 20 October 2008 (together "the COLT Dispute Submission"). We have taken the 20 October 2008 as the date that the COLT Dispute was submitted to Ofcom.

¹¹ A more detailed explanation of the constituent parts of a PPC is set out in **Annex 7** below.

- 2.11 BT is subject to SMP obligations, imposed on 24 June 2004, which require BT to secure that its PPC charges are cost orientated. These are considered in greater detail in **Section 3** below.
- 2.12 The Disputing CPs asserted that since the relevant SMP conditions were imposed on 24 June 2004, BT has been overcharging for PPCs, because the PPC charges have not been cost orientated. As a result, the Disputing CPs claimed that they have been overcharged for PPCs that they have purchased since that date. The Disputing CPs argued that BT should be required to repay to them the amounts that they have been overcharged, which they estimate to be in the region of £180 million in total.

BT's preliminary arguments on the disputes in this matter

- 2.13 In accordance with the procedures set out in our Dispute Resolution Guidelines¹², Ofcom sought comments from BT on the Disputes.
- 2.14 BT commented on the Altnet Dispute Submission on 4 July 2008, and on the COLT Dispute on 10 October 2008 and 24 November 2008.¹³
- 2.15 BT's arguments can be summarised as follows:
- i) Jurisdiction: it was not jurisdictionally or procedurally appropriate for Ofcom to consider the claims of the Disputing CPs using our dispute handling powers. BT suggested that the claims would be better considered under Ofcom's powers to enforce compliance with the SMP conditions;
 - ii) Negotiation: commercial negotiations with the Altnets had not been exhausted and so it would not be appropriate for Ofcom to accept the Altnet Disputes for resolution. In particular:
 - BT based its arguments on its understanding that the main disagreement between it and the Altnets was based on the adjustments proposed by forensic accountants RGL in a report submitted by the Altnets in support of their Dispute Submission and originally prepared for THUS and C&W in the context of their negotiations with BT.¹⁴ BT argued that it was merely awaiting clarification from Ofcom on the proposed adjustments (which it was expecting through Ofcom's work on the 2008 BCMR Statement and the 2009 LLCC Statement) before recommencing discussions with the Altnets;
 - BT accepted that there had been some discussion between it and THUS and C&W in relation to the issues raised in the Altnet Dispute Submission but argued that there had been "*virtually none*" with Verizon, Global Crossing or Virgin. BT questioned how there could be a dispute with respect to these three companies, given Ofcom's guidance that evidence of prior negotiation was required before a dispute could be accepted;

¹² *Guidelines for the handling of competition complaints, and complaints and disputes about breaches of conditions imposed under the EU Directive*, July 2004. A copy of the guidelines are available on Ofcom's website at: http://www.ofcom.org.uk/bulletins/eu_directives/guidelines.pdf

¹³ Letter from Neena Rupani (BT) to Martin Hill (Ofcom) dated 4 July 2008, letter of 10 October 2008 from Theresa Brown (Director of Regulatory Affairs, BT Wholesale) to Martin Hill (Ofcom), letter from Neena Rupani (Head of Broadband and Data Connectivity Regulation, BT) to Ian Vaughan (Ofcom) dated 24 November 2008

¹⁴ See further at **Annex 10** in relation to the RGL report.

- iii) COLT Dispute: BT claimed that it was “*arguable*” whether BT was in dispute with COLT. In any event, BT considered that
- COLT’s approach was too far into the four-month period of the Altnets’ Dispute to enable BT to “*consider their case in any meaningful way*”;
 - the most pragmatic way to deal with COLT’s request would be to postpone consideration of any submission by COLT until “*a) it is properly defined and evidenced and b) the current dispute is resolved*”;
 - COLT had failed to update its evidence in light of BT’s restatement of its 2006/07 regulatory financial statements and had “*made no attempt to consider their claim in light of this new information and that the basis of their claim is now out of date and flawed*”;
- iv) Legitimate expectation: Ofcom should “summarily dismiss” the Disputes on the grounds that BT has a legitimate expectation that we would not address these issues on a historical basis;
- v) Estoppel: Ofcom is estopped from considering the issues raised in the Disputes;
- vi) Forward looking only: Ofcom’s case closure summary in relation to its decision in 2005 to close its investigation into the prices of BT’s trunk services (the “2005 Investigation”) made clear that Ofcom would only consider PPC pricing issues on a forward looking basis¹⁵, whereas these Disputes concern only historic charges;
- vii) Incorrect data/methodology: the dispute submissions are based on incorrect financial data and methodology.
- 2.16 BT’s arguments raise a number of points, all of which appear to us to be made in support of BT’s contention that Ofcom should decide that it is not appropriate for it to handle the Disputes, and/or should in some other way dismiss them. So far as we understand it, BT is not suggesting that there are alternative means for resolving the Disputes within the meaning of section 186(3) of the Act.
- 2.17 We addressed each of BT’s preliminary points in the Draft Determination, and received comments from the Parties on them. We set out below our full consideration of each of these points, and the comments received from the Parties. As BT simply reiterated its view summarised above that Ofcom’s approach to handling the Disputes is legally flawed, inconsistent and results in proposals that are unfairly skewed against BT, and repeated its arguments that Ofcom should not use the dispute resolution process to carry out a detailed compliance assessment of SMP Conditions, its comments are not considered individually below.

Jurisdiction

- 2.18 In our Draft Determinations, we noted that Ofcom has a number of different powers under the Act. Ofcom’s dispute resolution power is a free standing power, which sits alongside other powers, such as our compliance enforcement powers. Ofcom is not able to refuse to handle a dispute simply because it also has the powers to enforce for non compliance with SMP conditions. We pointed out that the Competition Appeal Tribunal (“CAT”) had in its decision on the core issues in the *T-Mobile and others v*

¹⁵ A copy of the case closure statement is available on Ofcom’s website at:
http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_841/

Office of Communications case (“the TRD Decision”)¹⁶ noted that dispute resolution is a third potential regulatory restraint that operates in addition to other *ex ante* obligations and *ex post* competition law (emphasis added). We made clear in the Draft Determinations that, as a matter of law, Ofcom has to handle the Disputes for resolution under section 186 of the Act (or that we should “summarily dismiss” them) because we have separate statutory powers relating to contravention of conditions.

- 2.19 In their response to the Draft Determinations, the Disputing CPs agreed with our proposed conclusion that the Disputes relate to network access and that it is appropriate for us to handle them. They also noted that the CAT made clear in the TRD Decision that dispute resolution exists alongside SMP regulation when it stated: “*dispute resolution is itself a third potential regulatory restraint*”.¹⁷ As such, BT is wrong to suggest that dispute resolution cannot be used to consider compliance with SMP conditions and it is entirely appropriate for Ofcom to use its dispute resolution powers for this purpose.
- 2.20 The Disputing CPs also disagreed with BT’s suggestion that the TRD Decision means that complex or data intensive issues are not suitable for dispute resolution. The Disputing CPs noted that the CAT in fact said that Ofcom is entitled to make reasonable simplifications and exercise regulatory discretion when resolving such disputes, rather than requiring perfect information.¹⁸

Ofcom’s Conclusions

- 2.21 The statutory scheme for our dispute resolution powers is set out above at **paragraphs 2.1 to 2.6**. Where parties refer disputes to us, we have to decide that it is appropriate for us to handle them, unless (i) they do not fall within one of the categories of disputes set out in section 185, or (ii) appropriate alternative means are available for resolving the dispute. We do not understand BT to be arguing that either of the above positions is the case here. We remain of the view, as set out and reasoned in the Draft Determinations, that the Disputes meet the requirements of section 185 of the Act, and that alternative forms of dispute resolution (such as ADR) were likely to be effective. On the facts of this case, given that the main question relating to whether there has been overcharging is whether BT has been in compliance with its cost orientation obligation, we concluded that there were no alternative means that would lead to a prompt a satisfactory resolution of the Disputes. We are therefore required to decide that it is appropriate for us to handle the Disputes in accordance with section 186 of the Act, and resolve them using our powers under section 190 of the Act.
- 2.22 The Disputes are a claim that BT has overcharged in relation to the prices it set for PPCs. The fact that BT was at the time under a regulatory obligation to set cost orientated charges is the main factor, to be taken into account in examining the Disputes. BT’s suggestion that our enforcement powers and dispute resolution powers are mutually exclusive is wrong. Section 187(2) of the Act specifically envisages this by stating that the reference of a dispute to Ofcom does not prevent Ofcom from giving a notification in respect of something that Ofcom has reasonable grounds for believing to be a contravention of any obligation imposed by or under any an enactment (i.e. including an SMP obligation). Thus, we confirm our view in the

¹⁶ *T-Mobile (UK) Limited and British Telecommunications plc and Hutchison 3G UK Limited and Cable & Wireless UK & Others and Vodafone Limited and Orange Personal Communications Services Ltd v Office of Communications, Judgment on the Core Issues* [2008] CAT 12, from paragraph 88: see www.catribunal.org.uk/files/Judgment_TRDs_200508.pdf.

¹⁷ See paragraph 88 of the CAT’s TRD judgment.

¹⁸ See paragraph 105 of the TRD Decision.

Draft Determinations that the existence of our powers to enforce compliance with SMP obligations does not mean that it is inappropriate for us to decide to handle a dispute which meets the necessary criteria in sections 185 and 186 of the Act.

- 2.23 Secondly, we do not consider that accepting the Disputes runs contrary to the investigation contemplated under the dispute resolution process. We agree with BT that the Disputes required a careful assessment which involved careful examination of BT's costs and making certain adjustments to BT's base data in order to ensure it better fits our purposes. However, we do not agree with the premise that if a dispute presents complicated issues requiring a detailed assessment, it is inappropriate for us to accept it as a dispute.

Commercial negotiations

- 2.24 We explained in the Draft Determinations that on the basis of the history of negotiations set out in **Annex 9** below, we were satisfied that BT had suspended commercial discussions both in relation to the Altnets and to COLT and that the matters in dispute would not be resolved through further negotiation between the Parties.
- 2.25 We received no specific responses from the Parties on this point, and remain of the view that the Disputing CPs and BT have been and are in dispute.

Legitimate expectation/ Estoppel/ Forward looking only

- 2.26 In the Draft Determinations we considered BT's submissions that we should "summarily dismiss" the Disputes on the grounds that BT has a legitimate expectation that we would not address these issues on a historical basis and/or that we are estopped from considering the issues.
- 2.27 We set out why we proposed to reject BT's argument that Ofcom's conduct in relation to previous investigations and consultations had created a legitimate expectation to BT that PPC charges would only be looked at on a forward-looking basis and that Ofcom would not consider a dispute as to whether BT had been overcharging for PPCs for a prior period. We made clear that Ofcom has a statutory duty to resolve disputes and cannot fetter its discretion in this regard. We also stated that having examined our overall public statements, notices and correspondences with BT in relation to the PPC charges, we had concluded that there is no basis on which to argue that our conduct has given rise to a legitimate expectation by BT that its charges were approved by Ofcom or that Ofcom would not accept a dispute in relation to whether BT has overcharged for PPCs. Most importantly, and contrary to BT's reliance on it, we did not consider that our decision to close the 2005 Investigation and any comments made in that context could somehow be relied upon by BT in this way.¹⁹
- 2.28 Similarly, we explained in the Draft Determinations that we did not consider that Ofcom is estopped from exercising its duty in resolving the Disputes, as we could not see how the criteria of estoppel by convention are met.²⁰ We noted that Ofcom is not a party to any transaction with BT; it is a sectoral regulator acting in accordance with

¹⁹ For more details, please see **paragraphs 4.73 to 4.84**.

²⁰ The criteria for estoppel were succinctly summarised by Birmingham LJ in *The Vistafford* ([1988] 2 Lloyd's Rep 343 at 352), namely that it applies where: (i) parties have established by their construction of their agreement or their apprehension of its legal effect a conventional basis; (ii) on that basis they have regulated their subsequent dealings, to which Birmingham LJ added; (iii) it would be unjust or unconscionable if one of the parties resiled from that convention.

its duties, powers and obligations under the Act. Moreover, it was not clear to us what BT considers to be the assumption that has led to the creation of the estoppel in this case, nor why it would be unfair or unjust to allow the Parties to go back on their transaction if there has been overcharging.

- 2.29 In their responses to the Draft Determinations, the Disputing CPs disagreed with BT's claim that the 2005 Investigation created a legitimate expectation that Ofcom would not investigate PPC trunk charges but would rather consider them in the context of the next market review. They noted that as there were no definitive statements from Ofcom in the case closure statement on the matters at issue in the Disputes (i.e. whether or not BT's trunk charges were too high), no legitimate expectation could have been created. Furthermore, the Disputing CPs argued that the CAT's TRD Decision makes clear that Ofcom is not bound to follow its previous decisions when resolving disputes.

Ofcom's Conclusions

- 2.30 We remain of the view as set out in the Draft Determinations, that BT does not have a legitimate expectation that we would not handle a dispute relating to these issues on a historical basis and/or that we are somehow estopped from considering the issues.
- 2.31 We consider that BT is suggesting an unduly restrictive interpretation of Ofcom's dispute resolution powers when it says that these are limited to prospective price changes. It cannot be correct in the context of a dispute which is based on an existing regulatory obligation that Ofcom cannot determine the dispute in relation to charges already paid.
- 2.32 In addition, there is nothing in the Act to justify such restriction. To the contrary, section 190(2)(d) of the Act sets Ofcom's power to direct adjustment of an overpayment "*in respect of which amounts have been paid by one of the parties of the dispute to the other*". Thus, this provision acknowledges Ofcom's powers to accept a dispute in relation to past charges.

Incorrect data/methodology

- 2.33 In our Draft Determinations, we explained that we did not accept BT's argument that we should dismiss the Disputes because the Altnets' and COLT's Submissions were based on incorrect financial data and contained methodological errors. We considered that the evidence provided by the Disputing CPs is sufficient in accordance with our Dispute Resolution Guidelines for us to accept the Disputes.
- 2.34 In their responses to our Draft Determinations, the Dispute CPs emphasised that the original RGL Report was based on the best information available at the time and that its purpose was to substantiate the existence of a dispute. In any event, once a dispute is submitted, the CAT has made clear that Ofcom is not bound to resolve that dispute within the parameters set by parties.

Ofcom's Conclusions

- 2.35 We do not accept BT's apparent suggestion that we should decide not to handle the disputes pursuant to section 186 of the Act due to alleged flaws in the data and/or methodology of the Disputing CPs.

Conclusions on BT's preliminary arguments and jurisdiction

- 2.36 In conclusion, we reject BT's arguments that we do not have jurisdiction to consider the Disputes using our dispute resolution powers under the Act. We further reject the suggestion that even if we do have jurisdiction, we should for various reasons "summarily dismiss" the Disputes in BT's favour.
- 2.37 Ofcom informed the Parties of its decision to accept the Disputes for resolution and published details of the Disputes on its website on 28 July 2008 and 3 December 2008. We remain of the view that this decision was correct, for the reasons set out below.
- 2.38 As we set out in our Draft Determinations, we consider that the Disputes are disputes between CPs relating to network access. In particular the disputes in relation to the price paid by the Disputing CPs for PPCs relate to the terms and conditions on which network access is provided by BT to each of the Disputing CPs, in accordance with section 185(8)(a) of the Act.
- 2.39 As a result, we were under an obligation to decide whether or not it was appropriate for us to handle the dispute. We considered whether there were alternative means available for resolving the Disputes and concluded that there were no alternative means which would meet the requirements of section 186(3) of the Act.
- 2.40 It was therefore appropriate for us to decide to handle the Disputes, and to conclude that we were under an obligation to make a determination for resolving them in accordance with section 188(2) of the Act.

The scope of the Disputes in this matter

- 2.41 In accordance with our Dispute Resolution Guidelines, the Disputing CPs set out what they considered to be the scope of the matters in dispute.
- 2.42 The Altnets summarised the issues in dispute as being:

"whether BT has overcharged the Operators in Dispute for PPCs provided to them from 24 June 2004 to date (which will depend on whether or not BT's charges for the underlying trunk and terminating elements of those PPCs were cost-oriented during that time) and, if so:

*by how much have the Operators in Dispute been overcharged and should therefore be reimbursed."*²¹

- 2.43 In its subsequent dispute submission, COLT confirmed that its dispute was essentially on the same terms as that brought by the Altnets.
- 2.44 Ofcom informed the Parties of its decision to accept the Disputes for resolution and published details of the Disputes on its website on 28 July 2008 and 3 December 2008. After a period for comments on the proposed scope of the Disputes, Ofcom published the finalised scope of the Altnet Disputes on 27 August 2008²²:

²¹ See paragraph 2.1 of the Altnet Dispute Submission.

²² In doing so, we addressed BT's request that the period of the Disputes be amended to end on 30 September 2008 (rather than the date of our conclusion of the Disputes as we had initially proposed). BT had committed to implement the charge control proposals that Ofcom would shortly be publishing

“The finalised scope is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

iii. whether and by how much BT should reimburse the Parties.”²³

2.45 Although the COLT Dispute Submission included a request that BT be required to pay “*relevant costs*” as well as repay any overcharge with interest, COLT provided no qualification or quantification of what these “*relevant costs*” were. COLT also confirmed²⁴ that the scope of its dispute is identical to the Altnet Disputes (this view was not contested by BT). Ofcom did not, therefore, include the question of “*relevant costs*” in the proposed scope of the COLT Dispute that it published for comment or in the Draft Determinations. COLT raised no objection to this. In conclusion, the payment of “*relevant costs*” has not been considered when resolving the COLT Dispute.

2.46 On the basis of the above scope, Ofcom has approached the determination of these Disputes as follows:

2.46.1 firstly, we determine whether on the facts BT has overcharged the Parties for PPC services in the relevant period, and if so, determine the level of overcharging; and

2.46.2 secondly, we exercise our discretion as to whether and if so, by how much BT should reimburse the Parties, in light of our powers under Section 190 of the Act.

2.47 In **Sections 4 to 7** we consider:

2.47.1 the appropriate level of service disaggregation (**Section 4**);

2.47.2 our approach to assessing overcharging (**Section 5**);

2.47.3 BT’s costs of providing PPCs (**Section 6**); and

2.47.4 an assessment of the overcharging claims (**Section 7**).

2.48 We then go on to determine in **Section 8**, whether and how to exercise our discretion in relation to any repayments.

(i.e. the 2008 LLCC Consultation) from 1 October 2008. We concluded that it was appropriate to amend the end date of the Disputes.

²³ The scope was published in Ofcom’s Competition and Consumer Bulletin - see http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_992/

²⁴ Submissions from Nikkan Woodhouse to Martin Hill dated 3 October 2008 and from Ann Francis (Head of UK Regulatory and Business Development, COLT) to Martin Hill dated 10 November 2008.

Section 3

BT's relevant regulatory obligations

- 3.1 The main question relating to whether there has been overcharging for PPC services is whether BT has been in compliance with its SMP obligations and in particular with its cost orientation obligation. BT's SMP obligations have been set in accordance with the procedures and requirements set by sections 47 and 78 of the Act, following a detailed market review assessment.²⁵ Moreover, in order to set the appropriate SMP obligations, we have taken into account the duties and Community obligations under sections 3 and 4 of the Act, including Ofcom's primary duty to further the interests of citizens and consumers, where appropriate by promoting competition.
- 3.2 On 24 June 2004, Ofcom published the 2004 LLMR Statement²⁶, which set out our analysis and conclusions in relation to leased lines markets (including PPCs) at that time.

BT's SMP obligations

- 3.3 Amongst the findings presented in the 2004 LLMR Statement, Ofcom concluded that BT held SMP in the markets for:
- a) wholesale low bandwidth traditional interface symmetric broadband origination ("TISBO") (which includes circuits of bandwidths up to and including 8Mbit/s);
 - b) wholesale high bandwidth TISBO (which includes circuits of bandwidths above 8Mbit/s and up to and including 155Mbit/s); and
 - c) wholesale trunk segments at all bandwidths.
- 3.4 As a result of these conclusions, Ofcom imposed a number of SMP conditions on BT under section 45 of the Act, including:
- a) a basis of charges obligation (covering cost orientation and a cost accounting system) in each of the markets (a)-(c) identified in **paragraph 3.2** above;
 - b) a price control obligation in the two TISBO markets (a) and (b) identified in **paragraph 3.2** above; and
 - c) a requirement not to unduly discriminate in each of the markets (a)-(c) identified in **paragraph 3.2** above.
- 3.5 Cost orientation obligations were imposed on BT in each of the markets for low bandwidth TISBO (SMP Condition G3), high bandwidth TISBO (SMP Condition GG3) and trunk (SMP Condition H3). The purpose of these obligations was to prevent BT from exploiting its market power by overcharging its customers. The cost orientation obligations did this by requiring BT to set its charges on the basis of its long run incremental costs (whilst allowing a mark-up for the recovery of common costs).

²⁵ For more detail about the process of setting SMP obligations and the key provisions of the legal and regulatory framework, please see below in **Annex 8**.

²⁶ *Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*: <http://www.ofcom.org.uk/consult/condocs/llmr/statement/>.

3.6 SMP Condition G3 states as follows:

“Condition G3 – Basis of charges

G3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition G1 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

G3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition G1 is for a service which is subject to a charge control under Condition G4, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition G3.1.

G3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”²⁷

- 3.7 The wording of SMP Condition GG3 (which applies to high bandwidth TISBO) is identical to that of SMP Condition G3 (with references to ‘G’ being replaced with those for ‘GG’). SMP Condition H3 (which applies to trunk) is similarly worded, though the wording set out in SMP Condition G3.2 is not included as there was no charge control imposed on trunk charges (and again, references are to ‘H’ rather than ‘G’). These SMP Conditions are set out in **Annex 8** below.

The charge control obligation

- 3.8 Ofcom also imposed charge control obligations on BT in the markets for low bandwidth TISBO (SMP Condition G4) and high bandwidth TISBO (SMP Condition GG4). The charge control obligations set out in the 2004 LLMR Statement were intended as interim measures while a more detailed analysis of how BT’s costs of providing PPC TISBO services would change over the coming years was carried out.²⁸ Subsequently, on 30 September 2004, Ofcom published its analysis of BT’s PPC TISBO costs and its revisions to the charge control SMP Conditions in the 2004 LLCC Statement.²⁹ These revised SMP Conditions are set out in **Annex 8** below.

Requirement not to discriminate unduly

- 3.9 A requirement not to discriminate unduly was imposed on BT in the markets for low bandwidth TISBO (SMP Condition G2), high bandwidth TISBO (SMP Condition GG2) and trunk (SMP Condition H2). The text of these SMP Conditions is set out in **Annex 8** below.

²⁷ The term “Network Access” is defined in section 151 of the Act, the text of which is set out in **paragraphs A8.11 to A8.15 of Annex 8** below.

²⁸ The charge control effectively took the form of an indexation of the charges set in the PPC Phase 2 Direction, updated to take account of a further year’s cost changes.

²⁹ *Partial Private Circuits Charge Control*:
www.ofcom.org.uk/consult/condocs/ppc_charge_control/statement

The future regulatory obligations

- 3.10 The EU Directives require Ofcom to ensure that regulation remains appropriate in light of changing market conditions. Over the last few years, Ofcom has been reviewing the leased lines markets and has recently published its conclusions on the future regulation of these markets, including a new charge control. These are set out in the Business Connectivity Market Review published on 8 December 2008³⁰ and the Leased Lines Market Review published on 2 July 2009³¹.

The 2008 Business Connectivity Market Review

- 3.11 On 8 December 2008, Ofcom published its second review of the markets for retail leased lines, symmetric broadband origination and wholesale trunks segments, publishing its conclusions in the 2008 BCMR Statement.³²

- 3.12 Ofcom identified in the 2008 BCMR Statement that:

“The current regulatory framework has worked well in promoting competition in some markets, but in Ofcom’s view has failed to deliver improved competitive conditions in others.”³³

- 3.13 Ofcom concluded that BT continued to have SMP in the low bandwidth TISBO market (which was defined on the same basis as in the 2004 LLMR Statement), and again imposed cost orientation, charge control and non-discrimination obligations (amongst others).
- 3.14 In relation to high bandwidth TISBO market, Ofcom identified that a separate geographic market exists for the Central and East London Area (“CELA”)³⁴ and the rest of the UK (excluding the Hull area as before). Ofcom concluded that BT does not have SMP in the CELA. This differs from the conclusions in the 2004 LLMR Statement, where we did not distinguish between the CELA and the rest of the UK and concluded that BT had SMP in the whole of the UK.
- 3.15 Ofcom additionally identified that the high bandwidth TISBO market should only comprise 34/45Mbit/s circuits as 140/155Mbit/s circuits now fall within a separate very high bandwidth TISBO market. A second very high bandwidth TISBO market for circuits with bandwidths above 155Mbit/s was also identified. Previously, we had concluded that the high bandwidth TISBO market comprised 34/45Mbit/s and 140/155Mbit/s circuits, with the very high bandwidth TISBO market comprising circuits of above 155Mbit/s.
- 3.16 In the high bandwidth TISBO and the very high bandwidth 140/155Mbit/s TISBO markets outside the CELA, Ofcom concluded that BT has SMP and imposed cost orientation, charge control and non-discrimination obligations (amongst others). No SMP obligations were imposed in relation to the very high bandwidth above 155Mbit/s TISBO market.
- 3.17 In relation to trunk, Ofcom concluded that BT continues to have SMP in the market for wholesale trunk segments at all bandwidths in the whole of the UK. Although we had anticipated in the 2004 LLMR Statement that competition would develop on at

³⁰ See <http://www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf>.

³¹ See <http://www.ofcom.org.uk/consult/condocs/lcc/lccstatement/lccstatement.pdf>.

³² Business Connectivity Market Review: www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf.

³³ See paragraph 2.38 of the 2008 BCMR Statement.

³⁴ CELA corresponds broadly to the London congestion charging zone and Docklands.

least some trunk routes, we concluded that this had not in fact happened. We therefore again imposed cost orientation and non-discrimination obligations in the same terms and with the same numbering as in 2004. We additionally concluded that it was appropriate to impose a charge control as well (a departure from our previous approach in the 2004 LLMR Statement).

The 2009 Leased Lines Charge Control

- 3.18 Ofcom has also published details of the new charge control that will apply to leased line services in the period up to 30 September 2012. Full details of the new charge control are set out in the 2009 LLCC Statement, which was published on 2 July 2009.³⁵
- 3.19 The 2009 LLCC Statement defines six charge control baskets, of which the traditional interface ("TI") basket is of particular relevance to the issues under consideration in the Disputes. The TI basket contains all BT low bandwidth TISBO, high bandwidth TISBO (outside the CELA), very high bandwidth 155Mbit/s TISBO (outside the CELA) and trunk services. A charge cap of RPI-3.25% has been set on this basket.
- 3.20 BT is additionally required to align all its terminating segment and trunk charges with those set out in Annex D to the 2009 LLCC Statement from 1 October 2009.

³⁵ *Leased Lines Charge Control:*
<http://www.ofcom.org.uk/consult/condocs/lcc/lccstatement/lccstatement.pdf>.

Section 4

Appropriate Level of Service Disaggregation to Resolve the Disputes

Services against which overcharging should be assessed

- 4.1 Determining the appropriate level of service aggregation to adopt when assessing overcharging has been key to resolving these Disputes.
- 4.2 The initial justifications that BT provided³⁶ for why its trunk charges were high were principally based on arguments that trunk and terminating services should be considered in aggregate and that it was necessary to offset losses made on terminating segments with high trunk prices.

Proposals from the Draft Determinations

- 4.3 In the Draft Determinations we discussed the arguments made by BT in its Submission that Ofcom should evaluate whether BT had overcharged the Disputing CPs on the basis of the combined charges for PPC trunk and terminating segments, rather than looking at the individual trunk and terminating segment charges separately.
- 4.4 BT's arguments in favour of considering trunk and terminating segments in aggregate can be summarised as follows:
 - BT does not provide a separate trunk service: customers purchase end-to-end connectivity that either takes the form of a terminating segment or a terminating segment plus a trunk segment. Network access is only possible if trunk is purchased with a terminating segment.
 - The Disputing CPs brought the Disputes on the basis of BT overcharging for PPCs on an aggregated basis.
 - The distinction between trunk and terminating segments is blurred: the definitions of the services have not remained constant and there are uncertainties over the allocation of costs between the two services.
 - The nature of the alleged economic harm relies on BT having raised the overall costs of leased lines in downstream markets, which means that the prices of trunk and terminating segments need to be looked at in combination.
- 4.5 In the Draft Determinations, we proposed to adopt a disaggregated approach, provisionally concluding that it was appropriate to consider the extent to which BT may have overcharged the Disputing CPs on the basis of an assessment of the charges levied for the individual services within the three markets defined in the 2004 LLMR Statement.³⁷

³⁶ For example in its Original Response dated 14 October 2008.

³⁷ We reject BT's suggestion that the wording used in paragraph 1.11 of the Draft Determinations should be taken as meaning that we recognised that trunk and terminating segments should be considered in aggregate. The Draft Determinations unambiguously set out our provisional conclusion

Responses from the Parties

The Disputing CPs

- 4.6 The Disputing CPs agreed with Ofcom's position that a disaggregated approach is the most appropriate methodology for assessing whether overcharging is occurring. Given that PPC trunk services are in a separate market to PPC terminating segments, there is a considerable risk of failing to identify overcharging in the trunk market if trunk and terminating services are aggregated.
- 4.7 Furthermore, the Disputing CPs supported our view that allowing BT to aggregate trunk and terminating services would risk undermining the charge control regulation imposed in 2004 on terminating segment services. Aggregation would allow BT to offset low returns on controlled terminating segment services by overcharging for trunk services, thereby undermining any incentive on BT to improve its efficiency.
- 4.8 The Disputing CPs additionally clarified that it is not common ground between the Parties that PPC charges should be considered on an aggregated basis. They noted that, although their initial case was based on data that suggested that BT was overcharging for both trunk and terminating, they made clear in their submission that, if Ofcom took a different view of this situation (including if Ofcom were to find that overcharging had only occurred on trunk services), then alternative approaches (including looking at services in disaggregate) might be appropriate.

BT

- 4.9 In its response to the Draft Determinations, BT maintained its position that Ofcom should consider trunk and terminating services in aggregate, rather than looking at trunk services in isolation. In doing so, BT did not in our view raise any new arguments to support its position, but rather reiterated and re-emphasised those made in the BT Submission and supplied analysis of the circuits purchased by the Disputing CPs to support its view.
- 4.10 The BT Response argued that Ofcom has adopted a "mechanistic" approach to considering the Disputes, which ignores the wording of the cost orientation obligation. Specifically, BT noted that the cost orientation obligation applies to charges for network access and argues that the network access (in the form of circuits) purchased by the Disputing CPs is comprised of either terminating segments or terminating segments plus trunk.
- 4.11 BT claimed that "*Ofcom has failed to take its own approach to its logical conclusion by looking at the charges actually offered and paid*"³⁸, arguing that Ofcom should have carried out an analysis of the individual circuits purchased by the Disputing CPs in order to help determine whether the charges paid by the Disputing CPs were excessive. BT carried out this analysis and argued that it shows that it has not overcharged the Disputing CPs for PPCs.³⁹ BT believed that, by adopting a "*granular*" approach to assessing BT's costs, Ofcom risks making it difficult to assess whether BT's approach to common cost allocation is inconsistent with competitive behaviour.

that trunk and terminating segments should be assessed on a disaggregated basis (e.g. see paragraph 1.20).

³⁸ Paragraph 20 of the BT Response.

³⁹ Our assessment of BT's circuit analysis is set out in **paragraphs 7.139 to 7.140** below.

- 4.12 BT additionally argued that Ofcom's approach to resolving the Disputes is entirely inconsistent with the Disputes that Ofcom was asked to resolve. BT made reference to the Altnet Submission to support its views that the Disputes were brought on the basis of overcharging for PPCs in aggregate, rather than individual services.
- 4.13 Furthermore, BT argued that Ofcom has carried out its investigation on a different basis to that which was submitted by the Disputing CPs and in so doing has failed to take account of all relevant issues.

Further comments

Comments from BT on the Disputing CPs' Response

- 4.14 In its comments on the Disputing CPs' Response, BT agreed with the Disputing CPs view that aggregation should not be used where it impedes an appropriate analysis. BT suggested that the implication of this is that disaggregation should not be used where it, too, impedes appropriate analysis. It argued that considering trunk and terminating segments on a disaggregated basis would impede appropriate analysis of whether overcharging was taking place.
- 4.15 BT emphasised that the Disputing CPs compete for provision of retail leased lines, for which they purchase PPCs from BT, not trunk and terminating segments. As such, Ofcom should consider what is actually purchased.

Comments from the Disputing CPs on the BT Response

- 4.16 By contrast, the Disputing CPs argued in their comments on the BT Response that the definition of network access is very broad and includes services at a more granular level than the bundled 'purchased service', which comprises elements that can themselves constitute network access. As such, they argued that Ofcom should consider trunk and terminating segments separately.

Ofcom's assessment of the appropriate level of service aggregation

- 4.17 As noted above, the BT Response essentially reiterated the arguments that BT made in its Submission as to why trunk and terminating services should be considered in aggregate when assessing overcharging rather than as separate services.
- 4.18 We therefore confirm our reasons for rejecting BT's arguments about aggregation in the Draft Determination, and have set out our reasoning below, addressing the specific points about aggregation that BT made in its Response.
- 4.19 Our view is that it is appropriate to apply our assessment at the individual service level. As we go on to explain in this **Section**, our view is based on an assessment of the obligations imposed on BT and the economic principles and duties that underlie those obligations. The key points are:
- i) **Cost orientation obligation and the meaning of Network Access** - under the SMP conditions in place during the period of the Disputes, trunk services constituted Network Access in their own right and the cost orientation condition required that "*each and every charge*" for Network Access should be reasonably derived from the costs of provision (see **paragraphs 4.21 to 4.27** for further details).

- ii) **Market definitions and regulatory provisions** – trunk and terminating segments are treated as separate markets in the 2004 LLMR Statement, with distinctly different regulation being applied to each market separately (see **paragraphs 4.28 to 4.40** for further details);
 - iii) **Purchasing patterns for trunk and terminating segment services** – customers of BT's PPC services do not purchase trunk and terminating services in fixed proportions. Where they buy terminating segments, they make decisions whether also to buy trunk services from BT or whether instead to self-provide or purchase such services from another network operator. BT's prices for trunk services are a material factor taken into account by potential purchasers in such purchase and investment decisions (see **paragraphs 4.41 to 4.53** for further details);
 - iv) **Regulatory certainty** – both BT (as reflected in its regulatory financial statements) and the Disputing CPs appear to have understood that the SMP obligations relate to individual services (see **paragraphs 4.54 to 4.89**);
 - v) **Charge control incentives** – allowing BT to combine some markets which have RPI-X charge controls imposed with those that do not, would reduce BT's incentives to improve efficiency and grow volumes, and therefore undermine the rationale for implementing charge controls. These efficiency gains benefit consumers through lower prices in future control periods. This therefore is inconsistent with our duties and Community obligations (see **paragraphs 4.90 to 4.96**); and
 - vi) **Economic harm** – high prices for either trunk or terminating segments give rise to the potential for economic harm. There could have been an adverse effect on consumers through distortions to retail consumption decisions, investment or competition between CPs (see **paragraphs 4.97 to 4.104**).
- 4.20 Before turning to each of these points, we note that BT's regulatory accounts fully reflect the separation of trunk and terminating services. These services are reported separately, in separate sections of the accounts. In addition, in the 2008 accounts the purpose of the statements for each of the three separate markets is explained by BT to be: "*...to provide more detail on the financial performance and first order tests of cost orientation and non-discrimination obligations*". In addition, BT provides DSAC (and distributed long run incremental cost ("DLRIC")) estimates for each individual service reported within each of the relevant markets under the heading "cost orientation".

i) Cost orientation obligation and the meaning of 'Network Access'

- 4.21 Amongst the SMP obligations imposed on BT in the 2004 LLMR Statement and the 2008 BCMR Statement as a result of its SMP in each of the trunk and terminating segment markets were the requirements to provide Network Access on reasonable request⁴⁰ and to ensure (and be able to demonstrate) that the charges imposed for that Network Access were cost orientated⁴¹.

⁴⁰ SMP Conditions G1, GG1 and H1 in the 2004 LLMR Statement (slightly different numbering applies to the SMP Conditions in the 2008 BCMR Statement as a result of further product markets being identified).

⁴¹ SMP Conditions G3, GG3 and H3 in the 2004 LLMR Statement.

- 4.22 The obligation on BT to provide PPC trunk services flows from a Direction made by Ofcom under Condition H1, which requires BT to provide Network Access on reasonable request in the market for wholesale trunk segments. The Direction states that it “*shall only apply to the extent that [BT] provides a Partial Private Circuit which contains an element of a product or service which falls within the market for wholesale trunk segments*” (emphasis added). The trunk services provided by BT to the Disputing CPs therefore constitute Network Access in their own right.
- 4.23 Thus, the cost orientation obligation relates to individual trunk services, distinct from terminating segments.
- 4.24 The wording of the obligations states that:
- “Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition G1 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.”* [Emphasis added]
- 4.25 In our view the scope of this obligation is not ambiguous. BT must ensure that each and every one of its charges in each SMP market is individually cost orientated.
- 4.26 In this respect we note that trunk services at different bandwidths are listed as separate items in BT’s Carrier Price List, with separate charges for each trunk service.
- 4.27 BT appears to have understood the obligations in this way. Its own regulatory accounts provide separate entries for trunk and terminating segments and set out DSAC (and distributed long run incremental cost (“DLRIC”)) estimates for each individual service.

ii) Market definitions and regulatory provisions

- 4.28 As set out in **Section 3**, Ofcom concluded in both the 2004 LLMR Statement and the 2008 BCMR Statement that PPC trunk and terminating segments comprised separate markets. SMP regulation was imposed in each of the following three markets: low bandwidth TISBO (terminating segments); high bandwidth TISBO; and trunk. BT recognised in the BT Dispute Submission that it was appropriate for Ofcom to adopt these market definitions.⁴²
- 4.29 Distinctly different regulation was applied in the 2004 LLMR Statement to the wholesale trunk market compared to the two terminating segment markets. As set out in **Section 3**, whilst a cost orientation obligation was imposed in all three markets, no charge control was put in place for trunk services.
- 4.30 It is also informative to consider the context to Ofcom setting the cost orientation obligation on the trunk market in 2004. Our decision to impose only cost orientation obligations and not a charge control on the trunk market was motivated by an expectation that competition would evolve for trunk services. However, reflecting the

⁴² See paragraph 10 of the BT Dispute Submission.

different traffic densities and costs of trunk provision in different parts of the country, Ofcom did not expect competition to emerge on all routes.

- 4.31 To allow BT to compete with new entrants on the routes that became competitive, but also to facilitate a greater convergence between costs and charges, Ofcom permitted BT to de-average its charges geographically. However, in order to prevent BT from adjusting its prices in such a manner as to either frustrate competition on potentially competitive routes (i.e. charging ‘too low’ prices), or to exploit a lack of competition on other routes (by charging ‘too high’ prices), Ofcom imposed the cost orientation obligation.
- 4.32 A route-based analysis of individual service charges as envisaged by the 2004 LLMR Statement includes a degree of service disaggregation that is even greater than we have adopted for resolving the current Disputes. However, as reflected in the decision in the 2008 BCMR Statement to impose a charge control on trunk services, competition for trunk services has not emerged to the extent that we anticipated in 2004 and BT has chosen not to de-average prices geographically. In this context it seems appropriate, for the purposes of resolving these Disputes, to consider geographically averaged charges and costs for individual services. However, BT’s proposed approach of aggregating all services across three markets seems inconsistent with the objectives of the cost orientation obligations.
- 4.33 As noted above under **paragraph 4.27**, BT’s regulatory accounts fully reflect the separation of trunk and terminating services, as each market is reported separately.
- 4.34 BT provides DSAC (and distributed long run incremental cost (“DLRIC”)) estimates for each individual service reported within the three markets under the heading “cost orientation”.
- 4.35 Furthermore, as BT successfully argued in the TRD appeal⁴³, it would be “*wholly illogical*” to ignore the fact that the services are regulated distinctly.⁴⁴
- 4.36 In the determinations to resolve the Mobile Call Termination Rates disputes published by Ofcom in July 2007, we adopted a methodology that was based on considering the appropriateness of 2G and 3G termination rates through a blended version of the underlying rates.⁴⁵ In its appeal of these determinations to the CAT, BT successfully argued that 2G and 3G termination rates should be considered on a

⁴³ *T-Mobile (UK) Limited and British Telecommunications plc and Hutchison 3G UK Limited and Cable & Wireless UK & Others and Vodafone Limited and Orange Personal Communications Services Ltd v Office of Communications, Judgment on the Core Issues* [2008] CAT 12. See www.catribunal.org.uk/files/Judgment_TRDs_200508.pdf.

⁴⁴ We note that in Footnote 20 of its Response, BT raised an objection to Ofcom’s reference to the TRD Decision in paragraphs 3.65 and 3.66 of the Draft Determination. BT’s objection seemed to be that Ofcom states that “trunk” is a service like 2G or 3G but then finds excessive charging for 2Mbit/s trunk only. BT argues that this is therefore not consistent with the approach in TRD, since if trunk (i.e. all bandwidths) is analogous to 2G or 3G we could only find overcharging in relation to trunk as a whole. BT’s argument ignores the fact that Ofcom’s 2004 and 2007 Statements on Mobile Call Termination defined 2G and 3G termination as falling within the same market. Our approach is therefore consistent with the approach in the TRD Decision of finding overcharging in relation to one service in the market, i.e. 3G termination, but not another service in the same market, 2G termination (which was subject to a charge control). In any case, the question here is aggregation as between trunk services and terminating segments, not aggregation as between different bandwidths for trunk services.

⁴⁵ See www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_942/.

disaggregated basis on the grounds that they were treated as being separate services by the regulatory regime.⁴⁶

- 4.37 In his witness statement in that case (dated 4 September 2007), Richard Budd (Regulatory Economics Manager at BT) argued for BT that;

“2G and 3G termination services were accorded different regulatory treatment i.e. they were considered to be two separate services for regulatory pricing purposes. It is wholly illogical to ignore the fact that Ofcom itself had recognised the services to be distinct in this specific and relevant sense and then assessed the disputes as if they were not.”⁴⁷

- 4.38 We consider that, as with 2G and 3G termination services, PPC trunk and terminating segments are separate services that have been accorded different regulatory treatment. In the 2004 LLMR Statement trunk and terminating segments were clearly defined as separate markets for regulatory pricing purposes. Not only was an RPI-X charge control imposed on the two terminating segment markets, but all three markets separately had cost orientation obligations imposed upon them. Therefore, the separation between trunk and terminating segments is even clearer than for mobile termination. In relation to mobile termination, different regulatory treatment was applied to each of 2G and 3G termination, but they were defined in the same relevant market. For trunk and terminating segments, not only were distinct regulatory obligations put in place but they were also determined to be in separate markets.
- 4.39 BT has sought to distinguish the facts in the Disputes from those in the TRD appeal, arguing that CPs were terminating calls on a mobile network operator’s 2G or 3G networks, whereas the Disputing CPs are purchasing both trunk and terminating segments.⁴⁸ However, BT’s argument does not take into account the fact that it is possible to purchase terminating segments on their own and secondly that, even if purchased together, the ratio of trunk / terminating segments is not fixed. Therefore, in both cases CPs are purchasing combinations of services that have different prices and different CPs will purchase in different proportions and quantities.
- 4.40 Furthermore, in our view the distinctions between the circumstances of mobile termination and PPCs tend to strengthen the case for treating trunk and terminating segments separately. In the case of the TRD Decision the purchasing operator did not have the choice between buying 2G or 3G termination – the combination of 2G and 3G termination sold to the purchasing operator was under the control of the terminating mobile operator. From the perspective of the purchaser the service was also indistinguishable. In the case of PPCs, however, it is the purchasing operator that has the choice of whether to purchase terminating segments alone or to purchase both trunk and terminating segments. This strengthens the significance of separate consideration of trunk and terminating segment prices.

⁴⁶ *T-Mobile (UK) Limited and British Telecommunications plc and Hutchison 3G UK Limited and Cable & Wireless UK & Others and Vodafone Limited and Orange Personal Communications Services Ltd v Office of Communications, Judgment on the Core Issues* [2008] CAT 12. See www.catribunal.org.uk/files/Judgment_TRDs_200508.pdf.

⁴⁷ See paragraph 46 of the Witness Statement of Richard Martin Budd, dated 4 September 2007.

⁴⁸ See footnote 12 of BT’s submission of 14 October 2008.

iii) Purchasing patterns of trunk and terminating segments

- 4.41 Our approach in the 2004 LLMR and LLCC Statements was predicated on the idea that the trunk charge itself was a meaningful economic signal. In particular, the trunk price was expected to signal the scope for entry and expansion in the trunk market and to be constrained by the threat of entry and the pressure of competition. So, the 2004 decision to charge control terminating segments only, and to rely on the cost orientation obligation and the anticipated emergence of competition to constrain trunk prices, reflected a view that the trunk charge by itself had and has economic significance.
- 4.42 Our decision in the 2009 LLCC Statement to include trunk services in a charge control basket with terminating segments reflects a change in circumstances, in particular the failure of sufficient competition to emerge on trunk routes. This does not provide support for aggregation of these services.
- 4.43 Furthermore, the market for trunk segments is not confined to products offered over BT's network (albeit that the boundary between trunk and terminating segments was defined on the basis of points in BT's network in the 2004 LLMR Statement). Trunk is a separately defined service, being transmission capacity across a core network, and BT is not the only wholesale provider of trunk segments. CPs are able to use their own networks to self-supply PPC trunk services in a number of instances. On some occasions, they are purchasing PPC trunk services from CPs other than BT. It was estimated in the 2008 BCMR consultation that non-BT supply of PPC trunk services (i.e. trunk that was self-supplied by CPs or purchased from CPs other than BT) accounted for around 14% of the total PPC trunk market (or 33% of the market when BT's supply of trunk services to its internal businesses are excluded).⁴⁹
- 4.44 Ofcom also made clear in the 2004 LLMR Statement that although BT only provides trunk segments in combination with terminating segments, it did not rule out the possibility of BT being required to provide standalone trunk segments if requested.
- "As BT correctly points out, it was under no obligation to provide standalone trunk segments under the previous regulatory regime. However, standalone trunk segments are identical to those trunk segments provided with terminating segments and so would appear to fall within the scope of the market for trunk segments identified by Ofcom. Were Ofcom to receive a dispute in future regarding any refusal by BT to provide standalone trunk segments, it would have to consider the dispute on its merits and whether it would be reasonable to require the provision of such a product. ... However, Ofcom is not currently aware of any reason why such provision should be considered unreasonable."⁵⁰*
- 4.45 The provision of trunk services enables CPs to link their own network with the access network connections (terminating segments) that they have purchased, regardless of whether the terminating segment is provided by the same CP that is supplying the trunk segment or by a different CP.
- 4.46 BT argued that overcharging should be considered on the basis of what customers actually buy; i.e. end-to-end circuits, rather than the trunk and terminating services

⁴⁹ See paragraph 7.370 of the 2008 BCMR consultation at: http://www.ofcom.org.uk/consult/condocs/bcmr/bcmr_pt3.pdf.

⁵⁰ See paragraph 8.18 of the 2004 LLMR Statement.

that form these circuits.⁵¹ BT added that considering trunk services in isolation ignores the fact that they are only ever purchased in combination with terminating segments:

*"The Disputing CPs sometimes purchase 'terminating-only' circuits and sometimes 'terminating and trunk combined' circuits, but they never purchase 'trunk' circuits in isolation. The Disputing CPs purchase circuits, not individual components, and Ofcom should not ignore this key fact."*⁵²

*"Genuine overcharging can only be judged against the service actually supplied (i.e. those circuits comprising an element of trunk and terminating or terminating alone). This is the relevant charge for Network Access which is "offered" and "payable". When considered in this way, it is plain that the Disputing CPs have not been charged an unreasonable or unfair amount, something Ofcom appears to accept in the Draft."*⁵³

- 4.47 Although trunk and terminating segments are purchased together from BT on over 50% of occasions⁵⁴, we disagree with BT that this provides sufficient justification for considering the services in aggregate when assessing overcharging. The fact that they are often purchased together does not negate the fact that the various trunk and terminating services are (and were for the period of the Disputes) separately defined services which customers can choose to purchase and combine in different ways to reflect their own requirements. As discussed above, CPs sometimes choose to self-provide trunk services and sometimes they choose to buy them from other CPs.
- 4.48 As a consequence, the relative prices of the individual services do have implications for the cost of service combinations that CPs buy. Therefore, individual service charges (e.g. 2Mbit/s trunk) are important and relevant as they have real implications for the purchasing and investment incentives of CPs.
- 4.49 Where services can only be purchased together and in fixed proportions, it may well be appropriate to consider them together as BT is suggesting.
- 4.50 Trunk and terminating services are, however, not always purchased together and in fixed proportions, as **Figure 4.1** below indicates. This difference in purchasing patterns reflects a number of factors, not least the extent of trunk self-supply and the relative lengths of the trunk circuits purchased by the Disputing CPs.

Figure 4.1: Comparison of the relative spending patterns of the Altnets⁵⁵

[X]

- 4.51 The variation in service consumption patterns is also demonstrated by the significant differences between operators in the results of BT's own circuit analysis.⁵⁶ As BT's charges are not bespoke for individual customers (i.e. CPs) or geographically de-

⁵¹ See paragraph 1.3 of the BT Response.

⁵² BT Response, page 3.

⁵³ BT Response, paragraph 5.a.i.

⁵⁴ See paragraph 7.386 of the 2008 BCMR Consultation:
http://www.ofcom.org.uk/consult/condocs/bcmr/bcmr_pt3.pdf

⁵⁵ Data for COLT has not been included as comparable information was not requested from BT.

⁵⁶ See Section D of the BT Response.

averaged, the variations in BT's analysis between CPs reflect different consumption patterns and relative prices of the different PPC services.

- 4.52 A similar point was made by the Disputing CPs in their Response to the Draft Determinations:

"The BT Submission [the Original Response] and the Keyworth Report make a disingenuous claim that, since trunk cannot be bought separately from terminating segments (i.e. in the absence of an actual charge for trunk), PPC charges should only be assessed in aggregate. It may be true that trunk and terminating segments are invariably bought in combination. However, alternative carriers buy 'bundles' of terminating and trunk segments in varying proportions.

Consequently, if BT sets prices that cross-subsidise between terminating and trunk segments (which is effectively what aggregation would allow), operators buying a relatively high proportion of trunk would be worse off compared to those operators requiring less trunk."⁵⁷

- 4.53 We therefore do not accept that it is only the price of the bundle of trunk and terminating segments that matters in this case. The prices for the independent services that form the bundle are also relevant economic signals that should be considered separately. Both from a commercial and regulatory perspective, the individual services within the trunk and two terminating segment markets are distinct and were treated as such in BT's own regulatory accounts for the purposes of the cost orientation obligation.

iv) Regulatory certainty

- 4.54 As set out above, the evidence is that, like Ofcom, the Parties all appear to have understood that the SMP obligations relate to individual services. This is reflected, for example, in the wording of the cost orientation obligation, the context in which Ofcom imposed that obligation in the 2004 LLMR, BT's regulatory accounts, and the Disputing CPs' Response. BT seems to have understood it that way as well, at least for the purpose of reporting in its regulatory accounts. It would therefore introduce regulatory uncertainty (through regulatory inconsistency) if Ofcom was to deviate from this interpretation.
- 4.55 In the following paragraphs we consider BT's arguments relating to different aspects of regulatory certainty: (a) the definitions of trunk and terminating segments; (b) consistency with previous regulatory decisions in 2004 and 2005; and (c) the disputes framed by the Disputing CPs.

(a) The definitions of trunk and terminating segments are clear

- 4.56 We disagree with BT's view that the definition of trunk and terminating segments and the allocation of costs between these services is sufficiently unclear that we cannot look at PPC services separately but must instead look at them on an aggregated basis.

⁵⁷ See paragraphs 4.29 and 4.30 of the Disputing CPs' Response.

- 4.57 The distinction between trunk and terminating segments is not a purely regulatory construct, as is suggested by the Keyworth Paper.⁵⁸ The trunk market was defined on the basis of standard approaches to market definition, as explained in detail in the 2004 LLMR Statement and the 2008 BCMR Statement. The trunk market is not limited to products offered over BT's network but also includes trunk services provided by other CPs. The trunk market exists independently of any regulation.
- 4.58 The precise dividing line between BT's trunk and terminating services is not an arbitrary regulatory decision. It reflects the constraints of BT's network architecture and the nature of the different services requested by BT's customers (some of which purchase trunk and some of which do not, or may buy terminating and trunk segments in different proportions).
- 4.59 The fact that Ofcom has redefined the boundaries of trunk in the 2008 BCMR Statement does not mean that terminating segments and trunk do not have clear definitions. The definitions are set out explicitly following each market review. The services were clearly defined in the 2004 LLMR Statement for the period of the Disputes and are clearly defined going forward in the 2008 BCMR Statement. For the period that the 2004 market review findings were in force, BT was bound by the definitions set out in the 2004 LLMR Statement as this formed the basis of the regulation for that period. Any alterations represent Ofcom's response to issues raised by stakeholders in the light of market developments and only apply going forward from 8 December 2008.
- 4.60 The Keyworth Paper argued that the arbitrariness in the definition of trunk and terminating segments can further be seen in the pricing structure for PPCs. The Keyworth Paper refers to the fact that Ofcom has used an algorithm to calculate trunk and terminating segment charges and that this algorithm is based on the notional routing of a PPC, rather than its actual routing.
- 4.61 As the Keyworth Paper acknowledged, this algorithm is used to avoid BT's actual routing of the PPC impacting on the price charged to a customer. It also encourages BT to route PPCs in the most efficient manner possible. The fact that it might not reflect the actual routing of the PPC does not create any ambiguity as to the definition of trunk and how trunk costs and charges should be calculated.
- 4.62 We also do not consider that the issues raised by BT about the alleged lack of clarity and precision as to the distinction between trunk and terminating segment costs are relevant to our consideration of the appropriate level of service aggregation.
- 4.63 In particular, we do not consider that BT's reference to paragraph 7.378 of the 2008 BCMR Consultation supports its argument. In paragraph 7.378 we discussed the quality of the data that underpinned our analysis, given that it appeared counter-intuitive for trunk returns to be higher than returns on terminating segments because of the assessment of competition in the 2004 LLMR Statement. We considered whether the recorded cost data in relation to trunk returns was sufficiently robust, but concluded that there was no suggestion that BT's trunk costs had been understated. Instead, it appeared to us that the high returns resulted from a lack of competitive pressure on BT:

⁵⁸ Tim Keyworth was commissioned by BT to produce a paper on the *Economic issues related to the assessment of BT's PPC cost orientation obligations* ("the Keyworth Paper"). The Keyworth Paper, which considers the appropriate level of aggregation for the purposes of the Disputes and the assessment of cost orientation, was submitted by BT on 14 October 2008 as part of its Response to the Altnet Disputes.

“We are however not aware of any reason to believe BT’s costs to be understated here. It appears that BT has been able to sustain such high levels of profitability because trunk services, unlike most origination services, have not been subject to a price control. Since the 2003/04 Review was carried out, it appears that competitive forces in the trunk market have not constrained BT’s pricing.”⁵⁹

- 4.64 Similarly, BT’s reference to paragraphs 2.189 and 2.190 of the 2004 LLMR Statement does not support its argument. The discussion in paragraphs 2.189 and 2.190 of the 2004 LLMR Statement relates to Ofcom’s attempts to identify the proportion of the total cost of providing an end to end leased line that is accounted for by trunk segments (i.e. how much of the cost of a typical leased line was accounted for by trunk), rather than how costs should be allocated between trunk and terminating segments (i.e. what the correct apportionment of costs between the two services was). Although Ofcom did not have full visibility of BT’s cost allocation methodologies, this was not a specific problem that rendered the data unreliable.

(b) Consistency with previous approaches to trunk and terminating segments

- 4.65 BT argued in its Response that it would be inconsistent for Ofcom to consider trunk charges in isolation from those for terminating segments when Ofcom has been “*complicit*” in the existing charging structure for PPC services. Specifically, BT claimed that Ofcom’s decision not to allow BT to rebalance the charges for trunk and terminating segments at the time of the 2004 LLCC Statement has meant that BT has had to set trunk charges at the current levels to ensure that it recovers its costs of providing PPCs.

“Ofcom’s proposal that charges above (adjusted) DSACs are not cost oriented is totally inconsistent with its historic approach to PPC trunk charges. In setting the 2004 terminating charge control, Ofcom – supported by, among others, C&W and Thus – rejected BT’s proposal that charges between trunk and terminating services should be rebalanced. The effect of this was to suppress artificially the price cap on terminating services. This was only justifiable on the basis that Ofcom accepted the principle that trunk and terminating costs were to be looked at together and there was to be no artificial focus on trunk costs alone.”⁶⁰

- 4.66 As a consequence of the decision to reject the rebalancing, and its implications for the PPC charging structure, BT argued that it is appropriate to consider trunk and terminating segments in aggregate, as this was the basis for setting the charging structure.
- 4.67 We reject BT’s claim. BT’s arguments are based on: (1) a misunderstanding or mischaracterisation of the decisions made by Ofcom in 2004; and (2) an incorrect assumption that there is a causal link between trunk and terminating prices. We explain these points in the following paragraphs.

(1) Ofcom’s decision to reject BT’s “rebalancing” of charges

⁵⁹ See paragraph 7.378 of the 2008 BCMR Consultation at: http://www.ofcom.org.uk/consult/condocs/bcmr/bcmr_pt3.pdf.

⁶⁰ BT Response, page 3.

- 4.68 Oftel first set the level of charges for PPC terminating segments in the 2002 PPC Phase 2 Direction. In setting these charges, Oftel carried out a significant amount of work with BT to establish the costs of terminating segments. Oftel did not set charges for trunk services, meaning that BT was free to set trunk charges as it saw fit so long as it complied with its legal and regulatory obligations (which included a requirement in BT's operating Licence to set cost orientated charges).
- 4.69 As part of our work in developing the charge control in 2004, Ofcom provided BT with an opportunity to submit proposals as to the appropriate level for terminating segment starting charges. Trunk charges were not included in the charge control that Ofcom proposed or implemented.
- 4.70 BT's pricing proposals involved a significant degree of 'rebalancing' of charges both within and across the terminating segment control baskets, but also between terminating and trunk charges. Specifically, they involved a voluntary reduction in the level of trunk service charges (which had not previously been regulated and were outside the scope of the charge control proposed and implemented in 2004). This was at the expense of a significant overall increase in the price capped terminating segment charges (Ofcom estimated this increase to be around 30%⁶¹, but with some very significant increases in individual charges). BT argued that, over the control period, the combination of charge changes would benefit its customers (e.g. the Disputing CPs).
- 4.71 In support of its claims that terminating segment charges needed to rise, BT produced a bottom-up cost model designed to derive cost-based prices for all terminating segment charges. This model was different from that used for the 2002 PPC Phase 2 Direction. It used a range of inputs, but principally accounting information and a number of other assumptions required to present cost and revenue in comparable unit formats, or to provide greater disaggregation (e.g. for the various equipment and maintenance options).
- 4.72 Ofcom undertook a detailed review of BT's model, corresponding and discussing with BT for over a year on the proposals. As a result of this review, we identified "*a number of specific concerns regarding the robustness of the data and the methodology employed*".⁶² This led us to conclude that BT had provided insufficient evidence to justify the price increases that BT was seeking. As a consequence, Ofcom concluded that it was appropriate to use the charges that Oftel had set in the 2002 PPC Phase 2 Direction as the starting charges for the charge control on terminating segments.
- 4.73 In rejecting BT's proposals for terminating segment charges, we did not comment on trunk charges as these were outside of the scope of the charge control. We certainly did not conclude that trunk charges should not be reduced. Given the expectation that competition would develop in the trunk market (which was a significant factor in the decision not to charge control the services), the high levels of profitability of trunk services and the information noted in the 2004 LLMR Statement suggesting that trunk segments were priced significantly above cost⁶³, the expectation was that the high trunk charges would fall over the charge control period, regardless of what happened in the terminating segment markets.

⁶¹ See paragraph C.10 of 2004 LLCC Statement.

⁶² See paragraph C.12 of Annex C of the 2004 LLCC Statement:
http://www.ofcom.org.uk/consult/condocs/ppc_charge_control/statement/ppc_stmnt.pdf.

⁶³ For example, see paragraphs 3.88, B.99, B.108-B.112 and B.141 of the 2004 LLMR Statement.

(2) There is no causal relationship between trunk and terminating segment charges

- 4.74 Throughout its Response, BT sought to rely on a causal link between the (high) charges for 2Mbit/s trunk and the capped charges for terminating segments. For example, in paragraph 29 of its Response, BT argued:

“If BT had thought in 2004 (or indeed at any later point) that Ofcom might retrospectively seek to isolate costs on trunk and decide that the price of certain trunk elements were too high in relation to costs, then BT could and would have argued that the cost orientation obligation in respect of the terminating services conflicted with the price cap previously imposed on the terminating services. Without a holistic consideration of trunk and terminating costs together, terminating charges were necessarily not cost orientated, certainly if the logic that Ofcom now applies is correct (i.e. that costs for any service must fall below DSAC but above DLRIC). Had this been clear in 2004 or any time thereafter, it is inevitable that the price cap imposed on the terminating segments would have had to be reviewed.”

- 4.75 As we have explained above, terminating segment charges were set in 2004 entirely separately from trunk charges on the basis of the best cost and volume forecasts on terminating segments available to Ofcom at the time. The terminating segment charges were therefore not predicated in any way on any assumptions about the prices or profitability of trunk services.⁶⁴ In any case, BT could not reasonably have expected to be able to maintain trunk charges above DSAC for the duration of the terminating segment charge control, which seems to be the implication of its statement. We explained in 2004 that there was an expectation that trunk charges would fall (see **paragraph 4.73** above). The terminating segment charge control was consulted on, implemented and not challenged in the knowledge of this.
- 4.76 Notwithstanding the fact that we reject the existence of any causal link between trunk and terminating charges, our view is that there certainly is no link between trunk charges which are unreasonably high and the level of terminating segment charges. Cost orientation applies to each individual charge. If trunk charges were not cost orientated, this should not have resulted from decisions made in relation to the pricing of terminating segments.
- 4.77 As the Disputing CPs noted in their Response:

⁶⁴ BT suggested in its Response that it was necessary for trunk charges to be high in order to offset the overly tight charge cap on terminating services. Even if this was an appropriate approach to adopt, which we do not accept, then it appears from the information available contemporaneously to BT over the period of the Disputes (i.e. the financial data published by BT in its regulatory financial statements over the period) that the trunk charges were significantly higher than would have been required simply for BT to earn its cost of capital across all three of the PPC markets (i.e. low bandwidth terminating, high bandwidth terminating and trunk). When the three PPC markets as published in the regulatory accounts (i.e. excluding the Ofcom adjustments, any service removal and the BT revenue restatement) are aggregated, in all years except 2004/05 BT earned a rate of return in excess of its cost of capital. Therefore, notwithstanding the other arguments that we make elsewhere in this document, according to BT's contemporaneous evidence, the level of 2Mbit/s trunk charges did not need to be as high as they were in order to recover the PPC costs. See **Table A12.5** in **Annex 12** below.

“BT’s price control obligations co-exist with, and are independent of, its cost orientation obligations, and BT is required to comply with them separately.”⁶⁵

- 4.78 BT also referred to some of the statements made by Ofcom in the 2005 Investigation (details of which are discussed below) in support of its position.⁶⁶ In particular, BT placed emphasis on comments made by Ofcom in its closing statement on the own-initiative investigation that:

“Ofcom has decided to close this own initiative investigation into BT’s prices for its wholesale trunk segments because the concerns raised in the investigation transcend two markets and would be better dealt with on a forward looking basis within the next Leased Lines Market Review (LLMR) which encompasses both markets.

...

Any adjustment to PPC wholesale segments costs could lead to an adjustment of costs reported in the low and high bandwidth TISBO markets and may therefore have an impact on the assumptions used in determining the PPC terminating segments charge control.”⁶⁷

- 4.79 BT sought to interpret this statement as Ofcom concluding that concerns in relation to trunk charges require the assessment of both trunk and terminating segment charges. We do not accept this interpretation. The ‘concerns’ referred to in the case closure statement were not whether or not BT’s charges for trunk services were cost orientated but instead related to the accounting treatment of certain costs. Ofcom stated in the case closure statement that:

“During the course of the investigation Ofcom identified a number of concerns relating to the accounting treatment of PPC trunk segments. These concerns primarily relate to the way that core transmission costs are split between PPC wholesale trunk segments (which fall into the Wholesale Trunk Segments Market and are regulated through basis of charges Condition H3), and PPC terminating segments (which fall into the Traditional Interface Symmetric Broadband Origination (TISBO) Markets, and are regulated through the PPC terminating segments charge control for low and high bandwidths). Additionally the derivation of reported revenues for PPC wholesale trunk segments may not be consistent with the methodology used by BT for third party billing.”

- 4.80 In the 2005 Investigation, we had sought to carry out an analysis of BT’s trunk costs. This involved examining the costs that BT was seeking to recover through trunk charges and assessing whether it was appropriate for BT to include those costs (and the level of those costs) in the PPC trunk cost stack. We have carried out a similar exercise in resolving these Disputes, which is described in more detail in **Section 6**.
- 4.81 During the investigation, issues were raised as to the extent to which certain core transmission costs should be allocated between PPC trunk and PPC terminating

⁶⁵ See paragraph 3.61 of the Disputing CPs’ Response.

⁶⁶ Details of the own-initiative investigation, which was opened as a result of concerns raised by CPs, can be found on Ofcom’s Competition Bulletin at:

http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_841/.

⁶⁷ See http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_841/

segments. We had concerns that these core transmission costs were disproportionately allocated to terminating segments and that more costs should be allocated to trunk. The impact of this would have been to reduce the profitability of trunk. We were unable to identify whether the allocation of core transmission costs was appropriate and if not what the appropriate allocation should have been, due to BT's inability to provide us with the necessary data at that time.

- 4.82 Given the potential for changes and the fact that the existing financial reporting data was insufficient to enable us to reach conclusions on this matter, we chose not to continue with the 2005 Investigation. Instead, we required BT to prepare the data needed to quantify and correct the accounting problems identified (which BT has subsequently done). We reached no conclusion as to whether BT was complying with its cost orientation obligation or not.
- 4.83 On the face of it, the data published in BT's 2004/05 regulatory financial statements suggested that BT's charges were above the cost ceiling in relation to trunk services as the average charge was above the published DSAC (see the comparison of Total Trunk revenue and DSAC in **Table A12.1** in **Annex 12**). However, it would have been incorrect to reach a conclusion of overcharging on the basis of that financial information. After BT's restatement and our adjustments are made to the financial data (including the adjustment identified by Ofcom in the 2005 Investigation), we have concluded that BT's charges for trunk services were not above DSAC in 2004/5 (see **Table A12.3** in **Annex 12**) and that it did not overcharge in that year.
- 4.84 We additionally note that the decision to close the investigation in 2005 is consistent with our view that PPC charges should be looked at on a disaggregated basis. In 2005, we were unable to identify how certain costs should be apportioned between trunk and terminating segment services. Had we been of the view that aggregation was the appropriate approach to adopt, it would not have mattered that we could not identify the appropriate apportionment as we would have looked at the cost as a whole.

(c) Disputes framed by the Disputing CPs

- 4.85 BT claimed in its response that Ofcom's approach to considering trunk and terminating segment charges on a disaggregated basis is inconsistent with the Disputes, as framed by the Disputing CPs. BT noted that the Altnet Submission analysed PPC services in aggregate and sought compensation "*in the aggregate*". BT argued that Ofcom appears to have recognised this in the Draft Determinations, where we stated "*In resolving the Disputes i.e. whether BT has been overcharging the Disputing CPs for PPCs we propose to assess whether BT's charges for PPCs were fair and reasonable*" (emphasis added by BT).
- 4.86 In their Response the Disputing CPs sought to refute BT's claims:

"BT suggests that it is common ground that PPC charges should be considered on an aggregate basis. That suggestion is simply not factually correct.

The Altnets' Disputes submission, based on BT's limited (and, as it later turned out, erroneous) regulatory accounting information, put forward a primary case based on an assumption that BT had overcharged for both trunk and terminating PPC segments together. However, it set out the alternative case if Ofcom were to find (as they are proposing in the Draft Determinations) that BT had over-

recovered on trunk alone, acknowledging the potential different approaches open to the regulator. BT is wrong to suggest that it is not in dispute with the Altnets on the point.

Further, the TRD Judgment specifically sets out that Ofcom are not bound to resolve any dispute strictly within the parameters set out by the parties. The BT Submission concedes as much when it acknowledges that "the CAT, in the TRD Judgment ... considered that Ofcom was not necessarily confined to considering the results sought by the parties and could impose a solution different from the ones contended by them."

It is wrong for BT to characterise Ofcom's approach to disaggregation in the Disputes as "an enquiry quite different to the actual dispute that exists between, and as framed by, the parties". This is not a case of Ofcom considering afresh the totality of a dispute. As above, it was made entirely clear in the Altnets' original dispute reference that alternative approaches exist concerning the inter-relationship between trunk and terminating segments, and that Ofcom would need to form a view on those matters."⁶⁸

- 4.87 The Altnet Dispute Submission was framed sufficiently widely as to cover a consideration of BT's PPC charges on a disaggregated basis. The Altnets explained that "*BT should not be allowed to offset losses on terminating segments against over-recovery on trunk*".⁶⁹ Basing a cost assessment on trunk and terminating segments combined could lead to this occurring. COLT additionally noted that, although its submission was based on an aggregated assessment of PPC charges, it would expect Ofcom "*to be able to obtain a clearer overview of the detailed and disaggregated costs for PPC's*" [emphasis added].⁷⁰
- 4.88 Whether or not the Altnet Dispute Submission did raise concerns about the charges for individual PPC services is, however, irrelevant as to the question of whether it is appropriate for us to consider BT's charges in this manner. As the CAT made clear in the TRD Decision, Ofcom is not confined by the arguments of the Parties when resolving a dispute, but is rather required to resolve disputes in a manner that most appropriately fits with its statutory duties and Community obligations.⁷¹ In this case, we are resolving the Disputes by measuring compliance with BT's cost orientation obligation which was in itself set in accordance with our duties and Community obligations.
- 4.89 For the reasons set out above and below, we believe that it is most appropriate for us to resolve the Disputes by looking at BT's PPC charges on a disaggregated basis.

v) Charge control incentives

- 4.90 As we explained in **Section 3**, the 2004 LLMR Statement imposed a different regulatory regime on BT's terminating segment services as compared to the trunk services. Specifically, two terminating segment markets (i.e. low bandwidth and high bandwidth TISBO) were subject to separate RPI-X charge caps. On the other hand, the market for trunk segments was not subject to a charge control.

⁶⁸ Altnets' Response, page 13.

⁶⁹ Paragraph 2.82.2 of the Altnet Dispute Submission.

⁷⁰ See COLT's Dispute Submission of 20 October 2008.

⁷¹ See paragraphs 178 to 180 of the TRD Decision.

- 4.91 The principal objective of imposing RPI-X price caps is to protect customers from prices that are too high, in the absence of a competitive constraint. However, the benefit of using RPI-X as opposed to other forms of charge controls is that it encourages the regulated firm to pursue efficiency gains. The maximum charges that the firm is allowed to charge under such regimes are determined by the level of the cap which reflects the regulator's view of the efficient level of costs by the end of the control period on a forecast basis. If the firm is able to outperform the assumed level of efficiency or volume forecasts, it benefits through higher profits over the remaining period of the control.
- 4.92 The treatment of unexpected changes in efficiency/volumes is, however, symmetric. If the regulated firm under-performs against the forecasts embodied in the charge control it will earn lower profits than assumed in the charge control.
- 4.93 The direct and explicit link between the firm's performance and its profitability provides the efficiency incentives that are central to the RPI-X regime.
- 4.94 Allowing BT to aggregate across the three PPC markets (i.e. trunk, low bandwidth TISBO and high bandwidth TISBO) for the purposes of assessing overcharging would have significant implications for BT's incentives in the two terminating segment markets in which there are price cap controls.
- 4.95 Adopting BT's proposed aggregated approach would effectively allow it to compensate for a lack of profitability in the charge controlled terminating market(s) by exploiting its SMP position in the provision of non-charge controlled trunk services. This would act to reduce BT's incentives to improve efficiency and grow volumes, and therefore undermine the rationale for implementing RPI-X charge controls. When we set our charge controls, we took into account these incentives, in light of our duties and Community obligations.
- 4.96 It is also instructive to consider the alternative situation, i.e. if BT were substantially outperforming the RPI-X control in the charge controlled terminating segment market(s) by achieving larger cost savings than anticipated. In such circumstances, aggregating the assessment across both terminating segments and trunk would increase the chances of finding overcharging. This would be so, even if trunk charges were not too high relative to trunk costs and BT was complying with the charge caps on terminating segments. In our view a finding of overcharging on such a basis would not be fair or reasonable, but could arise if BT's proposed aggregated approach was adopted.

vi) Economic harm

- 4.97 In its submission of 14 October 2008, BT argued that, if economic harm was to arise from any overcharging, it would relate to the total level of charges for all PPC products and not the mix of individual service charges.
- 4.98 We disagree with BT on this point. In our view economic harm may arise from overcharging not only as a consequence of any elevation in the total level of charges, but also as a consequence of any distortions that may occur in the relative prices of the individual services. It is our view that the prices of the underlying services are important in giving rise to the potential for distortions in both consumption and investment decisions.
- 4.99 BT emphasised that trunk is not (currently) purchased separately, but is always purchased in conjunction with terminating segments. However, as discussed at

paragraphs 4.41 to 4.53 above, CPs do have choices in their purchasing decisions, which we expect to be affected by the relative prices for trunk and terminating segments.

- 4.100 If BT is undercharging for some services but overcharging for others such that the overall effect on the level of charges is neutral, BT's argument is that there would be no resulting economic harm. However, such pricing behaviour could distort decisions by rivals competing downstream which purchase trunk and terminating segments from BT in different proportions. If applied generally it could, for example, allow anti-competitively low prices to be offset by excessive prices elsewhere, a practice sometimes referred to as "unfair cross-subsidy" and a form of exclusionary behaviour.⁷² This would reduce overall economic welfare. In addition, if by overcharging for a service BT inefficiently distorts the incentives for firms to enter the market, the pricing behaviour may lead to inefficient investment (entry by firms with inefficiently high costs) which would reduce economic welfare further.
- 4.101 Furthermore, these distortions at the wholesale level could also give rise to distortions at the retail level. Not only would harm to consumers arise from any reduction in retail competition caused by anti-competitive behaviour, but the distorted wholesale charges are likely to feed through into distorted retail prices and therefore economic harm.
- 4.102 To illustrate this point, consider two retail customers who wish to connect their offices. For one customer the offices are located in London and Edinburgh, for the other customer they are based in Edinburgh and Glasgow. If the wholesale price of terminating segments is low (relative to terminating segment costs) and the price of trunk services high (relative to trunk costs), i.e. the balance of charges is skewed between the services, then the cost of the London to Edinburgh retail service is higher than it would otherwise be for the retail provider. Given that the wholesale costs represent a marginal cost for the retail provider, we would normally expect the prices at the retail level to reflect the wholesale charges. As a consequence, we would expect the wholesale distortions to feed through to the retail prices. We would therefore expect the retail price of the London to Edinburgh services to be higher than it would otherwise be and, therefore, retail demand to be inefficiently suppressed. However, similarly the Edinburgh to Glasgow services for the other customer will be cheaper than it otherwise would be, and therefore retail demand will be inefficiently increased.
- 4.103 While overall revenues at the wholesale and retail level may reflect the overall costs of providing the services, the distorted relative pricing of the individual services would lead to inefficient retail consumption decisions, and therefore reduced economic welfare. We consider economic harm in greater detail in **paragraphs 7.32 to 7.72**.

⁷² In paragraph A3.14 of its Response, BT asserted that in the Draft Determinations (paragraph 3.109): *"Ofcom appears to suggest that the pricing of trunk as against terminating allows BT to price terminating low (at or around LRIC). It also suggests this could amount to "cross subsidising" leading to exclusionary effects. This point can be dealt with briefly because it is so manifestly misconceived"*. BT then argued that the price of trunk services could not have led to any exclusionary effect (or if there have been any such effects, they would have been derived entirely from the price cap imposed by Ofcom). We consider that BT is misrepresenting our argument, which related to the logical implication of the aggregated approach (e.g. see the phrase "if applied generally" at the beginning of the relevant sentence). Specifically, BT is seeking to argue that our observation regarding the general risks of the principle of aggregation was a specific allegation in relation to this particular situation of trunk and terminating segments. This is not the case. But our general point about the logic of the aggregated approach still stands.

- 4.104 Therefore, our view is that economic welfare could be reduced by only considering the total level of charges and not the mix of individual service charges between truck and terminating segments. BT's SMP obligations were set on this basis in accordance with our duties and Community obligations and using this interpretation for resolving the Disputes will ensure that the promotion of competition in the interests of consumers is safeguarded.

Conclusions on the aggregation of services

- 4.105 For the reasons set out above and summarised in **paragraph 4.19**, we have rejected BT's arguments as regards aggregation and consider that we should consider the extent to which BT may have overcharged the Disputing CPs on the disaggregated basis of an assessment of the charges levied for the individual services within the three markets defined in the 2004 LLMR Statement.
- 4.106 Although of particular importance in terms of our cost ceiling assessment, the question of whether to use aggregated or disaggregated services is also important to the rate of return, circuit and benchmarking assessments as it determines what comparisons should be made.
- 4.107 We believe that not only is such an approach consistent with the regulations (and their economic underpinning) that applied to BT during the period of the Disputes, but it is also consistent with our duties and Community obligations, which are the same as the duties which underpin the regulations..

Section 5

Ofcom's approach to assessing overcharging

Assessing overcharging

- 5.1 We discuss in this **Section** how overcharging should be assessed in terms of the relevant cost base and the other factors that might also be relevant to our assessment.

Proposals from the Draft Determinations

- 5.2 In the Draft Determinations we identified three factors that we considered to be relevant in resolving the Disputes; (i) cost orientation, (ii) accounting rates of return and (iii) international benchmarking. Of these, we proposed that primary weight be given to cost orientation with the other two factors being used to check the sense of the results of the cost orientation assessment. We specifically identified in paragraph 3.20 of the Draft Determinations that:

“It is our view that the use of cost ceilings (and the DSACs that underlie them) as a benchmark for overcharging is both compatible with our duties and Community obligations, and conceptually straightforward to implement. It is therefore our proposed mechanism for assessing whether overcharging has taken place when resolving the disputes.”

Cost orientation

- 5.3 The basis of charges (cost orientation) obligations imposed on BT in each of the three regulated PPC markets require BT to ensure that each and every charge offered for a PPC service is reasonably derived from the costs of providing that service, based on a forward looking LRIC approach that allows for an appropriate mark-up for the recovery of common costs including an appropriate return on capital employed.
- 5.4 We explained that the Guidelines⁷³ (which remain in operation) had made clear that Oftel (and subsequently Ofcom) would assess whether charges were “*unreasonable or otherwise anti-competitive*”, which includes whether they are cost orientated, on the basis of whether they were set between the DLRIC floor and the DSAC ceiling as a first order test.⁷⁴ We further explained that the Guidelines make it clear that this first order test should not be applied mechanistically and that other factors should also be taken into consideration.
- 5.5 BT had recognised in its own Primary Accounting Documents throughout the period of the Disputes that Ofcom would adopt this approach “*in order to avoid complex combinatorial tests*” and therefore the DSAC represents the “*maximum price that can*

⁷⁴ See Annex B of the 2001 Guidelines.

be charged'.⁷⁵ We further noted that BT uses the DLRIC and DSAC floors and ceilings in its Regulatory Financial Statements, under the heading of "Cost orientation".⁷⁶

Accounting rates of return

- 5.6 Consideration of accounting rates of return (based on FAC) was recognised by both BT and the Disputing CPs as one indicator of whether overcharging was taking place. The initial submission of the Disputing CPs was in fact based on the use of rates of return to show that BT had overcharged for PPC services.
- 5.7 In the Draft Determinations, we agreed with the Parties that rate of return assessments are one indicator of whether overcharging has potentially taken, and/or is taking, place. However, we expressed concerns about placing too much emphasis on this factor for assessing overcharging as it would effectively mean the imposition of rate of return regulation. We explained that such a regulatory regime does not create the right incentives for BT to reduce its costs and increase efficiency, and thereby achieve the best outcome for consumers. For this reason, rate of return regulation has not been applied when regulating telecommunications services in the UK.
- 5.8 We therefore proposed not to rely on an assessment based solely on BT's rates of return, but agreed with the Parties that it could provide some useful additional insight when used in combination with other approaches.

International benchmarking

- 5.9 As part of its submission of 14 October 2008 in relation to the issues raised by the Disputing CPs, BT included a report that it had commissioned from Deloitte ("the Deloitte Report"). The Deloitte Report provided details of benchmarking work that Deloitte had carried out on the level of PPC charges in other EU Member States.
- 5.10 BT argued that a comparison of its PPC charges with those set by incumbent operators in other EU Member States, which face similar regulation to that imposed on BT in the UK, should help inform our thinking as to whether BT has overcharged for PPCs. BT noted that the Deloitte Report suggests that BT's PPC charges are in line with or lower than those of other EU incumbent operators and that this suggested that BT was not overcharging for PPC services.
- 5.11 We noted that in order for benchmarking data to be meaningful, it is important to ensure that, as far as possible, the circumstances being compared are as similarly defined as possible. We identified a number of problems with the benchmarking data provided by BT, including that the services being compared were differently defined and faced different levels of regulation. We therefore proposed to conclude that whilst the international benchmarking data may provide some assistance in assessing whether BT has overcharged for PPC terminating segments, that the scope and underlying data difficulties meant that it was not possible to draw any reliable inferences from it in relation to BT's trunk charges.

⁷⁵ See section 5.3.3 of the 2008 Primary Accounting Documents, available from BT's website at: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/PrimaryAccountingDocuments2008.pdf>.

⁷⁶ See, for example, page 30 of BT's regulatory financial statements for 2008, which relates to services in the low bandwidth TISBO markets. The DSAC ceiling is referred to as the 'LRIC Ceiling':

Responses from the Parties

The Disputing CPs

- 5.12 In their response to the Draft Determinations of 2 June 2009, the Disputing CPs supported Ofcom's general approach to resolving the Disputes and the use of cost orientation as the primary test to establish whether overcharging has taken place.
- 5.13 Although suggesting that it is a conservative approach, the Disputing CPs recognised that DSAC is "*appealing as a benchmark for excessive pricing*" and is appropriate as an initial screening test to detect overcharging. They noted, however, that a charge between DSAC and DLRIC may still be excessive as there is still scope for over-recovery of common costs.⁷⁷ As a consequence, the Disputing CPs suggested that a second stage should be added to the assessment whereby, for all charges below DSAC, the magnitude of the price in excess of DLRIC is assessed collectively to determine if there is sufficient evidence to suggest that some or all of those charges have been excessive.⁷⁸
- 5.14 The Disputing CPs agreed with Ofcom's preliminary conclusions that the rate of return assessment supports our view that BT has overcharged for 2Mbit/s PPC trunk services. In particular, the Disputing CPs noted that the scale and persistence of BT's returns above WACC suggested that overcharging has occurred.
- 5.15 The Disputing CPs noted that, in general, benchmarking across firms is used when other, more reliable, data sources, most notably cost and revenue data for the firm in question, are not available. The cost and rate of return data available in the Disputes is far more relevant than benchmarking data. The Disputing CPs further identified that the benchmarks relate to prices, rather than costs, meaning that the study is not informative as prices may not be competitive or regulated appropriately. They further identified that costs may vary across individual countries due to differences in cost allocation methodologies, input costs and network build.

BT

- 5.16 In its response to the Draft Determinations, BT argued that it is "*fundamentally incorrect*" for Ofcom to focus on a comparison of revenues with DSACs when assessing whether overcharging has taken place.⁷⁹ BT argued that such an approach is inconsistent with established economic theory, which sets out that the floors and ceilings approach to charges should be based on LRIC and SAC, rather than DLRIC and DSAC. BT claimed that Ofcom recognised in the Draft Determinations that the standard test for cost orientation is whether charges are between LRIC and SAC.
- 5.17 BT recognised that DSAC provides an *indicator* of whether overcharging is taking place but argued that it can only be an indicator and that further SAC and combinatorial analysis is required to confirm the existence of overcharging if the charge for a service is above DSAC. Without looking at combinations of services, the under-recovery of common costs from services priced below DSAC would be ignored.

⁷⁷ Paragraphs 6.8 and 6.9 of the Disputing CPs' Response.

⁷⁸ Paragraph 38 of the report from RBB Economics, which formed Annex 1 of the Disputing CPs' Response.

⁷⁹ Paragraph 34 of the BT Response.

- 5.18 BT further argued that DSAC is only one method of allocating common costs between services. By using DSAC as the test for overcharging, Ofcom is effectively saying that it is the only appropriate mark up of common costs. BT suggested that this is inconsistent with the language of the cost orientation obligations that Ofcom imposed, which entitle BT to make an “*appropriate mark up for the recovery of common costs*”. BT argued that if it was Ofcom’s intention that DSAC be the only appropriate mark-up of common costs then this should have been made clear when setting the cost orientation obligation.
- 5.19 BT suggested that the appropriate test for Ofcom to use to calculate whether overcharging was taking place is to assess whether the SAC of relevant combinations of services that share common costs is exceeded by the revenue from those services.
- 5.20 BT noted Ofcom’s suggestion in the Draft Determinations that there was insufficient time to carry out combinatorial tests, but rejected this as a reason for using DSAC. BT argued that the absence of time to carry out the correct test does not justify Ofcom using an alternative test as a proxy unless it is a reasonably reliable proxy. BT disputed that DSAC is either a reasonable or reliable proxy for combinatorial tests. BT further claimed that in the period available for responding to the Draft Determinations it had been able to carry out the combinatorial tests relevant for assessing whether it has overcharged for PPC services.
- 5.21 BT suggested that even were DSAC the appropriate cost ceiling, this is a rule that Ofcom has only made clear in the Draft Determinations and that, as such, it would be wrong to retrospectively implement this as the test for cost orientation. BT claimed that Ofcom has previously encouraged BT to assume that importance should not be attached to DSAC ceilings but suggested no evidence to support this assertion.⁸⁰

Further comments

Comments from the Disputing CPs on the BT Response

- 5.22 In their comments on the BT Response, the Disputing CPs’ argued that BT’s combinatorial tests are flawed, inappropriate, insufficient and invalid. In particular, they suggested that products from separate markets and with different regulation should not be combined, as it could lead to losses in one market being offset against excess profits in another. They further noted that if services are combined, then the combinatorial test fails to identify overcharging on a single service.
- 5.23 The Disputing CPs additionally suggested that it is inappropriate to burden a few services with considerable common costs as in a competitive market the service provider could not hope to recover the costs as a rival would undercut charges.

Comments from BT on the Disputing CPs’ Response

- 5.24 In its comments on the Disputing CPs’ Response, BT sought to emphasise the inconsistencies between the approach originally proposed by the Disputing CPs in their Submission and their comments in their response to the Draft Determinations. BT suggested that the Disputing CPs’ Response should be viewed as “an opportunistic attempt” to obtain increased levels of repayments.

⁸⁰ See footnote 34 of the BT Response.

- 5.25 BT noted that the Disputing CPs appeared to recognise that charges below DSAC can be non-compliant with a cost orientation obligation, just as charges above DSAC can be compliant. On this basis, BT argued that rigid reliance cannot be placed on DSAC, meaning that combinatorial tests need to be carried out.
- 5.26 BT additionally made further comments to us in a letter dated 7 August 2009. BT's letter responded to a letter that we had sent to BT on 15 July 2009 regarding our concerns about the SAC and combinatorial tests proposed by BT. In addition to commenting on our concerns about the SAC tests (which are discussed below), BT also made the following points:
- The 2001 Guidelines do not establish DSAC as the upper limit for services as references are to SAC. Furthermore, the specific issues raised in the Disputes cannot have been in Ofcom's mind when it wrote the Guidelines.
 - Ofcom's analysis only indicates potential overcharging for services within the 'Core' increment.⁸¹ BT has carried out a SAC test for the combination of all services within the Core increment and has passed this test.

Overview of Ofcom's assessment of how to assess overcharging

- 5.27 Having considered the points made by the Parties in their responses to the Draft Determinations, Ofcom remains of the view that the methodology that it proposed in those Draft Determinations is appropriate for resolving the Disputes. In light of the comments made by the Parties in their Responses, we have augmented the methodology, which we summarise in **paragraph 5.29** below.
- 5.28 In assessing whether BT has overcharged for PPC services, we believe that the most appropriate starting point is the regulation that was in place at the time. We have also considered other factors raised by one or more of the Parties as being indicators of whether or not overcharging has taken place. None of the Parties have suggested that this approach is incorrect or inappropriate. Rather, the objections raised have been in relation to how we have implemented this approach.
- 5.29 In summary, and for the reasons set out below and in accordance with the Guidelines, we have concluded that the appropriate assessment of overcharging in the context of the Disputes has the following elements:
- (i) As a first order test, we assessed whether the charges levied by BT for each PPC service under dispute exceeded the DSAC for that service.
 - (ii) We did not apply the above DSAC test mechanistically but also considered:
 - a. The magnitude and duration of the amounts by which charges exceeded DSAC; and
 - b. Whether charges above DSAC could have caused economic harm to BT's customers or to the consumers of retail leased line services.
 - (iii) We also took into account evidence on rates of return on a FAC basis, as providing a useful indicator of potential overcharging, when used in combination with the other approaches above.

⁸¹ In BT's LRIC model, BT's business is split into five output increments: Core, Access, International, Rest of Network (RoN) and Other. PPC services all fall within the Core increment.

- (iv) As regards charges below DSAC, we considered whether they nevertheless constituted overcharging, taking into account whether the charges were included in a price control, the magnitude and duration of the shortfall compared to DSAC, the magnitude and duration of the rate of return, and any evidence of the effect in the market.
- (v) We assessed other potentially relevant types of evidence, but concluded that they were not sufficiently relevant or reliable in this case to alter our conclusions:
 - a. BT's cost data on individual service SAC and a sub-set of combinatorial tests;
 - b. BT's circuit analysis; and
 - c. The evidence on international benchmarking submitted by BT.

5.30 The remainder of this **Section** is set out as follows:

- **Cost orientation:** including discussion of why we consider DSAC, rather than SAC plus combinatorial tests or FAC, is the most appropriate cost base to use as the first order test for resolving the Disputes (see **paragraphs 5.31 to 5.90**). We also explain how we avoid a mechanistic application of DSAC tests and refer to further factors, including the magnitude and duration of charges above DSAC and the potential for economic harm (see **paragraphs 5.91 to 5.106**);
- **Assessment of charges below DSAC for overcharging:** including discussion of what additional factors should be used to assess whether charges below DSAC can lead to overcharging (see **paragraphs 5.107 to 5.113**);
- **Accounting rate of return assessment:** including discussion of our concerns about rate of return regulation and the weight that should be given to such evidence when assessing overcharging (see **paragraphs 5.114 to 5.121**);
- **International price benchmarking and circuit analysis:** discussion of the role of international benchmarking data and BT's circuit analysis in our assessment of overcharging (see **paragraphs 5.122 to 5.124**).

Cost orientation

Interpretation of the obligation

5.31 As identified in the Draft Determinations, the regulation imposed on BT that is most relevant to the question of whether overcharging is occurring is the cost orientation obligations imposed in the 2004 LLMR Statement.⁸² These obligations essentially echoed the regulation that BT had previously faced on PPCs under the old licence regime of the Telecommunications Act 1984 and required that BT *“secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition G1 is reasonably derived from the costs of provision based on a forward looking long run*

⁸² Although it is arguable that the charge control obligations may also be relevant, compliance with these obligations was not raised as an issue by the Disputing CPs in their Submission and we are satisfied that BT was complying with the charge control obligations over the period of the Disputes.

*incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed”.*⁸³

- 5.32 Economic theory suggests that the maximum price that a firm can charge for a product or service in a contestable market (i.e. a market without entry barriers) is the efficient SAC, the cost incurred by an efficient, single-product firm. Any price above this level would attract entry into the market by single-product firms and result in the price being competed down to the SAC level.⁸⁴ SAC includes the entirety of the common costs relevant to the product in question, which are shared between two or more products. Therefore, in the context of a multi-product firm such as BT, the setting of all prices at SAC would lead to over-recovery of common costs. It is therefore insufficient to simply assess whether an individual charge is below SAC and it becomes necessary to compare charges to cost ceilings for all relevant combinations of services (the so-called “combinatorial tests”).
- 5.33 However, due to the number of services supplied by BT, carrying out combinatorial tests would be very complicated (further discussion on the problems of using SAC tests is set out at **paragraphs 5.68 to 5.75** below). Instead, a more practical first order test has been developed and applied by Oftel/Ofcom since 1997, which is that charges should not be above DSAC. This allows for the distribution of relevant common costs amongst all the products bearing such costs. The DSAC approach reflects the practical application of underlying economic theory, recognising the major conceptual and practical challenges of implementing the full-blown approach of combinatorial tests. If all charges are below DSAC, then we expect that a wide range of combinatorial tests is also satisfied without the need to conduct each and every combinatorial test. This substantial practical simplification comes with the consequence that the DSAC tests are likely to permit less flexibility in the pattern of common cost recovery than full-blown application of combinatorial tests (because other patterns of common cost recovery in addition to that permitted by DSACs might also avoid over-recovery).
- 5.34 The 2001 Guidelines (which are consistent with the 1997 Guidelines) explain that:

“In general, Oftel would consider a good first-order test of whether a charge is unreasonable or otherwise anti-competitive to be whether the charge falls within a floor of long run incremental cost and a ceiling of stand-alone cost. Oftel explains its methodology for deriving floors and ceilings in paragraphs B3-B5. A charge at the service level set below the floor could mean that BT was not recovering sufficient of the incremental cost of conveyance from the service and might indicate the possibility of anti-competitive behaviour. A charge at the service level set above the ceiling might mean that BT was recovering more than an appropriate share of the full (or stand-alone) costs in providing conveyance, which would indicate possible abuse of a dominant position in the market for the service.

⁸³ The SMP obligation quoted here is that which was imposed on BT in the market for the provision of traditional interface symmetric broadband origination (TISBO) with a bandwidth capacity up to and including 8Mbit/s. The wording of the SMP obligations imposed in the market for TISBO above 8Mbit/s up to and including 155Mbit/s and in the market for wholesale trunk segments at all bandwidths is identical, with the reference to Condition G1 being replaced with references to Condition GG1 and Condition H1 respectively.

⁸⁴ Competition between multi-product firms might impose a tighter competitive constraint on prices, forcing them below SAC.

*In investigating complaints about charges, Oftel would not apply the floors and ceilings test mechanistically. The floors and ceilings tests are an effective first order test for the likelihood of anti-competitive or exploitative charging. However, there may be circumstances in which charges set outside the band of floors and ceilings are not abusive, or charges set within the band are abusive. If asked to investigate charges, Oftel will seek to analyse the effect of the charge in the relevant market and will take a view on this based on the individual circumstances of each case.*⁸⁵ (emphasis added)

- 5.35 Paragraphs B3-B5 of the Guidelines outline the methodology for deriving floors and ceilings.⁸⁶ Although the term “DSAC” was not used by Oftel at that time (it is a term originally used by BT in its financial reporting documents), the Guidelines state that a broad increment is to be used (i.e. the whole of conveyance), which is much larger than an individual service (such as PPC 2Mbit/s trunk segments), and they describe the DSAC approach:

*“There are two increments in the incremental cost methodology – the whole of conveyance and the whole of access in a stand-alone network of inland PSTN and private circuits..... The **ceilings** will be given by the **stand-alone cost** of conveyance, broken down into the costs of components and expressed on a pence per minute basis.”*⁸⁷ (emphasis in original)

- 5.36 The Guidelines also reported BT’s use of the “DSAC” terminology:⁸⁸

“Hence BT’s LRIC Financial Statements refer to the service floors and ceilings calculated on the basis that the whole of conveyance is the increment as ‘distributed incremental cost floors’ and ‘distributed stand-alone cost ceilings’.”

- 5.37 The Guidelines make clear that this test should not be applied mechanistically to individual services and that other factors need to be taken into consideration before it can be concluded that charges are unreasonable or otherwise anti-competitive.
- 5.38 The Guidelines do not provide a clear definition of what further factors should be taken into account beyond the first order test of DSAC (or DLRIC). As such, there is no defined ‘second order’ test. However, they do note that the primary focus of any investigation of charges will be on “*the effect or likely effect of the charge on competition and on consumers*”.⁸⁹ The specific indicators or issues may be dependent on the precise details of the case under consideration.
- 5.39 For the purposes of the current Disputes, we have considered the following further factors beyond the first order test of DSAC:

- The magnitude and duration of the amounts by which charges exceeded DSAC;

⁸⁵ See paragraph B.1 and B.2 of the 2001 Guidelines.

⁸⁶ There may be circumstances in which Ofcom concludes that it is not appropriate to use DSACs as the basis for assessing whether or not overcharging has taken place. This will generally be where Ofcom has previously given a specific indication, for example in a market review, as to how it will assess cost orientation differently from DLRIC/DSAC.

⁸⁷ See paragraph B.4 of the 2001 Guidelines. There is a further discussion of the DLRIC/DSAC approach in paragraphs B.14 to B.17.

⁸⁸ Paragraph B.15 of the Guidelines.

⁸⁹ See paragraph 3.1 of the 2001 Guidelines.

- Whether charges above DSAC could have caused economic harm to BT's customers or to the consumers of retail leased lines in light of the Guidelines, including the evidence provided by BT;
- Whether charges below DSAC nevertheless constituted overcharging;
- Rates of return on a fully allocated cost basis;
- BT's cost data on individual service SAC and a sub-set of combinatorial tests;
- International benchmarking; and
- BT's circuit analysis.

Application of the Guidelines to PPCs

5.40 Whilst the Guidelines refer only to interconnection services covered by the network charge control, this reflects the fact that PPC services were not subject to a charge control at the time that the Guidelines were drafted. The 2001 Guidelines do however make reference to a dispute that Of tel was resolving at the time as to whether BT's PPC charges were cost orientated. Of tel explained that:

*"Once Of tel has resolved this dispute, it will consider whether it needs to place charge controls on PPCs. If Of tel decides to impose charge controls on PPCs, it will consult on the most appropriate way to incorporate these controls within the Network Charge Controls."*⁹⁰

5.41 BT must have understood that Ofcom would assess compliance with the cost orientation obligation on the basis of the DSAC benchmark in the Guidelines. Indeed, BT's 2007/08 and 2008/09 Regulatory Financial Statements describe the purpose of the statements for each separate market as being *"to provide more detail of the financial performance and first order tests of compliance with cost orientation and non-discrimination obligations"* (emphasis added).⁹¹ They go on to provide DSAC (and DLRIC) estimates for each service under the heading 'cost orientation'.

5.42 Of tel and Ofcom have subsequently made clear that the cost orientation of PPC charges would also be assessed against whether the charges fell between the LRIC floor and the SAC ceiling, which Of tel and Ofcom interpreted in line with the Guidelines:

- In March 2001, Of tel published a Direction requiring BT to enter into agreement with a number of other providers of telecommunications services for the interconnection of PPC services ("the PPC Direction").⁹² At paragraph 1.33 of this decision, Of tel stated that it *"would interpret the requirement for cost orientation as meaning any price between the long run incremental cost (LRIC) floor and stand alone cost (SAC) ceiling, subject to any relevant combinatorial and non discrimination tests also being satisfied."* Of tel confirmed this position in 2002

⁹⁰ See paragraph 2.63 of the Guidelines.

⁹¹ See, for example, page 70 (which relates to trunk services) of BT's Regulatory Financial Statements for 2008/08:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2009/CurrentCostFinancialStatements.pdf>

⁹² See <http://www.ofcom.org.uk/static/archive/of tel/publications/licensing/2001/ppcs0301.htm>.

when resolving further disputes on PPCs, referring back to its comments in the PPC Direction.⁹³

- In the 2004 LLCC Statement, Ofcom explained that it “*would interpret cost orientation of an individual service as being based on its long run incremental costs plus an appropriate mark up for common costs. In particular any individual price would be expected to typically fall between its long run incremental cost and its standalone cost ceiling.*”⁹⁴

5.43 We now turn to address the issues raised by the Parties in relation to this methodology in their responses to the Draft Determinations.

The use of DSACs in assessing whether charges are reasonable

5.44 As summarised above, some of the main issues raised by BT in its Response to the Draft Determinations relate to Ofcom’s use of DSAC as the first order test for assessing whether charges are cost orientated. In particular, BT argued that:

- i) Ofcom only made clear that DSACs formed the appropriate test in the Draft Determinations – it would be wrong to retrospectively apply this methodology. The methodology is additionally different to that proposed by the Disputing CPs;
- ii) The use of DSAC is inconsistent with economic theory and therefore should not be the basis for the consideration of cost orientation. SAC plus combinatorial tests should have been used and time constraints do not justify using an alternative unless it is a reasonably robust proxy; and
- iii) Even if DSACs are used as a proxy, rigid reliance cannot be placed on them and they should only be used as an indicator.

5.45 We set out in detail in the following paragraphs the reasons why we do not accept each of BT’s arguments.

(i) The use of DSAC as a first order test has been clear for the period of the Disputes

5.46 We consider that BT should have understood how Ofcom would use the first order test to assess whether BT’s charges were reasonable in light of its cost orientation obligations.

5.47 As discussed in **paragraphs 5.34 to 5.42**, guidance published in 1997 and 2001 sets out how Ofcom intended to assess whether charges were excessive or unreasonable. The Guidelines explain that, as a first order test, Oftel/Ofcom would consider whether charges fell between the DLRIC floor and the DSAC ceiling.

5.48 We do not agree therefore, that, as BT suggested in its Response, the use of DSAC is something that Ofcom “*has not made...clear previously*”.⁹⁵ We would note that BT makes no reference to the Guidelines in its Response, despite Ofcom’s reference to them in the Draft Determinations.

⁹³ See paragraphs 3.127 and 3.128 of *Partial Private Circuits, Phase Two – a Direction to resolve a dispute concerning partial private circuits*, 23 December 2002:

www.ofcom.org.uk/static/archive/oftel/publications/broadband/leased_lines/ppc1202/ch3.htm.

⁹⁴ See paragraph 5.24 of the 2004 LLCC Statement:

http://www.ofcom.org.uk/consult/condocs/ppc_charge_control/statement/ppc_stmnt.pdf

⁹⁵ BT Response, footnote 34.

- 5.49 BT also makes no reference to the fact that its own accounting documents recognise that Ofcom would use DSACs when assessing overcharging. BT's Primary Accounting Documents ("PAD") refer to the use of DLRIC and DSAC in the following manner:

"A way of ensuring that fixed common costs are recovered in the revenues is to conduct combinatorial tests whereby the aggregate revenue of services straddling the fixed common costs are required to equal or exceed the LRIC of these services measured as a single increment.

*Combinatorial test have not been specified in the case of the Core increment. Instead, the recovery of the Intra Core Fixed Common Costs has been prescribed by Ofcom through the use of distributed LRICs ("DLRICs") in determining cost floors. This restricts pricing flexibility by setting a price floor for components in excess of the actual LRICs. Ofcom uses this restriction in order to avoid complex combinatorial tests."*⁹⁶

*"A similar approach is taken with Stand Alone Costs in order to derive ceilings for individual components. The economic test for an unduly high price is that each service should be priced below its Stand Alone Cost. As with price floors this principle also applies to combinations of services. Complex combinatorial tests are avoided through the use of DSACs, which reduce pricing freedom by lowering the maximum price that can be charged. This results in ceilings for individual components that are below their actual SACs."*⁹⁷

- 5.50 The Guidelines, which pre-date the period of the Disputes, set out Oftel/Ofcom's position on the use of DSAC as a first order test for unreasonable charges that avoids the need for combinatorial tests. Furthermore, since the start of the Dispute period, BT has recognised that this was the approach that Ofcom would adopt when assessing whether charges were unreasonable. BT's latest accounting documents for 2008/09 continue to confirm this understanding. BT should therefore have anticipated that Ofcom would use DSACs to assess whether its charges were cost oriented or whether overcharging was taken place.
- 5.51 The use of the term 'first order test' suggests to Ofcom that BT understood DSACs to be more than a mere "indicator", but rather that they performed the "first order test" role as laid out in the Guidelines.

Consistency with previous approach

- 5.52 BT additionally questioned why, if DSAC is the appropriate test and it was clear from its accounts over the period that its charges were above DSAC, Ofcom chose not to raise it as an issue. BT argues that to do so now is unfair:

⁹⁶ Section 5.3.3 (Network Components, Combinatorial Tests and DLRICs) of BTs 2005 Primary Accounting Documents, See: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2005/PrimaryAccountingDocument2005.pdf>

⁹⁷ Section 5.3.5 (Distributed Stand Alone Cost (DSAC) of Network Components) of BTs 2005 Primary Accounting Documents, See: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2005/PrimaryAccountingDocument2005.pdf>

“BT’s regulatory accounts have clearly shown that some of BT’s charges were above DSAC for trunk and fell below DLRIC for terminating services. Ofcom has not previously raised an issue that BT was clearly failing the test it now suggests is the primary measure for cost orientation.”⁹⁸

- 5.53 Firstly, it is BT’s obligation to ensure that its charges are compliant with its SMP obligations. On this basis, under the SMP obligations, the onus is on BT to demonstrate that each and every one of its charges is cost orientated.
- 5.54 Secondly, we note that we have previously raised concerns about BT’s PPC trunk charges. Ofcom’s concerns about the level of BT’s trunk charges were reflected in BT’s internal pricing documents of the time. For example, in a pricing paper dated 21 October 2004, discussing a proposal to reduce 155Mbit/s trunk prices, it was noted that “[§<]”.⁹⁹ In addition as we discuss in **paragraphs 4.78 to 4.84** above, Ofcom opened an investigation into BT’s trunk charges in 2005 but was unable to reach a decision as to whether the charges were cost orientated or not, because of BT’s inability to provide sufficiently granular cost information to enable Ofcom to identify how certain costs should be allocated between trunk and terminating segments. In **paragraph 4.83** we note that this caution in drawing conclusions from the contemporaneous regulatory accounts in 2004/05 has proved justified, as it would have been incorrect to reach a conclusion of overcharging for trunk services, even though BT’s accounts at that time suggested that charges were above DSAC.
- 5.55 Given that the existing financial reporting data was insufficient to enable us to reach conclusions on this matter, we decided not to continue with the investigation. Instead, we required BT to prepare the data needed to quantify and correct the accounting problems identified (which BT has subsequently done). We reached no conclusion as to whether BT was complying with its cost orientation obligation or not. Given this background, and the fact that Ofcom commenced work on carrying out a new review of the leased lines markets not long after its conclusion of the investigation into trunk charges (which culminated in the publication of the 2008 BCMR Statement), Ofcom did not consider it would have been an appropriate use of its resources to carry out a further own-initiative investigation.

(ii) The concept of DSAC is a practical simplification of economic theory and its use to resolve the Disputes is appropriate

- 5.56 In the circumstances of the Disputes, we have concluded that DSAC provides the most appropriate first order test to assess overcharging. The cost evidence submitted by BT on individual service SAC and a sub-set of combinatorial tests is not sufficiently relevant or reliable to alter our conclusions. In summary, we have so concluded because:
- (i) The use of DSAC is consistent with the Guidelines, which explicitly adopt DSAC for the first order test in preference to the use of individual service SACs and combinatorial tests.
 - (ii) The use of DSAC was recognised by BT (including in its own yearly Primary Accounting Documents throughout the period) as the approach that Ofcom would adopt for analysing complaints that charges were unreasonable “in

⁹⁸ BT Response, paragraph 30.

⁹⁹ Pricing Paper WPAG 078/2004. Ofcom obtained copies of pricing papers related to PPC price changes from BT using its powers under section 191 of the Act.

order to avoid complex combinatorial tests” and that the DSAC represents the “*maximum price that can be charged*”.¹⁰⁰

- (iii) The DSAC approach reflects the practical application of underlying economic theory, recognising the major conceptual and practical challenges of implementing the full-blown approach of SAC/combinatorial tests.
- (iv) The Guidelines suggest evidence on SAC/combinatorial tests would also be taken into account (in addition to the DSAC evidence) in any assessment of the reasonableness of charges but only if such evidence was prepared using a “*generally accepted robust methodology*”.
- (v) The approach of SAC/combinatorial tests suffers from difficulties of application and interpretation when applied in the context of dispute resolution, in particular where the dispute involves services that share common costs with a large number of other services, which mean that, combined with the points above and below, it is not currently practical or consistent with regulatory certainty to use it to assess whether BT has overcharged for PPC services:
 - a. Complete set of combinatorial tests: a robust set of combinatorial tests would separately compare revenues and efficient SAC for each and every combination of services that includes the service under investigation and that shares common costs. However, the large number of services sharing common costs makes carrying out such combinatorial tests very complex.
 - b. Service identification: failure of a combinatorial test indicates that common costs have been over-recovered from the bundle of services in the combination. But it does not of itself indicate which service(s) were overcharged or the extent of overcharging on each service.
 - c. Combinations that span charge-controlled and non charge-controlled services may undermine the desired efficiency incentives of price caps.
 - d. Combinations that span SMP and competitive markets may distort the operator’s pricing incentives in competitive and/or SMP markets.
 - e. Risk of rate of return regulation: the underlying economic theory implies that all combinations of services should be considered, but the more aggregated the combination, the greater the unintended risk of imposing rate of return regulation.
 - f. Equity/distributional implications of flexibility in cost recovery: there is an increased risk that the extent of flexibility in common cost recovery may result in common costs being unfairly loaded on to a specific group of customers/consumers.
- (vi) Furthermore, we have concerns that BT’s cost evidence on SAC and the sub-set of combinatorial tests provided by BT in its Response falls short of being based on a “*generally accepted robust methodology*” that the Guidelines refer to. The context for our review of this cost evidence is the

¹⁰⁰ See section 5.3.5 (*Distributed Stand Alone Cost (DSAC) of Network Components*) of the Primary Accounting Documents that BT publishes each year with its regulatory financial statements: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/index.htm>.

magnitude by which BT's estimates of SAC exceed both DSAC and FAC. BT's SAC ceilings for 2Mbit/s trunk services are between [x<] % to [x<] % higher than our estimates of the DSAC ceilings (depending on the year) and are around [x<] % to [x<] % higher than FAC. These concerns are discussed in greater detail in **Section 7**:

- a. BT did not seek to consult Ofcom or other stakeholders (including the Disputing CPs) on its methodology and appears only to have developed it during the consultation period on the Draft Determinations.
- b. Under the cost orientation obligation, the onus is on BT to demonstrate compliance. If BT wished to do so using the SAC/combinatorial test approach, it should have sought to establish the reliability of its methodology after the publication of the Guidelines and before the Disputes were brought to Ofcom rather than as an *ex post* justification of its charges in its Response to the Draft Determinations.
- c. From our conceptual review of BT's approach and a high-level review of BT's calculations, we identified areas of concern, including the following, especially in light of the magnitude by which BT's SAC estimates exceed both FAC and DSAC:
 - Failure to estimate an 'efficient' SAC;
 - Potential overstatement of common costs;
 - Derivation of inclusion percentages; and
 - Failure to take into consideration combinatorial tests for the combinations of services across which the majority of the common costs are shared.

5.57 BT asserted in its Response that the theory of contestable markets is more closely aligned to the concepts of LRIC and SAC, than to DLRICs and DSACs. However, as we explain below in **Annex 11**, we consider that the concepts of DLRIC and DSAC reflect a reasonable application of economic theory, as they are a practical simplification of the contestable markets theory.

5.58 As we explain at **paragraph 5.32** above, if a multi-product firm in a contestable market was to charge a price for an individual service above the efficient cost of producing the service in isolation (i.e. the individual service SAC), single-product firms could profitably enter the market and compete. The SAC for a product or service therefore represents the maximum charge a firm could feasibly levy in a contestable market.¹⁰¹

5.59 The SAC of an individual service includes all common costs¹⁰² shared by that service with other services. This contrasts with the DSAC for a service, which is based on

¹⁰¹ See Baumol, W., Panzar, J. and Willig, R. *Contestable Markets and the Theory of Industry Structure*, (1982), New York, Harcourt Brace Jovanovich), page 352.

¹⁰² We note that such costs should be measured as efficient costs. In this context 'efficient' does not only relate to so-called operational or 'x-inefficiency', it has a wider definition that refers to the efficient costs of a hypothetical stand-alone operator producing the service using a network of appropriate size, architecture and functionality.

allocating a proportion of all the common costs relevant to a broader output increment (i.e. a group of services) to all those services within the increment.¹⁰³

- 5.60 This can be illustrated by a simple analogy. Using the case of an ice-cream van selling ice lollies, ice creams and drinks as an example, there may be several different types of common cost. The cost of the freezer compartment is common to both the ice lollies and ice creams, while the cost of the van itself is common to the ice creams, ice lollies and drinks. Therefore the individual product SAC of the ice lollies includes not only the wholesale cost of the lollies (i.e. the incremental cost), but also the entirety of the common cost of both the freezer compartment and the van. In contrast, within the broader increment of frozen foods (i.e. the combination of ice lollies and ice creams), the 'DSAC' for lollies includes a proportion of the common cost of the freezer compartment and the van (in addition to the wholesale cost of the lollies). The remaining proportion of these common costs is distributed to ice creams and included in its DSAC, so that the whole cost of the van and freezer compartment is distributed across the two products, ice lollies and ice creams. Therefore, the DSAC is typically¹⁰⁴ below the SAC for an individual service because it includes a distribution of a proportion of relevant common costs, rather than the entirety of common costs which is included in the individual service SAC.
- 5.61 In so much as the DSAC only includes a proportion of common costs, rather than all of them, Ofcom agrees with BT that, where the price for an individual service exceeds DSAC, it is not necessarily the case that the price is above SAC. Furthermore, as BT noted, it is also mathematically possible that if other prices are sufficiently below DSAC, there may not be over-recovery of common costs where individual prices are above DSAC.
- 5.62 In order for BT to demonstrate that a 'high' price for an individual service (e.g. above DSAC) is not leading to an over-recovery of common costs overall, it is not sufficient merely to compare individual service charges to SAC. As BT noted,¹⁰⁵ it is also necessary to undertake combinatorial tests. In principle it is necessary to ensure that for every combination of services that shares common costs with the service in question (such as for the purposes of these Disputes, 2Mbit/s trunk), revenues do not exceed efficient stand-alone costs of that combination of services.¹⁰⁶
- 5.63 To use the ice-cream van example again, it would not be sufficient to check that the revenues for ice lollies and ice creams were individually below their respective SACs. It would also be necessary to check that the revenues for them combined were below the stand-alone cost of the frozen foods, i.e. the ice lollies and ice cream combined. The reason being, if the prices for ice creams and ice lollies each allow for (say) a 50% recovery of the cost of the freezer and a 60% recovery of the cost of the ice-cream van, both sets of products pass the individual product SAC tests (as the SAC of each product includes the total cost of the van and the freezer). But there is still a 20% over-recovery of the cost of the van. This is only identified by considering the combinatorial test, i.e. the combined revenues of ice lollies and ice cream compared to the combinatorial SAC (which comprises the wholesale cost of the ice lollies and ice cream plus the common costs of the freezer and the van). In the SAC of frozen

¹⁰³ See **Annex 11** below or Section 5 of BT's Primary Accounting Documents for more detail on how DSACs are calculated.

¹⁰⁴ We note that, while DSAC is typically below SAC for an individual service or group of services, this is not a mathematical certainty as it depends on the precise structure of the increments used to calculate the DSAC.

¹⁰⁵ BT Response, paragraph 39.

¹⁰⁶ Please see **paragraphs 7.89 to 7.133** below for further explanation of combinatorial tests.

foods (ice lollies and ice creams in combination), the cost of the van is included only once, and therefore the over-recovery of its cost will be detected.

- 5.64 In a multi-product, network-based firm such as BT, there are many assets that are used by numerous products and services. As a consequence, a significant proportion of the firm's cost base for individual services consists of common costs. These common costs lead to a significant divergence between the LRIC, FAC, DSAC and SAC cost measures at the individual service level. For illustrative purposes,¹⁰⁷ in **Figure 5.1** we present a comparison of BT's SAC estimates for 2Mbit/s trunk compared to its LRIC, DLRIC, FAC and DSAC estimates for the same service.¹⁰⁸

Figure 5.1: Comparison of BT's 2Mbit/s trunk SAC and other cost benchmark estimates

[X]

Source: Ofcom analysis of BT data

- 5.65 As **Figure 5.1** demonstrates, DSACs are well above (D)LRIC, and individual service SACs are substantially higher than DSACs. In **Table 5.2** we present estimates of BT's per kilometre costs for 2Mbit/s trunk, using BT's own estimates of LRIC, DLRIC, FAC, DSAC and SAC (i.e. before Ofcom's adjustments).

Table 5.2: BT's various cost benchmarks for 2Mbit/s trunk services

[X]

Note: All cost measures referred to above exclude any of Ofcom's cost and MCE adjustments.

Source: Ofcom analysis of BT data

- 5.66 The data presented in **Table 5.2** demonstrates the scale of common costs shared by 2Mbit/s trunk. BT's estimate of SAC is between [X] and [X] times larger than its estimate of LRIC. In BT's estimates common costs constitute about [X]% of SAC. This shows that with BT's approach, combinatorial tests are important for the services in the Disputes.
- 5.67 BT also claimed in its Response that by focussing on DSAC, Ofcom is implying that this is the only appropriate mark-up of common costs when in fact the SMP obligation entitles BT to make "*an appropriate*" mark-up to recover common costs. However, BT is incorrect to suggest that the DSAC approach only permits one specific pattern of common cost recovery. In fact, it allows for a very wide range of possible sets of mark-ups. The sum of all of the DSACs exceeds BT's total costs (unlike FAC). Where FAC is used as the cost basis, charges below FAC must be offset by charges of an equal magnitude above FAC in order that incurred costs are fully (but not overly) recovered. This is not true for DSAC, where charges for services can be below DSAC and still allow for full cost recovery. BT could therefore allocate common costs in a myriad of different ways and still price its services in accordance with DSACs.

¹⁰⁷ No inference regarding the validity of BT's estimates should be drawn from Ofcom's use in this example. We summarise our concerns in **Section 7**. Their use in the chart is therefore merely illustrative.

¹⁰⁸ Note that the estimates of DLRIC, FAC and DSAC are taken from BT's revised s191 data supplied for the Final Determinations (before Ofcom's adjustments), while the LRIC and SAC estimates are extracted from the SAC and combinatorial test spreadsheet models BT supplied to Ofcom to support its response to the Draft Determinations.

Problems with implementing combinatorial tests

- 5.68 As well as the scale of the common costs involved, another important consideration is the number of products that share those common costs. The common costs included in the individual service SAC for firms such as BT are likely to be shared by numerous products. In such circumstances, combinatorial tests are particularly important as the firm has the scope to recover (or indeed, over-recover) its common costs from any combination of those numerous other products. However, the large number of services sharing the common costs makes carrying out combinatorial tests very complex.
- 5.69 A robust set of combinatorial tests would separately compare revenues and efficient SAC for each and every combination of services that share common costs. Baumol, Panzar and Willig identify that:

*"The requirement that (either) the stand-alone or the incremental tests must be passed by all subsets of products and services, individually and in combination, may seem a mere technical complication, yet it can be crucial ..."*¹⁰⁹

- 5.70 It therefore follows that the greater the number of services sharing common costs (and therefore the greater the need to carry out combinatorial tests), the greater the number of combinatorial tests that need to be carried out. The total number of combinatorial tests in relation to an individual service can be calculated by the formula 2^{n-1} , where n is equal to the number of services that share common costs (including the individual service in question). For example, if 21 individual products shared a common cost, the number of combinatorial tests would be just over a million. The number of combinatorial tests increases to over a billion if 31 products share a common cost. Given the way that BT allocates common costs to service components, this potentially could involve BT needing to carry out combinatorial tests in relation to many if not all of the services that it provides.

Difficulties of applying and interpreting SAC and combinatorial tests

- 5.71 There are complexities associated with interpreting the results of combinatorial tests.¹¹⁰ These difficulties include, but are not limited to, the following:
- **Service identification:** how do we identify the service that has been overpriced in any combination that fails the combinatorial SAC test and the extent of overcharging of each relevant service? Failure of a combinatorial test indicates that common costs have been over-recovered from the bundle of services in the combination. It does not of itself indicate which service(s) were specifically responsible for the over-recovery or the extent of overcharging on each service. It could be that one service was overpriced or that some or all of the services in the combination were overpriced.
 - **Incentive implications when service combinations span charge-controlled and non-charge controlled markets:** where the combinatorial tests involve considering both charge controlled and non-charge controlled services in combination, this may give rise to incentive concerns in the charge controlled

¹⁰⁹ Baumol, W., Panzar, J. and Willig, R. Contestable Markets and the Theory of Industry Structure, (1982), New York, Harcourt Brace Jovanovich), page 353.

¹¹⁰ A number of these types of concerns were raised by the Disputing CPs in their comments on BT's Response to the Draft Determinations.

markets. This is because underperformance (outperformance) may increase the chance that a combinatorial test will be passed (failed). The charge controls imposed by Ofcom, including the charge control on PPC terminating segments, include incentives for BT to make greater than forecast efficiency savings so as to maximise the return earned on the controlled services. However, any outperformance of the charge control will increase the chance of the combinatorial test being failed. Similarly, failure to make the forecast efficiency savings will mean that the cost base does not fall as predicted, reducing the risk of the combinatorial test being failed. In both cases there is a risk that the desirable efficiency incentives of price caps are undermined.

- **Implications of combinations that span competitive and SMP markets:** combinatorial tests by their very nature involve considering bundles of services. Where all services considered within the combinatorial tests are not subject to the same regulatory conditions (for example, they are in different economic markets and not all the markets are subject to SMP obligations such as cost orientation obligations), then the appropriateness of combinatorial tests, and the interpretation of the results, requires careful consideration. There may be important implications for the firm's incentives (e.g. price cuts in competitive markets can be traded off against high prices elsewhere).¹¹¹
- **Risk of rate of return regulation:** another difficulty is the unintended risk of imposing rate of return regulation, when combinatorial tests across multiple services are considered (using incurred rather than efficient costs). This can be illustrated by considering the case of common costs that are shared across all services. In such a case, one combinatorial test that would need to be carried out is a test for all services provided by BT. Carrying out a test at this level, and strictly interpreting any failure to satisfy such a test as sufficient evidence of overcharging, would effectively amount to rate of return regulation for BT as a whole. If BT's Group revenues were higher than its total costs by more than its weighted average cost of capital, the combinatorial test would be failed. As we discuss in **paragraphs 5.114 to 5.121** below, Ofcom does not favour rate of return regulation.
- **Equity/distributional implications of flexibility in cost recovery:** while the use of DSAC allows BT some flexibility to efficiently recover its common costs, the flexibility in the pattern of recovery allowed by a SAC and combinatorial approach is significantly greater. This increase in flexibility increases the risk that certain groups of customers/consumers could be unduly burdened. There is a risk that common costs are unfairly loaded on to a specific group of customers/consumers who, while they do not form a separate market, may have less ability/choice to resist inflated charges.

5.72 These difficulties therefore involve complex, yet crucial, issues of regulatory incentives, economic efficiency and distributional impacts. DSACs avoid these difficulties by providing a clear test of overcharging for each service, avoiding the imposition of rate of return regulation, and avoiding tests that span charge controlled and competitive markets. We wrote to BT setting out our concerns about its proposed

¹¹¹ This point, as well as other issues relevant to combinatorial tests, is noted in Grout, P., Recent Developments in the Definition of Abusive Pricing in European Competition Policy, CMPO Working Paper Series No. 00/23, August 2000

SAC test on 15 July 2009. BT responded on 7 August 2009 providing additional analysis and responding to a number of the concerns that we had raised.¹¹²

- 5.73 BT argued that the fact that SAC tends towards FAC at high levels of aggregation meant that combinatorial tests were most relevant at the intermediate levels of aggregation at which BT had carried out the tests. Overall, BT argued that any limitations with the SAC test needed to be balanced against the deficiencies with DSACs; given that BT had passed all the relevant SAC tests, many of the limitations identified by Ofcom were not relevant.
- 5.74 BT's Response seems to have misunderstood, or failed to respond to, the point that we were making about rate of return regulation by suggesting that combinatorial tests are most relevant for intermediate levels of aggregation. The theory of contestable markets, which BT has relied on to support its view that SAC/combinatorial tests is a better approach than DSAC, does not distinguish between different levels of aggregation but rather makes clear that combinatorial tests need to be carried out for all services that share common costs. The failure of any single combination, including the combination that includes all services that share common costs, would (with a simple application of the theory) result in the conclusion that overcharging has occurred. Because all or most of BT's services share some common costs, a requirement that revenue could not exceed SAC for any combination would effectively result in BT's returns at the Group level being limited to its cost of capital. We agree with BT that this would be an undesirable implication of adopting this approach, but we do not agree that a limitation of the test to combinations within a single large increment is an appropriate way of addressing this within the framework proposed by BT. In particular, BT's approach fails to provide any test for possible over-recovery of common costs in relation to a large number of combinations of products.¹¹³
- 5.75 Further, while the Guidelines allow for SAC and combinatorial test evidence, which is produced using a generally accepted robust methodology, to be taken into consideration by Ofcom, they do not suggest that it would replace the DSAC tests (as BT claimed it should do). A charge that exceeds DSAC, but passes a SAC test, may still be considered to be unreasonable by Ofcom as, on the facts of the case, it may still be deemed to involve an inappropriate distribution of common costs between services, despite not leading to an over-recovery of total common costs.

BT has the burden of demonstrating compliance with cost orientation

- 5.76 BT seemed to suggest in its Response that Ofcom has not shown overcharging for the purpose of determining the Disputes as it has not conducted a SAC and combinatorial test analysis:

"Ofcom must therefore conduct relevant combinatorial tests across services sharing fixed common costs with the 2Mbit/s PPC trunk services..." (emphasis added)¹¹⁴

¹¹² Even if we do not exclude the possibility that approaches could be developed to ameliorate at least some of these difficulties, BT does not do so in its evidence or submissions.

¹¹³ The appropriate response in principle with full-blown combinatorial tests would be, consistent with the theory of contestability, to conduct all combinatorial tests on the basis of efficient SACs, not BT's incurred costs. This would avoid rate of return regulation. However, as well as omitting many relevant combinatorial tests, BT has conducted its tests using its incurred costs, not efficient SACs. BT's SAC analysis is discussed in greater detail in **Section 7**.

¹¹⁴ See page 4 of BT's response.

5.77 This assertion was re-iterated by BT in a letter to Ofcom on 13 July 2009:

“In our June response to the draft Determination, we were clear that the focus on DSACs was inconsistent with economic theory and that Ofcom should have conducted combinatorial tests across services sharing fixed common costs with 2Mbps PPC trunk services.”
(emphasis added)

5.78 Ofcom disagrees with this statement. The cost orientation obligations place a clear requirement on BT to “*secure, and ... be able to demonstrate to the satisfaction of Ofcom*” (emphasis added) that each and every charge is cost orientated. Where a charge breaches what BT’s own PAD refers to as “*the maximum charge that can be charged*” (i.e. it exceeds DSAC), but BT still believes that the charge is reasonable, the onus is therefore on BT to demonstrate that the charge is reasonable, rather than for Ofcom to prove that it is not.

5.79 In its Response BT acknowledged that dispute resolution should be a short process,¹¹⁵ yet it still argued that Ofcom should have undertaken SAC and combinatorial tests. Although it also cited that it was able to undertake its analysis in a period of a few weeks, BT’s main justification for its position appears to be that Ofcom had already engaged in a “*detailed investigation*” and therefore should have considered SAC and combinatorial tests. In particular BT argued:

“What is clear is Ofcom has involved itself in a detailed appraisal of the data in BT’s regulated accounts.”¹¹⁶

“However, there is a notable inconsistency in Ofcom’s approach to investigating this dispute. For example, if it was so important to delve into such detail in these areas, why was it not just as important, if not more so, to carry out other detailed tests?”¹¹⁷

“Ofcom claims “Carrying out a significant number of combinatorial tests is clearly not possible in the timescales available to Ofcom for resolving the Dispute”. That is surprising when Ofcom has chosen to undertake such detailed investigation into the reattribution of costs which, BT maintains, are far more peripheral to the issues.”¹¹⁸

5.80 We disagree not only with BT’s characterisation of the work we have carried out in undertaking to resolve the Disputes, but also its assessment of the level of work involved in undertaking SAC and combinatorial tests.

5.81 The adjustments made by Ofcom to BT’s regulatory accounting information (as explained in **Section 6**) are necessary to ensure that we use the best available information at the time to resolve the Disputes. We did not undertake substantial new investigations into the validity and accuracy of BT regulatory accounts for the purposes of resolving these Disputes. Rather, we sought to reflect the adjustments that had previously been identified as part of the work leading up to the 2009 LLCC Statement and/or were identified in the Altnet Dispute Submission.

¹¹⁵ BT Response, paragraph 10.

¹¹⁶ BT Response, paragraph 11.

¹¹⁷ BT Response, paragraph 12.

¹¹⁸ BT Response, paragraph 13.

- 5.82 Ofcom's "*detailed models for the reattribution of costs*", as BT described¹¹⁹ them, merely implemented previously identified adjustments. Given that we were aware of these inaccuracies, it would have been inappropriate for us not to make adjustments, as they have a material impact on the outcome of our analysis (see **Section 6** below).
- 5.83 However, even if BT's assertions regarding the level of work undertaken by Ofcom with regards to costs were correct, which Ofcom refutes, this does not appear to justify yet further detailed and complex modelling work. This is particularly the case given that the Guidelines specified that DSAC would be the first order test that Ofcom would adopt in investigating claims that charges are unreasonable. If BT felt its charges were nevertheless reasonable, the onus was on it to demonstrate that its charges were compliant with the cost orientation obligation.
- 5.84 Furthermore, as we explain in **Section 7**, the level of work and complexity in developing a robust methodology is likely to be substantial. BT claims to have produced, within a few weeks, SAC and combinatorial test analysis that demonstrates that it has not over-recovered costs. However, we have a wide range of concerns about BT's analysis.

Ex ante obligations reflect Ofcom's duties and obligations

- 5.85 In seeking to question the relevance of DSAC as the first order test for unreasonable charges, BT asserts in its Response that:

*"This approach is fundamentally incorrect as a matter of economic principle it is wrong to equate cost orientation with, or in considering cost orientation to place any significant weight upon, DLRIC floors and DSAC ceilings"*¹²⁰

- 5.86 We disagree with BT's assertion. Firstly, as we explained in the Draft Determinations and further above, the distributed measures (i.e. DLRIC and DSAC) do reflect the application of economic theory, since they provide a practical simplification of combinatorial tests.
- 5.87 But, more importantly, we note that cost orientation is an *ex ante* SMP obligation imposed on BT. Such obligations need to be consistent with our duties and Community obligations and so are not derived from a single economic theory. For example, the appropriate interpretation of the requirement for charges to be cost orientated will need to be proportionate to the problem it seeks to address and so may depend on conditions in the market. This is supported by the *Arcor* judgment of the European Court of Justice ("ECJ")¹²¹, which held that it was for the national regulator to determine its approach to cost orientation in the light of the competitive situation in each market and the relevant policy objectives. Thus, in the 2001 PPC Direction¹²², Oftel explained that a requirement for charges to be between floors and ceilings (only) was appropriate for trunk charges, since the trunk market was then thought to be prospectively competitive, but that a more restrictive interpretation

¹¹⁹ BT Response, paragraph 11.

¹²⁰ BT Response, paragraph 34.

¹²¹ *Arcor v Germany/Deutsche Telekom* [2008] EUECJ C-55/06

¹²² See paragraph 1.33 of the Direction under Condition 45.2 of the Public Telecommunications Licence granted to British Telecommunications Plc and under Regulations 6(3) and 6(4) of the Telecommunications (Interconnection) Regulations 1997 available at: <http://www.ofcom.org.uk/static/archive/oftel/publications/licensing/2001/ppcs0301.htm>

(later implemented through a charge control) was appropriate for terminating segments. Ofcom therefore has discretion over the obligations it imposes on BT (subject to our duties and Community obligations).

- 5.88 We therefore refute BT's allegation that it is "*fundamentally incorrect*" to interpret BT's cost orientation obligations in the manner that we have in resolving these Disputes. To the extent that the economic theory of contestable markets is relevant, it is already reflected in the approach set out in the Guidelines. However, our approach to assessing overcharging must reflect our statutory duties, particularly the need to protect consumers and promote competition.
- 5.89 As we note in **paragraph 5.34** above, the Guidelines indicate that DSAC will be the basis of the first order test of unreasonable charges. In fact, this was the benchmark that BT used in its own regulatory accounts for the period of the Disputes. Failure to use DSAC would thus be inconsistent with the principle of regulatory certainty, and therefore our duties and obligations.
- 5.90 In our view, the use of DSAC cost ceilings as the first order test for overcharging:
- a) allows BT reasonable flexibility to efficiently recover its common costs, thereby promoting competition and ensuring that we act in a proportionate manner;
 - b) restricts BT's ability to price in a way that exploits its significant market power, thereby promoting competition and furthering the interests of those who purchase the services and the consumers of retail leased lines;
 - c) avoids distortions in downstream competition;
 - d) helps further the interests of citizens and consumers by minimising any distortions in BT's incentives to improve efficiency; and
 - e) promotes competition by encouraging efficient investment and entry decisions.

(iii) Ofcom did not apply the DSAC test mechanistically

- 5.91 Contrary to BT's assertion in its Response, we are not seeking to rigidly rely on DSACs as a means of assessing overcharging. The assessment of whether or not charges are above DSAC is simply our first order test and does not form the sole basis for our assessment of whether BT overcharged for PPC services. We have also considered a range of additional evidence.
- 5.92 We have considered the magnitude and duration of charges in excess of DSAC (see **paragraphs 7.24 to 7.31** below) to identify whether they suggest that overcharging has taken place. We have also considered the possible impact on wholesale customers of BT and retail consumers of leased lines (see **paragraphs 7.32 to 7.72** below) and concluded that it is likely that BT's overcharging has caused economic harm.
- 5.93 The DSACs of an individual service can fluctuate from year to year, meaning that an unchanged charge that was below DSAC in one year might be above DSAC the year later. We believe that this variability is also relevant because, in considering the extent to which we can rely on individual years where charges are above DSAC, it is important to bear in mind that BT sets its charges on the basis of the information that is available to it at the time. Given that the DSACs for the year are only known at the end of the year, BT does not know with certainty what the appropriate value will be

when setting its charges. If charges do not change materially in a year but the DSAC unexpectedly declines, there may be a case that it is unreasonable to consider that this one charge in isolation represents an overcharge.

- 5.94 There may also be accounting treatments of costs that affect the pattern of costs between years. For example, some costs might be expensed in the year in which they are incurred but also yield benefits in other years. In such circumstances revenues might look lower relative to cost in the year in which the costs are expensed and higher in the other years. Considering the comparison between revenues and costs over a period of years increases the robustness of the conclusions.
- 5.95 For the purposes of resolving the Disputes, for the reasons set out in greater detail in **Section 7**, we therefore conclude that overcharging has occurred where charges have been persistently above DSAC for the majority of the period (i.e. for at least three out of the five financial years to which the period of the Disputes relates). Charges above DSAC for this length of time indicate that BT has failed to take action to alter its charges in light of them being above DSAC and would increase the potential for economic harm.
- 5.96 Where charges exceeded DSAC in fewer than three financial years, consideration of the specific circumstances is warranted. The relevant circumstances may include:
 - i) The number of financial years in which charges exceed DSAC, the magnitude of the excess in each of those years and the trend;
 - ii) Average charges compared to DSAC across the whole period;
 - iii) The reasons for the excess and the trend, such as:
 - a. increase in the charges for the service in question;
 - b. reduction in underlying costs; or
 - c. reduction in costs arising from the accounting treatment of cost that does not provide a true picture of underlying costs in that financial year (as discussed in **Section 7** below).
- 5.97 The first two of these possible reasons for the excess of charges over DSAC (increase in charges or reduction in underlying costs) would generally be consistent with evidence of overcharging. But if the reason for the excess of charges over DSAC was due to the third reason (the accounting treatment of cost), this could contribute to an explanation of the excess that did not indicate overcharging.
- 5.98 Similarly, we have also taken into consideration the rates of return earned on PPC services. We have also considered the relevance of international benchmarking data provided by BT. These were two factors that the Parties had indicated to us in their Submissions as being relevant factors to consider when assessing whether overcharging had taken place. We have also given consideration to the SAC and combinatorial test evidence and the circuit analysis provided by BT in its Response to the Draft Determinations.
- 5.99 We therefore consider that it is clear that we have not simply adopted a mechanistic approach to resolving the Disputes and that we have done more than just base our assessment on whether or not BT's charges were above DSAC. For example, in

Section 7 we identify some charges that are above DSAC, but which we conclude did not amount to overcharging (see **paragraph 7.31**).

5.100 As to BT's claim that they should only be used as an "*indicator*", as noted at **paragraph 5.17** above, BT's 2007/08 and 2008/09 Regulatory Financial Statements describe the purpose of the statements for each separate market as being "*to provide more detail of the financial performance and first order tests of compliance with cost orientation and non-discrimination obligations*" (emphasis added).¹²³ They go on to provide DSAC (and DLRIC) estimates for each service under the heading 'cost orientation'. The use of the term 'first order test' suggests to Ofcom that BT understood DSACs to be more than a mere "*indicator*", but rather that they performed the "first order test" role as laid out in the Guidelines.

5.101 BT argued that the fact that DSAC produces a lower cost ceiling than SAC means that it is not a reasonable or reliable proxy. BT has however recognised in its PAD throughout the entire period of the Disputes that this would be the case:

*"Complex combinatorial tests are avoided through the use of DSACs, which reduce pricing freedom by lowering the maximum price that can be charged. This results in ceilings for individual components that are below their actual SACs."*¹²⁴ (emphasis added)

5.102 The likelihood that DSAC provides a lower ceiling than SAC is consistent with Ofcom's rationale for the use of *ex ante* cost orientation obligations in the 2004 LLMR Statement:

*"It might be argued that the Competition Act should be used to avoid excessive or predatory pricing. However, Ofcom considers that sectoral tests are likely to be more stringent and more effective than the Competition Act, giving the SMP communications provider less latitude and providing greater certainty for access customers."*¹²⁵ (emphasis added)

5.103 It is additionally worth noting that although DSAC is likely to be lower than SAC, it is higher than the alternative cost benchmark of FAC that was proposed by the Disputing CPs.

5.104 In its letter of 7 August 2009, BT referred to paragraph B.17 of the Guidelines and the comment therein that as the floors set using the DLRIC methodology may be higher than the true LRIC floors, this would be taken into account when investigating complaints. BT suggests that this should mean that we should take account of the fact that DSAC ceilings are lower than SAC ceilings when investigating its charges.

5.105 We have carefully considered the evidence provided by BT on SAC and a sub-set of combinatorial tests. We have also taken into consideration paragraph B.19 of the Guidelines which state that "*If estimates of the incremental and stand-alone costs of services were produced using a generally accepted robust methodology, Ofcom would*

¹²³ See, for example, page 70 (which relates to trunk services) of BT's Regulatory Financial Statements for 2008/08:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2009/CurrentCostFinancialStatements.pdf>

¹²⁴ See, for example, section 5.3.5 of BT's 2008 PAD:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/PrimaryAccountingDocuments2008.pdf>

¹²⁵ See paragraph 8.42 of the 2004 LLMR Statement.

take such evidence into account in investigating complaints about charges". The various reasons why we consider that BT's evidence on SAC/combinatorial tests is not sufficiently relevant or reliable to alter our conclusions on overcharging are set out in **Section 7**.

- 5.106 In our analysis we also consider whether the charges above DSAC could have caused economic harm to customers or to the consumers of retail services. We set out this analysis, applied to the circumstances of the Disputes, in **Section 7**.

Assessing charges below DSAC for overcharging

- 5.107 As noted in **paragraph 5.13**, the Disputing CPs suggested that a second stage should be added to the DSAC assessment to help ensure that overcharging is not occurring. This appears to be motivated by their view that the use of DSAC is a "conservative approach". They proposed that, for all charges below DSAC, an assessment be made of the extent to which the prices are above DLRIC to see whether collectively those services lead to an over-recovery of common costs.
- 5.108 The Guidelines recognise that there may be circumstances in which charges set within the DLRIC floors and the DSAC ceilings are anti-competitive or exploitative (as well as that charges set outside the floors and ceilings might not be).¹²⁶ The Guidelines explain that, if asked to look at such charges, we will analyse the effect of the charge in the relevant market and take a view on this based on the individual circumstances of each case.
- 5.109 In carrying out this analysis, it is important to recognise that we are seeking not to impose rate of return regulation. As we explain in **paragraphs 5.114 to 5.121** below, we explicitly rejected this as an appropriate approach to regulating PPCs in the 2004 LLMR Statement and 2008 BCMR Statement.
- 5.110 We have already discussed in this **Section** the factors that we take into consideration when assessing whether charges that are above the DSAC ceiling are nevertheless not abusive. A number of these factors will also be relevant to our consideration of whether charges below DSAC nevertheless result in overcharging, though there also is an additional factor that we believe is relevant. Specifically, we consider that the following factors are relevant to our assessment:
- i) **Whether the charges in question were included in a charge control:** Where services that are priced below DSAC are included in a charge control basket and that charge control has been complied with, there are unlikely to be grounds for us to conclude that overcharging has occurred. Charge controls are designed to allow a degree of pricing freedom for individual services within a charge control basket, whilst ensuring that the overall price for the basket of services is regulated. The cost ceiling complements this by providing protection to ensure that prices for individual services do not exceed an upper limit. Where there are specific circumstances which imply the need to impose greater restrictions on pricing flexibility, we can impose additional charge cap constraints, such as sub-caps (as we have in the 2009 LLCC Statement);
 - ii) **The magnitude and duration of the shortfall of the charge compared to DSAC:** the greater the shortfall of the charge compared to DSAC, the smaller the likelihood that overcharging will have taken place;

¹²⁶ See paragraph B.2 of the Guidelines.

- iii) **The magnitude and duration of the rate of return above BT's WACC:** persistently high rates of return may also provide evidence that overcharging has occurred, in combination with other evidence. They are not in themselves conclusive evidence of overcharging, and the greater the weight placed on this evidence, the greater the risk of imposing rate of return regulation; and
- iv) **Any evidence of the effect of the charge in the market:** any other evidence that the charges may have had an adverse impact in the market will also be considered.

5.111 Although we agree that it is appropriate to consider whether BT has overcharged for services that are priced below DSAC, we do not agree with the Disputing CPs' view that the use of DSAC is "conservative" on the grounds that it is in some way unreasonably, or overly, generous to BT. As we have explained in detail above, in our view DSAC provides the appropriate first order test for assessing overcharging in the context of the Disputes.

5.112 The use of DSAC, as outlined by the Guidelines, reflects a need to balance the desire to provide BT with the incentives and flexibility to both reduce costs and efficiently recover common costs, with the desire to protect consumers and competition from either harmful or anti-competitive charges that could arise from boundless pricing flexibility. For the reasons set out above, we believe the use of DSAC strikes an appropriate balance in this regard, and is therefore an appropriate basis for resolving these Disputes.

5.113 The Disputing CPs suggested that a second stage should be added to the assessment whereby, for all charges below DSAC, the magnitude of the price in excess of DLRIC is assessed collectively to determine if there is sufficient evidence to suggest that some or all of those charges have been excessive. However, in the light of the additional considerations that we have identified above, including taking into account the magnitude and duration of the rate of return above WACC, we do not consider that the further test suggested by the Disputing CPs is necessary. This is because the concern of the Disputing CPs was that charges between DLRIC and DSAC may still involve over-recovery of common costs, which the analysis of rates of return (using FAC) allows us to take into account.

Accounting rate of return assessment

5.114 As we discussed in the Draft Determinations, the Disputing CPs proposed that the overcharging assessment should be based on a comparison of the ROCE (on an FAC basis) that BT has earned on its PPC services with BT's WACC. Where BT has earned a ROCE that is higher than its WACC, the Disputing CPs argued that overcharging has occurred.

5.115 Although accounting rate of return assessments are one indicator of whether overcharging may have taken and/or is taking place, when used in combination with other approaches, we have concerns about placing too much emphasis on this factor for our assessment of overcharging.

5.116 First, the rate of return assessments are accounting rates of return that are based on BT's fully allocated costs. BT's view of fully allocated costs represents only one view of common cost allocation. As discussed above and in **Annex 11**, economic theory suggests that the regulated firm can be permitted greater flexibility in common cost recovery without engaging in exploitative or anti-competitive behaviour. Put simply,

the view of common cost allocation embodied in BT's FAC measures is not necessarily the only reasonable pattern.

- 5.117 Second, in the 2004 and 2009 LLCC Statements we explicitly stated that we did not intend to introduce rate of return regulation, and instead opted for cost orientation obligations supported by an RPI-X charge control (on terminating segments only in 2004 but extended to include trunk services as well in 2009).¹²⁷ By separating the level of prices from the firm's incurred costs for a period of time, a RPI-X price cap creates an incentive for the regulated firm to increase its cost efficiency over and above that forecast when the cap was set. The firm benefits from these unanticipated efficiency gains through increased profits within the price control period. RPI-X charge controls are generally only set where there is little prospect of competition forcing down prices. Where a market is considered to be prospectively competitive (as the PPC trunk market was considered in 2004), charge controls would not generally be imposed as competition is expected to force down charges in the medium term. A cost orientation obligation is imposed to prevent charges from increasing unreasonably in the short term. If operators expected Ofcom to apply a rate of return approach to assess overcharging in future, it would risk undermining incentives for cost efficiency.
- 5.118 We used the FAC cost standard in the 2009 LLCC Statement. The ultimate level of the caps, i.e. the average price across *all* services in the basket in the final period was the forecast level of efficient FAC (see paragraphs 3.89-3.94 and Section 4 of the 2009 LLCC Statement). But the use of a forecast of rate of return (as opposed to actual rate of return retrospectively) preserves incentives for cost efficiency.
- 5.119 In addition, DSAC played an important role in the 2009 LLCC Statement as regards the upper limit for the prices of individual services. Various charges, including 2Mbit/s trunk services, were brought down to the level of (BT's estimates of) DSAC within the first year of the new controls.¹²⁸ Going forward, there is a cost orientation obligation on BT for the services included in the controls, as well as the charge caps themselves and sub-caps.
- 5.120 Third, care is needed in interpreting the rate of return information (as for other approaches, including DSAC). A mechanistic approach may fail to take into account factors such as:
- **shocks** – firms do not operate under conditions of perfect certainty, as a consequence they are subject to both demand and supply side shocks. For example, if demand for the service increases relative to expectations, this may result in a temporary increase in profitability. Alternatively, if consumer demand declines due to a slowing of economic growth then profitability may also decline; and
 - **other measurement difficulties** –while accounting information may allow the calculation of an accounting ROCE, care may be needed in interpretation as it may not accurately reflect the 'true' or underlying profitability for a range of possible reasons.

¹²⁷ See paragraph 2.13 of the 2004 LLCC Statement and paragraph 3.43 of the 2009 LLCC Statement. Available, respectively, at: <http://www.ofcom.org.uk/consult/condocs/llcc/leasedlines.pdf> and <http://www.ofcom.org.uk/consult/condocs/llcc/llccstatement/llccstatement.pdf>.

¹²⁸ The CAT made clear at paragraph 112 of the TRD Decision that Ofcom is required to take into account consistency with forward looking regulation (that applies from the end of the period under review) as well as the regulation that is in force during the period under review.

- 5.121 In Ofcom's view, a rate of return assessment can provide useful information on potential overcharging. However, given the concerns highlighted above, we do not believe that it is a sufficiently robust or appropriate assessment to form the main basis of our resolution of this case. Therefore, while we have not relied on an assessment based solely on BT's rates of return, we agree with the Parties that it could provide some useful additional insight when used in combination with other approaches. None of the Parties objected to this approach in their Responses to the Draft Determinations.

International price benchmarking and circuit analysis

- 5.122 Ofcom recognises that benchmarking data can provide useful evidence of whether overcharging is taking place by comparing the costs and/or prices of the firm under investigation with those of competitors or firms facing similar circumstances.
- 5.123 Benchmarking data is, however, no substitute for actual cost and price data when assessing whether overcharging is taking place as the circumstances, products and firms being compared through benchmarking data are rarely sufficiently similar as to enable robust conclusions to be made. We consider in **Section 7** the features of the specific benchmarking evidence submitted by BT and the points made by BT in its Response.
- 5.124 BT also submitted an analysis of the revenues earned for individual circuits (i.e. the specific combination of trunk and terminating services) compared to DSAC for those circuits. However, this analysis is predicated on the aggregation of trunk and terminating services, whereas we concluded in **Section 4** that, to assess overcharging, we should use a disaggregated approach of separate consideration of each service.

Section 6

BT's costs of providing PPCs

The relevant base data

- 6.1 This **Section** discusses the data that we use to assess whether BT has been overcharging for PPC services.

Proposals from the Draft Determinations

- 6.2 In the Draft Determinations we concluded that we should use the data that we had obtained from BT using our statutory information gathering powers rather than that published in BT's regulatory financial statements.
- 6.3 The Disputing CPs had based their submission on the PPC data published by BT in its regulatory financial statements. However, in June 2008, BT advised us that it intended to restate certain PPC data within its financial statements for 2006/07. The reason for this was that BT had overstated the volume of internal PPCs sold and the revenue attributable to those services. This resulted in BT overstating both the volume of internal PPCs sold and the revenue attributable to those services (which is calculated on the basis of a transfer charge).
- 6.4 BT corrected its methodology when preparing its 2007/08 regulatory financial statements and published restated data in September 2008. The published data contained errors as BT failed to update the unit costs for the PPC services.¹²⁹
- 6.5 BT did not publish restated financial statements for 2004/05 and 2005/06, though it confirmed that certain of the PPC data contained in these statements had also been inappropriately prepared.
- 6.6 We therefore used our powers under section 191 of the Act to request that BT provide internal and external revenue and volume data for each PPC service (aggregating the n*64kbit/s services) and calculate the respective DLRICs, FACs and DSACs for these services. BT was required to prepare and provide us with this data for each of the years in dispute (i.e. 2004/05 to 2007/08) on the same basis as the 2007/08 regulatory financial statements. BT provided this data to Ofcom in October and November 2008.
- 6.7 After reviewing the data provided by BT we concluded in the Draft Determinations that this was the best information available for us to resolve the Disputes.

Responses from the Parties

- 6.8 On the basis of the responses from the Parties, it now appears common ground that the data obtained from BT by Ofcom using its powers under section 191 of the Act is the most appropriate data on which to base our assessment of whether BT has overcharged for PPC services.
- 6.9 Although the Disputing CPs no longer appear to be making the case for Ofcom to base its assessment on the originally published data, they have raised issues in

¹²⁹ BT subsequently corrected this and represented the 2006/07 PPC data, publishing this in April 2009.

relation to certain of the data that we have used. Specifically, they have requested that we review the 2004/05 data and also that we review the approach we have used to assess costs for the period 1 April 2008 to 30 September 2008.

(i) Assessment of costs in 2004/05

- 6.10 The Disputing CPs argued that the reliability of the volume data in 2004/05 is questionable due to the use of route to radial factors, which resulted in the DSAC cost per kilometre for trunk being far higher in 2004/05 than in subsequent years. Given that BT's revenue data suggests that volumes in 2004/05 were higher than in 2005/06, it would be reasonable, they argue, to expect that costs in 2004/05 would be lower than for 2005/06.
- 6.11 The Disputing CPs also highlighted that BT's adjustments to revenues to produce the section 191 data for 2004/05 involve a much larger reduction in revenues than in subsequent years. They claimed that there appears to be no justification for this.

(ii) Assessment of costs in 2008/09

- 6.12 The approach proposed by Ofcom to assess costs for the period 1 April 2008 to 30 September 2008 has also been called into question by the Disputing CPs. They believe that Ofcom's proposal to estimate the unit DSAC cost on the basis of the average DSAC for the previous three years is likely to understate the level of repayment that should be made for the period.
- 6.13 The Disputing CPs suggested that there is evidence that 2Mbit/s trunk volumes increased in 2008/09, which should lead to a reduction in costs. Coupled with the evidence from BT's regulatory financial statements that also suggests that unit costs are falling over time and the previously identified scope for efficiency savings, the Disputing CPs believe that the 2007/08 costs are a better proxy.

Further comments

- 6.14 In its comments on the Disputing CPs' Response, BT rejected the claims of the Disputing CPs that the accuracy of the 2004/05 route to radial factors is questionable. BT noted that the 2004/05 route to radial factors were derived from the circuit database and that distances were calculated consistently for both internal and external circuits.

Ofcom's assessment and conclusions on the relevant base data

- 6.15 In light of the apparent agreement from the Parties in their Responses to the Draft Determinations, Ofcom concludes that it is appropriate for it to resolve the Disputes using the data from BT's 2007/08 regulatory financial statements (including the restated data for 2006/07), along with the data provided by BT in response to the various information requests issued by Ofcom under section 191 of the Act.
- 6.16 Given the errors identified by BT in the published regulatory financial statements for 2004/05, 2005/06 and 2006/07¹³⁰, we do not believe that this data is reliable. Instead,

¹³⁰ BT had identified that when calculating the volume of circuits used by its internal businesses, it had used the working system size (i.e. the total number of circuits in existence), as opposed to the revenue system size (i.e. the total number of circuits that generate revenue), which it used when calculating volumes sold to external customers. This had resulted in BT overstating both the volume of internal PPCs sold and the revenue attributable to those services (which is calculated on the basis of a transfer charge).

we believe that the corrected preparation methodology used by BT when preparing its 2007/08 and 2008/09 regulatory financial statements, including restating certain PPC data for 2006/07, provides us with a more accurate data set.

- 6.17 Although BT did not publish restated financial statements for 2004/05 and 2005/06, we have obtained data for these years that was prepared on the same basis as the 2007/08 financial statements.
- 6.18 In order to help us assess the accuracy of the restated 2006/07 data, which has been audited by PricewaterhouseCoopers (“PwC”), we commissioned consultants Analysys Mason to carry out an independent review of the restatement and supporting systems and processes that were used to prepare the restatement.¹³¹ Analysys Mason concluded that the approach adopted by BT for calculating the revised turnover and volumes “*appears to be reasonable*” and that they were “*reasonably well aligned with the revenue measure appropriate for the LLCC model*”.¹³²
- 6.19 Analysys Mason was able to “*identify the cause of the vast majority of changes made in the 2006/07 restatement*”. However, it identified certain action points for Ofcom to follow up on. The follow-up work was discussed in the 2009 LLCC Statement.¹³³ We have not identified any factors that would require us to amend the restated 2006/07 data for the purposes of resolving the Disputes (other than the general adjustments that we discuss below). We are therefore satisfied that the 2007/08 regulatory financial statements (along with the amended unit costs published by BT on 9 April 2009)¹³⁴ provides the best available PPC information for 2006/07 and 2007/08. We have therefore used it to reach our conclusions in these Determinations.
- 6.20 As noted in **paragraph 6.5** above, BT did not publish restated PPC data for 2004/05 or 2005/06. Instead BT supplied us, in response to a formal information request under our statutory powers, with revised data for this period that had been prepared on the same basis as the restated 2006/07 data (the “Revised Data”). The Revised Data was not audited by BT’s auditors, PwC, and was not examined by Analysys Mason during its review as it was not available at the time that the review was carried out.
- 6.21 However, we have taken a number of steps to satisfy ourselves that this data is reliable.
- 6.22 We have required BT to reconcile the Revised Data back to the published financial statements for 2004/05 and 2005/06 and have reviewed BT’s reconciliations.¹³⁵ We have compared the aggregate total FACs and DSACs (in £million) of the two sets of data to ensure that they show similar trends (see **Table 6.1**, which compares published and restated/revised FAC and DSAC data). A significant portion of the costs are fixed with respect to volumes and therefore we do not expect the volume restatement to change significantly the total costs in £million.

¹³¹ A copy of the Analysys Mason study was published with the 2008 LLCC Consultation on Ofcom’s website, see: <http://www.ofcom.org.uk/consult/condocs/llcc/>.

¹³² See page 3 of the Analysys Mason study.

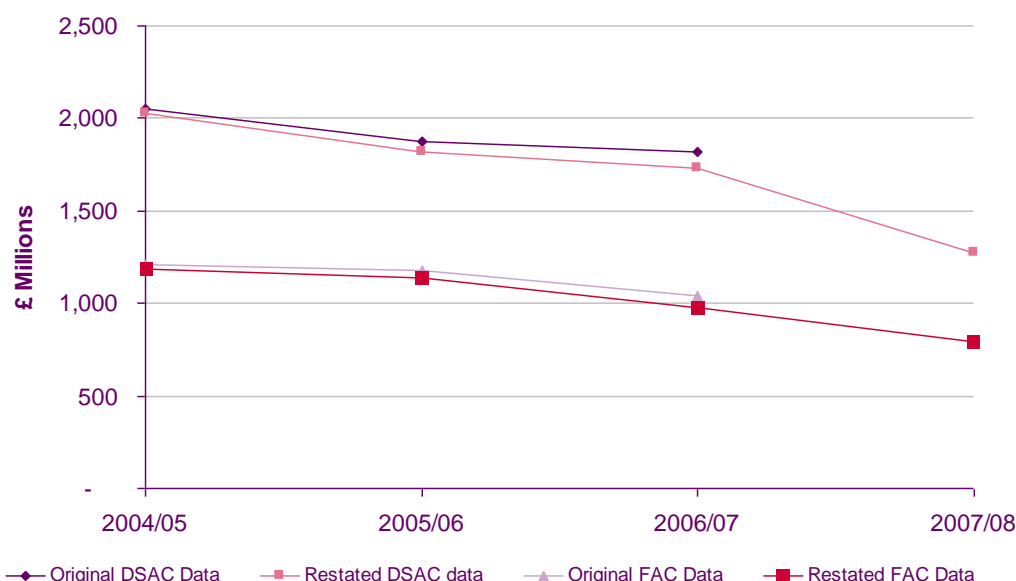
¹³³ See Annex 4 of the 2009 LLCC Statement:

<http://www.ofcom.org.uk/consult/condocs/llcc/llccstatement/>

¹³⁴ See **paragraph 6.19** for details.

¹³⁵ In the case of 04/05 and 05/06, the reconciliation was to the original published accounts. For 06/07 and 07/08, the reconciliation was to the published 2007/08 accounts (and the restated 2006/07 data contained therein).

Figure 6.1: Comparison of published DSACs with restated DSACs



Source: Ofcom – the individual DSACs and FACs for each PPC service have been aggregated to enable an overall comparison of the revised/restated data to the original data.

6.23 On this basis, we consider that the Revised Data constitutes the best available information in relation to 2004/05 and 2005/06 for resolving the Disputes. The absolute costs and revenues are set out in **Tables A12.1** and **A12.2** in **Annex 12** below.

Issues raised by the Disputing CPs

The Second RGL Report

6.24 Turning to the issues raised by the Altnets and the Second RGL Report, BT's restatement does not have a material impact on the total costs reported in the financial statements. As a result of the changes in some of the PPC volumes, the unit costs of some PPC services have increased or reduced as a result of the restatement.

6.25 As the Altnets have identified, the unit costs in the restated financial statements have not altered from those originally published. BT has advised us that this was an error on their part and that the original unit costs had been included rather than the restated unit costs. BT has supplied us with the revised unit costs and these have been used in our assessment. BT republished the corrected restated unit costs on 9 April 2009.

6.26 The Altnets have additionally called into question whether a 'clean' audit opinion has been provided to the restated financial statements, noting the statement in the audit opinion that:

"...the Re-stated Market Financial Statements for the year ended 31 March 2007 are fairly presented in accordance with the Primary Accounting Documents dated 21 August 2007, except where

*restated as explained in Notes 2 and 3 on pages 101 and 102 and comply with the requirements of the Final Statements and Notification.*¹³⁶ (emphasis added)

Note 3 relates to the restated PPC revenues.

- 6.27 We have spoken to PwC and they have advised us that the “*except where restated*” comment set out above relates to the fact that the basis of preparation for the data has changed from that set out in the 2007 Primary Accounting Documents. This comment should not be read so as to exclude the restated numbers from PwC’s unqualified opinion for the year. PwC have confirmed to us that they have provided an unqualified opinion in relation to the restated 2006/07 data.

The accuracy of the 2004/05 data

- 6.28 In their Response to the Draft Determinations, the Disputing CPs raised two main concerns about the reliability of the financial data for 2004/05 that we proposed to use to resolve the Disputes.
- 6.29 First, the Disputing CPs questioned the accuracy of the 2004/05 revenue data, noting that BT’s revisions to the data for 2004/05 (to produce the Revised Data on the same basis as the 2006/07 restatement) led to a much larger reduction in revenue (a drop of 25% for trunk services) than the revisions for subsequent years (a drop of 14% in 2005/06 and 15% in 2006/07 for the same services).
- 6.30 Second, the Disputing CPs questioned the reliability of the 2004/05 volume data. They argued that the use of route to radial factors in 2004/05 has led to the cost per kilometre for trunk being higher in 2004/05 (£106.55 per radial kilometre) than for later years (between £44.91 and £78.39 for the years 2005/06 to 2007/08). They further identified that BT had used different route to radial factors for internal and external sales and that if the internal route to radial factor was used for all sales, then the 2004/05 cost per kilometre for trunk would fall into line with the costs for later years.

Comparison of the 2004/05 revenue data with the data for subsequent years

- 6.31 We have reviewed the reliability of the 2004/05 financial data in light of the points made by the Disputing CPs in their Response to the Draft Determinations. In doing so, we have used the detailed financial information that we have obtained from BT to enable us to compare revenues from 2004/05 at the individual service level, rather than the market level that is shown in the 2004/05 regulatory financial statements.
- 6.32 Our analysis shows that for 2Mbit/s trunk services, the decrease in revenue related to the revision of the 2004/05 data is at the same level as that for 2005/06 (a 14% decrease) and less than the decrease resulting from the 2006/07 restatement (a 17% decrease). This implies that any differences observed in relation to the overall data are unlikely to have flowed from the restatement of the 2004/05 2Mbit/s trunk data.
- 6.33 Correspondingly, this means that for 2004/05, the level of decrease for other trunk services must be greater than in other years. This is particularly observed in the data for 140/155Mbit/s bandwidth trunk services. However, our analysis shows that even if

¹³⁶ See paragraph 18[d] of the audit Opinion on page 113 of BT’s 2008 Regulatory Financial Statements:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/Currentcostfinancialstatements2008.pdf>.

the revision of the data for these other trunk services for 2004/05 were brought to the same level as for 2006/07, revenue would not have exceeded DSAC.

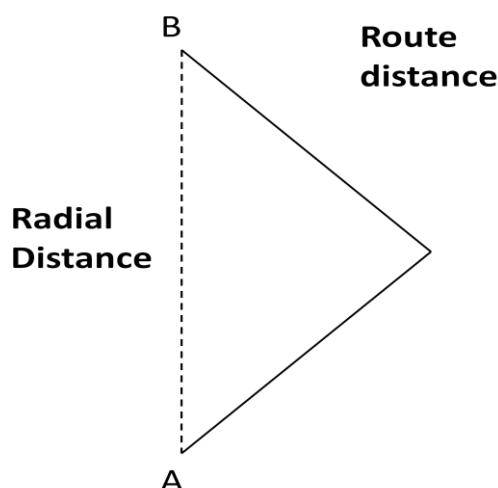
Accuracy of the 2004/05 volume data

- 6.34 Before addressing the Disputing CPs' points about the reliability of volume data for 2004/05, it is first necessary to consider how the volumes are measured and hence how costs are attributed.

Calculating trunk volumes

- 6.35 Over the period of the Disputes, BT has used two different methods to calculate volumes for PPC trunk services and attribute its network costs across internal and external circuits in the regulatory financial statements. These two approaches, which are both based on the length of the circuit in kilometres, can be demonstrated by using the simple example in **Figure 6.3** below, which shows a circuit conveying traffic between two points, A and B. The shortest distance between A and B is a direct line: this is the radial distance. In reality, circuits will travel by a less direct route: the distance travelled along these routes is the route distance.¹³⁷

Figure 6.3: Route and radial distances



- 6.36 The first method, used by BT in 2004/05, uses the route distance to calculate volumes and attribute costs. Volumes are based on the actual length of the circuit, with the network costs attributed on the basis of the total length of all circuits. The route basis of cost attribution assumes that each kilometre of circuit will cost approximately the same, meaning that the cost of the circuit reflects the actual costs incurred of providing that circuit.
- 6.37 When Oftel required BT to provide PPC services and first set PPC prices in 2002, it noted in the 2002 PPC Phase 2 Direction that, as a general rule, BT should calculate prices “as a proportion of the actual network route distance covered by the PPC”.¹³⁸ Thus, one of the methods acceptable for calculating these costs was the route basis.

¹³⁷ Route to radial factors are used to enable route volumes and costs to be compared with radial volumes and costs. This also means that route costs can be compared with BT's charges for trunk services, which are based on the radial length of the circuit.

¹³⁸ See paragraph 3.132 of the PPC Phase 2 Direction.

On this basis, BT's decision to attribute PPC costs on a route basis in 2004/05 was consistent with the 2002 PPC Phase 2 Direction.

- 6.38 The second method, used by BT from 2005/06 onwards, uses the radial distance to calculate volumes and attribute costs. Volumes are calculated by assuming that circuits take the most direct route between the two end points of each circuit. This basis seeks to remove some of the incentives (via cost recovery) for BT to route circuits differently for internal and external customers.
- 6.39 As part of the discussions on the replicability of BT's retail leased line services in 2005/06¹³⁹, Ofcom considered that the manner in which BT attributed and reported PPC costs was a barrier to replicability.¹⁴⁰ In order to achieve replicability and be allowed greater freedom at the retail level to bundle retail leased line services with other communications services, BT decided in 2005/06 to change its methodology for attributing costs and adopt the radial distance basis.

Different costs for internal and external customers

- 6.40 Oftel recognised in the 2002 PPC Phase 2 Direction that differences existed in the costs of providing PPCs to CPs as compared to providing equivalent services to BT's internal divisions. In particular, Oftel identified that it was legitimate for BT to recover sales and general administration costs from CPs¹⁴¹ and recognised that external circuit lengths would be longer due to the need for the PPC to be handed-over to the CP.¹⁴²
- 6.41 As a consequence of external circuits being longer than internal circuits, the total amount of PPC cost attributed to an external circuit will typically be greater than that for an internal circuit when costs are attributed on a route basis (i.e. in 2004/05). As a consequence, the cost per radial kilometre for external circuits will therefore be higher than those for internal circuits. This is demonstrated in the hypothetical example in **Figure 6.4** below, where the per kilometre costs of two circuits are compared on a route and radial basis.
- 6.42 When BT changed the basis for attributing costs in 2005/06 to the radial basis, the unit costs for internal and external circuits became the same, as the per radial kilometre circuit lengths were assumed to be the same, though external customers paid less per kilometre of actual circuit (i.e. measured on a route basis) than internal customers.

¹³⁹ *The replicability of BT's regulated retail business services and the regulation of business retail markets*, 12 April 2006 (the "2006 Replicability Statement"):

<http://www.ofcom.org.uk/consult/condocs/busretail/statement/statement.pdf>

¹⁴⁰ See Section 6 of the 2006 Replicability Statement.

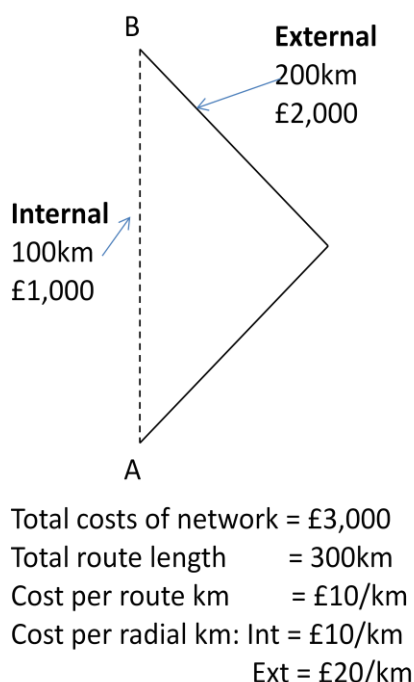
¹⁴¹ See paragraphs 3.49 to 3.76 of the PPC Phase 2 Direction, available at:

http://www.ofcom.org.uk/static/archive/oftel/publications/broadband/leased_lines/ppc1202/ppcs1202.pdf.

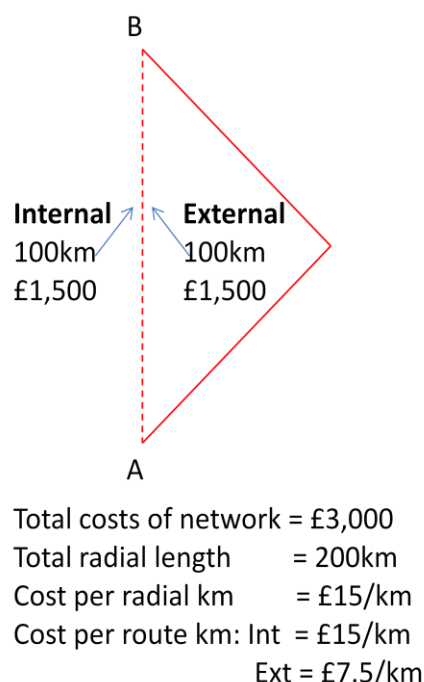
¹⁴² See paragraphs 3.89 to 3.144 of the PPC Phase 2 Direction.

Figure 6.4: Comparison of route and radial volumes and costs

Route cost attribution:



Radial cost attribution:



- 6.43 The change in methodology for calculating volumes and attributing costs, when coupled with the difference in circuit lengths for external and internal customers, means that it was inevitable that the cost per radial kilometre for external circuits was higher in 2004/05 than in 2005/06. (In the hypothetical example above, the external cost per radial kilometre reduces from £20 to £7.5.) It also explains why using internal route to radial factors would lead to a significant reduction in the cost per radial kilometre of the circuit.
- 6.44 The Disputing CPs' observations of the differences in per kilometre costs between 2004/05 and later years merely reflect the change in methodology for calculating circuit volumes, rather than any lack of reliability of the 2004/05 volume data.
- 6.45 As an additional check, we have also recalculated the FAC cost per radial kilometre for 2004/05 using the alternative radial basis of attribution, rather than the approach used by BT. We found that the cost per unit was within around 3% of that for 2005/06 (which also uses a radial attribution basis). This supports the consistency of the data across the two years. It also supports that it is the difference in attribution methods that leads to the variation in unit costs.

Accuracy of route to radial factors

- 6.46 The Disputing CPs suggest that Ofcom has previously expressed concern about BT's application of route to radial factors, quoting our comments in the 2004 LLCC Statement. We stated at the time:

"the route to radial factors used in BT's Pricing Model were considerably higher than those used in Phase 2, and while they may reflect a more accurate view of the appropriate route to radial

factors, it is Ofcom's view that the data set from which BT has derived the route to radial factors is not sufficiently robust."¹⁴³

- 6.47 The Disputing CPs concerns about the accuracy of the route to radial factors appear to be based on the fact that the route to radial factors have increased over time and result in a high per kilometre cost in 2004/05 for external circuits.
- 6.48 Given that BT is likely to have revised its data over time, from the Phase 2 Direction onwards, in order to try and improve the accuracy of route to radial factors, we do not believe that such changes in the level of the route to radial factors are evidence that the 2004/05 data is unreliable. Similarly, the high per kilometre costs in 2004/05 (as compared to later years) are in line with what we would expect to see given the change in methodology for calculating volumes and attributing costs in 2005/06.
- 6.49 There is therefore insufficient evidence to conclude that the 2004/05 cost information is unreliable. Furthermore, given the lack of an alternative data source, we maintain our view that it is appropriate for us to use this data to assess whether BT has overcharged for PPC services in 2004/05.

Cost data for 2008/09

- 6.50 The scope of the Disputes means that we need to assess whether overcharging has taken place in the period from 1 April 2008 to 30 September 2008. Our assessment of this in the Draft Determinations was complicated by the fact that the financial year 2008/09 had only just ended, meaning that we did not yet have regulatory accounting data for 2008/09. In particular, we did not have DSAC data.
- 6.51 In order to overcome this problem, we identified three options for resolving the question of whether BT had overcharged the Disputing CPs during the last six months of the Disputes, and proposed adopting option (iii), to estimate the unit DSAC on the basis of the average DSAC for the last three years.
- 6.52 In their Response, the Disputing CPs argued that this approach was likely to overstate BT's costs and that it would be more appropriate to use the data for 2007/08 as a proxy instead.
- 6.53 BT suggested in its comments on the Disputing CPs' Response that there was little point in speculating as to the likely level of costs for 2008/09 when the actual data was due to be published before the conclusion of the Disputes.
- 6.54 Indeed, BT published its 2008/09 Regulatory Financial Statements on 18 August 2009. These statements contain the necessary financial data to enable Ofcom to calculate the actual DSACs for BT's PPC services.
- 6.55 On this basis, we concluded that this actual data is the most appropriate data to use in our Final Determinations for 2008/09. This means that we are able to use the same data source for all financial years.
- 6.56 Although this approach is different from that proposed in the Draft Determinations, we believe that the change is justified on the basis that it will enable a more accurate assessment. We also consider that in our Draft Determinations we had explained that the use of any proxy was based on necessity, caused by the lack of the actual data.

¹⁴³ See paragraph C.16 of the 2004 LLCC Statement.

On this basis, we do not believe that it is necessary for Ofcom to consult on this change to the methodology proposed in the Draft Determinations.

Conclusions on the relevant data set

- 6.57 Given our assessment above, we have concluded that the most appropriate data for us to use for assessing overcharging is as follows:
- For 2004/05 and 2005/06: the Revised Data obtained from BT using our formal information gathering powers;
 - For 2006/07 and 2007/08: the data in the 2007/08 financial statements (including the restated data for 2006/07)¹⁴⁴; and
 - For 2008/09: the data in the 2008/09 regulatory financial statements.

Adjustments to the base data

- 6.58 We consider that it is appropriate to make adjustments to BT's base data in order to ensure that the data fits the purpose of determining the Disputes.

Proposals from the Draft Determinations

- 6.59 In the Draft Determinations, we identified six adjustments that we considered it was appropriate for us to make to the data provided by BT and explained the impact that they had on the PPC data provided by BT. The six adjustments that we proposed to make were:
- a) Removal of third party customer local end equipment and infrastructure costs;
 - b) Change to the estimate of the costs of financing working capital, related to debtors, so as to reflect the payment terms for CPs that are purchasing PPCs;
 - c) Removal of the costs for resilient circuit and protected path services;
 - d) Reallocation of certain core transmission costs between trunk and terminating segments for 2004/05 and 2005/06;
 - e) Removal of direct costs of next generation ("21CN") network provision; and
 - f) Residual accounting adjustments relating to ancillary services and third party customer local end equipment and infrastructure selling costs.

In making these adjustments, we sought to ensure consistency with our proposals in the 2008 LLCC Consultation where appropriate. Because the charge control is forward looking whereas the resolution of the Disputes is looking at past charges, there were two changes proposed in the 2008 LLCC Consultation that we did not include in the Draft Determinations. These were the current cost normalisation and regulatory asset valuation ("RAV") adjustments.

¹⁴⁴ We note that, as stated above in **paragraph 6.20**, this data was also provided to us using our formal information gathering power.

Responses from the Parties

The Disputing CPs

- 6.60 The Disputing CPs have argued that 21CN costs should be completely excluded from PPC services. They have questioned whether the indirect 21CN costs that Ofcom has included in the calculation of PPC costs would actually have been incurred in the absence of 21CN and, even if they had, whether they should be recovered from PPC services.
- 6.61 In addition, the Disputing CPs have objected to Ofcom's decision to exclude the RAV adjustment from PPC costs and requested that Ofcom reconsider its position on this adjustment. They argue that the effect of not including the adjustment is to increase BT's costs, enabling BT to recover some costs twice.

BT

- 6.62 BT argued that it is inappropriate for Ofcom to adjust the data from BT's regulatory financial statements, particularly in the context of a dispute resolution procedure, and suggested that the changes are based on "*a number of unwarranted assumptions and subjective judgements*".¹⁴⁵ BT highlighted three adjustments with which it takes specific issue:
- i) Ofcom's adjustment to **payment terms** is unreasonable and departs from that determined in the consultation on the regulatory Financial Statement in 2008. To apply retrospectively an adjustment based on Ofcom's latest thinking would be inconsistent. Moreover, the adjustment proposed is based on a hypothetical target of 15 days and bears little relationship to the actual market conditions faced by BT. BT proposes that a 34 days' payment term would be more reflective of its experience.
 - ii) Ofcom's proposal to remove the costs for **resilient circuit and protected path services** has been arrived at by an erroneous method. In estimating the costs of these services, Ofcom has overstated the revenue for resilient services and assumed that the costs are equal to the revenue, which fails to take account of the return that BT makes on these services.
 - iii) The costs of **ancillary services** are associated entirely with PPC terminating segments and do not form part of the cost base of trunk services. Ofcom's proposed adjustment is therefore unwarranted.
- 6.63 BT supported Ofcom's rejection of the other adjustments proposed by the Disputing CPs in the Altnet Dispute Submission.
- 6.64 BT additionally identified that some of the data that it had provided to Ofcom in response to the section 191 notice was incorrect. Specifically, BT had erroneously removed Siteconnect revenue and volumes from the data set out in the 2007/08 regulatory Financial Statements when responding to the section 191 Notice. The Siteconnect volumes and revenue were already excluded from the published results in 2007/08 meaning that BT had duplicated the removal already carried out in the published accounts. The result was to understate revenue for PPCs.

¹⁴⁵ Paragraphs 103 and 104 of the BT Response.

Ofcom's assessment and conclusions

Appropriateness of introducing adjustments to BT's data

- 6.65 The PPC data in BT's regulatory financial statements has been prepared for the purposes of financial reporting. PPC terminating and trunk segments fall within the TISBO and trunk markets, but are not the only services within these markets.
- 6.66 The Disputes we are considering relate solely to PPCs. Services such as Radio Backhaul Service ("RBS"), Site Connect, enhanced maintenance and ancillary services, which also fall within the TISBO markets, are out of scope of the Disputes. As a result, the costs and revenues associated with these services should be excluded from our assessment. Some of these costs were individually included in the published accounts (e.g. RBS), others were included within the reported services and had to be separately extracted either by Ofcom through our adjustments described later in this **Section** or by BT when submitting the data in response to our section 191 information request (e.g. Site Connect).
- 6.67 As noted above, BT has identified that some of the data that it previously provided to Ofcom (and which was used by Ofcom in the Draft Determinations) was incorrect as BT had excluded Siteconnect volumes and revenue for 2007/08 twice, leading to an understatement of PPC revenues. We have corrected this and the data used throughout the rest of this document is based on the higher PPC revenue figures.
- 6.68 In order to estimate some of the adjustments described below, we needed data at a more granular level than BT's published accounts. We therefore used information from BT's Additional Financial Statements ("AFS"), which give a breakdown of the published accounts information by service. BT does not publish these statements but provided them to Ofcom on a confidential basis.
- 6.69 In using data from the AFSs, we made comparable changes (as compared to the published financial statements) to those that BT had made when providing us with the revised 2004/05, 2005/06 and 2006/07 data in order to arrive at our own base data. This has generally involved making the same proportionate changes to the AFS data as was made to the section 191 data.

Attributable costs and revenues

- 6.70 The data in BT's financial statements also contain certain costs and revenues that we do not believe should be attributed to certain PPC services and one-off gains or losses that might distort the profitability of PPC services in general. We therefore consider that it is appropriate for us to make adjustments to this base data in order to ensure that it better fits our purposes.¹⁴⁶
- 6.71 The adjustments proposed in the Draft Determinations generally reduced the level of PPC costs and therefore increased the rate of return being earned on PPC services. They also impacted on the level of the DSAC and therefore potentially affected the level of any charges that we determine.¹⁴⁷

¹⁴⁶ This is not the first time that Ofcom has adjusted BT's published accounting data when resolving disputes or carrying out investigations. Previous examples include the own-initiative investigation and subsequent disputes into BT's charges for WLR ISDN2 in 2004/05: see http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_797/

¹⁴⁷ For the purposes of resolving the Disputes we have modelled all the adjustments as individual stand alone changes to the base data.

6.72 When finalising the 2009 LLCC Statement, we reviewed the individual adjustments we had previously proposed in the 2008 LLCC Consultation and refined some of these in light of the comments made in response to the consultation. We discuss the effect these changes, and the comments made by the Parties in relation to the individual adjustments, in the following paragraphs.

1. Third party customer local end equipment and infrastructure costs

6.73 BT's rental costs for PPC local end rental services include the costs associated with the equipment, fibre and copper used to provide the physical link between the local serving exchange and the third party customer premises. BT, however, recovers part of these costs through its PPC equipment and infrastructure connection charges.

6.74 We have therefore removed this part of the costs from the PPC rental costs and moved them to be matched against the revenue from PPC equipment and infrastructure connection charges, which is outside the scope of these Disputes.

6.75 We believe that this adjustment is justified because it avoids potential over-recovery of the costs through PPC rental charges.

2. Payment terms

6.76 This adjustment changes the estimate of the costs of financing working capital, related to debtors, so as to reflect the payment terms for CPs that are purchasing PPCs.

6.77 In its regulated accounts, BT estimates its working capital related to its debtors for all its services based on a number of days (being the time period between when the costs are incurred and the receipt of the revenue). Prior to 2007/08 this was 59 days whereas from 2007/08 onwards BT has used 43 days in its reporting. In the case of PPCs, Ofcom determined the payment terms following a dispute in January 2007 ("the 2007 Dispute").¹⁴⁸ In the Draft Determinations we therefore replaced the estimates based on 59 days and 43 days with estimates which reflect the regulated payment terms determined by the 2007 Dispute. The periods used in the Draft Determinations were 16 days for rentals and 31 days for connections. Given that the payment terms were applied historically in the 2007 Dispute, we proposed to apply them historically for the purposes of resolving these Disputes. This had the effect of reducing PPC costs slightly because the working capital was reduced and therefore the financing costs were lower.

6.78 In its Response to the Draft Determinations, BT objected to these adjustments in principle. BT argued that there is no basis for adjusting the notional debtor period retrospectively prior to 2007/08. BT claimed that it was unreasonable for Ofcom to apply a different value in dispute resolution to that it determined should be used in the consultation on the Regulatory Financial Statements in 2007/08.

6.79 Furthermore, BT argued that 15 days for rental services (as explained above, we used 16 days to allow an additional day for the issuing of invoices) is a hypothetical target which bears little relationship to the actual market conditions faced by BT. BT claims that 34 days is more reflective of its own experience and is that which would be faced by an efficient market entrant.

148

http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_916/thusbt.pdf

- 6.80 We have considered BT's points separately in relation to connection charges and to rental charges for PPC services.
- 6.81 We have decided to amend the value of debtors for connection services from 31 days to 46 days. We have taken this decision because BT invoices connection charges as part of its monthly billing cycle, rather than billing the day after connection actually occurs. This means that the number of debtor days assumed in the Draft Determinations in relation to connections is too low and we have therefore increased this value. Amending this adjustment does not affect the refund because it does not affect 2Mbit/s trunk services. This is consistent with the approach that we adopted in the 2009 LLCC Statement.
- 6.82 BT has additionally claimed that we should allow 34 debtor days for the rental payments for PPC services in order to make allowance for invoices paid outside contractual terms because of disputed invoices and other related issues. Allowing this approach in relation to PPC rentals, would not, however, provide BT with the right incentives to meet their contractual terms. As such, we have maintained our approach from the Draft Determination and used a value of 16 days for rental services. This treatment is consistent with the 2009 LLCC Statement.

3. Resilient circuit costs

- 6.83 This adjustment relates to the removal of the costs for resilient circuit and protected path services from BT's data.
- 6.84 For BT's 2007/08 and restated 2006/07 regulatory financial statements, the revenues for resilient and protected path services have been identified separately. However, the costs are included with the other circuit costs. We proposed in the Draft Determinations to eliminate an estimate of the costs of resilient services from the data provided by BT as we considered them to be out of scope of the Disputes. We estimated that the cost of these services equal the revenues as identified in the regulatory financial statements and eliminated this estimate in proportion to the revenues of the affected services. In the Draft Determinations, we estimated the costs to be £5 million.
- 6.85 In its Response to the Draft Determinations, BT argues that the way in which we have split resilience revenue for the trunk market between individual services means that our proposal used an erroneous method. BT claims that Ofcom's estimate overstates the costs of resilient services and provided information of what BT considered to be the actual breakdown of resilience and protected path revenue for the trunk market in 2007/08. This information broke down revenue between the different bandwidths of trunk services and suggested that for 2007/08, the true revenue for these circuits was only £[3<] million. BT proposed that we use the percentage split identified for 2007/08 for all other years examined in the Draft Determination.
- 6.86 In addition, BT argues that by assuming that the costs of providing resilient circuits are equal to revenues charged, Ofcom has assumed that BT makes no return on these circuits. BT suggests that Ofcom ought at least to assume that these services earn a rate of return that is consistent with the normal PPC return.
- 6.87 In light of BT's comments, we have reviewed the position that we proposed to adopt in relation to resilient circuits, including whether we should consider them to be out of scope of the Disputes. We have thus given further thought to the nature of resilient circuits.

- 6.88 Resilient circuits help to provide network integrity and circuit availability by providing an alternative routing for the PPC in the event of cable or equipment failure in the network. To all intents and purposes, resilient circuits are the same as the PPC circuits for which they provide resilience. Resilience for trunk services is priced at the same level as trunk. On the other hand, terminating segment resilience is priced higher than the normal terminating segment. Given this, we have concluded that it would be appropriate to consider resilient PPC circuits in our analysis of overcharging.
- 6.89 As a result of this, we no longer consider that it is appropriate to make an adjustment to BT's data to remove resilient circuit costs. We have made an adjustment to include the revenues that BT has earned from resilient circuits as these are not currently included in the data that we have used. This approach addresses the concerns raised by BT as it means that we are using actual resilient circuit costs and revenues (rather than an estimate of the costs as in the Draft Determinations) and reflects the actual returns that BT was making on resilient circuits.
- 6.90 This change of approach does not make a material impact to the findings in the Draft Determinations. Because of the nature of the adjustment that we proposed in the Draft Determinations (i.e. assuming that resilient circuit costs were equal to revenues), the effect of putting back an amount of costs (that is equal to revenues) and then adding in the revenues is to leave the same difference between costs and revenues as was identified in the Draft Determinations.

4. Trunk/distribution rebalancing

- 6.91 This adjustment flows from concerns that we identified when carrying out our own-initiative investigation into BT's prices for PPC trunk services in 2005. As explained in the closing Competition Bulletin for that investigation, we identified concerns relating to the way that *"core transmission costs are split between PPC wholesale trunk segments (which fall into the Wholesale Trunk Segments Market and are regulated through basis of charges Condition H3), and PPC terminating segments (which fall into the Traditional Interface Symmetric Broadband Origination (TISBO) Markets, and are regulated through the PPC terminating segments charge control for low and high bandwidths)"*.¹⁴⁹
- 6.92 As a result, we obtained a clear commitment from BT and agreed a project plan and timetable that would see BT prepare the data needed to quantify and correct the accounting problems identified. We explained that this analysis might lead to restated costs and revenues for PPC trunk services and a revised methodology for recovery of core transmission costs between trunk and terminating segments on a forward looking basis. BT revised its cost allocation methodology in 2007 and reflected this in the 2006/07 and 2007/08 regulatory financial statements. However, the data for prior years was not restated.
- 6.93 Given that the 2004/05 and 2005/06 data allocates costs incorrectly between trunk and distribution, we believe that it is appropriate to make an adjustment to the data for those two years. This approach is supported by the Disputing CPs and does not appear to be opposed by BT as it is an adjustment that RGL proposed in its report and is one that is not objected to in the Deloitte Report.
- 6.94 In making the adjustment, we have based our reallocation of costs on the 2007/08 data. We believe the 2007/08 data to be the most reliable data source to use as it

¹⁴⁹ See: www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_841/

has not been restated (unlike the previous years). We have therefore looked at the ratio of TISBO to trunk costs for 2007/08 and applied this to the two earlier years 2004/05 and 2005/06.

- 6.95 The adjustment has the effect of shifting costs from TISBO to trunk and thereby increasing the rate of return on TISBO and decreasing the rate of return on trunk. For PPCs as a whole, there is no overall effect on the rate of return as the adjustment is simply moving costs between markets rather than changing total costs.
- 6.96 Neither the Disputing CPs nor BT objected to this adjustment or the manner in which we have applied it in their Responses.

5. Next generation network costs

- 6.97 The capital and operating costs incurred by BT in relation to its 21CN network during 2005/06, 2006/07 and 2007/08 are currently attributed to legacy services. Of the total costs, a proportion is apportioned both to PPC terminating and to trunk services. BT has not, however, used its 21CN network to provide PPCs during the period of the Disputes. It therefore could be argued that as PPCs do not use the 21CN network, these costs should not be recovered through PPC charges.
- 6.98 The costs attributed to the 21CN network fall into two categories, namely direct costs and indirect costs. In the context of the 2008 LLCC Consultation, BT argued that the indirect costs would have been incurred even in the absence of 21CN, and that PPCs should therefore make a contribution to their recovery. Ofcom accepted this argument in developing its leased line charge control proposals, and we proposed in the Draft Determinations to follow the same approach here.
- 6.99 In the Response to the Draft Determinations, the Disputing CPs objected to this approach, arguing that all 21CN costs should be excluded from PPC service. They question whether the indirect 21CN costs would actually have been incurred in the absence of 21CN and, even if they had, whether they should be recovered from PPC services.
- 6.100 The Disputing CPs suggest that the indirect costs are likely to include allocations of common costs which will not necessarily be fixed common costs. They believe that it would be reasonable to assume that at least some of the common costs will be variable with the number of services provided by BT as the development of 21CN is likely to have led to an increase in the costs of network management, planning, engineering, and design. To the extent that any of these costs are treated as indirect costs, the Disputing CPs argue that at least a proportion of these would not be incurred if BT's 21CN had not been built.
- 6.101 In addition, the Disputing CPs note that Ofcom's allocation of 21CN indirect costs in effect allocates at least some of the costs to PPC services in two ways, once in an allocation to PPC components and once through 21CN components which are not used to deliver the services.
- 6.102 In light of the comments from the Disputing CPs, we have reviewed whether it is appropriate to make the 21CN adjustment.
- 6.103 The purpose of the proposed adjustment is to adopt a technology neutral approach by removing costs relating to the provision of 21CN and leaving the fixed costs that BT would have incurred regardless of whether it had decided to invest in the 21CN network.

- 6.104 We not do believe the level of indirect expenditure between running a legacy network and moving to a 21CN network would differ materially while the legacy network is still operating. For example, if BT had not invested in 21CN we would expect expenditure on areas such as innovation to remain at a similar level as efforts would instead be directed to improving the legacy network.
- 6.105 The Disputing CPs' concerns that the proposed adjustment would result in the double allocation of indirect costs to PPCs, would only arise where the components used in a particular service absorb 21CN costs via 21CN plant groups.¹⁵⁰ From 2007/08, BT extended the component list in its regulatory financial statements to include 21CN components. All 21CN costs from plant groups now map to these components. Our adjustment aims to remove the 'direct' element of costs from these 21CN components and therefore prevents the situation concerning the Disputing CPs from arising.
- 6.106 Prior to 2007/08, BT did not have 21CN components and 21CN costs were allocated to plant groups, which then mapped to the components that make up a service. Although our adjustment removed 'direct' 21CN costs from PPC specific components, there could also be 21CN costs allocated to other components which make up PPC services. Our analysis shows that for the services within the trunk market this is not the case, and no 21CN costs are allocated to these components. We are therefore satisfied that there are no additional 21CN costs to exclude from these services.

6. Residual accounting adjustments

- 6.107 **Table 6.5** below lists all the other adjustments we have made to BT's data, in line with Annex 6 of the 2009 LLCC Statement.

Table 6.5: Other accounting adjustments to BT's data

Adjustment	Summary of adjustment
a Ancillary services (e.g. excess construction charges)	BT includes the cost of providing these services within the base data for PPC services. Ancillary services are not within the scope of the Disputes. We have therefore eliminated an estimate of the cost of these services.
b Third party customer local end equipment and infrastructure selling costs	BT incurs costs in selling third party customer local end equipment. We do not believe these costs are relevant to the Disputes and have eliminated them. As BT does not report these services separately from local end rental, we assume that these selling costs are also reflected in the local end rental cost base. These costs therefore needed to be removed.

- 6.108 The ancillary services adjustment is a "matching adjustment". In other words, the revenue for ancillary services was reported separately from the costs. In fact, the costs were not visible separately within BT's regulatory reporting. For the Draft Determinations, we assumed that the total costs were spread evenly across the

¹⁵⁰ Plant groups reflect primary functions of BT's network such as local lines fibre cable or core transmission multiplexors. BT describes the role of plant groups in its regulatory costing system in its regulatory accounting documentation, which can be accessed at: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/Regulatoryfinancialstatements2008.htm>.

TISBO markets. Since ancillary services are outside the scope of the Disputes, we proposed to remove the costs from the TISBO markets.

- 6.109 In its Response to the Draft Determinations, BT has argued that the costs of ancillary services are associated entirely with PPC terminating segments and that they do not form part of the cost base for trunk services. As such, BT argues that it is inappropriate for Ofcom to make this adjustment.
- 6.110 In the 2008 LLCC Consultation, we proposed to exclude ancillary service costs from the cost base for the traditional interface charge control basket. This adjustment was assumed to affect all services within this basket. However, following discussions with BT, we now understand that these costs (which BT does not recognise separately in the financial statements) relate mainly to local end services. We have therefore amended this adjustment so that the same total costs (relating to ancillary services) are removed from local end services only (rather than spreading the adjustment across all of the TISBO markets). This methodology is in line with that used in the 2009 LLCC Statement.
- 6.111 Neither BT nor the Disputing CPs commented on the third party customer local end equipment adjustment. We therefore maintain our position on this.

7. Current cost normalisation

- 6.112 In the 2008 LLCC Consultation, we proposed an adjustment to forecast the changes to asset values that might arise from the current cost accounting ("CCA") treatment of assets over the period of the charge control. A forecast value was included in the charge control model, because historic CCA holding gains and losses are unlikely to provide a robust forecast for future years.
- 6.113 We have considered whether a similar (or any other) adjustment is required for our assessment of whether BT has overcharged the Disputing CPs. The situation for the Disputes, however, differs from the 2008 LLCC Consultation. In resolving the Disputes, we are looking back at past charges, whereas the 2008 LLCC Consultation is forward looking. An adjustment to forecast future changes in asset values is therefore not relevant.
- 6.114 For the purposes of resolving the Disputes, we could use the holding gains and losses reported in BT's regulatory financial statements or seek to replace these with a forecast of the anticipated holding gains and losses that were used by BT when setting its PPC charges.
- 6.115 We have used the actual holding gains and losses reported by BT in its regulatory financial statements. Absent information that these actual gains and losses would not have been foreseen by BT, we have not made adjustments to the reported holding gains and losses.
- 6.116 In their Responses to the Draft Determination, neither of the Parties objected to Ofcom's proposals as regard current cost normalisation, with BT agreeing with our position and the Disputing CPs agreeing in principle. We have not, therefore, made an adjustment for current cost normalisation when resolving the Disputes.

8. Regulatory Asset Valuation

6.117 The RAV was created by Ofcom in 2005 as part of Ofcom's cost of copper review.¹⁵¹ It flowed from Oftel's decision in 1997 to require BT to value its assets on a CCA basis.¹⁵² The effect of this decision was that BT would recover more costs than it had actually incurred on copper access network assets held prior to the accounting policy change in August 1997. To prevent this over-recovery, the RAV was introduced to represent the remaining value (i.e. costs to be recovered) of the pre-August 1997 assets.

6.118 Exceptionally, when introducing the RAV in 2005, Ofcom decided not to apply the RAV to PPCs at that time, stating:

*"Some Partial Private Circuits (PPCs) also use metallic pairs in the final drop to the customer. Ofcom does not intend currently, however, to re-examine the existing PPC price controls as a result of this statement as to do so given that the price controls were imposed quite recently (in September 2004) would seem disproportionate. However, Ofcom will take account of this statement when the PPC price controls are next examined."*¹⁵³

6.119 Given our statement in the cost of copper review that it would be disproportionate to reopen the PPC charge controls to take account of the RAV adjustment, we argued in the Draft Determinations that it would not be appropriate to take account of the RAV adjustment for the purposes of assessing whether BT has been overcharging the Disputing CPs. We held that to do otherwise would interfere with our duty to ensure regulatory certainty. We noted that Ofcom had not devised the RAV adjustment at the time that charges were set in the 2004 LLCC Statement and did not factor it in our assessment of BT's costs at the time of the setting of the RPI-X glidepath.¹⁵⁴

6.120 In their Response to the Draft Determinations, the Disputing CPs object to our decision to exclude the RAV adjustment. They note that the effect of not including the adjustment is to lead to an overstatement of BT's costs, with the result that BT may be allowed to recover some costs twice. They request that we reconsider our position on this adjustment to ensure that over-recovery is not permitted.

6.121 BT agrees with Ofcom's proposal not to include the RAV adjustment in its Response to the Draft Determinations. BT additionally notes that as the focus of the adjustment is on copper and, to a lesser degree duct, the impact on PPC services would be insignificant.

6.122 Although recognising the point made by the Disputing CPs that BT may recover some costs twice as a result of our proposal to exclude the RAV adjustment, we remain of the view that this is the correct approach to take. We made clear in 2005 that we did not intend to apply the RAV adjustment to PPCs and in order to ensure that we act in a consistent manner when undertaking our regulatory activities, we

¹⁵¹ See Ofcom's *Statement on Valuing Copper Access*, available on our website at <http://www.ofcom.org.uk/consult/condocs/copper/value2/statement/>

¹⁵² See http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/ncc1097.htm.

¹⁵³ See footnote 18 to paragraph 3.2 of the cost of copper statement:

<http://www.ofcom.org.uk/consult/condocs/copper/value2/statement/statement.pdf>

¹⁵⁴ We note that in the forward-looking 2008 LLCC Consultation we have proposed to make an adjustment for RAV (in line with our statement set out above in the 2005 cost of copper review) because we are setting a new forward looking charge control. The impact of the RAV adjustment (if it were to be made) would be to lower costs (and therefore DSACs), leading to higher rates of return.

consider it appropriate to follow that decision now when assessing what the costs should have been for PPC services.

- 6.123 Moreover, given that the adjustment relates to local duct and copper, the RAV adjustment would only apply to local end services and not to trunk services (as can be seen from the approach that we adopted in the 2009 LLCC Statement).

Adjustments proposed by RGL

- 6.124 The RGL Report, discussed in **Annex 10**, uses BT's regulatory financial statements and applies a number of adjustments to some of the PPC data to correct for what they believe to be errors in the way in which the financial statements were prepared.

- 6.125 **Table 6.6** below summarises each adjustment from the RGL report and either sets out our conclusion that the adjustments we have made above go further than those made by RGL due to, for example more detailed data requested from BT, or it explains why we do not agree that a particular adjustment should be made.

Table 6.6: Analysis of the adjustments proposed in the RGL Report

RGL adjustment	Summary of adjustment	Our conclusion
1. Trunk – distribution rebalancing.	In 2007 BT revised its cost allocation methodology for the costs of private circuits between distribution and trunk segments to be more closely aligned with the pricing methodology. This was implemented in the 2006/07 regulatory accounts and apportions the costs between distribution and trunk components using a circuit's route length, split by the radial trunk to distribution ratio. Prior years were not restated and therefore RGL's adjustment proposes to reapportion costs from TISBO to trunk markets for 2004/05 and 2005/06.	<p>We agree with the principle of this adjustment. But rather than using the method of estimation suggested by RGL, we have based our reallocation of costs on the 2007/08 data (which was not available to RGL at the time that they prepared their report).</p> <p>The adjustment has the effect of shifting costs from TISBO to trunk and thereby increasing the rate of return on TISBO and decreasing the rate of return on trunk. The adjustment is described in more detail in paragraphs 6.91 to 6.96 above.</p>
2. Internal revenue adjustment	Revenues for 3 rd party equipment charges, other single payments ("OSPs") and resilience had not been reported by BT in the regulatory financial statements for 2004/05 to 2007/08. This adjustment estimates and includes these revenues within the existing services (within TISBO). It therefore increases the rates of return for TISBO.	<p>We agree with the principle of this adjustment i.e. ensuring that the revenues and costs of a service are reported together. However, rather than inflating revenues, we have removed the costs, as these services are outside the scope of the Disputes. This has the effect of reducing costs and increasing the ROCE for TISBO. There is no effect on trunk. Our adjustment to reflect this is included in the 'Third party customer local end equipment and infrastructure costs' adjustment described in paragraphs 6.83 to 6.90 above.</p>
3. External revenue	As per the internal revenue adjustment, RGL has increased	As per the internal revenue adjustment above, we have removed

RGL adjustment	Summary of adjustment	Our conclusion
adjustment	external revenues for 3 rd party equipment charges, OSPs and resilience by 10% in order to reflect the exclusion by BT of the products.	the costs therefore revenues should not be included. Our adjustment to reflect this is also included in the 'Third party customer local end equipment and infrastructure costs' adjustment described in paragraphs 6.83 to 6.90 above.
4. Working Capital adjustment	Adjustments have been made to both internal and external debtors to reflect the payment terms available to customers and ensure that prices for external services are not calculated in a way that discriminates against external customers.	We have made an adjustment to internal and external debtors using actual contractual payment terms. This is detailed in the "payment terms' adjustment" described in paragraphs 6.76 to 6.82 above.
5. Sales and general administration ("SGA") cost adjustment	The adjustment aims to provide consistent SGA costs between internal and external circuits for the 2004/05 regulatory financial statements. BT reported SGA costs for internal sales significantly lower than those for external sales. Similarly, BT's internal revenue was lower than its external revenue by a similar amount. RGL argue that to avoid discrimination against external customers, BT's charges for internal sales should be uplifted by the difference in SGA costs.	RGL's proposed adjustment is an increase to internal revenues for trunk and terminating segments, leading to an increase in BT's overall ROCE for PPC services. The difference in SGA costs for internal and external customers was recognised by Ofel when first setting PPC charges in 2001/02 and was accepted as a legitimate difference. We do not, therefore, believe that it is appropriate to make an adjustment to BT's internal revenues to reflect this difference. The differences in the level of costs between internal and external customers do, however, mean that it is appropriate for us to identify separate DSACs for internal and external customers when assessing overcharging in 2004/05 (see paragraphs 6.175 and 6.179 below).
6. Central London Zone ("CLZ") adjustment	BT offers a reduced price for PPCs of some bandwidths where they are provided within central London. These reduced prices were not reported separately until 2008. RGL has reduced revenues on the basis that external customers buy fewer circuits as a proportion of total circuits than BT, as BT's largest external customers will have their own networks in that area.	We agree in principle with this adjustment. In the 2006/07 (restated) and 2007/08 accounts, BT has reported separate revenues for CLZ and non-CLZ reflecting the difference in prices. Therefore no adjustment is required for these two years. The financial statements for 2004/05 and 2005/06 did not separate out revenues for CLZ and non-CLZ. Whilst we could estimate an adjustment for the years 2004/05 and 2005/06, the overall impact on the ROCE would be minimal. In addition,

RGL adjustment	Summary of adjustment	Our conclusion
		the CLZ discount only reduces prices and revenues, which reduces the risk of overcharging.
7. Local end price adjustment	<p>This adjustment relates to point of handover ("POH") costs. Other operators interconnect to BT's network at places called points of handover. Additional equipment is necessary at the POH. Since BT does not need to interconnect with itself, this equipment and the related costs would generally only be needed for external sales rather than internal sales.</p> <p>RGL made two claims regarding the treatment of POH costs by BT and its internal pricing:</p> <ol style="list-style-type: none"> 1) For virtual private network ("VPN") circuits, BT was in fact using POH equipment and had therefore incorrectly reduced its internal price; and 2) For leased lines, BT had overestimated the POH costs and had deducted too much in calculating its internal price. <p>RGL claimed that the lower internal prices were discriminating against external operators. RGL suggested correcting for this by increasing internal revenues. This had the effect of increasing the overall ROCE in their analysis, which they argue strengthens the case that there was overcharging.</p> <p>RGL's adjustment relates only to the TISBO markets.</p>	<p>The scope of these Disputes is to assess whether BT has overcharged the Disputing CPs for PPC services. As such, the question of whether BT has undercharged its own internal divisions for POH equipment is not relevant to our assessment.</p> <p>Our analysis in Section 7 shows that BT's charges for TISBO services were below the averaged internal/external DSAC. Given that the external costs are higher than the internal costs, calculating and using external DSACs would result in external TISBO charges being even further below DSAC.</p> <p>We have therefore not made any adjustment for the issues raised by RGL.</p>
8. Reallocation of 64kbit/s services	<p>The regulatory accounts do not report revenues or costs separately for the trunk element of 64kbit/s services within the wholesale trunk market. Rather, these costs and revenues are included in the revenues / costs for 64kbit/s transmission services. RGL has reallocated costs and revenues from 64kbit/s transmission services to the trunk market in a similar</p>	<p>Ofcom's approach to testing for overcharging differs from RGL. Rather than looking at the overall ROCE across PPCs, we compare DSACs by service to the revenues by service.</p> <p>Since BT does not report revenues and costs separately for the trunk element of 64kbit/s PPCs, it does not report a DSAC for 64kbit/s trunk services. Therefore, even if we were</p>

RGL adjustment	Summary of adjustment	Our conclusion
	proportion to 2Mbit/s circuits.	able to reallocate revenues and costs to 64kbit/s trunk, we would not have a DSAC against which to test the revenues. We have identified that the overall ROCE for 64kbit/s PPCs (trunk and TISBO combined) is generally negative (see Table 7.3) and have taken this into account in our assessment of overcharging in Section 7 .

Adjustments not made

6.126 There are several adjustments that we have accepted in principle but in practice have not made. We do not believe that they would change our conclusions. They were as follows:

- i) **Third party customer local end equipment and infrastructure costs for 2008/09.** To make this adjustment, we would have required additional information from BT. This would have been available sometime after the publication of BT's regulatory financial statements during August 2009. Rather than risk further delay, we have estimated the effect of this adjustment based on 2007/08 data. The adjustment only affects TISBO services and would reduce DSACs. The adjustments below at (ii) and (iii) may partly mitigate any decrease in TISBO costs and reduce the impact of this adjustment.
- i) **Central London Zone ("CLZ") adjustment and the Local end price adjustment regarding point of handover costs.** These two adjustments were suggested by RGL (see **Table 6.6** above). They only affect TISBO and would increase costs, reducing the potential for a finding of overcharging.
- ii) **Reallocation of 64kbit/s services.** Again this adjustment was suggested by RGL. BT does not hold data on these services and therefore we cannot make the adjustment. For TISBO (to the extent that BT made a positive margin on 64kbit/s trunk), this adjustment would have the effect of removing margin in TISBO and reducing the potential for a finding of overcharging. Indeed, for 64kbit/s trunk, BT may be making some margin but we are unable to quantify it. However, as discussed in Row 8 of **Table 6.6** above, the overall ROCE for 64 kbit/s PPCs is generally negative.

Results and impact

6.127 An indication of the impact of the adjustments is provided in **Figure 6.7** below, which shows how the adjustments affect BT's ROCE across its entire PPC product range. The data from BT's published regulatory financial statements (and the ROCE that this indicates) is used as the starting point. Each arrow reflects one of the adjustments that we are proposing to make, with the impact of this adjustment being reflected in the revised ROCE figure.

Figure 6.7: Impact of the adjustments on ROCE



Source: Ofcom – relates to all services in the scope of the disputes over the period 2004/05 to 2007/08. The starting point of 12.4% is an average based on the Restated and Revised Data for the four years.

6.128 The level of the adjustments varies from year to year and the adjustments affect the individual PPC services differently. The individual adjustments, as a percentage change relative to FAC, are set out in **Table 6.8** and the impact of these adjustments on the base data for the individual trunk and terminating services is set out in **Table A12.3** in **Annex 12** below. Negative percentages indicate a decrease in FAC as a result of the adjustment.

Table 6.8: Summary of the adjustments made to BT's Restated/Revised Data as a percentage of total unadjusted FAC

	2004/05	2005/06	2006/07	2007/08	2008/09
3 rd Party local end equipment	(9%)	(10%)	(7%)	(7%)	0%
Payment terms	(3%)	(2%)	(2%)	(1%)	(1%)
Resilient circuits	0%	0%	0%	0%	0%
Trunk/distribution rebalancing	0%	0%	0%	0%	0%
Residual accounting adjustments	(7%)	(9%)	(4%)	(4%)	(4%)
Technological neutrality (21CN)	0%	(1%)	(2%)	(3%)	(3%)

Source: Ofcom, based on BT's regulatory financial statements

- 6.129 Arguments can be made in favour (and against) a variety of different adjustments to the data with a view to making it more ‘accurate’ for the purposes of assessing overcharging.
- 6.130 Ofcom has given consideration to a range of different adjustments to the PPC data published by BT in its regulatory financial statements. On the basis of the information available to us at the time of resolving the Disputes, we believe that the adjustments identified above are the most appropriate and that they result in the most appropriate PPC data for resolving the Disputes.

Adjustments to DSAC

- 6.131 Having identified the adjustments that we consider should be made to BT’s FAC data, we need to identify how these FAC adjustments translate into adjustments to DSAC.

Proposals from the Draft Determinations

- 6.132 As discussed in **Section 5** above, in assessing whether BT has overcharged the Disputing CPs for PPCs we have placed significant weight as to whether BT’s PPC charges were cost orientated, which includes an assessment of whether they were above their DSACs.
- 6.133 We explained in the Draft Determinations that the adjustments outlined above were to BT’s FAC data and that it was necessary to translate these adjustments into adjustments to the DSACs. Converting Ofcom’s FAC adjustments into consistent adjustments for BT’s DSACs is, however, not a straightforward exercise.
- 6.134 We explain the theory behind the construction of the DSAC in **Annex 11**, but in simple terms DSACs consist of two elements:
- the LRIC for the service; and
 - an allocation of common costs across BT’s entire network to the service.
- In the case of BT’s LRIC model, these two elements are calculated on a component level, and then converted to service estimates using usage factors. The allocation of BT’s common costs across its network is based on an equal proportionate mark-up over incremental cost.
- 6.135 The DSAC estimates provided by BT as part of its response to our section 191 information request were derived from the output of BT’s LRIC model (which is run at the end of each reporting year). Ofcom has previously established with BT the principles upon which the DSAC calculations are based.
- 6.136 Although the modelling principles have been established with Ofcom, decisions on the details of how they are actually implemented are made by BT. As a consequence, the DSAC estimates, like BT’s FAC estimates, will reflect BT’s overall view of its PPC costs. The adjustments which Ofcom has made to BT’s FAC data to remove irrelevant or inappropriate items will therefore also be necessary in order to derive an appropriate measure of DSAC from BT’s estimates.
- 6.137 In theory BT could produce revised DSAC estimates by re-running its LRIC model using the Ofcom-adjusted regulatory accounting information. However, such an exercise would involve a significant amount of work and would be complicated by the

existence of a number of important methodological and practical difficulties, including:

- the model would potentially need to be re-run for the whole of BT, not just for PPCs – this reflects BT’s definition of the increments (e.g. Core and Access), the use of components as the basis for modelling (rather than services) and the fact that some costs are common across increments;
- the model would need to be re-run separately for four years (reflecting the time period for the Disputes);
- the model is continually refined and updated and BT may no longer have the data or the parameter information needed to re-estimate the DSACs over the entire period. It would therefore be necessary for Ofcom and BT to agree how the modelling should be configured to estimate values for each of the years;
- all of the individual FAC adjustments would need to be assessed and modelled to estimate the impact on common cost allocation; and
- interactions between the FAC adjustments would need to be modelled carefully to capture accurately their collective impact on common cost allocation.

We discussed making adjustments to DSAC with BT and BT confirmed the difficulty in re-running its LRIC model to reflect the effect of the adjustments to FAC.

- 6.138 We do not believe that it would be proportionate to require BT to undertake such a work programme. It would take a significant amount of time to complete, on top of that already taken to generate the FAC adjustments that form an input into any DSAC recalculation. We have therefore had to make an assessment as to what an appropriate adjustment is for resolving these Disputes.
- 6.139 To inform our assessment, we considered the specifics of how BT’s LRIC model works and the different ways in which adjustments to FAC might influence the output of the model. We also met with BT to discuss in detail how DSACs may respond to FAC changes.
- 6.140 Both the analysis of the modelling methodology and our discussions with BT suggest that each FAC adjustment could impact in a different way on the LRICs and DSACs, and that estimating these impacts (and their interactions) accurately outside of the modelling framework is not possible.
- 6.141 Given the complex interactions between the variables that determine DSAC estimates it is therefore difficult (absent remodelling) to generate precise estimates of the relevant adjustments. We have therefore considered other options for making broad based adjustments, which appear reasonable and proportionate.
- 6.142 In the Draft Determinations we discussed that it appeared reasonable to consider that the range within which an appropriate DSAC adjustment is likely to fall is bounded by no adjustment at one end, and by the same percentage adjustment as was applied to the FAC at the other end.
- 6.143 We noted that if we were to apply no adjustment to the DSAC, this might imply that it would in effect be reasonable for BT to recover costs which we have found to be not relevant to PPCs or which have been recovered through other charges. We considered that this would be inappropriate.

6.144 We also noted that, if we were to apply the same proportionate adjustment as adopted for the FAC (i.e. the other end of range from no adjustment), this would imply that the amount (in £) of the DSAC adjustment would be larger than that of the corresponding FAC adjustment. The effect of this would be to remove both the costs which Ofcom deemed should not be recovered and, in addition, a further share of BT's common costs from the DSAC figure.

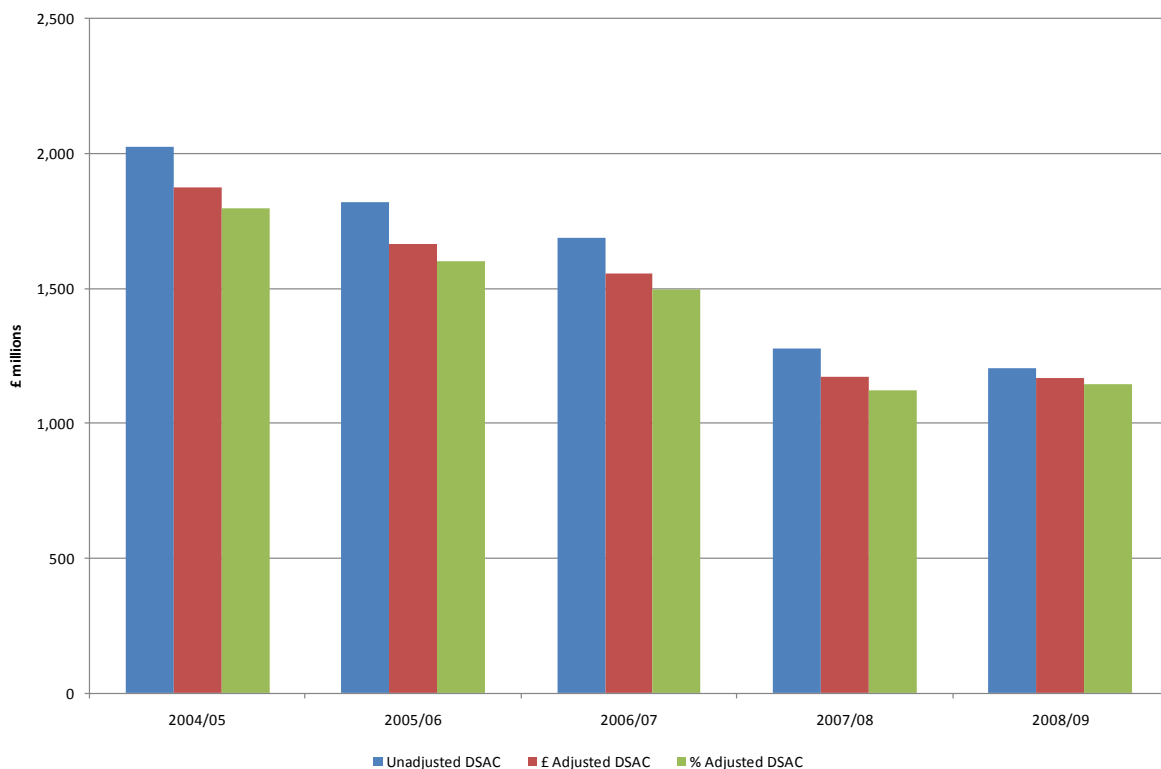
6.145 In the Draft Determinations, we proposed not to use either of the two range extremes (i.e. no adjustment or the same percentage adjustment). Rather, we believed a value that lies between these two values would strike a fairer balance of the interests of the Parties. We therefore proposed to use the same absolute adjustment applied to the FAC (i.e. the actual cash adjustment) as the appropriate adjustment to make to the DSAC. These adjustments are applied on an individual service basis. The formula for our proposed adjusted DSAC was therefore:

$$\text{Adjusted DSAC} = \text{Increase or (decrease) in Original FAC} + \text{Original DSAC}$$

6.146 In **Figure 6.9** below we set out data on the DSACs for the aggregated PPC terminating segment and trunk services for the five completed financial years relevant to the Disputes. For each year there are three values shown:

- the unadjusted DSACs, as provided by BT in the section 191 request;
- the Ofcom-adjusted DSACs using the absolute cash adjustment (i.e. our proposed approach for resolving the disputes); and
- the Ofcom-adjusted DSACs using the same percentage adjustment factor as applied to the FAC estimates.

Figure 6.9: Comparison of DSACs under different adjustment methods



Source: Ofcom

- 6.147 As is shown in **Figure 6.9**, the absolute cash adjustment that we proposed to use results in DSAC values that lie broadly in the middle of what we considered to be a feasible range. This supported our view that the absolute adjustment balances the interests of the Parties.
- 6.148 We adopted a slightly different position in relation to PPC services purchased in 2004/05, as the costs identified from the data provided by BT were significantly different (lower) for internal customers in this year than for external customers.¹⁵⁵ We identified that a difference in costs was expressly recognised by the regulation applicable at the time.¹⁵⁶ We therefore estimated separate DSACs for internal and external circuits (based on the difference in SGA costs) and carried out our assessment of overcharging in relation to the DSAC for external circuits rather than using the average DSAC like we did for subsequent years.

Responses from the Parties

The Disputing CPs

- 6.149 In their Response to the Draft Determinations, the Disputing CPs objected to Ofcom's approach to adjusting the DSACs. In estimating the DSAC adjustments, the Disputing CPs argued that Ofcom should adopt an approach that best approximates the optimal approach, which would be to re-run BT's LRIC model. (The Disputing CPs appeared to accept that this would not be feasible within the relevant timeframe for the reasons we have set out above). The Disputing CPs claimed that this would be to apply the same proportionate allocation of adjustments to the DSAC costs as were applied to the FAC costs. Given that FAC is likely to equal LRIC plus EPMU at high levels of aggregation, the Disputing CPs suggested that it is reasonable to expect that a 10% increase in FAC will lead to a 10% increase in DSAC.
- 6.150 The Disputing CPs argued that Ofcom's proposed approach to adjusting DSACs is likely to understate significantly the level of adjustments to DSAC costs that would have been obtained if the LRIC model was used to calculate them. To support their argument, the Disputing CPs compared the changes in unit DSAC costs (expressed as a percentage of unit FAC costs) between the 2006/07 and 2007/08 regulatory financial statements. This analysis showed that absolute DSAC unit costs changed by between 200% and 550% of the changes in FAC unit costs. On this basis, the Disputing CPs argued that Ofcom's approach, which assumes the percentage change would be 100%, understates the impact on DSAC of the identified adjustments to FAC.
- 6.151 The Disputing CPs further argued that the option identified by Ofcom of changes to FAC not resulting in any change to DSAC is not feasible and that it should not form part of the reasonable range. Given that FAC equals DLRIC plus equal proportionate mark-up ("EPMU") for the recovery of common costs, any change to DLRIC must result in a greater change to DSAC as it includes a wider range of common costs that will be multiplied by the proportionate mark-up.

¹⁵⁵ There appear to be two reasons why internal costs were lower than external costs. First, SGA costs were lower for internal circuits than external circuits. Second, BT may report lower internal costs where it does not need to interconnect with itself.

¹⁵⁶ See

www.ofcom.org.uk/static/archive/oftel/publications/broadband/leased_lines/ppc1202/direction.htm

- 6.152 The Disputing CPs also sought to dismiss Ofcom's concerns that the same proportional change to DSAC as FAC might lead to BT being unable to recover legitimately incurred costs due to BT being unable to raise prices for other services historically. The Disputing CPs argued that reallocated common costs might have been recovered without the need for price increases (for example, where prices were already above FAC) or that BT may, in any event, have been unable to raise prices due to the existence of charge controls. They additionally noted that the amount of costs being reallocated is relatively small, meaning that the increase to the costs of other services is unlikely to be material. The Disputing CPs also made reference to Ofcom's decision in the WLR ISDN2 dispute¹⁵⁷, where we argued that only changes in overhead allocation methodologies should be excluded from the cost calculation for calculating repayments resulting from a failure to comply with a cost orientation obligation.
- 6.153 The Disputing CPs additionally rejected Ofcom's grounds for using different DSACs for internal and external customers in 2004/05. They argued that the position that Ofcom adopted in 2001/02 in relation to differences in SGA costs for internal and external customers is not relevant as it was not explicitly referred to in the later 2004 LLMR Statement. Furthermore, as BT amended its methodology for allocating SGA costs in 2005/06 so that the allocation was the same for internal and external customers, it would appear unreasonable to allow for the allocation of these costs on a different basis for 2004/05.

Further comments

- 6.154 In its comments on the Disputing CPs' Response, BT reiterated its view that the flow-through of FAC adjustments to DSAC is a complex issue to assess. BT suggested that where the FAC cost adjustment relates mainly to a re-apportionment of fixed common costs, there is unlikely to be an impact on DSAC. However, where costs are excluded then the impact on DSAC is likely to be the same as the impact on FAC (BT suggests that it is difficult to see how £100 of excluded costs could be worth £100 in FAC terms but £110 in DSAC terms). BT therefore argued that the proportional adjustment to DSAC proposed by the Disputing CPs cannot be justified.

Ofcom's assessment on adjusting the DSACs

- 6.155 In light of the comments received from the Disputing CPs, we have considered whether it is appropriate for us to maintain the position that we adopted in the Draft Determinations and adjust DSACs on an absolute basis, rather than on a proportionate basis. In doing so, we have assessed the possible impact that changing our approach would have on our provisional conclusion that BT had overcharged for 2Mbit/s trunk services.
- 6.156 In terms of the repayment relating to overcharging for 2Mbit/s trunk services, we estimate that the choice of whether the adjustment to DSAC is made on a proportional or absolute basis changes the result by less than £1m, over the whole period of the Disputes. This is because there is a cancelling effect. For 2004/05 and 2005/06 the adjustments actually increase costs, whereas for the later years they decrease costs. Using a proportional adjustment to DSAC will amplify the effect of these FAC adjustments in any one year. But because the adjustments go in opposite

¹⁵⁷ *Resolution of a dispute between Energis and BT relating to BT's charges for WLR ISDN 2 from 20 November 2003 until 1 October 2004*: see <http://www.ofcom.org.uk/consult/condocs/energis-bt/resolution/>.

directions for different years, the amplification significantly cancels across the period of the Disputes.

6.157 In addition, it is worth noting that the choice of absolute or proportional would not affect the provisional finding of no overcharging in 2004/05. This is again because the adjustments in 2004/05 increase costs. So a proportional adjustment to DSAC would raise it even higher above revenue than with an absolute adjustment.

6.158 In a perfect world, the ideal solution would be to re-run BT's LRIC model. As we noted in the Draft Determinations, this is not possible from a practical point of view. We therefore need to approximate the effects of adjustments on DSACs. The best starting point for this may be to consider, in theory, how the BT LRIC model would respond to adjustments in FAC.

Some general observations:

6.159 In considering how to adjust the DSACs in the Disputes, it is important to remember that adjustments should not be only applied to the service in question (e.g. 2Mbit/s trunk), they should be applied consistently across all PPCs and potentially across all services in BT.

6.160 Any adjustments to incremental costs outside the Core increment or to common costs that are not common to Core, will have no effect on the DSACs of services within Core (all PPCs are within Core). We only need to look at adjustments affecting LRIC costs within Core or any common costs that are common to Core.

6.161 The effect on DSAC will depend on the specific nature of each adjustment to FAC.

6.162 Applying adjustments consistently across other services could lead to changes in the LRICs for these services (including those within the Core increment, such as PPC services). Because of this, the proportion of common costs attracted by each of these service LRICs within Core may change as common costs are apportioned on the basis of the relative value of the LRICs of the services.¹⁵⁸ In turn, this will mean that the share of common costs that the PPC services attract will vary in a way that is difficult to predict.

6.163 For example, some LRIC costs for 2Mbit/s trunk may be ruled out-of-scope and the LRIC reduced as a result. At first sight, it might be expected that 2Mbit/s trunk would attract a lower share of common costs as a result because its LRIC has reduced. However, if other services (including other PPC services) also have to have their LRICs reduced by larger amounts (when the adjustment is applied consistently), this could lead to an increase in the relative share of common costs attracted to 2Mbit/s trunk. It cannot clearly be identified therefore that an adjustment to FAC will result in an adjustment to DSAC of the same absolute amount or that it will result in an adjustment to DSAC of the same proportion as was made to FAC. Depending on the relative proportions of LRICs to common costs for services and how the LRICs of other services change as a result of the adjustments, it is even theoretically possible that the DSAC for 2Mbit/s trunk could actually increase when the adjustment itself reduces LRIC.

6.164 Where common costs are re-allocated between services, these adjustments change the FAC for a service but the change in DSAC is zero. This is because the LRIC

¹⁵⁸ BT's model actually works at a component level, with service LRICs being derived from the components.

element of DSAC is unaffected. The common cost element is calculated by a share (based on LRICs) of total common costs (which are unaffected by a re-allocation). It is therefore incorrect for the Disputing CPs to suggest that a zero change to DSAC is not a viable option.

Categories of adjustment:

- 6.165 In order to try to assess what impact the adjustments that we have identified above will have on DSAC, we have considered the impact on different types of cost. We have identified six types of adjustment:
- i) Pure LRIC – reallocation of costs.
 - ii) Pure LRIC – exclusion of costs (i.e. disallow BT from recovering these costs).
 - iii) Common costs – reallocation.
 - iv) Common costs – exclusions.
 - v) Combined: reallocations of costs that contain both common and LRIC elements.
 - vi) Combined: exclusion of costs that contain both common and LRIC elements.
- 6.166 The majority of the adjustments that we have identified above appear to fall into category (v), i.e. they will have an impact on both the common and LRIC elements of the cost. However, the payment terms and 21CN adjustments fall into separate categories.
- 6.167 “Payment terms” falls into category (ii) and will result in a pure LRIC exclusion, whereas 21CN falls into category (iv) and will result in a common cost exclusion.

Some key factors in determining how DSAC will change for a given adjustment:

- 6.168 The ratio of FAC to LRIC and FAC to DSAC will have a significant effect in determining how the DSAC will change for a given adjustment to FAC. For example, if the LRIC to FAC ratio is 50% then a pure LRIC adjustment that decreases LRIC by 10% may only decrease FAC by 5%.
- 6.169 The impact that the adjustment has on other services within Core (not just PPCs) will also help determine how the DSAC will change. For example, for a pure LRIC exclusion of costs, if all LRICs in Core are affected to the same proportion, then the allocation of common costs to the DSAC will be unaffected for that service.
- 6.170 Following on from this, the size of the adjustment for an individual service relative to the size of the same adjustment for other services will also have an impact on how the DSAC will change.
- 6.171 This all serves to highlight that trying to assess the impact that an adjustment to FAC will have on the DSAC is extremely complex and that, contrary to the suggestions of the Disputing CPs, it is far from clear that a change to FAC will result in a proportional change to DSAC. The effect of any adjustment to other services also needs to be taken into consideration.
- 6.172 Whilst the data may appear to show DSAC changing by significantly more than FAC between 2006/07 and 2007/08, this is a comparison of year-on-year variations. This

can result from factors such as volume changes, rather than being symptomatic of DSAC changing in proportion to changes in FAC. We are looking at adjustments to costs for specific reasons, which means that the impact may be greater or less than for the general trend.

Conclusion

6.173 We have concluded that it is appropriate to adjust DSAC in line with the absolute adjustment made to FAC (consistent with our provisional conclusion in the Draft Determinations). This is for the following key reasons:

- a) Trying to assess the impact that an adjustment to FAC will have on the DSAC is extremely complex, but it would not be proportionate to require BT to re-run its LRIC model;
- b) Our approach falls well within the bounds on the reasonable range of adjustments that we have identified;
- c) The Disputing CPs have not provided compelling evidence to cause us to change the approach we set out in the Draft Determinations.

6.174 We note that our decision to reject the approach favoured by the Disputing CPs changes the result by less than £1 million over the whole period of the Disputes and does not have a significant impact on the years for which we conclude that overcharging has occurred for 2Mbit/s trunk services.

Adjusting the DSACs in 2004/05

6.175 In light of the fact that there is minimal difference between the costs for PPC services that BT supplies internally and externally, we proposed in the Draft Determinations to use the DSAC calculated in its regulatory financial statements (as adjusted in light of the discussions above) when assessing overcharging. The published DSAC is an average of the costs of providing PPC services to internal and external customers.

6.176 We did, however, propose to adopt a slightly different position in relation to PPC services purchased in 2004/05, as the costs were significantly different (lower) for internal customers in this year than for external customers.¹⁵⁹ This difference in costs was expressly recognised by the regulation applicable at the time (see **paragraphs 6.28 to 6.49** above). We therefore estimated separate DSACs for internal and external circuits (based on the difference in SGA costs) and carried out our assessment of overcharging in relation to the DSAC for external circuits.

6.177 The Disputing CPs objected to this approach in their Response to the Draft Determinations. They argue that the position that Ofcom adopted in 2001/02 in relation to differences in SGA costs for internal and external customers is not relevant as it was not explicitly referred to in the later 2004 LLMR Statement. Furthermore, as BT amended its methodology for allocating SGA costs in 2005/06 so that the allocation was the same for internal and external customers, it would appear

¹⁵⁹ There appear to be two reasons why internal costs were lower than external costs. First, as explained at item 5 in **Table 6.6**, SGA costs were lower for internal circuits than external circuits. Second, as explained at item 7 in **Table 6.6**, BT may report lower internal costs where it does not need to interconnect with itself. As explained in **Table 6.6**, we have not felt it necessary to estimate external DSACs for this for the second item as it would result in external TISBO charges being even further below DSAC.

unreasonable to allow for the allocation of these costs on a different basis for 2004/05.

- 6.178 The position Ofcom adopted in 2001/02 in relation to SGA costs, which was reflected in the 2004/05 regulatory financial statements and the PPC reference offer was not explicitly referred to in the 2004 LLMR Statement. Arguably, by using the charges set in the 2002 PPC Phase 2 Direction as the starting charges for the 2004 charge control, we implicitly adopted the 2002 position and that we considered BT's approach to be acceptable.
- 6.179 The adjusted DSACs are set out in **Table A12.3 in Annex 12** below. We believe that this results in a fair balance of the interests of the Parties.

Section 7

Assessment of overcharging claims

Assessment of overcharging

- 7.1 Having identified the methodology that we intend to use to resolve the Disputes (as summarised in **paragraph 5.29** above) and the relevant data to use (see **Section 6**), we now turn to assessing whether BT has overcharged for PPC services by applying the methodology to the data.

Proposals from the Draft Determinations

- 7.2 We set out in the Draft Determinations our preliminary assessment of whether BT had overcharged for PPC services. We provisionally concluded that BT had overcharged the Disputing CPs £43 million for 2Mbit/s trunk services over the period April 2005 to September 2008.

Cost orientation assessment

- 7.3 In the Draft Determinations, we proposed to determine that overcharging has occurred where charges have been persistently above DSAC for the majority of the period (i.e. for at least three out of four years). Charges above DSAC for this length of time would indicate that BT had failed to take action to alter its charges in light of them being above DSAC.
- 7.4 Having compared BT's charges for individual PPC services with the DSACs for those services, we identified in the Draft Determinations that in three of the four years covered by the Disputes (i.e. 2005/06 to 2007/08) BT's charges for 2Mbit/s trunk services were significantly above the DSAC, with charges more than double the DSAC in 2007/08. Furthermore, when averaged across the period 2004/05 to 2007/8, BT's charges for 2Mbit/s trunk services were above the average DSAC for that period. BT's 2Mbit/s trunk charges were also above DSAC for 2004/05, albeit only marginally (i.e. by a total of £130,000). Given that the adjustments we have proposed to BT's data are calculated to the nearest £million, we provisionally concluded in the Draft Determinations that the amount by which BT appears to have exceeded the DSAC in 2004/05 fell within the margin of error for our model. As such, we proposed not to conclude that BT has overcharged the Disputing CPs in 2004/05.
- 7.5 Although there were several other PPC charges that were above DSAC for certain years during the period of the Disputes (e.g. 34/45Mbit/s PPC trunk services), these charges were only above DSAC for one or two years and never on average across the period of the Disputes. We therefore proposed in the Draft Determinations to conclude that BT has not overcharged the Disputing CPs for these PPC services.
- 7.6 At the time of publication of the Draft Determinations, regulatory financial accounting data was not available for the period 1 April 2008 to 30 September 2008. We therefore estimated the unit DSACs, based on the average of the unit DSACs for the three previous years, and compared this with the prices BT had charged the Disputing CPs between April and September 2008. We provisionally concluded that BT appeared to have set charges for 2Mbit/s trunk services that were above DSAC during this period.

- 7.7 We therefore provisionally concluded in the Draft Determinations that the cost orientation assessment appeared to show that BT had overcharged for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008.

Rate of return assessment

- 7.8 In the Draft Determinations, our comparison of the rates of return (relative to FAC) that BT had earned on PPC services appeared to support the findings of the cost orientation assessment. BT earned rates of return in excess of 100% on 2Mbit/s PPC trunk services in each of the years that the cost orientation assessment suggested that it had overcharged the Disputing CPs. This compared with BT's weighted average cost of capital of around 12% over the period of the Disputes.
- 7.9 The low rates of return on most TISBO services, and in particular the fact that they are the subject of a charge control that limits BT's ability to set high prices, supported our view that there has been no overcharging for TISBO services.

International benchmarking

- 7.10 In the Draft Determinations we identified that, taken at face value, the benchmarking data compiled by Deloitte suggested that BT's PPC charges are lower than the EU averages for both PPC terminating segments and trunk/terminating segments in aggregate, at each of the bandwidths considered (64kbit/s, 2Mbit/s and 34Mbit/s).
- 7.11 A more detailed examination of the benchmarking data, however, led us to identify a number of issues that caused us to question the extent to which the comparisons could be relied upon (see **paragraphs 5.9 to 5.11** above). As a consequence, we proposed to conclude that the lack of comparable pricing information for trunk services and the differences in the competitiveness and level of regulation in the trunk markets meant that it is not possible to draw any reliable inferences from Deloitte's benchmarking work with respect to BT's trunk charges.

Responses from the Parties

The Disputing CPs

- 7.12 The Disputing CPs broadly agreed with the approach that we adopted to assessing overcharging and the provisional conclusions that we reached in the Draft Determinations as to whether BT had overcharged for PPC services.
- 7.13 Although in agreement with the preliminary findings of overcharging in 2005/06, 2006/07 and 2007/08, the Disputing CPs requested that we review our proposal to conclude that there was no overcharging in 2004/05 and the level of overcharge that we identified for the period 1 April 2008 to 30 September 2008, based on their arguments about the reliability of the data that we used to assess overcharging in those years (see **paragraphs 6.10 to 6.13** above).
- 7.14 The Disputing CPs also requested that Ofcom make clear in its final determinations the reasons why economic harm is not a pre-requisite to either Ofcom's acceptance or determination of these Disputes.
- 7.15 They argued that nothing in the TRD decision or in the EU or UK legislative framework requires that actual economic harm or effect on competition have taken place. It is well established in competition law that a potential prevention, restriction or distortion of competition can give rise to an infringement of Article 81 EC and that

likewise a potential effect on trade can give rise to an infringement of Article 82 EC. The Disputing CPs quoted the decision of the ECJ in the *Miller* case to support their position:

“15. It is clear from the foregoing as a whole that the clauses in dispute were such as to affect trade between Member States.

Miller indeed alleges that the Commission should have established that those clauses had an appreciable effect on intra-Community trade but that argument cannot be accepted.

In prohibiting agreements which may affect trade between Member States and which have as their object or effect the restriction of competition Article 85(1) of the Treaty does not require proof that such agreement have in fact appreciably affected such trade, which would moreover be difficult in the majority of cases to establish for legal purposes; but merely requires that it be established that such agreements are capable of having that effect.”¹⁶⁰ (Emphasis added by the Disputing CPs.)

BT

- 7.16 BT argued in its Response that when its trunk charges are considered on a SAC basis and combinatorial tests are carried out, its charges are fully compliant with the cost orientation obligation and that no over-charging has occurred.
- 7.17 Specifically, BT claimed that its analysis shows that when 2Mbit/s trunk services are looked at on their own, as well as in combination with 2Mbit/s terminating services, other trunk services and other PPC services, the 2Mbit/s trunk charges do not fail the SAC test and are therefore cost orientated.
- 7.18 BT additionally claimed that although Ofcom recognised international benchmarking as being a relevant factor to consider when assessing overcharging, Ofcom failed to take account of the benchmarking data supplied by BT in its Submission. BT recognised that international comparisons are not straightforward but nevertheless believes that the data it provided shows that BT's trunk charges are not out of line with those in other European countries. BT rejected Ofcom's view that the lack of similarity in the circuits provided and the regulation of those circuits means that comparisons are uninformative.

Further comments

- 7.19 In their comments on BT's response to the Draft Determinations, the Disputing CPs' argued that BT's combinatorial tests are flawed, inappropriate, insufficient and invalid. In particular, they suggested that products from separate markets and with different regulation should not be combined as it could lead to losses in one market being offset against excess profits in another.

¹⁶⁰ *Miller International Schallplatten GmbH v Commission of the European Communities*, Case 19/77 [1975] ECR 1491, [1976] 1 CMLR 589, at paragraph 15.

Ofcom's assessment of overcharging

Cost ceiling assessment

Comparison of PPC charges with DSAC

- 7.20 In the Draft Determinations we set out our analysis of BT's PPC charges with the DSACs that we had estimated. We carry out a similar analysis below, making the adjustments discussed in **Section 6** above and addressing the comments made by the Parties in their Responses to the Draft Determinations.
- 7.21 **Table 7.1** compares BT's PPC charges with the DSACs for those services. The PPC charges are reflected as a percentage of their DSAC. Any figure above 100% indicates that the charge is set above DSAC. If BT set charges that passed the first order test, we would expect the charges to be 100% or less of the DSAC for each of the services listed in **Table 7.1**. We consider the extent to which the values exceed 100% to be relevant in this case. Comparing our calculated DSACs with BT's PPC charges we can see that a number of BT's PPC trunk charges are above their DSACs during the period of the Disputes, and in the case of 2Mbit/s trunk services, considerably above DSAC.

Table 7.1: Comparison of BT's external PPC revenues with our estimate of the external DSACs¹⁶¹

PPC service	2004/05	2005/06	2006/07	2007/08	2008/09	All Years
Low Bandwidth TISBO						
64kbit/s	26.2%	45.8%	28.6%	24.5%	25.7%	30.0%
2Mbit/s	44.2%	59.2%	53.1%	71.4%	66.2%	58.7%
Total	36.9%	54.2%	43.8%	56.3%	55.5%	48.6%
High Bandwidth TISBO						
34/45Mbit/s	30.5%	41.0%	59.0%	62.2%	46.2%	47.7%
140/155Mbit/s	39.6%	80.7%	97.6%	83.5%	84.1%	80.4%
Total	31.1%	43.5%	62.3%	65.3%	51.0%	51.0%
Trunk						
2Mbit/s	94.8%	162.4%	126.0%	217.5%	238.5%	159.6%
34/45Mbit/s	29.5%	69.6%	67.6%	110.5%	127.0%	82.6%
140/155Mbit/s	47.6%	40.4%	26.8%	62.1%	66.4%	49.5%
All Trunk	81.8%	132.0%	105.8%	179.9%	197.0%	135.3%
Total PPC	40.6%	61.3%	51.5%	69.3%	66.4%	57.2%

Source: Ofcom

- 7.22 **Table 7.2** makes a similar comparison to that in **Table 7.1** but uses the DSACs originally published in BT's regulatory financial statements, rather than the adjusted DSACs that we have calculated based on the Restated and Revised Data. Although we do not propose to rely in our analysis on the DSACs originally published in BT's regulatory financial statements, the data in **Table 7.2** serves to indicate that the choice of base data makes little difference to which services are found to be priced above DSAC. This data also shows similar levels of variability in the DSACs over the period, indicating that it is not BT's restatement or Ofcom's adjustments that have caused this.

¹⁶¹ A complete version of this Table, showing all the terminating segment services at each bandwidth is set out in **Table A12.4** in **Annex 12** below.

Table 7.2: Comparison of BT's PPC revenues with original DSACs¹⁶²

PPC service	2004/05	2005/06	2006/07	2007/08	2008/09	All Years ('04/05 to '08/09)
Low Bandwidth TISBO						
64kbit/s	29.9%	40.8%	30.1%	22.5%	27.3%	31.3%
2Mbit/s	54.2%	54.1%	54.2%	57.1%	80.8%	58.7%
Total	44.8%	49.4%	45.2%	44.9%	59.4%	48.6%
High Bandwidth TISBO						
34/45Mbit/s	30.3%	32.6%	52.9%	46.3%	38.9%	41.5%
140/155Mbit/s	47.0%	71.5%	98.8%	56.8%	65.9%	72.2%
Total	38.5%	52.2%	76.5%	52.4%	52.6%	57.6%
Trunk						
2Mbit/s	n/a	190.7%	138.8%	213.5%	231.6%	183.9%
34/45Mbit/s	n/a	132.1%	65.8%	103.2%	116.5%	96.6%
140/155Mbit/s	n/a	58.9%	31.9%	55.0%	62.9%	48.8%
All Trunk	132.7%	152.0%	96.3%	149.3%	166.2%	133.8%
Total PPC	53.7%	62.0%	57.9%	58.9%	71.9%	61.8%

Source: Ofcom

7.23 We note that the ratios reported in **Tables 7.1 and 7.2** demonstrate some variability year-on-year. This is driven primarily by variations in the DSAC data rather than revenues (in nominal terms prices have generally stayed largely constant). In its submission to the 2008 LLCC Consultation (submitted on 6 March 2009), BT argued that the principal causes of DSAC variability are:

- the level of asset inflation for the year (i.e. holding gains/losses);
- changes in the methodology for valuing assets;
- volume variations (particularly for per unit DSAC estimates); and
- changes in the reporting system used by BT.

The relatively large holding losses incurred by BT in 2004/5, 2005/6 and 2006/7 will have therefore both contributed significantly to the variability in the ratios in **Tables 7.1 and 7.2**, but will have also led to the lower ratios generally observed in these years compared to 2007/8 and 2008/09.

First order test and magnitude and duration of excess over DSAC

7.24 As can be seen from **Table 7.1**, certain of BT's trunk charges have exceeded DSAC during the period of the Disputes and failed the first order test. We have considered whether there are specific circumstances surrounding these charges that suggest that they are nevertheless reasonable.

7.25 As discussed in **Section 5**, when a charge fails the first order DSAC test it is necessary to consider other evidence, including the magnitude and duration, before reaching a conclusion as to whether overcharging has occurred.

¹⁶² The 2004/05 regulatory financial statements did not contain sufficiently disaggregated data to enable all comparisons to be made. The 'All Years' calculations are therefore based on the data for the last four financial years. The 'All Years' market totals are based on the data for all five financial years.

- 7.26 Our analysis of the DSACs for BT's PPC services over the period (as set out in **Table 7.1**) indicates that BT has persistently set charges above DSAC for 2Mbit/s PPC trunk services. In four of the five financial years covered by the Disputes (i.e. 2005/06 to 2008/09) BT's charges for 2Mbit/s trunk services were significantly above the DSAC, with the charges more than double the DSAC in 2007/08 and 2008/09. When averaged across the period 2004/05 to 2008/09, BT's charges for 2Mbit/s trunk services were well above the average DSAC for that period.
- 7.27 Therefore, the first order test, comparing charges and DSAC, suggests that BT has overcharged for 2Mbit/s trunk services in the period 2005/06 to 2008/09. However, as BT's 2Mbit/s trunk charges were around 5% below DSAC for 2004/05, the first order test does not suggest overcharging for these services in 2004/05.
- 7.28 Since 2Mbit/s trunk charges were substantially above DSAC in each of the four financial years 2005/06 to 2008/09, we consider, therefore, that the magnitude and duration of the excess over DSAC also provides evidence to support a conclusion of overcharging in these years.
- 7.29 As a result of using the data from BT's published 2008/09 regulatory financial statements (as amended in line with the conclusions in **Section 6**), three other PPC services have charges that failed the first order test in two consecutive years. These services are 34/45Mbit/s trunk services, 140/155Mbit/s terminating segment transmission services and 140/155Mbit/s terminating segment local end services (for the latter two services, see **Table 12.4** in **Annex 12**).
- 7.30 The excess of 34/45Mbit/s trunk charges over DSAC was 10.5% in 2007/08, increasing to 27% in 2008/09. The excess of 140/155Mbit/s transmission service charges over DSAC was broadly similar. For 140/155Mbit/s local ends, there was an excess in the last three financial years, although declining from 30% in 2006/07 to 6% in 2008/09. For these services, it would appear that BT's costs of providing the service have fallen and that this reduction in cost has not been as a result of an accounting treatment of cost that distorts the picture of underlying cost in those years, such as a large holding gain. There is, therefore, evidence to suggest that BT may also have overcharged for these services. However, as we did not consult on this conclusion in the Draft Determinations, we therefore intend to issue a separate draft or final determination to resolve the Disputes in relation to all 140/155Mbit/s terminating segment services and 34/45Mbit/s trunk services once we have obtained further data from BT to enable us to assess these services further and identify whether overcharging has occurred and what, if any, repayments should be required.
- 7.31 The first order tests for all other PPC services show that charges were below DSAC for all of the financial years covered by the Disputes or were above DSAC in just one of the years (in the case of 2Mbit/s terminating segment connection and main link in 2005/06 and 2006/07 respectively, and 34/45Mbit/s terminating segment main link in 2006/7). Where charges were above DSAC for one year, there is evidence to suggest that the excess over DSAC arose from an accounting cost in that year that may not have provided a true picture of underlying costs. In all three cases, the unit DSAC¹⁶³ was significantly lower than in each of the preceding and the subsequent year, and indeed significantly lower than in the other two financial years in the period of the Disputes. In both earlier and subsequent years, the charges were materially

¹⁶³ Unit DSACs can be calculated by using the model we have used to assist our assessment of overcharging. The Parties were provided with a copy of the model following publication of the Draft Determination and we will provide a copy of the revised model following our publication of the Final Determination.

below DSAC. We therefore do not consider that there is sufficient evidence in relation to charges and DSAC to support a conclusion that BT has overcharged the Disputing CPs for these PPC services.

Economic harm to customers and consumers

- 7.32 In the Guidelines, we state that, when investigating complaints about charges, DSAC is an effective first order test for the likelihood of anti-competitive or exploitative charging, but we would not apply the (floors and) ceilings test mechanistically. In the Guidelines we recognised that, there may be circumstances in which charges set above the DSAC ceiling may not constitute overcharging. The Guidelines explain that we will consider the effect of the charge in the relevant market and take a view on this based on the individual circumstances of each case.¹⁶⁴
- 7.33 On this basis, we have considered the actual or likely effect of BT's charges on competition and on consumers and concluded that charges are likely to have given rise to economic harm, for the reasons set out in detail below in **paragraphs 7.32 to 7.72**.
- 7.34 We accept the arguments of the Disputing CPs that economic harm is not a pre-requisite to Ofcom's determination of the Disputes. We agree that it is not essential to demonstrate that economic harm has in fact occurred in order to determine whether there has been overcharging. It is sufficient to establish that the overcharging could potentially cause economic harm.
- 7.35 Economic harm arises from the distortion of efficient economic decision-making such that economic welfare is reduced. In the following sub-sections we explain why we consider that, not only did BT's charges for 2Mbit/s trunk services have the potential for causing economic harm, but that it seems likely that such harm would have occurred.
- 7.36 BT's 2Mbit/s trunk charges have resulted in the Disputing CPs and/or their retail customers paying BT too much for these services, and therefore generating financial loss or harm to them. Moreover, we also consider that the charges are likely to have given rise to a number of economic distortions, and therefore to economic harm. We consider that the main sources of this harm are likely to have been:
- i) reducing the overall demand for retail leased lines through increasing retail prices;
 - ii) distorting competition between CPs at the retail level by favouring those able to self-supply trunk services; and
 - iii) distorting the investment decisions of CPs in terms of whether to build or buy trunk services.
- 7.37 We explain each of these sources of economic harm in the following sub-sections.

The financial impact of overcharging and its impacts on retail demand

- 7.38 We consider the comparison between the 2Mbit/s trunk prices charged by BT in the period of prices above DSAC, April 2005 to September 2008, as against the counterfactual of lower prices set at DSAC in that period. The Disputing CPs'

¹⁶⁴ See paragraph B.1 and B.2 of the 2001 Guidelines.

charges to their own customers for retail leased lines are based on wholesale input costs, including the cost of PPC trunk and terminating segments that they purchase from BT. As the wholesale charges represent a marginal cost for the Disputing CPs, it appears likely that some, albeit probably less than 100%, of the higher charges for 2Mbit/s trunk segments purchased from BT (compared to the counterfactual) will have been passed on to the Disputing CPs' customers through higher retail leased line prices. The exact extent to which the increased 2Mbit/s trunk charges to the Disputing CPs were passed-on to end users depends on the demand and competitive conditions in the retail market. Regardless of the exact level, as long as some level of passing-on occurred (and we note that BT suggests that this is the case¹⁶⁵), it is likely that economic harm would have been suffered as a result, because the inflated retail prices are likely to have suppressed retail demand.

- 7.39 To the extent that not all the higher 2Mbit/s trunk charges were passed-through to end users, the Disputing CPs would have incurred some form of financial loss from BT's 2Mbit/s trunk charges. As regards the extent of the higher charges that were passed-on, elevated costs will have been borne by end users and they too will have faced a financial loss from BT's charges. Furthermore, the resulting reduction in end user demand will have also generated an economic loss, as argued by RBB Economics in its submission on behalf of the Disputing CPs:

*"Supra-competitive overall charges for 2 Mbit/s trunk may have led to a reduction in demand for PPC dependent services. It is difficult to assess what the level of demand would have been in the counterfactual of no overcharge. However, higher volumes would have enabled the CPs to spread their fixed costs across a wider customer base and therefore offer lower prices, which in turn would have allowed the CPs to achieve further higher viable volumes and hence have extended their presence in the market."*¹⁶⁶

- 7.40 BT dismissed the risk that its charges for 2Mbit/s trunk increased the marginal cost of retail leased lines for CPs on the basis that any reductions in trunk charges would have resulted in increases in other charges:

"...Ofcom appears to be approaching the issue on the basis that the consumer benefit (or dis-benefit) of BT's charges is to be assessed by comparing BT's actual historic charging with what BT's charging would have been had 2Mbit/s trunk been at or below DSAC but all other charges had remained unchanged. Such an approach is clearly misguided. The reality, as Ofcom knows, is that if BT had lowered its 2Mbit/s trunk charges to the extent implied by the Draft then it would inevitably have had no option but to (a) apply to change the charge control for terminating services and increase its charges for those services and/or (b) raise its trunk prices for other bandwidths. Accordingly, the appropriate counterfactual against which to judge whether consumers have been harmed is not to posit a scenario in which BT only lowers its 2Mbit/s trunk prices, but rather

¹⁶⁵ Paragraph 84 of the BT Response states that "to the extent that they [the Disputing CPs] have been overcharged, they would almost certainly have passed-on any such overcharge to their retail customers".

¹⁶⁶ RBB Economics Response submission, paragraph 107.

to posit a scenario in which BT lowered its 2Mbit/s trunk charges and raised its other charges.”¹⁶⁷

- 7.41 BT similarly sought to argue that its circuit analysis demonstrates that very few customers could have been harmed by its charges:

“Given that circuits in excess of DSAC are a small minority of all circuits sold by BT (see Section D above), so too must be the retail customers who purchased leased lines that contain such circuits as a component from the Disputing CPs. BT’s charging structure for PPCs cannot, therefore, have been a cause of any supposed excess pricing for leased lines to the vast majority of end-consumers.”¹⁶⁸

- 7.42 BT’s arguments in this respect are based on its perception of the existence of a link between terminating segment and trunk charges. Specifically, BT appears to rely on the view that trunk charges are high as a consequence of suppressed terminating charges. As a consequence, BT argued that it is appropriate to consider harm on the basis of the charges for circuits (i.e. trunk and terminating in aggregate combined), rather than the underlying individual service charges.
- 7.43 Furthermore, BT argued that any consideration of harm based on a counterfactual where trunk charges are lowered but neither terminating nor other trunk charges are increased, is “*misguided*”. BT argued that if it had lowered its trunk charges to the extent proposed in the Draft Determinations, it would have had no option but to apply to increase its charges for the charge controlled terminating services and/or to increase charges for other bandwidths of trunk.
- 7.44 On the basis of its circuit analysis (which is predicated on aggregation, with the charges for trunk and terminating segments being combined), BT argued that very few circuits were sold above DSAC. As such, BT claimed that “*the amount of “overcharge” (i.e. charges over DSAC) for such circuits was a small fraction of the proposed £43m plus interest*”.¹⁶⁹ The analysis did show, however, that the number of circuits sold above DSAC was not zero, i.e. there was overcharging even using BT’s own preferred approach.
- 7.45 We disagree with BT’s assessment. As we explain in both the Draft Determinations and throughout this document, in particular in **Section 4**, we do not accept that there is a causal link between the charges for trunk and for terminating services. Trunk services are in a separate economic market to terminating services and have separate regulation. Similarly, the charge control for terminating services charges set in the 2004 LLCC Statement was set independently of trunk charges and profitability.
- 7.46 In an extreme example, if we accepted the principle that charges for services in separate markets should be considered together, as BT argued we should, then BT could charge an exploitative charge in one market and an exclusionary charge in another as long as overall the charges are in an acceptable range, thereby using its SMP power in two markets to the detriment of consumers and competition. This cannot be consistent with our duties and obligations to protect consumers and promote competition. In assessing the scope for harm to consumers, the appropriate counterfactual is a scenario in which 2Mbit/s trunk charges are reduced and other

¹⁶⁷ BT Response, paragraph A3.8.

¹⁶⁸ BT Response, paragraph A3.12(c)

¹⁶⁹ BT Response, paragraph A3.9.

charges remain constant. On this basis we believe that BT has significantly understated the risks of consumer harm through higher prices for retail leased lines.

- 7.47 BT asserted in paragraph 29 of its Response that if it had thought that we might retrospectively seek to isolate costs on trunk and decide that the price of certain trunk elements were too high in relation to trunk costs, then BT could and would have argued that the cost orientation obligation, in respect of the terminating services, conflicted with the price cap previously imposed on those terminating services. Had it been clear in 2004 or anytime thereafter that Ofcom would not take an aggregated consideration of trunk and terminating segments, BT argued, it would be inevitable that the price cap would have had to be reviewed.
- 7.48 We reject BT's argument. BT at all relevant times knew how Ofcom would approach an assessment of BT's compliance with its cost orientation obligation. As we have shown above in **Sections 4 and 5**, it should have been clear to BT from the wording of the SMP obligation itself and the Guidelines, that the cost orientation obligation applied to each and every charge on a disaggregated approach and that the first order test for establishing cost orientation was DSAC. And, it was clear to BT as set out by BT in its own year on year regulatory accounts where it recognised that this would be the approach that Ofcom would adopt.
- 7.49 For BT to make this argument now in the context of these Disputes, after the expiry of the 2004 charge controls and when its own documents recognised Ofcom's approach is an *ex post* rationalisation of its behaviour in relation to PPC charges. To accept BT's argument and its suggested counterfactual of offsetting lower trunk charges for higher charges elsewhere (breaching or revisiting the terminating segment price caps), would be unfair to the Disputing CPs who have been overcharged in contravention of BT's cost orientation obligation.
- 7.50 In any event, we consider it unlikely that we would have changed the price cap for the reasons discussed below: appropriately set starting charges in the terminating segment price caps, explanations of low rates of return, and the high threshold for reconsidering a charge control.
- 7.51 First, as regards the starting charges, we explained in the 2004 LLCC Statement that BT was unable to demonstrate that its proposals to increase significantly the prices for some PPC terminating segment services within the charge control were sufficiently justified (see **Section 4**). As a consequence, we concluded that there should not be a deviation from the existing charges, which had themselves been the result of considerable work and scrutiny by both BT and Ofcom when they were originally set as part of the 2002 PPC Phase 2 Direction.
- 7.52 Second, while information available now may suggest that the rates of return earned on charge-controlled terminating segments were relatively low, this does not mean that it was inappropriate for Ofcom to set the charge caps for terminating segments that it did in the 2004 LLCC Statement. In addition to the question of the starting charges, there is the effect of BT's restatement of, and revisions to, its accounts to correct the error in BT's methodology to account for internal sales. This restatement resulted in a significant reduction in the accounting rate of return. The error by BT has only come to light subsequently and we were not aware of it in 2004. Consequently we were unable to factor it into our assessment when setting the price caps for terminating segment services.
- 7.53 In addition, there may be further reasons for the relatively low rates of return earned by BT on these services. Charge controls are typically set to allow the firm to make a

rate of return equal to its cost of capital at the end of the control period on the basis of forecast costs and volumes. Low rates of return on price controlled services (i.e. returns below the regulated firm's cost of capital) typically stem from one or a combination of the following sources:¹⁷⁰

- Incorrectly set starting charges – the prices at the beginning of the charge control period may be too low (given the value of X);
- Forecast error in values of X – the glide path for charges may be incorrect (given the starting charges), because of forecast error. There is an inherent risk with a charge cap that prices and actual costs will diverge over the period of the charge control. This risk is symmetric, in that the firm can either gain or lose from it, and is fundamental to the desirable incentive properties of price cap regulation; and/or
- Failure to achieve cost reductions over time – the regulated firm may fail to obtain the full extent of the cost reductions that are reflected in the value of X. Values of X that, *ex post*, lead to a divergence between prices and costs are therefore not necessarily symptomatic of an inappropriately set charge control. Indeed they may simply reflect the price control effectively providing incentives for the firm to grow volumes or improve efficiency. A rate of return below the cost of capital may also reflect the fact that the firm has failed to respond to these incentive properties, and therefore has not achieved the forecast cost reductions or volume growth. Failure to earn a sufficient rate of return under these circumstances would not mean that the values of X were inappropriately set.

7.54 BT argued that the low rates of return now observed for terminating segments over the period (see **Table 7.3** below, i.e. after BT's restatement for its error in accounting for internal sales)¹⁷¹ were caused by the starting charges in the 2004 charge control being too low. Even if this were the case, the problem in our view arose from the inadequacy of BT's financial information at the time we set the starting charges, as discussed above. Regardless, we consider that BT has failed to demonstrate that the low rates of return arose primarily from the level of the starting charges, as against the range of other possible explanations, such as BT's restatement of, or revisions to, its accounts, forecast errors and failure to achieve cost reductions.

7.55 Third, it is unlikely that we would have changed the price cap in this case. The terminating segment price caps were set on the basis of a forecast of costs and there is a high threshold of changes in market circumstances that we require in order to consider that it is appropriate to revisit them. By revising charge caps when an operator under-performs or over-performs, we risk weakening the incentive properties of the price caps and therefore would risk undermining our charge controls.

7.56 Finally, BT claims that (additionally or alternatively) it would have increased other trunk charges. We consider that this claim is also questionable. The external revenues from 2Mbit/s trunk constitute around 85% of total external trunk revenues (see **Table A12.3** in **Annex 12** below). Therefore any reduction in 2Mbit/s trunk charges would require a very significant increase in the charges for the remaining bandwidths to offset the revenue change, most notably 34/45Mbit/s (very few 140/155 Mbit/s circuits are sold by BT to external customers). As can be seen from **Table 7.1** above, the charges for 34/45 Mbit/s trunk services were relatively close to

¹⁷⁰ We note that these issues are not mutually exclusive and therefore there is some degree of interaction between them.

¹⁷¹ Table 7.3 also takes account of Ofcom's adjustments.

the DSAC ceiling for the period as a whole (82.6%), and indeed exceeded it for the last two years (110.5% and 127.0% respectively). Therefore, it seems highly unlikely (if not impossible) that BT could have rebalanced trunk charges sufficiently to recover 2Mbit/s revenue reductions without charging above DSAC for those other trunk services.

- 7.57 We also consider that BT's circuit analysis is of limited relevance to these Disputes. While it is informative to note that, even on the basis of BT's preferred approach of offsetting trunk charges with terminating charges, it is still possible to conclude that there was overcharging (given that charges exceeded DSAC), as we have explained in **Section 4** above, we fundamentally disagree with the aggregation of trunk and terminating charges upon which BT's circuit analysis is based.
- 7.58 In summary, as we explain in detail above, we do not accept that there is a link between trunk and terminating charges. Therefore, if BT levied charges for 2Mbit/s trunk services above DSAC over (most of) the period of the Disputes, as we have concluded it did, this will have resulted in retailers of leased lines (i.e. the CPs) facing higher wholesale charges from BT than they otherwise would have. In the face of these elevated charges, it is likely that the CPs passed them on to customers, at least in part, leading to harm to consumers of leased lines through higher retail prices.

Potential distortions to competition between CPs

- 7.59 BT's overcharging for 2Mbit/s trunk services may also have caused economic harm by distorting competition. This may have manifested itself in a number of different ways.

Distorted retail competition between CPs

- 7.60 CPs with large existing networks are likely to be in a relatively better position to self-supply trunk circuits than those with more limited networks. As a consequence, the split between trunk and terminating segment spend for the Disputing CPs will be different, with some of the CPs purchasing proportionately more trunk than terminating segments (see **Figure 4.1** above). Higher charges by BT for trunk circuits has therefore lead to relatively higher costs for those CPs with smaller networks of their own and, as a consequence, has potentially lead to a distortion in retail competition (for example, CPs may have been deterred from bidding for some contracts at the margin as the returns would not have been sufficient). BT's own circuit analysis appears to support this view, showing that some of the Disputing CPs (for example COLT) may have been disproportionately affected by BT's overcharging compared to other CPs.
- 7.61 BT disputed Ofcom's arguments on this point in its Response to the Draft Determinations. BT asserted that:
- "Ofcom suggests that the relative price of terminating and trunk might, in practice, materially affect the purchasing decisions of CPs."*¹⁷² (emphasis added)
- 7.62 It appears to Ofcom from this statement that BT seems to have misunderstood or failed to respond to our concern. In the paragraphs of the Draft Determination to which BT refers, we argued that the relative prices charged by BT for individual

¹⁷² BT Response, paragraph A3.3.

services could give rise to distortions to competition at the retail level. Our concern therefore is not about CP purchasing decisions *per se*, but more about distorting input prices faced by CPs and, therefore, competition between CPs with unchanged purchases (possible distortion of purchasing decisions is discussed in the next sub-section). Different CPs require different mixes of wholesale inputs from BT to provide retail services. This reflects the nature and scale of their particular networks, and existing patterns of demand. Therefore, the balance of prices between the different BT input services is important in shaping competition because different CPs will need to source different inputs from BT for similar retail circuits.

- 7.63 BT also seems to have equated Ofcom's concern to one of whether the CPs have been charged too much overall for PPCs (i.e. across trunk and terminating combined). On the basis of its "revenue per circuit" analysis, BT argues that no individual CP can be said to have been charged in excess of a cost orientated price for PPCs over the period.¹⁷³ Rather it argued that there have been those that have gained more than others from the charging imbalance, which it argued Ofcom has failed to take into consideration. Instead BT claimed Ofcom has required repayments to be made to all CPs including those that have gained:

*"Yet Ofcom's order is blind to any distinction between those that have been favoured and those that have not..."*¹⁷⁴

- 7.64 As explained above, we disagree with the counterfactual that BT is using and consider that consideration of trunk charges separate from terminating segment charges is appropriate. Our point to which BT refers relates to the scope for distorted wholesale trunk prices to give rise to distortions to competition and prices at the retail level. Any such retail distortions risk inefficient decisions being made by consumers and, therefore, suppressed levels of economic welfare. Therefore, it was not that there were some CPs that were winners from BT's 2Mbit/s trunk charges above DSAC and others that were losers. Rather all CPs purchasing 2Mbit/s trunk services were losers, but some were larger losers than others. This disparity between CPs demonstrates the potential for distortions.

- 7.65 Our concerns were recognised by the Disputing CPs in their Response:

*"Trunk and terminating segments are not purchased in fixed proportions. Relative trunk and terminating volumes vary by operator/contract, and by bandwidths within trunk and terminating segments. Operators such as the Altnets will have been affected to different degrees by overcharge in trunk potentially resulting in distortion at retail level through sales being lost to other operators due to higher input costs."*¹⁷⁵

- 7.66 Insofar as BT has recognised Ofcom's concerns of competitive distortions, BT argued that the distortions would favour those with larger networks and that this is consistent with Ofcom's policy of infrastructure competition over the period of the Disputes. We disagree with this view. Our policy of encouraging infrastructure investment relates to efficient investment that can encourage innovation and efficiency improvements. It did not, and does not, relate to inefficient investment which might be profitable if wholesale charges are at excessive levels. Cost

¹⁷³ Although, as noted above, even using BT's own approach, BT has overcharged for some circuits.

¹⁷⁴ BT Response, paragraph A3.3(d).

¹⁷⁵ Altnets Response, paragraph 7.7.2.

orientation obligations are, in part, specifically aimed at preventing pricing distortion that might lead to inefficient behaviour.

Distorted investment decisions

7.67 Inflated BT 2Mbit/s trunk prices may also have the effect of encouraging inefficient entry into the market, which can also distort competition. High charges for wholesale services could give rise to circumstances whereby it is profitable for the Disputing CPs to invest in self-supply of the services despite their costs of provision being higher than for BT. This is inefficient for society as a whole. Although entry may lead to increased infrastructure competition over time and, therefore, result in some mitigating dynamic efficiency benefits, these are less likely to offset static inefficiency where, as a result of prices above DSAC, the margins available to entrants are high. Although widespread inefficient market entry does not appear to have happened during the period of the Disputes, we had understood from discussions with CPs during 2007/08 in the context of our work on the 2008 BCMR Statement that this was because the Disputing CPs believed that BT's trunk charges were too high and expected that Ofcom would ultimately take action to reduce them.

7.68 Our concerns on this point were supported by the Disputing CPs in their Response:

*"...the price signals CPs receive from an overcharge on trunk segments may lead to inefficient investment in rolling out unnecessary trunk capacity. CPs only build trunk where they consider they have the necessary scale and can be more efficient than BT. CPs' investment decisions therefore can crucially rely on BT charging the correct price for trunk segments. The members of Altnets have confirmed to us that BT's wholesale charges feed directly into their investment decisions. The business case for rolling out new network is simply a case of identifying least cost routing: if installing additional infrastructure will enable a CP to reduce its cost of serving customers it will do so, otherwise it will continue to use BT's wholesale inputs. Therefore, BT's overcharge on trunk is likely to have resulted in inefficient investments in trunk capacity."*¹⁷⁶
(emphasis added)

7.69 BT disputed Ofcom's arguments, claiming that inefficient entry has not occurred as there has been no meaningful entry of any type:

*"Ofcom suggests that the charges for 2Mbit/s trunk services have led to a distortion of competition because "high trunk prices may also have the effect of encouraging inefficient entry into the market". The short answer to this is that over the disputed period there has been no material entry – inefficient or otherwise."*¹⁷⁷ (emphasis added)

7.70 As BT noted in passing, Ofcom did acknowledge in the Draft Determinations (paragraph 6.22) that no widespread entry had occurred although, since it is difficult to know how much investment would have occurred if trunk charges had been lower, this does not mean that there could have been no additional inefficient investment at the margin. As noted above, we had understood from discussions with certain CPs that market entry had not occurred was because the Disputing CPs believed that BT's trunk charges were too high and expected that Ofcom would ultimately take

¹⁷⁶ RBB Economics Response submission, paragraph 103.

¹⁷⁷ BT Response, paragraph A3.4.

action to reduce them. If Ofcom fails to remedy the overcharge, and thereby signals that it would not act against such high charges more generally, then inefficient entry could occur in the future.¹⁷⁸

- 7.71 In addition to arguing that (inefficient) entry had not occurred, BT also raised two theoretical objections to the theory of harm:
- Higher prices for 2Mbit/s trunk would not be sufficient to encourage entry – BT argued that no CP would enter to supply 2Mbit/s trunk services in isolation, rather they would enter to supply trunk services more generally. Therefore it is the charges for all trunk, not just 2Mbit/s, that are relevant for entry; and
 - Entry, and therefore competition, was central to the regulatory strategy at the time of the Disputes.
- 7.72 We do not agree with either of these objections. Firstly, as we demonstrate in **Table 7.1**, BT's charges for 2Mbit/s trunk are so high that they result in revenues for all trunk services in aggregate exceeding DSAC for 2005/06 to 2008/09. Therefore, to the extent that BT is correct that it is charges for trunk services generally that drive market entry, BT's trunk charges were sufficient to risk inefficient entry. We therefore maintain that by charging at the level it did, BT increased the potential for inefficient entry by firms with costs which are so much higher than BT's that they could not realistically be offset by dynamic benefits from competition. Secondly, as we have explained above, while stimulating investment in networks was central to the regulatory strategy at the time, it was efficient investment that was encouraged, not inefficient investment of the type that BT's 2Mbit/s trunk charges risked.

Assessment of charges below DSAC

- 7.73 As discussed in **paragraphs 5.107 to 5.113** above, it is possible for charges that are below DSAC nevertheless to constitute overcharging. The Disputing CPs have asked us to consider whether this is the case in relation to any of BT's PPC services. We have identified four factors that are relevant to our assessment:
- i) whether the charges in question were included in a charge control;
 - ii) the magnitude and duration of the shortfall of the charge compared to DSAC;
 - iii) the magnitude and duration of the rate of return above BT's WACC; and
 - iv) any evidence of the effect of the charge in the market.
- 7.74 Our analysis here excludes 140/155Mbit/s terminating segment services and 34/45Mbit/s trunk services, which we will address in a separate document. Of the remaining services, all the terminating segment services identified in **Table 7.1** above were included in charge control baskets for the entirety of the period of the Disputes. We have monitored BT's compliance with these charge controls over the period of the Disputes and are satisfied that BT has complied with its charge control obligations.
- 7.75 Furthermore, these services were priced significantly below DSAC for the majority of the period of the Disputes. Although some terminating segment services were priced

¹⁷⁸ We note that inefficient entry is not limited to the PPC markets, it could occur in any markets facing similar regulation.

above DSAC in 2005/06 and 2006/07, we discuss the interpretation of this evidence in **paragraph 7.31** above. In the other years of the Dispute they were at least 10% below DSAC and by a significantly larger amount in most cases. Taking these considerations into account, the rates of return earned by BT on these services were similarly not of sufficient magnitude and persistence above BT's WACC to provide sufficient evidence to support a conclusion that BT had overcharged for these services (see **Table 7.3** below).

- 7.76 In assessing prices below DSAC for possible overcharging, the appropriate counterfactual to consider the effect in the market on consumers and competition is not clear-cut.¹⁷⁹ A counterfactual of prices at DSAC would involve higher, not lower prices. But there is no clearly correct alternative benchmark for prices (e.g. as discussed in **Section 5**, FAC does not in our view constitute an appropriate benchmark for this purpose). This lack of clarity about the counterfactual places a limit on the inferences that can reasonably be drawn about the effects on consumers or competition, in the absence of direct evidence of adverse effects from the Disputing CPs.
- 7.77 We therefore consider that there is insufficient evidence to conclude that BT overcharged for terminating segment services over the period of the Disputes (excluding 140/155Mbit/s terminating segment services, which we will consider separately).
- 7.78 The remaining trunk segments services (i.e. those of 140/155Mbit/s) were not included in charge control baskets during the period of the Disputes. These services were priced significantly below DSAC over the period of the Disputes, averaging 50% below DSAC. Similarly, the rates of return earned on the 140/155Mbit/s trunk services do not appear to be sufficiently high as to demonstrate that overcharging has occurred on these services. The average rate of return on 140/155Mbit/s trunk services was less than BT's WACC and did not exceed 25% over the entire period of the Disputes (see **Table 7.3** below).
- 7.79 We therefore conclude that there is insufficient evidence to suggest that BT overcharged for 140/155Mbit/s trunk services over the period of the Disputes.

Conclusion on cost ceilings

- 7.80 On the basis of the information set out in **Table 7.1** above, there is evidence that BT has set charges for certain of its PPC trunk services above the DSAC for those services. We therefore consider that those charges have failed the first order test.
- 7.81 Consideration of the magnitude and duration of the excess of BT's charges above DSAC leads us to refine the set of services and years in which we consider that there is sufficient evidence of overcharging. Specifically, the 2Mbit/s trunk charges are significantly and persistently above their DSACs for the period between 1 April 2005 and 30 September 2008 and we consider it likely that the charges caused economic harm. But we do not believe that there is sufficient evidence, in relation to cost ceilings, to support a conclusion that BT overcharged in the period June 2004 to March 2005. We have also reached a similar conclusion of insufficient evidence in relation to the other services that failed the first order test (apart from 34/45Mbit/s trunk services and 140/155Mbit/s terminating segment services).

¹⁷⁹ This is in contrast to the assessment of prices above DSAC, for which the correct counterfactual is prices at DSAC (as discussed above).

- 7.82 We have concerns that BT may also have overcharged for 34/45Mbit/s trunk services and 140/155Mbit/s transmission services in the period April 2007 to September 2008. However, as we did not consult on this conclusion in the Draft Determinations, we intend to issue a separate draft or final determination to resolve the Disputes in relation to all 140/155Mbit/s terminating segment services and 34/45Mbit/s trunk services once we have obtained further data from BT to enable us to assess these services further and identify whether overcharging has occurred and what, if any, repayments should be required.
- 7.83 Our assessment of the charges that were priced below DSAC suggests that BT did not overcharge for these services as they were either included in a charge control or were sufficiently below DSAC (with insufficiently high rates of return) for the majority of the period of the Disputes.

Rate of return assessment

- 7.84 Having identified from the cost ceiling assessment that it appears that BT has overcharged for 2Mbit/s PPC trunk services since April 2005, we now consider whether the assessment of the rates of return relative to CCA FAC earned by BT on PPC services supports this conclusion.
- 7.85 **Table 7.3** sets out the rates of return¹⁸⁰ that BT earned each year on its regulated PPC services, in terms of each of the respective product markets and on PPCs overall.¹⁸¹

Table 7.3: Rates of return earned by BT on PPC services in wholesale leased line markets

PPC service	2004/05	2005/06	2006/07	2007/08	2008/09	All Years
Low Bandwidth TISBO						
64kbit/s	-13.9%	0.6%	-17.5%	-25.8%	-16.4%	-13.5%
2Mbit/s	-0.6%	1.5%	-0.9%	18.1%	9.1%	4.2%
Total	-5.5%	1.2%	-7.0%	0.3%	1.2%	-2.3%
High Bandwidth TISBO						
34/45Mbit/s	-8.5%	-9.9%	7.2%	11.2%	6.3%	2.0%
140/155Mbit/s	1.3%	24.9%	45.8%	33.4%	23.0%	22.6%
Total	-3.4%	8.7%	25.6%	23.0%	11.0%	10.8%
Total TISBO ROCE	-5.0%	2.9%	0.2%	6.2%	5.7%	1.5%
Trunk						
2Mbit/s	76.0%	102.1%	125.6%	134.7%	142.1%	109.2%
34/45Mbit/s	1.2%	14.0%	41.5%	53.5%	64.5%	30.8%
140/155Mbit/s	17.0%	3.1%	-9.4%	20.1%	21.5%	10.9%
All Trunk ROCE	48.0%	57.6%	74.6%	87.4%	95.3%	68.5%
Aggregated TISBO+Trunk						
64kbit/s	-13.9%	0.6%	-17.5%	-25.8%	-16.4%	-13.5%

180

$$\text{ROCE} = \frac{\text{Revenue} - \text{Adjusted cost (excluding the cost of capital)}}{\text{Adjusted mean capital employed}}$$

Adjusted mean capital employed

¹⁸¹ As discussed in **Section 6**, we have used BT's restated and revised financial data, adjusted to take account of the factors described in **Figure 6.6** above. The ROCEs quoted in this document may differ from those quoted in the 2008 BCMR Statement and the 2009 LLCC Statement because the adjustments we have made to BT's data differ slightly from those used in the forward looking charge control. These differences are justified by the historical nature of the Disputes.

2Mbit/s	14.4%	21.7%	19.3%	42.8%	29.5%	23.7%
34/45Mbit/s	-6.0%	-1.9%	16.8%	24.3%	11.2%	8.0%
140/155Mbit/s	5.5%	18.4%	31.1%	29.6%	22.7%	19.6%
Total PPC ROCE	3.9%	13.1%	11.4%	21.3%	15.9%	12.2%
BT WACC	13.5%	12.3%	11.4%	11.4%	11.4%	12.0%

Note: in resolving the Disputes, we have used the WACCs provided by BT in its Section 191 responses. These are as reported in the regulatory accounts. For the years 2005/06 to 2008/09 the WACCs varied slightly by service. For simplicity, we have quoted the maximum WACC for each service here.

Source: Ofcom analysis of BT data

- 7.86 The estimates presented in **Table 7.3** show that BT has earned an average rate of return on capital across all PPC products of just over 12% over the five years from 2004/05. This compares with BT's average WACC across the period of just under 12%.¹⁸² However, as discussed in **Section 4**, we do not consider that aggregated PPCs are the appropriate level at which to carry out our assessment. It is therefore necessary for us to consider the rates of return earned in the separate PPC markets and by the individual services within those markets.
- 7.87 Looking at the individual markets, it can be seen that BT has generally earned rates of return on TISBO services that are at or below its WACC (apart from 140/155Mbit/s in some years). Very high rates of return were earned on trunk services, and to a lesser extent, on 34/45 Mbit/s trunk services.
- 7.88 The consistently high rates of return identified in relation to 2Mbit/s trunk services support the conclusions of our cost orientation assessment that overcharging has taken place. Similarly, the generally low rates of return on low bandwidth and 34/45Mbit/s TISBO services provides evidence in support of the conclusion that there has been no overcharging for these TISBO services. We have addressed BT's comments about these low rates of return at **paragraphs 7.47 to 7.56**.

Other Evidence

SAC and combinatorial tests

- 7.89 BT first submitted evidence of SAC and combinatorial tests in its Response to the Draft Determinations. BT claimed to have carried out the necessary combinatorial tests in the period in which Ofcom gave it to comment on the Draft Determinations and argued that the results show that it has not overcharged the Disputing CPs.
- 7.90 We assess this new evidence below and then set out our conclusions on whether BT has overcharged the Disputing CPs.

Assessment of BT's SAC and combinatorial test analysis

- 7.91 For the reasons summarised in **paragraph 5.56**, we consider that BT's evidence on SAC and a sub-set of combinatorial tests is not sufficiently relevant or reliable to alter our conclusions on overcharging. In the following paragraphs we consider in greater detail two specific aspects of our concerns: first, that BT's evidence falls short of being based on a "*generally accepted robust methodology*"; and second, that BT's

¹⁸² This is a time-weighted WACC that allows for the variations in BT's WACC over the period of the dispute. The WACC is adjusted to reflect that only the latter half of the financial year 2004/05 is in the dispute period.

evidence is compromised by the incompleteness of the combinatorial tests that BT has conducted.

1. BT's methodology is neither generally accepted nor robust

7.92 As discussed in **paragraph 5.56** above, the Guidelines specify that for SAC estimates and combinatorial tests to be taken into consideration by Ofcom they must be based on a "*generally accepted robust methodology*". The criterion can be split into two dimensions:

- i) Is the methodology generally accepted?
- ii) Is the methodology robust?

We discuss these dimensions in greater detail in the following paragraphs.

(i) Is BT's SAC methodology generally accepted?

7.93 BT has not sought to consult Ofcom or other stakeholders (including the Disputing CPs) on its methodology, other than by including it in its Response. We have not accepted the methodology for the reasons set out in this document and summarised in **paragraph 5.56**. In their comments on BT's Response to the Draft Determinations, the Disputing CPs did not accept BT's methodology, arguing that:

"The combinatorial tests applied by BT to determine whether overcharging has occurred in these Disputes are flawed and inappropriate."¹⁸³

This contrasts with the approach to calculating DSACs, which appears to have been generally accepted for the period of the Disputes. Ofcom accepted that alternative evidence could be developed involving the use of SAC and combinatorial tests. However, to be generally accepted, the methodology for this evidence needed to be discussed widely, including with industry stakeholders that have a legitimate interest, and agreed with Ofcom in advance to test their robustness. BT submitted evidence supporting the use of SAC and combinatorial tests for the first time in its Response in June 2009.

7.94 However, BT's charges for 2Mbit/s trunk have exceeded DSAC since at least 2005/06. This is the case for the PPC financial data originally published by BT in its regulatory financial statements and for BT's restated and/or revised financial data, both before and after Ofcom's adjustments. Given the Guidelines and BT's own accounting documents, it should have been clear to BT that it was in breach of the first order test of cost orientation for these services, and that it had an obligation to demonstrate that its charges were cost orientated. If it wished to justify charges above DSAC, BT should have had a "*generally accepted robust methodology*" in place to demonstrate to "*Ofcom's satisfaction*" that, despite failing the first order test, its charges were still cost orientated. Indeed, over and above its obligation to be able to demonstrate compliance to Ofcom, it is unclear to us, in the absence of such a methodology, how BT established its own compliance.

7.95 Despite the lack of general acceptance of the robustness of BT's methodology, we have nevertheless considered whether the methodology is robust.

¹⁸³ Altnet comments on BT's response, 26 June 2009, paragraph 1.4.3.

(ii) *Is BT's SAC methodology robust?*

7.96 We have concerns about the quality of the SAC and combinatorial test evidence submitted in the BT Response in two substantial areas:

1. Appropriateness of BT's SAC estimates; and
2. Completeness of the combinatorial tests undertaken.

7.97 We cannot therefore accept that BT results show "*that charges have been within the boundaries of LRIC and SAC and all relevant combinatorial tests*" as BT asserted in its Response.¹⁸⁴

1. Appropriateness of BT's SAC estimates

7.98 We have undertaken both a conceptual review of the approach adopted by BT, and a high-level review of BT's calculations, including its spreadsheet model and any significant modelling assumptions made.

7.99 Our review process has identified a number of significant conceptual deficiencies in BT's approach, as well as a number of problems with BT's calculations. As a consequence, we do not consider that the analysis has been shown to be "*robust*". We consider the conceptual issues below and the calculation concerns in **Annex 15**.

7.100 The context for the review we have undertaken is the magnitude by which BT's estimates of SAC exceed both DSAC and FAC. BT's SAC ceilings are between [X]% to [X]% higher than our estimates of the DSAC ceilings (depending on the year) and are around [X]% to [X]% higher than FAC. The implications of allowing BT to charge this much higher than DSAC or FAC means that it is necessary for us to review carefully the accuracy of BT's SAC estimates. As a result of this review, we have identified the following areas of concern¹⁸⁵:

- a) BT's failure to estimate an 'efficient' SAC
- b) Potential overstatement of common costs
- c) BT's inclusion percentages

(a) BT's failure to estimate an 'efficient' SAC

7.101 In the context of considering whether a charge is unreasonable on the basis of the maximum a multi-product firm could charge in a contestable market, it is the SAC of an efficient single-product entrant that is the relevant benchmark. A price charged by the incumbent that exceeds this level of cost would provide a profitable entry opportunity and would not be sustainable. Therefore the SAC benchmark should be

¹⁸⁴ See page 4 of BT's response.

¹⁸⁵ A further issue about BT's analysis relates to route-specific SACs. A route-based analysis of individual service charges as envisaged by the 2004 LLMR Statement implies a degree of service disaggregation that is even greater than we have adopted for resolving the current Disputes, using geographically averaged charges and costs. While we do not consider national average charges are unreasonable *per se* in this specific case, in order for BT to argue successfully that it has correctly estimated the 'true' SAC, it could be argued that its analysis would also need to take account of differences in costs between individual routes (which are likely to be substantial, given the very significant variation in densities across different routes). BT has also failed to consider the possibility of a stand-alone operator entering the market to compete on a limited number of routes.

based on the most efficient network architecture and business structure for the individual service (or combination of services) under consideration being produced in isolation. As Baumol, Panzar and Willig note:

“Quite simply, if the revenues collected from the sale of a subset of products, S, exceed the cost of providing the same quantity of those products independently, a profitable entry opportunity is offered to anyone willing to supply the same bundle at a slightly lower price and, in a perfectly contestable market, entry will occur.”¹⁸⁶ (emphasis added)

7.102 This approach is reflected in the Guidelines, which require that cost ceilings “*reflect the costs of an efficient operator because they are intended to prevent excessively high or exploitative pricing*” (emphasis added).¹⁸⁷ It is also consistent with the interpretations that the Office of Fair Trading (the “OFT”) has adopted in its *Assessment of Conduct* guidelines (April 2004 version) which cover the period of the Disputes:

“The lowest cost which could be faced by a hypothetical supplier of only a particular product or service.”¹⁸⁸

7.103 The term ‘efficient’ has two dimensions in the context of SAC estimates:

- **operationally efficient** – given the network structure of the firm, is it cost efficient at producing given its product portfolio? This is the interpretation of efficiency that is considered when imposing a charge control (e.g. the leased lines charge control) and is also relevant to the estimation of DSACs; and
- **least cost network structure** – the costs for a (hypothetical stand-alone) operator of a network of appropriate size and functionality. For example, the relevant cost base for an operator that only provides 2Mbit/s trunk services.

7.104 BT has based its SAC estimates on its own costs¹⁸⁹ rather than those of an efficient stand-alone supplier.

7.105 While the conclusions of a comparative efficiency study undertaken for Ofcom for the 2004 LLCC Statement¹⁹⁰ suggested that BT had scope for efficiency improvements over the charge control period, similar analysis undertaken for the 2009 LLCC Statement appears to suggest that BT was relatively efficient by the end of the period under consideration. This implies that ‘operational inefficiency’ was gradually eliminated over the charge control period and that any adjustments to reflect this are unlikely to generate substantial changes to SAC estimates based on BT’s actual costs.

7.106 However, for a multi-product firm such as BT which uses a common network infrastructure to provide numerous different services, the ‘least cost network structure’ dimension to efficiency is likely to be considerably more significant when considering SAC estimates for individual services. This is because the multi-product

¹⁸⁶ Baumol, W., Panzar, J. and Willig, R. *Contestable Markets and the Theory of Industry Structure*, (1982), New York, Harcourt Brace Jovanovich), page 352.

¹⁸⁷ See paragraph B.8 of the 2001 Guidelines.

¹⁸⁸ See page 36 of the OFT Guidelines: *Assessment of Conduct*, available at: http://www.offt.gov.uk/shared_offt/business_leaflets/competition_law/oft414a.pdf

¹⁸⁹ See **Annex 14** for an explanation of the stages in BT’s methodology.

¹⁹⁰ See Annex E of the Final Statement.

firm is likely to incur a number of common costs that, while they are common to the service in question given BT's network architecture and business structure, they would be lower if the service was produced in isolation. This reflects the fact that a network architecture and business structure which is the most 'efficient' way of producing a large number of services, may not necessarily be the most efficient way of producing each individual service.

- 7.107 BT is not a stand-alone operator and its network design reflects the fact it supplies a large portfolio of services. It is not clear that BT's network architecture and design would be the least cost way for a *stand-alone* operator to provide 2Mbit/s trunk services (or other combinations of services). For example, it is unlikely that BT would have built so large and geographically spread a core network if it was only providing PPCs. To the extent that a least-cost stand-alone operator would design its network in different ways, it may be able to avoid the full extent of the common costs identified in BT's cost model. If so, BT's SAC estimates will overstate the relevant cost benchmarks, particularly for more granular service increments.¹⁹¹

(b) Potential overstatement of common costs

- 7.108 A further concern that we have about BT's SAC methodology is that it risks overstating common costs. The greater the disaggregation of the increments being examined, the greater the weight placed on the accuracy of the shape of the cost-volume relationships ("CVRs") in BT's cost model.¹⁹² As such, establishing that the CVRs used by BT in its SAC model were appropriate would be a substantial undertaking and one that would require detailed investigation. We do not believe that it would be feasible to carry out such work in the context of these Disputes after receiving BT's evidence for the first time in its Response in June 2009.
- 7.109 Previous investigation by Of tel/Ofcom of BT's CVRs is inadequate for the purposes of assessing BT's SAC methodology particularly given how large the SAC estimates are relative to both DSAC and FAC. This work was carried out in the context of broad increments, where the requirement for accuracy of the shape of the CVR was less than would be required for the narrow increments used in BT's SAC model. As such, the previous work carried out by Of tel/Ofcom does not establish that BT's CVRs are sufficiently accurate for the purposes for which BT is now seeking to use them.

(c) BT's inclusion percentages

- 7.110 The 'inclusion percentages' play a key role in BT's SAC modelling. However, BT's explanation of these percentages, and how they are derived, is very limited in its Response. Following a request from Ofcom for further clarification of its modelling, BT wrote to Ofcom on 13 July 2009 with additional explanation.

¹⁹¹ We recognise that this concern also applies to BT's estimates of DSAC. There is the potential, therefore, for DSACs to be too high. However, first, this would not provide any assistance to BT in justifying its charges for 2Mbit/s trunk services. Second, the extent of this concern in relation to DSAC is much more limited than for SAC, because of the very different levels of the cost benchmarks. For example, DSACs for 2Mbit/s trunk services are about 75% to 120% higher than FAC, whereas, BT's estimates of SAC are around [x<] % to [x<] % higher than FAC. In our view, this disadvantage of DSAC estimates is, on balance, more than offset by the advantages of DSAC to assess overcharging as set out in **Section 5**. However, the implication of the concern could be much more significant for SAC.

¹⁹² CVRs are used by BT to model how its costs vary as output levels change. As such they are an important component of the BT LRIC model. For more information see section 3 of: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2009/LongRunIncrementalCostModel.pdf>.

7.111 Based on BT's explanation, it appears that the inclusion percentages are needed as a consequence of how BT's LRIC model is defined. SAC estimates should include all common costs shared by the service in question, which would require a treatment of common costs that is more granular than that allowed in BT's LRIC model.¹⁹³ Therefore, the inclusion percentages reflect the fact that not all of the common costs within each category are shared by PPCs (or the particular combination under-consideration).

7.112 As BT explains in its letter of 13 July 2009:

"In conducting a combinatorial test, the central task is to estimate the inclusion percentages and then apply these to the FCC [fixed and common costs]. These percentages are needed to prevent the FCC attributed to the combinations being based on the minimum network needed to provide BT's whole Core set of services rather than the specific combination of services. The inclusion percentages therefore ensure that the combinatorial tests do not over-estimate the SAC for the chosen combination."

"For example, an inclusion percentage of 40% means the stand-alone network would require only 40% of the total FCC to deliver the combination of services in the combinatorial test. This might be due to a smaller geographic footprint (for example, a stand-alone network providing trunk services does not require the entire footprint of Duct and Fibre, but only a proportion)."

7.113 BT also explains in more detail in its letter how each of the specific cost category inclusion percentages were calculated/estimated:

"[redacted]"

7.114 Given the scale of some of the common costs identified by BT's LRIC model (see **Table 7.4**), even small variations in the inclusion percentages can have large impacts on the cost ceilings calculated.

Table 7.4: BT's common costs prior to the application of the "inclusion percentages", 2005/06 to 2007/08, £m

[redacted]

Source: Ofcom analysis of BT data

7.115 Using BT's SAC model for 2007/08, Ofcom has undertaken some sensitivity analysis to demonstrate how changes in the inclusion percentages can affect the total SAC estimates. *[redacted]*.¹⁹⁴

7.116 Although some of the inclusion percentages are based on some network analysis (e.g. the 1996 *Absolute Duct Study*), in other cases they appear to have no other basis than the weighted average of other inclusion percentages. Furthermore, even for the inclusion percentages that are based on network analysis, there is still a

¹⁹³ Service increments are much more broadly defined in the LRIC model.

¹⁹⁴ While a change in the SAC estimate of *[redacted]*% would not materially affect the conclusions drawn from the analysis BT has proposed, it could be considerably more relevant in the context of a more appropriately specified set of combinatorial tests (i.e. where the test outcome could be more finely balanced).

question as to whether these sources are sufficiently up-to-date, relevant and reliable to yield a robust value of the inclusion percentage for the period of the Disputes.

- 7.117 To establish a robust methodology, there would need to be detailed scrutiny of the source, justification and validity of BT's inclusion percentages,

2. Incomplete set of combinatorial tests

- 7.118 As discussed at **paragraphs 5.76 to 5.80** above, it would not be sufficient to demonstrate that the charges for an individual service are/were below the (efficient) SAC for that service. The existence of significant common costs requires BT to also demonstrate that those common costs are/were not over-recovered from all the services that share them. Therefore, BT must also undertake a series of combinatorial tests to ensure that each and every combination of services that shares common costs with the service in question (in this case 2Mbit/s trunk) does not lead to an over-recovery of common costs.

- 7.119 In its Response, BT appeared to accept this principle:

*"...Ofcom and then Ofcom has identified that the LRIC and SAC floors and ceilings test individual services must be used in conjunction with combinatorial analysis based on the costs of supplying a group of services which share common costs. On this basis, passing LRIC and SAC on an individual service is deemed as being necessary but not wholly sufficient for cost orientation. However what the contestable markets approach infers is that passing the LRIC and SAC tests on relevant combinatorials does meet the test for a charge which is not excessively low or high. On this, BT agrees with Ofcom."*¹⁹⁵

- 7.120 The exact combinations of services to be considered by the combinatorial tests are determined by the number of other services which share common costs. Again, this is accepted by BT in paragraph 39 of its Response: "...combinatorial analysis based on the costs of supplying a group of services which share common costs" as well as in its letter of 13 July 2009: "...combinatorial tests across services sharing fixed common costs with 2Mbps PPC trunk services".
- 7.121 As we have explained above, the aim of any such combinatorial analysis is to ensure that common costs are not over-recovered. Where all common costs are not shared by the same services, separate combinatorial tests are required for each of the common costs, as well as for combinations of the common costs. Where firms have numerous products and many types of common costs, as is the case with BT, this can lead to a very large number of combinations being required to satisfy the test. For example, with 10 services sharing common costs, there are over 500 combinations. For 11 services this increases to over 1,000 combinations and for 12 services to over 2,000 combinations.
- 7.122 In its Response, BT reported the results from six different combinatorial tests, based on a range of different combinations of PPC trunk and terminating segment services. Each of the tests undertaken, and BT's rationale for them, are explained in **Table 7.5**.

Table 7.5: BT's combinatorial tests and the rationale for their inclusion

SAC Combinatorial	Rationale for inclusion
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¹⁹⁵ BT Response, paragraph 39.

2Mbit/s trunk only	This is the SAC test for 2Mbit/s trunk services (not strictly a 'combinatorial').
2Mbit/s trunk and distribution	As the boundary between trunk and termination is imprecise, we have included distribution on the basis that a hypothetical 2Mbs trunk entrant may also provide this element.
2Mbit/s end-to-end circuits	This combinatorial shows whether 2Mbit/s PPCs as a group exceed their standalone cost.
All trunk services up to 140/155 Mbit/s	The combinatorial for all trunk services is relevant as, by its very nature, trunk service delivery relies on the aggregation of lower bandwidths on to higher bandwidth bearers and hence any trunk entrant will compete across bandwidths.
All PPCs up to 140/155 Mbit/s trunk and distribution	As for 2Mbit/s trunk and distribution.
All PPCs up to 140/155 Mbit/s end-to-end	The all PPCs end-to-end combinatorial is the widest group of services tested and shows whether PPCs as a whole have been priced above their SAC.

Source: BT Response, paragraph 53

7.123 As **Table 7.5** clearly demonstrates, all of the combinatorial tests contained in BT's response focus exclusively on combinations of services from the three PPC markets regulated in the 2004 LLMR Statement (i.e. trunk and the two terminating service bandwidths). BT did not provide results for any tests that consider services other than PPCs in its Response.¹⁹⁶

7.124 If all the common costs that are incurred by 2Mbit/s trunk (as the service of interest) were exclusively shared by the combinations tested by BT, the approach to specifying combinations adopted would be sufficient.¹⁹⁷ However, as BT's inclusion percentages tables¹⁹⁸ show, the SAC estimates in all cases include common costs that are shared with non-PPC services.¹⁹⁹ In **Table 7.6**, using BT's SAC models provided to Ofcom, we present a breakdown by cost category of BT's SAC estimates for the 2Mbit/s trunk only scenario²⁰⁰ for all three of the years BT has modelled. The breakdown demonstrates that in excess of [X]% of BT's SAC estimates in each year consist of trench (effectively duct), optical fibre and transmission equipment common costs, which are shared by numerous other (non-PPC) services.

Table 7.6: Breakdown of BT's 2Mbit/s SAC estimate by cost category, 2005/06 to 2007/08

[X]

Source: Ofcom analysis of BT SAC modelling.

7.125 Furthermore, in **Table 7.7** we present a breakdown of the SAC estimates by the location of the costs within BT's LRIC model architecture.²⁰¹

¹⁹⁶ BT has subsequently provided a SAC test for the combination that includes all services in its Core increment, see **paragraph 7.129** below.

¹⁹⁷ Although our other concerns would remain.

¹⁹⁸ See pages 62 to 67 of the BT response.

¹⁹⁹ This is demonstrated by the fact that common costs that are not in the "Private circuits" cost category are also included in the estimates.

²⁰⁰ As reported in aggregate in Table C1 of BT's response.

²⁰¹ See Section 5 of BT's PAD for a description of the LRIC model structure.

Table 7.7: Breakdown of BT's 2Mbit/s SAC estimate by cost type, 2005/06 to 2007/08

[X]

Notes: * LRIC costs include a proportion of those costs identified separately in BT's LRIC model that BT argues need to be included in the cost estimates to enable a valid comparison of costs and revenues.

Source: Ofcom analysis of BT SAC modelling.

- 7.126 If the common costs were only relevant to PPC services, we would expect to see all the common costs within the Intra-Core category in **Table 7.7** as this is the category in which both trunk and terminating segments sit. However, this is not the case. Around [X] of the total SAC estimate in all three years is Intra-Network common costs. These common costs are those that are shared between 2Mbit/s trunk and the large number of services in the Core, Access, International, Rest of Network (RoN) and Other output increments²⁰². Therefore these common costs are shared by a very wide range of BT products, including broadband and voice telephony services.
- 7.127 We set out our concerns to BT about the combinatorial tests that it had carried out in a letter dated 15 July 2009. We noted that we did not "*consider that the methodological, conceptual and practical problems we have identified above can be addressed by BT in sufficient time to enable us to resolve the PPC disputes*".²⁰³ We added, however, that "*should BT wish to carry out further work to address the issues we have identified, we will of course give this due consideration*".
- 7.128 BT responded to us on 7 August 2009, rejecting many of the concerns that we had raised with the combinatorial tests (these points are discussed in **Section 5** above).²⁰⁴ BT argued that as the only services that Ofcom had raised concerns about fell within the Core network increment then if BT passed a combinatorial test at the Core level it would prove that overcharging was not taking place. BT provided analysis to support its view that it passed such a test.
- 7.129 BT has subsequently carried out a combinatorial test that considers all services provided from its Core network increment in combination. Although this provides more information than the previous tests carried out by BT it is still insufficient to show that overcharging is not occurring. BT has limited its tests to services within one of the five network increment of its cost model and has therefore not considered the extent to which the common costs shared across network increments are being recovered (or over-recovered) from services in other network increments. As **Table 7.7** indicates, the majority of the common costs within the trunk cost stack are Intra-Network common costs which span these five output increments. Services from the Core increment are therefore only a small sub-set of the services that share these Intra-Network common costs. Combinatorial tests that cover products in other network increments (e.g. the Access increment) would therefore be required to demonstrate whether all relevant common costs have been over-recovered.
- 7.130 Therefore, while BT has carried out a range of combinatorial tests intended to demonstrate that revenues for various PPC service combinations do not exceed SAC, it has failed to demonstrate that the revenues for all services (i.e. 2Mbit/s trunk and non-PPC services) that share the common costs do not exceed the relevant combinatorial SACs. In effect, BT has undertaken only a small sub-set of the

²⁰² See **Figure A11.1** in **Annex 11** for details of the structure of BT's LRIC model.

²⁰³ Letter from Martin Hill (Ofcom) to Theresa Brown (BT), dated 15 July 2009.

²⁰⁴ Letter from Theresa Brown (BT) to Martin Hill (Ofcom), dated 7 August 2009.

necessary combinatorial tests and, as a consequence, it has failed to satisfactorily demonstrate that its charges for 2Mbit/s trunk do not lead to an over-recovery of the common costs shared by that service.

- 7.131 Furthermore, not only has BT focussed on a sub-set of tests, it seems likely to have focussed on a number of the more favourable tests it could have performed. This is because, while trunk and terminating services do share some common costs, there is much greater sharing of common costs between 2Mbit/s trunk and non-PPC services, as shown in **Table 7.7**. PPC trunk and terminating segments all fall within the Core increment in BT's model. The Intra-Core common costs only account for about [3<] % of BT's SAC estimates for 2Mbit/s trunk. However, Intra-Network common costs, which are shared between 2Mbit/s trunk and non-PPC services, account for about [3<] % of the SAC.²⁰⁵
- 7.132 The services included in combinatorial tests should be determined purely on the grounds of shared common costs, reflecting the objective of testing whether those common costs have been over-recovered from the revenues of the services that share them. However, rather than focussing its combinatorial tests on the services that share common costs with 2Mbit/s trunk, BT appears to have devised its combinations primarily on the basis of its arguments in respect of aggregation.
- 7.133 In summary, we have concluded that BT has not undertaken all the combinatorial tests necessary to satisfactorily demonstrate that its 2Mbit/s trunk charges have avoided over-recovery of common costs.

Assessment of BT's circuit analysis

- 7.134 In Section D of its Response, BT provided the results of what it refers to as its "revenues per circuit" analysis. BT argued that the analysis shows that it has not overcharged for PPC services. This analysis considers the revenues earned for each individual circuit (i.e. the specific combination of trunk and terminating services) sold over the period of the Disputes against the DSAC for that circuit. Reflecting the fact that this analysis is predicated on the basis that charges should be considered across trunk and terminating services in aggregate, the DSACs are the sum of the relevant underlying trunk and terminating service DSACs.
- 7.135 As we have discussed in detail in **Section 4** above, we do not consider it appropriate to consider PPC services in aggregate when assessing whether overcharging has taken place. Therefore, the circuit analysis is not a relevant consideration.

International benchmarking data

- 7.136 In addition to the cost orientation and rate of return assessments carried out above, we have also considered international benchmarking data to help us assess whether BT has been overcharging the Disputing CPs for PPC services.
- 7.137 As part of its submission of 14 October 2008, BT argued that its PPC charges were not high compared to those of other EU incumbents and included the Deloitte Report

²⁰⁵ The implication of this pattern of common costs is illustrated by Tables C1 (2Mbit/s trunk only) and Table C3 (2Mbit/s trunk and terminating) in BT's submission. The inclusion of additional services leads to an increase in revenues (about [3<] times larger) that is smaller than the increase in SAC (about [3<] to [3<] times larger). Combinatorial tests across 2Mbit/s trunk and non-PPC services might involve an increase in revenues that is significantly larger than the increase in SAC, because there is greater sharing of common costs (and so such costs are already included in the individual service SAC).

to support its arguments. Deloitte had collected data on the published prices of PPC offerings in other European countries and compared these with BT's PPC charges.

- 7.138 Deloitte used data from nine incumbent operators in Western Europe that are subject to the same EU regulatory framework as BT is in the UK. Market assessments have been carried out by regulators in all these countries and regulation (often including cost orientation obligations) has been imposed where SMP was identified in PPC markets. Where no regulation was imposed, Deloitte assumed that this was because the regulator considered that it was not appropriate to do so, given the level of competition and that competition would constrain prices.
- 7.139 Deloitte argued that if BT's PPC charges were excessive, it would be expected that PPC charges in at least one EU country are markedly lower than BT's charges. If this was not the case then overcharging would only be possible if BT's cost base was much lower than the incumbents' cost base in the other countries or if PPC prices in other countries were also not cost orientated.
- 7.140 On the basis of its analysis, Deloitte identified that BT's charges did not appear to be consistently higher or lower than comparative PPC charges in other EU countries and concluded that this indicated that BT's charges were not excessive. Deloitte further noted that there seemed to be no intuitive reason as to why BT should have lower network costs than other incumbent operators and considered it unlikely that charges in all the other countries are not cost orientated.²⁰⁶
- 7.141 BT claimed in its Response to the Draft Determinations that Ofcom has failed to consider properly the international benchmarking data that it supplied as part of its Submission. BT rejected a number of the arguments put forward by Ofcom in the Draft Determinations as to why the benchmarking data could not be relied on and reiterated its view that the data shows that BT's PPC charges are not out of line with those in other Member States. In particular, BT argued that PPC services are similar in nature to those available in other EU countries and the fact that different regulation applies does not undermine price comparisons.
- 7.142 We dispute BT's view that we did not taken proper account in the Draft Determinations of the international benchmarking data provided by BT. We considered carefully the data provided. However, we concluded that limited weight could be given to it.
- 7.143 In order for benchmarking data to be meaningful it is important to ensure that, as far as possible, the circumstances being compared are as similarly defined as possible. We do not believe that the circumstances compared in BT's benchmarking data are similarly defined, given the differences in networks, geography, competition and regulation in the countries identified.
- 7.144 It is also important to consider what the benchmarking is actually showing in relation to the relevant question. In resolving these Disputes, we are examining whether BT has overcharged for PPC services in light of the regulation that it faces. We are therefore interested in a comparison of BT's costs as against its charges.
- 7.145 The benchmarking data provided by BT, on the other hand, only compares prices between Member States. It does not consider whether there are cost differences

²⁰⁶ Although the benchmarking data only compares (i) prices for terminating segments and (ii) prices for terminating segments and trunk combined, approximate prices for just the the trunk services can be derived from the two sets of data. The data provided appears to suggest that BT's trunk prices are not higher than those in other Member States.

between the operators in these countries. Given that the incumbent operators in the Member States are likely to have different networks of different ages and with different configurations, it is unlikely that the cost bases will be the same. This reduces the usefulness of the benchmarking data for this assessment.

- 7.146 In addition, in only three of the Member States (other than the UK) is there an obligation for trunk charges to be cost orientated, namely Ireland, Italy and Portugal. Although BT suggests that the competitive nature of the markets in the other Member States should mean that trunk charges are cost orientated, it is far from clear that the data used in the benchmarks actually reflects this. For four of the Member States (Belgium, Austria, Spain and Germany) trunk prices were not available so terminating segment prices were used as a proxy. The effect of this, however, is likely to be an overestimation of the price of the combined trunk and terminating segment.
- 7.147 As can be seen from charges in the UK, trunk segments are likely to be significantly cheaper than similar length terminating segments. Data from the Deloitte Report indicates that the annual cost of a 5km 2Mbit/s terminating segment on a one year contract is around £4,000. By comparison, the annual cost of a 10km 2Mbit/s combined circuit (comprising 5km each of trunk and terminating) is nearly £5,000. This suggests that the 5km trunk segment costs around £1,000 a year, around a quarter of the cost of the 5km terminating segment.
- 7.148 By using terminating segment charges as a proxy for trunk segment charges, the Deloitte Report is likely to have overstated significantly the prices of 10km combined trunk and terminating segments in Belgium, Austria, Spain and Germany. If similar price differentials between trunk and terminating segments are experienced in these countries as in the UK, it is likely that the combined 2Mbit/s trunk and terminating segments in at least three of these countries fall below comparable charges in the UK.
- 7.149 The change to the overall picture that results from this is that BT's combined 2Mbit/s trunk and terminating segment charges would no longer be lower than those of all other EU incumbent operators and would in fact be nearer the middle of the range. This weakens the conclusion that BT draws from the benchmarking data that in order for its prices to be well above cost, either all other operators must have prices that are significantly higher than cost or that BT must have much lower costs than the other countries.
- 7.150 The fundamental point, however, is that faced with actual cost data that indicates that BT has overcharged for 2Mbit/s trunk services and financial data that shows that BT has earned very high rates of return on these services, we do not consider that significant weight can be given to BT's international benchmarking data.

Conclusions on overcharging

- 7.151 For the reasons set out above, we have concluded that BT has overcharged for 2Mbit/s trunk services in the period April 2005 to September 2008.
- 7.152 In the light of new evidence not available at the time of the Draft Determinations, we now have concerns that BT may have overcharged for certain 140/155Mbit/s terminating segment services and for 34/45Mbit/s trunk services. We therefore intend to issue a separate draft or final determination to resolve the Disputes in relation to all 140/155Mbit/s terminating segment services and 34/45Mbit/s trunk services (see **paragraph 1.25**).

- 7.153 We have concluded that there was no overcharging by BT on other trunk and terminating segment services (i.e. 140/155Mbit/s trunk; and 64kbit/s, 2Mbit/s and 34/45Mbit/s terminating segment services) for the reasons set out above and summarised in **paragraph 1.26**.

Calculating the level of overcharge

Proposals from the Draft Determinations

- 7.154 Having identified that BT had overcharged the Disputing CPs on the basis of its 2Mbit/s PPC trunk charges being above DSAC, we calculated the level of overcharge. The methodology for this calculation is based on the extent to which BT's charges exceeded DSAC in each relevant year.
- 7.155 We rejected suggestions from the Disputing CPs that we should set the charges for any services for which BT had overcharged on the basis of FAC. We did not consider that such an approach struck a fair balance between the interests of the Parties as it would amount to tougher price regulation than if trunk services had been subject to a charge control and risked creating the wrong incentives for market entry and for BT to seek to reduce its costs.
- 7.156 We identified that the impact on BT of reducing charges to DSAC would be to reduce their rate of return over the period on PPC services to 12.7%, which is higher than BT's WACC of around 12%.

Responses from the Parties

The Disputing CPs

- 7.157 The Disputing CPs argued in their Response that, once Ofcom has identified that overcharging has taken place, we should calculate the level of overcharge and refund on the basis of reducing BT's charges to FAC (or even DLRIC) rather than DSAC.
- 7.158 The Disputing CPs' position is based on their view that, when considering what is fair between the Parties, Ofcom is adjudicating between parties and should have regard for their respective interests. They suggested that in the context of the Disputes, there is a wide range of outcomes that could be considered fair and this element of the fair and reasonable test merely forms the book-ends for the range to be considered by Ofcom. The Disputing CPs suggested that the fair range for BT's PPC charges is between the DLRIC and DSAC.
- 7.159 Having identified the reasonable range, the Disputing CPs believed that where in the range the charge should be set is determined by what is reasonable in the context of Ofcom's statutory duties. They argued that Ofcom's duties are wider than simply ensuring that BT complies with its cost orientation obligations and should include consideration of the objectives of the regulation and the effect that the revised charge will have on the future behaviour of the regulated entity.
- 7.160 The Disputing CPs believed that FAC would be a fairer and more reasonable level at which to set trunk charges as it would not allow over-recovery of group wide common costs and is a proxy for a 'competitive' charge that would be reasonable in the circumstances. FAC charges can be easily derived from the information possessed by Ofcom.

- 7.161 The Disputing CPs additionally rejected Ofcom's arguments for dismissing the use of FAC. They argued that Ofcom has failed to justify its view that reducing charges to FAC would not strike a fair balance between the interests of the Parties or why it would be perverse to impose tougher regulation *ex post* than was set *ex ante*.
- 7.162 Furthermore, the Disputing CPs suggested that Ofcom has confused the use of FAC as an appropriate benchmark for addressing *ex post* non-compliance with imposing rate of return regulation. They noted that rate of return regulation is forward looking, whereas our determination of the Disputes is backward looking. The negative incentive effects associated with rate of return regulation that Ofcom identified in the Draft Determinations are not therefore relevant as Ofcom is not imposing a forward looking price control through the resolution of these Disputes.

BT

- 7.163 Although disagreeing with Ofcom's use of DSACs and the adjustments that we made to its financial data, BT provided its circuit analysis, which it claimed demonstrated that it had not overcharged for PPCs. BT calculated the revenues for the PPC circuits (i.e. trunk and terminating segments combined) purchased by the Disputing CPs over the period of the Disputes and compared this with the (restated) DSACs calculated by BT and the DSACs calculated by Ofcom. The results of the analysis suggest that only in relation to COLT in 2007/08 (when using the Ofcom calculated DSACs) did any overcharging take place. BT calculated the level of this overcharge to be approximately £[<]. BT identified that, if only PPC circuits containing trunk are considered, then the number of CPs overcharged increases to four (THUS, Verizon, Virgin and COLT) and the total level of overcharging increases to £[<] million. Where only those circuits that have been overcharged are considered, the total level of overcharge for the period of the Disputes is just under £[<] million.
- 7.164 BT suggested that this circuit analysis shows that even if overcharging has occurred, which BT disputed, the level of overcharge is significantly less than that identified by Ofcom in the Draft Determinations.

Further comments

- 7.165 In its comments on the Disputing CPs' Response, BT rejected the suggestion that charges should be reduced to FAC if overcharging is identified, suggesting that the Disputing CPs' reasoning implies that charges deemed reasonable under the cost orientation obligation may no longer be deemed reasonable under dispute resolution. BT argued that such reasoning is illogical and flows from the artificial way in which the Disputing CPs have constructed their reasonableness test. It would be the antithesis of regulatory certainty for a price that was deemed reasonable for one regulatory purpose to be judged to be unreasonable under a second regulatory purpose.
- 7.166 BT further argued that the suggestion that a cost orientated price may still not be reasonable would leave regulated firms open to subsequent claims even where it was fully compliant with the regulation. This would offend the consistency principle laid down by the CAT in the TRD Decision and would be inconsistent with the duties and principles set out in the Act.

Ofcom's assessment and conclusions

- 7.167 The amount of overcharging is logically linked to the methodology used to assess overcharging. The methodology that we have used to assess whether overcharging

is taking place is based on, for the first order test, the DSAC being the maximum level that may be charged. As discussed in **Section 5**, the Disputing CPs accepted this as being a reasonable methodology by which to assess overcharging in the current Disputes.²⁰⁷ As such, we consider that the amount by which BT has overcharged the Disputing CPs for 2Mbit/s trunk services should be calculated as the difference between the DSAC and the actual charge for that service.

- 7.168 Comparing the DSACs that we have estimated (as set out in **Table A12.3** below) with the revenues that BT has earned on these services over the period of the Disputes, we can identify that BT has overcharged external customers of 2Mbit/s trunk a total of £51 million in the period 1 April 2005 to 30 September 2008. The level of overcharge in each year is set out in **Table 7.8** below. About 80% of the total overcharge (£41.688 million) was to the Disputing CPs (with the remainder accounted for by purchases of 2Mbit/s trunk services by other CPs).

Table 7.8: Amount of BT overcharging to external customers for 2Mbit/s trunk services

£000	2005/06	2006/07	2007/08	2008/09	TOTAL
External 2Mbit/s trunk revenue	31,300	29,573	40,896	19,221	120,990
External 2Mbit/s trunk DSAC	19,227	23,474	18,803	8,058	69,613
Total 2Mbit/s trunk overcharge	12,023	6,099	22,092	11,163	51,377
Total 2Mbit/s trunk overcharge to Disputing CPs	9,642	4,929	18,022	9,095	41,688

Note: the entries for 2008/09 are pro-rated to the dispute period (i.e. 6 months).

Source: Ofcom analysis of BT data

- 7.169 Contrary to the claims of the Disputing CPs in their Response, we do not consider that DSAC is a “*conservative*” approach to assessing overcharging. As we explain in **Section 5**, given our duties and obligations we consider that DSAC is the most appropriate cost benchmark against which to assess BT’s charges. We therefore remain of the view that the use of DSAC to calculate the level of overcharge would strike a balance between the interests of the Parties.

²⁰⁷ See **paragraph 5.13** above.

Section 8

Repayments

Structure of assessment

- 8.1 In the preceding sections, we have considered whether on the facts BT has overcharged (as set out above in **paragraph 2.46.1**, and have concluded that BT has overcharged for a number of PPC services.
- 8.2 In this **Section** we go on to consider whether we should exercise our discretion to require BT to make a payment to the Disputing CPs, by way of an adjustment of an overpayment, and if so, what the level of any such payment should be (as set out above in **paragraph 2.46.2**).
- 8.3 Section 190(2)(d) of the Act gives us the power, for the purpose of giving effect to a determination by Ofcom of the proper amount of charge in respect of which amounts have been paid by one of the parties of the dispute to the other, to give a direction, enforceable by the party to whom the sums are to be paid, requiring the payment of sums by way of an adjustment of an underpayment or an overpayment.
- 8.4 In deciding whether it is appropriate to make such a direction, we have been guided by our duties and Community obligations under sections 3 and 4 of the Act. We have also taken account of the comments made to us by the Parties.
- 8.5 We have split our analysis of the question of repayments into two parts:
- 8.5.1 first, we consider whether we should require payment by BT to the Disputing CPs; and
 - 8.5.2 second, we go on to consider what the level of any repayment should be.

Should we require any repayment by BT to the Disputing CPs?

Proposals in Draft Determinations

- 8.6 We proposed in the Draft Determinations that BT should be required to make certain payments to the Disputing CPs by way of an adjustment of an overpayment.
- 8.7 BT's main argument appeared to be that it was not reasonable or proportionate to require it to make repayments when there was no evidence of economic harm having occurred. We rejected this argument and considered that it was unnecessary to show that economic harm had actually occurred to the Disputing CPs. In any event, we thought that there was a likely risk that economic harm had arisen and that it was appropriate for us to exercise our discretion and require repayments to be made.

Responses from the Parties

BT

- 8.8 In its response to the Draft Determinations, BT argued that Ofcom should not direct any repayment to the Disputing CPs. BT's arguments in support of this contention fall into the following categories:

- 8.8.1 requiring a repayment would not be proportionate or appropriate, and would not be consistent with Ofcom's statutory duties;
- 8.8.2 requiring a repayment would not be proportionate to the economic harm caused by BT's charges;
- 8.8.3 Ofcom has failed to take into account its own actions with respect to BT's charges for PPCs.

Consistency with Ofcom's powers and duties

- 8.9 BT argued that section 190 of the Act cannot be used "*retrospectively to award compensation*".²⁰⁸ Even if it were possible to use section 190 in this manner, it would not be proportionate or appropriate to do so in the current circumstances. Had the issues been raised previously and had BT been required to lower its 2Mbit/s trunk charges, BT would have had no option but to apply to Ofcom to have the terminating segment charges increased given the imbalance between the two.
- 8.10 BT questioned whether Ofcom's proposed approach to resolving the Disputes provides the correct incentives and regulatory signals to CPs. BT suggested that Ofcom's approach will encourage CPs to "*lodge endless disputes with Ofcom in relation to breaches of SMP conditions that, on the face of it, are technical and historic*" and that this is not a signal that Ofcom wishes to be giving as a matter of good regulation.²⁰⁹
- 8.11 Furthermore, BT argued that it is not a proper use of Ofcom's dispute resolution powers to seek to punish BT to incentivise it to '*behave itself*' in future.²¹⁰ The purpose of dispute resolution is to come to a fair resolution of a matter that has arisen between private parties (having regard to the regulatory background), not as a substitute for a compliance investigation or a means of punishing a party so as to give some form of deterrent effect.

Little or no economic harm to the Disputing CPs

- 8.12 BT also suggested that under section 190(2)(d) of the Act, Ofcom is required to make the proposed remedy fit the harm that has been suffered.
- 8.13 BT maintained its view that the Disputing CPs have suffered no economic harm and that any payment would simply be a windfall to them. BT argued that even if overcharging has taken place, which it disputes, the Disputing CPs have suffered no economic harm. BT's charges would almost certainly have been passed on by the Disputing CPs to their own customers, with the result that the Disputing CPs have suffered no loss as a result of BT's charges. It is therefore inappropriate to reward the Disputing CPs, particularly as there is no basis for considering that the end customers will benefit from any sums paid to the Disputing CPs. BT made reference to the Court of Appeal's decision in *Devenish v SanofiAventis* to support its position that English law is not "*in the business of transferring monetary gains from one undeserving recipient to another undeserving recipient even if the former has acted illegally while the latter has not*".²¹¹

Impact of Ofcom's actions

²¹⁰ See page 5 of the BT Response.

²¹¹ *Devenish v SanofiAventis* [2008] 2 WLR 637, paragraph 147.

- 8.14 BT asserted that when considering whether it is appropriate to require repayments to be made, Ofcom is required by section 190 of the Act to take into account what BT describes as “mitigating factors” arising from Ofcom’s own involvement in the case. BT cited the decision of the CAT in the *National Grid* case to support its position, quoting in its Response: “*the Authority was closely involved in and concerned about the roll out of [the anti-competitive project]...In our judgment, the history of the discussions in the particular circumstances of this case merit a significant reduction in the fine*”.²¹²
- 8.15 BT claimed that Ofcom could, and should, have been aware of the imbalance between terminating and trunk services and that a rebalancing of costs and charges between the two was required. BT argued that it is neither fair nor appropriate in such circumstances for Ofcom to take a mechanistic approach and require the repayment of any overcharge without considering the overall economic harm suffered.
- 8.16 BT suggested that by requiring it to make repayments now for overcharging for trunk services, Ofcom has denied BT the opportunity to seek to revise what it sees as inappropriately low terminating segment charges. BT argued that it had raised the problems with PPC charges with Ofcom in 2004 but we chose not to rebalance the charges at that time. As such, BT believes that it would be unfair to require repayments to be required now.

*“Furthermore, in 2005, Ofcom took no action to reduce trunk charges in its own initiative investigation and explicitly stated that issues with trunk charging would need to be considered alongside the setting of the next terminating charge control. To seek now to adjust trunk charges retrospectively down to a measure of costs based on allocations rejected by Ofcom in setting the terminating charge control is plainly inconsistent and unfair. Clearly BT would have requested that Ofcom reopen the terminating charge control had Ofcom in 2005 limited the common costs that BT could recover from trunk.”*²¹³

*“Stating openly only as late as 2009 that a holistic consideration of trunk and terminating services in the round is inappropriate, and ordering repayments retrospectively years after the charges have been paid, necessarily deprives BT of any opportunity to correct the situation by seeking an adjustment to the terminating charges.”*²¹⁴

Disputing CPs

- 8.17 In their response to the Draft Determinations, the Disputing CPs agreed with our proposal to exercise our powers under the Act to require BT to make payments to them as a result of BT’s overcharging.
- 8.18 The Disputing CPs rejected BT’s arguments that any payments would simply amount to a windfall for the Disputing CPs.

²¹² *National Grid Plc v Gas and Electricity Markets Authority* [2009] CAT 14, paragraph 218.

²¹³ BT Response, page 4.

²¹⁴ BT Response, paragraph 29.

Further comments

Comments from BT on the Disputing CPs' Response

- 8.19 In its comments on the Disputing CPs' Response, BT sought to emphasise the arguments that it made in its response to the Draft Determinations. It stated that Ofcom has failed to take proper account of its own actions. BT argued that the historical circumstances of the Disputes mean that it would not be fair or reasonable for Ofcom to adjust trunk charges retrospectively and require repayments without also looking at terminating segment charges.
- 8.20 BT suggested that Ofcom, with support of a number of the Disputing CPs, rejected the proposals that BT made in 2004 that would have led to a rebalancing of trunk and terminating segment charges. As a result, BT claims that trunk revenues began the period (i.e. 2004-2008) out of line with the convention adopted for apportioning common costs.
- 8.21 Furthermore, BT argued that Ofcom clearly recognised the significance of the cost allocation methodology in 2005, when it decided not to make a decision as to whether BT was complying with the cost orientation obligation imposed on trunk services. Had Ofcom changed the methodology at the time, it would have resulted in different profitability for trunk and terminating segments and would have brought into question the conclusions in the 2004 LLCC Statement. BT would therefore have had the opportunity to adjust all its PPC charges.
- 8.22 BT additionally argued in its comments on the Disputing CPs' Response that it is an efficient operator and that, as such, any payment to the Disputing CPs would be a confiscation of efficiently incurred costs. Lower trunk prices without increases in terminating segment prices would push revenues on PPCs below cost, which would not be appropriate or proportionate. BT added that such a payment would result in the Disputing CPs being rewarded where they have suffered no harm. Even if it was appropriate to punish BT, any additional money should go to Ofcom and not the Disputing CPs.
- 8.23 BT further argued that none of the alleged distortions to competition or economic harm identified by Ofcom and the Disputing CPs stand up in practice. BT claimed that its circuit analysis shows that CPs have not been made worse off, regardless of the split of trunk and terminating segments purchased.

Comments from the Disputing CPs on the BT Response

- 8.24 The Disputing CPs suggested in their comments on the BT Response that BT has confused compensation with the statutory discretion to order a repayment. They argue that BT's reference to the *Devenish* case is selectively quoted as the case relates to law of restitution and damages, rather than reimbursement. They argued that BT's reference to the CAT's *National Grid* decision²¹⁵ is similarly misleading – Ofcom was not complicit in setting BT's trunk charges or approving them
- 8.25 The Disputing CPs believed that the only relevant case is the TRD judgment, where the CAT stated: "*It should ordinarily follow on from a determination that this kind of readjustment takes place*".²¹⁶

²¹⁶ See paragraph 169 of the TRD Decision.

- 8.26 The Disputing CPs have also argued that BT is wrong to suggest that the economic impact on the Disputing CPs is the only factor to be taken into consideration when considering whether to order repayments. The need to provide BT with incentives to comply is a valid consideration as well.

Ofcom's assessment of whether any repayments should be required

- 8.27 As set out above, Ofcom has the power pursuant to section 190(2)(d) of the Act to direct that one party to a dispute should be required to pay a sum to another party to the dispute, by way of an adjustment of an overpayment in respect of amounts paid by the latter to the former. In this regard, Ofcom has discretion as to whether to order such a payment.
- 8.28 We have considered the arguments made by the Parties in their responses to the Draft Determinations.
- 8.29 We note the Disputing CPs' comments about the CAT's TRD decision and their quotation of one sentence at paragraph 169 of that decision, which they contend suggests that repayments "*should ordinarily follow*". The Disputing CPs have selectively quoted this sentence and have taken it out of context. When viewed in its proper context, it is clear that the CAT in that paragraph was not intending to create a generally applicable presumption that, where Ofcom determines that there has been overcharging, then repayments should follow as a matter of course. In fact, the CAT's observations in paragraph 169 of the TRD decision were clearly specific to the context of disputes under BT's standard interconnect agreement, where service of a particular notice has defined contractual consequences and indeed provides the formal precursor for triggering Ofcom's dispute resolution function.
- 8.30 As part of our consideration of whether it is reasonable to direct BT to repay the overcharging for 2Mbit/s PPC trunk services to DSAC, we have considered what the impact of this would be on BT. We have assessed what the impact of repaying the overcharged revenue to its external customers would be on BT's rate of return for PPCs over the period of overcharging (i.e. April 2005 to September 2008) and identified that it would fall from 15.1% to 14.2%.²¹⁷ This level of rate of return is still higher than BT's average WACC in that period (i.e. around 12%), indicating that BT would still have recovered its costs of providing PPCs over the period in which we might require that repayments be made.

Requiring a repayment is consistent with Ofcom's powers and duties

- 8.31 We consider that BT's argument that Ofcom's powers under section 190 cannot be used "retrospectively" mischaracterises those powers and misunderstands the purpose of the provision. The wording of section 190(2)(d) clearly envisages on its face that Ofcom may decide that there should be a repayment of sums previously over- or under-paid. In considering whether to exercise our power to order repayments, we have considered whether to do so in this case would be consistent with our duties and Community obligations under sections 3 and 4 of the Act.
- 8.32 We have also considered BT's argument that by requiring repayments to be made, Ofcom would encourage CPs to bring a series of disputes about historical breaches

²¹⁷ The calculations relate to the full four year period (i.e. they include the final six months of 2008/09 that are outside the period of the Disputes). In addition, they assume that the full level of overcharge to all external customers of £51.4 million is repaid (i.e. this exceeds that allocated to the Disputing CPs).

of SMP conditions and questioned whether this would be consistent with good regulation.

- 8.33 In the Draft Determinations (see paragraph 6.23 onwards), we acknowledged that in calculating overcharge there was a role for incentivising BT's future behaviour.
- 8.34 Implicit in providing incentives for future conduct is the need to address unreasonable historic behaviour. As the Disputing CPs essentially argue, the greater the adverse financial implications for the regulated firm, the stronger the incentive to ensure future compliance. We consider that to require BT to make payments to the Disputing CPs by way of adjustment of overcharges promotes the interests of consumers and competition, by ensuring that the SMP obligations set on BT are enforced. This protects consumers, enables other providers to compete with BT and helps to level the playing field for BT's competitors, leading to downward pressure on prices, availability of a wider range of services and improved quality of service.
- 8.35 In this case, we have assessed whether there was overcharging primarily by reference to whether BT was complying with its cost orientation obligation. As set out above in **Section 3**, this obligation was imposed in accordance with our section 3 and 4 duties and the requirements for imposing an SMP condition under sections 47 and 87 of the Act, as fully set out in the 2004 LLMR Statement. In essence, the cost orientation obligation was imposed on BT in the trunk market in order to protect consumers and facilitate competition in the interest of consumers by ensuring that BT was unable to exploit its SMP position in that market by overcharging customers.

Little or no economic harm to the Disputing CPs

- 8.36 BT argues that we need to demonstrate that the Disputing CPs have suffered economic harm in order to conclude that it is appropriate to direct BT to repay the overcharge. We do not accept this.
- 8.37 We consider that in this case, where we have found that BT has overcharged in non compliance with an SMP obligation, it is appropriate to require a repayment of the amount of overcharge, even if the Disputing CPS may have passed on that charge to their customers.
- 8.38 We additionally note that a similar situation arose in the TRD Decision, where the CAT concluded that it was appropriate to require repayments to be paid to BT regardless of whether or not BT had passed on the overcharges to its customers.²¹⁸ In that case, BT was the beneficiary of repayments after being overcharged for mobile call termination, despite the mobile call termination charges being reflected at least to some degree in its own call prices.
- 8.39 We have considered carefully the incentives and regulatory signals this approach gives to the industry. We are concerned that the incentives and benefits for competition, for which the cost orientation obligation was set, should be safeguarded. Any level of overcharge that we allow BT to keep could act as an incentive not to comply with cost orientation obligations in the future. We consider that the approach to seek the repayment of the overcharge gives an incentive to BT not to overcharge in the future by taking into account, amongst others, all its regulatory obligations.

²¹⁸ See paragraphs 169 to 174 of the TRD Decision.

- 8.40 For those users that have remained as customers of the Disputing CPs, they may benefit from any additional investment or lower prices that the Disputing CPs may be able to deliver as a consequence of any repayment.
- 8.41 Indeed, we would strongly encourage the Disputing CPs to pass on the benefits of the repayment to their customers.

Ofcom is not responsible for BT's trunk charges

- 8.42 We do not agree with BT's assertion that Ofcom's past decisions or actions provided any justification for BT overcharging for 2Mbit/s trunk segments or that they should be considered as "mitigating factors" when assessing whether and/or by how much BT should refund the Disputing CPs.
- 8.43 As we explain in **Section 4** above, our decision in 2004 to reject BT's proposals to rebalance the charges for trunk and terminating segments was not based on a consideration of whether the combined price revisions led to PPC charges that overall were acceptable. Rather, we rejected BT's proposals on the basis that BT could not at the time justify the price increases on terminating segments that it was proposing. Ofcom made clear at the time that, regardless of what happened to terminating segment charges, we expected trunk charges to be reduced.²¹⁹ Ofcom's concerns about the level of BT's trunk charges were reflected in BT's internal pricing documents of the time. For example, in a pricing paper dated 21 October 2004, discussing a proposal to reduce 155Mbit/s trunk prices, it was noted that "[<]".²²⁰
- 8.44 Similarly, we do not believe that our decision to close the 2005 investigation into BT's trunk charges should have given BT any comfort that its trunk charges were acceptable. As we explain in detail in **paragraphs 4.78 to 4.84** above, we did not take a view as to whether BT's trunk charges were acceptable as BT was unable to supply us with sufficiently robust cost information.
- 8.45 Finally, we disagree with BT as to the relevance of the *National Grid* case. In that case (which concerned the level of penalties imposed), the National Grid's penalty was reduced because the court found that the regulator in question had in part legitimised the abusive behaviour in respect of which National Grid was being fined. We do not accept that Ofcom took any decisions or actions which legitimised BT's charges in this case. Moreover, we are concerned with the question of whether it is appropriate to require a repayment of sums overpaid, not whether it is appropriate to apply a fine for unlawful behaviour.

Conclusions

- 8.46 For the reasons set out above, we conclude that it is appropriate for us to exercise our discretion under section 190(2)(d) to require BT to make payments to the Disputing CPs by way of an adjustment for overpayments made.
- 8.47 We therefore go on to consider below what the appropriate level of such payments should be.

²¹⁹ See, for example, Ofcom's comments at paragraph B.99 of the 2004 LLMR Statement where we identified that one of the reasons for concluding that BT had SMP in the trunk market was: "*Information supplied by BT suggesting that trunk segments are currently priced significantly above cost*".

²²⁰ Pricing Paper WPAG 078/2004. Ofcom obtained copies of pricing papers related to PPC price changes from BT using its powers under section 191 of the Act.

Ofcom's assessment of the level of any repayments

Proposals in Draft Determinations

- 8.48 In our Draft Determinations, we set out our calculations of the level of proposed repayment to each individual CP on the basis of the amount that each had spent on 2Mbit/s trunk services with BT. On the basis of the data on internal and external revenue per unit and the adjusted unit DSACs from the regulatory accounts, we calculated the percentage refund required for each affected service in each year for the Disputing CPs and BT's own downstream businesses. We then applied the calculated percentage refund rate for each service to the operator-specific billing data obtained from BT.
- 8.49 We additionally proposed in the Draft Determinations that BT should be required to pay interest on the amounts that it had overcharged. On the basis of the wording in the BT Standard PPC Handover Agreement ("the Agreement"), we proposed to require BT to repay the overpayments with interest at the Oftel Interest Rate.

Responses from the Parties

BT

- 8.50 In its response to the Draft Determinations, notwithstanding its position that it should not be required to make repayments, BT proposed an alternative method for allocating repayments to the Disputing CPs. BT suggested that instead of applying a percentage overcharge derived from the regulatory financial statements to the billed revenue, that Ofcom use the relative shares of the billing data to apportion the difference between the revenues in the regulatory financial statement and the DSACs between the Disputing CPs. BT argued that apportioning overpayments in this way is fairer as it avoids over-allocating repayments (i.e. requiring repayments that exceed the level of overcharge).
- 8.51 In order to provide Ofcom with the necessary information to implement this proposed approach, BT explained in its Response that it had re-extracted data for 2Mbit/s services for its entire customer base, not just the Disputing CPs for which BT had previously provided Ofcom with this data.²²¹ In undertaking this process, BT further explained that it had confirmed that the billing data provided to Ofcom for both the Draft and Final Determinations contained revenue for resilience circuits.²²² By taking the inclusion of resilience revenues into account, BT argued that the billing data in each year is very close to the total external revenues in the regulatory financial statements data used by Ofcom for undertaking our overcharging assessment.

²²¹ BT's revised billing data provided in its Response contained some differences for the individual Disputing CPs from that provided to Ofcom for the Draft Determinations. BT explained to Ofcom in an email from David Coulson (BT) to Clare McElwain (Ofcom) on 15 September 2009 that these differences related to a revised approach to collating the billing data. Specifically for the data contained in its Response, BT had adopted an approach based on the volumes in the billing records multiplied by the relevant price in force at that time. This contrasted with the earlier approach which had sought to extract revenues directly. BT argued that the direct approach involved distortions in timing for "broken period rentals" and therefore that the revised approach was more accurate.

²²² As explained in **paragraphs 6.83 to 6.90**, Ofcom considers it appropriate to include resilience revenues within its assessment.

The Disputing CPs

- 8.52 The Disputing CPs argued in their Response to the Draft Determinations that Ofcom's proposed approach to calculating the level of repayment is overly lenient to BT and is therefore unfair to the Disputing CPs.
- 8.53 In their view, the DSAC is the maximum price that BT could have charged for 2Mbit/s trunk services. By limiting the level of repayment to the difference between BT's actual charges and the DSAC, Ofcom is leaving BT in no worse a position than it would have been in had it not overcharged the Disputing CPs. This, they contended, provides a weak incentive for BT to comply with regulatory requirements in future.
- 8.54 They argued that although DSAC may be an appropriate benchmark against which to test deviation from cost based charges, the fact that it allows full recovery of group wide common costs means that it is not a desirable level at which to set charges for the purposes of calculating repayments.
- 8.55 The Disputing CPs suggested that FAC would be a better benchmark to use when calculating repayments. It does not allow for the over-recovery of group-wide common costs and is notionally a reasonable proxy for the 'competitive' charge. It would additionally provide the correct incentives on BT to comply with its obligations and would be fair to all Parties, given that it lies between the reasonable range of DLRIC and DSAC.
- 8.56 The Disputing CPs identified further reasons why they consider Ofcom's proposed approach to calculating repayments is too lenient. They claim that the proposed repayment does not take into account the likelihood that BT overcharged for 2Mbit/s trunk services in 2004/05 as well (see **paragraph 7.13** above). Additionally, the proposed repayment does not take into account non-price effect distortions that arose from the overcharging. Specifically, any losses suffered by the Disputing CPs as a result of distortions to their trunk consumption and/or investment decisions have not been taken into account when calculating refunds. Similarly, losses resulting from reduced demand for PPC services at the retail level (due to higher input costs being passed on) have not been taken into consideration. These distortions are contrary to Ofcom's duties and failure to determine a charge that prevents these distortions would not be reasonable.
- 8.57 The Disputing CPs argued further that the use of DSAC to set the level of repayment therefore ignores the economic effects of BT's overcharging and would not be consistent with Ofcom's duties under sections 3 and 4 of the Act, or the test set out in the CAT's TRD Decision.²²³
- 8.58 The Disputing CPs rejected BT's arguments that repayment would simply amount to a windfall for the Disputing CPs and would have no other benefits for the reasons set out above.
- 8.59 In relation to the level of interest, in their Response to the Draft Determinations, the Disputing CPs have asked Ofcom to refrain from determining the level of interest that should be paid by BT on any repayment to the Disputing CPs. They argued that the Altnet Dispute Submission requested that Ofcom determine that interest should be paid on repayments, but not the level of interest payable.

²²³ TRD Judgment, paragraph 101.

- 8.60 The Disputing CPs have raised the applicable interest rate with BT in the context of ongoing discussions concerning the terms of the PPC Handover Agreement, the Standard Interconnection Agreement and the Master Services Agreement. Given these ongoing discussions, the Disputing CPs requested that Ofcom does not pre-empt the discussions or fetter its future discretion in any dispute that may be subsequently brought by determining interest rates in the Disputes.

Further comments

BT's further comments on the Disputing CPs' Response

- 8.61 BT rejected the claims of the Disputing CPs that the level of interest should be different from that set out in the PPC contract. BT is of the view that the PPC contract, which was discussed and agreed with the Disputing CPs, was clear over the period of the Disputes as to the level of interest that should apply.

Ofcom's assessment of the appropriate level of repayment

Repayments must not exceed the level of overcharge

- 8.62 We have considered the Disputing CPs' arguments in detail but we are not persuaded that it is appropriate for us to order repayments that are higher than the level of overcharge.
- 8.63 Section 190(2)(d) of the Act, which sets out Ofcom's power in relation to ordering repayments to be made, states that Ofcom may give a direction, enforceable by the party to whom the sums are to be paid, "*requiring the payment of sums by way of adjustment of an underpayment or overpayment*" (emphasis added). The wording of section 190(2)(d) therefore expressly links the amount of repayment with the amount of overpayment i.e. the amount by which the Disputing CPs have been overcharged.
- 8.64 We agree with the Disputing CPs' arguments that it is necessary and appropriate for us to set the level of repayment at a level that is fair and reasonable, and that any repayment that we require must be consistent with both our legal powers and statutory duties under the Act.
- 8.65 Whilst we recognise the need for incentives, there is an important distinction to be made between correcting behaviour and penalising it. Requiring the firm to correct for its conduct (i.e. to repay any overcharge, so that it does not benefit from overcharging) does not involve any punitive element. By contrast, requiring a firm to pay more than it has overcharged will have the effect of penalising it. By calculating the repayment as being more than the minimum required in order for its charges to be consistent with a fair and reasonable charge would, in our view, involve a punitive element and would therefore be inconsistent with our duty to act in a fair, reasonable and proportionate manner.
- 8.66 In **Section 7** above we set out our conclusion that BT has overcharged in relation to PPCs in large part because it imposed charges which failed the first order test and were above DSAC. Had BT imposed charges that were at or below DSAC levels, it would have passed the first order test and it is unlikely that we would have found BT to have overcharged. We therefore consider that were we to require BT to make payments to the Disputing CPs which went beyond repayment of the difference between DSAC and their actual charges, we would effectively be using our powers under section 190(2) of the Act to impose a penalty on BT, as the amount that it would be repaying would be greater than that which it had actually generated from

the overcharging. We do not consider that this would be fair or reasonable, nor do we consider that our statutory duties otherwise suggest that we should impose such a penalty.

- 8.67 We note that Ofcom's powers to impose a penalty for contravention of a condition (such as the cost orientation conditions) under section 96 of the Act, set strict criteria about when this section can be applied. Most notably, the CP on which the penalty has been imposed must first have been given a notification that sets out the basis of their infringement and which allows them an opportunity to make representations to Ofcom and to take action to cease their contravention and remedy the consequences arising from that contravention. Where the contravention and its consequences are remedied, Ofcom does not have the power to then impose penalties.
- 8.68 If we were to accept the Disputing CPs arguments, the dispute resolution process would give Ofcom the power to impose penalties for conduct that would amount to breach of an SMP condition, without the need to adhere to the strict criteria required under Ofcom's enforcement powers for imposing penalties for breaches of those conditions. In particular, we would be able to impose penalties without first allowing the opportunity for the contravention and its consequences to be remedied. Such an outcome would be perverse and we do not consider it to be a correct interpretation of Ofcom's dispute resolution powers.
- 8.69 We therefore consider that our legal powers mean that the reasonable range between which we can set the level of repayment is bounded by the amount by which BT has overcharged the Disputing CPs (i.e. £41.688 million) and zero. Given that we have set the level of repayment at the maximum that we believe is possible under section 190(2) of the Act, we disagree with the Disputing CPs' view that our proposals are lenient to BT.

Calculating the level of individual repayment

- 8.70 Having identified that BT has overcharged the Disputing CPs for 2Mbit/s PPC trunk services in the period since April 2005 and that it is appropriate to require BT to refund these overpayments, it is necessary for us to identify the amount that BT should repay each Disputing CP.
- 8.71 As set out above, in its response to the Draft Determinations BT proposed an alternative method for calculating the level of refunds due to the Disputing CPs based on the relative shares of billed revenues to apportion the difference between the revenues in the regulatory financial statement and the DSACs.
- 8.72 Having reviewed BT's proposed method for calculating the refunds, we have concluded that it forms a more appropriate method than that which we proposed in the Draft Determinations. While this has the effect of slightly reducing the overall level of repayment and altering the proportional allocation of the repayments between the Disputing CPs, we consider it to be appropriate to use a method for calculating individual repayments that caps the total repayments to the level of overcharge.
- 8.73 Based on this methodology, and using the updated data from **Sections 6 and 7** above, we have calculated that BT should be required to repay the amounts set out in **Table 8.1** to the Disputing CPs.

Table 8.1: Repayments due to the Disputing CPs in £m

Refund (£000)	THUS	C&W	Global	Virgin	Verizon	COLT	Total
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2004/05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005/06	[X]	[X]	[X]	[X]	[X]	[X]	9,642
2006/07	[X]	[X]	[X]	[X]	[X]	[X]	4,929
2007/08	[X]	[X]	[X]	[X]	[X]	[X]	18,022
2008/09	[X]	[X]	[X]	[X]	[X]	[X]	9,095
Total	[X]	[X]	[X]	[X]	[X]	[X]	41,688

Note: Repayments rounded to nearest thousand pounds

Source: Ofcom – based on data supplied by BT

Level of repayment is reasonable

8.74 BT has put forward a number of other arguments as to why the level of repayment proposed by Ofcom in the Draft Determinations is not fair and reasonable.

- BT argues that the level of repayment is disproportionate given the lack of harm suffered by the Disputing CPs and the fact that any harm suffered will have been passed through to the Disputing CPs' customers. In such circumstances, BT alleges that Ofcom has failed to properly consider the economic impact of giving the Disputing CPs a windfall of "*nearly £50 million*".
- BT also refers to Ofcom's decision in 2004 not to allow the rebalancing of trunk and terminating segment charges as a mitigating factor, referring to the CAT's decision in the *National Grid* case²²⁴ as authority that any punishment should be reduced if the regulator has allowed a party to believe that its conduct was permissible.
- BT finally argues that Ofcom has failed to take into consideration that trunk is not sold in isolation when considering the appropriate level of repayment.

8.75 The first two arguments have been already been made in relation to whether Ofcom should direct any repayment and they have been considered on this basis in detail in **paragraphs 8.36 to 8.45** above. For completeness, we consider in this **Section** whether, on the basis of these arguments, it is appropriate to reduce the level of repayment.

Little or no economic harm to Disputing CPs

8.76 As we have set out in **paragraphs 8.36 to 8.41** above, we disagree with BT's view that we should not exercise our discretion to direct BT to repay the overcharge because, as BT claims, little or no economic harm has arisen from its overcharging of the Disputing CPs.

8.77 Similarly, we do not consider that the potential passing on of economic harm is a "mitigating factor" for reducing level of repayment. We conclude that it is appropriate to direct that BT should repay the overcharge in full.

Ofcom did not previously accept BT's trunk prices

8.78 BT makes further reference to Ofcom's decision in 2004 not to accept BT's proposals to 'rebalance' trunk and terminating segment charges and our decision in 2005 to close the investigation into BT's trunk charges. BT argues that these decisions led BT to believe that Ofcom considered the trunk charges to be acceptable. As a consequence, BT argues that Ofcom should reduce any "*punishment*" imposed on

²²⁴ *National Grid Plc v Gas and Electricity Markets Authority* [2009] CAT 14.

BT. BT cites the decision of the CAT in the *National Grid* case to support its position. BT goes on to add that if the CAT's position is appropriate in a competition investigation, where punishment is an express object, it must be all the stronger as a mitigating factor in dispute resolution.

- 8.79 As we have set out in **Section 4** above, we do not consider that any of our statements or decisions in 2004 or 2005 should have given or actually gave BT any comfort that we had concluded that BT was not overcharging. We rejected BT's rebalancing proposals and closed our investigation into trunk prices on the basis of BT's inability to provide us with the information necessary to make a full and proper assessment in each case. BT has been responsible for setting trunk charges and had an obligation to ensure that its charges were cost orientated. We do not, therefore, believe that the *National Grid* case is relevant to the circumstances of these Disputes.
- 8.80 Moreover, the purpose of requiring BT to make repayments to the Disputing CPs is not to punish BT but rather to return matters to the position that would have prevailed had BT complied with its cost orientation obligation. The level of repayment proposed in the Draft Determinations reflects the amount by which BT had overcharged the Disputing CPs.

Trunk is not sold in isolation

- 8.81 BT again argues that when considering the appropriate level of overcharge, Ofcom should take account of the fact that trunk services are not sold in isolation but as part of PPC circuits, suggesting that any losses incurred on terminating segments should be offset against any overcharge on trunk services.
- 8.82 For the reasons we set out in **Section 4**, we maintain our view that any losses incurred by BT on terminating segments are not relevant to our consideration of trunk charges and therefore the level of repayment that should be required for overcharging of these services.

Interest on repayments

- 8.83 In referring the Disputes to us, the Disputing CPs asked us to determine not only whether there has been overcharge and whether BT should be directed to repay any overcharge, but also whether we should require BT to repay interest on any overpayments.
- 8.84 In considering whether to require BT to pay interest on the overpayments in the Draft Determinations, we had regard to the terms and conditions on which the Disputing CPs purchase PPCs from BT – the BT Standard PPC Handover Agreement (“the Agreement”).²²⁵ Paragraph 9.7 of the Agreement states that:

“9.7 If any charge (or the means of calculating that charge) for a BT service or facility has retrospective effect (for whatever reason) then BT shall, as soon as reasonably practicable following publication in the Carrier Price List, adjust and recalculate the charges in respect of such service or facility using the new charge and calculate the

225

http://www.btwholesale.com/pages/static/Pricing_and_Contracts/Reference_Offers/Partial_Private_Circuits_PPC_Reference_Offer/PPC_Contracts.html

interest for any sum overpaid or underpaid at the Oftel Interest Rate.”

8.85 The “Oftel Interest Rate” is defined in Annex D to the Agreement as:

“three eighths of one per cent (3/8%) above the London Inter Bank Offered Rate being the rate per annum of the offered quotation for sterling deposits for delivery on the due date for payment for a period of three months as displayed on page 3750 on the Telerate Service (or any other page that may replace page 3750 on that service) at or about 11 am London time on the due date of payment provided that if such a rate is not so displayed London Inter Bank Offered Rate shall mean the rate quoted by National Westminster Bank PLC to leading banks in the London interbank market at or about 11 am London time on the due date of payment for the offering of sterling deposits of a comparable amount for a period of three months. Such interest shall be calculated on a daily basis.”

8.86 We took the view that the Agreement clearly envisages a situation such as that arising in the Disputes occurring (i.e. past charges for PPC services being adjusted in the future) and sets out that where this occurs, BT should recalculate the charges using the new charges and calculate interest using the Oftel Interest Rate.

8.87 In the Draft Determinations, we therefore proposed to conclude that it was appropriate and proportionate for Ofcom to exercise its powers under section 190(2)(d) of the Act to require BT to repay the amounts identified in **Table 8.1** and accordingly proposed to require BT to repay these overpayments with interest at the Oftel Interest Rate.

8.88 In their Response to the Draft Determinations, the Disputing CPs agreed that it was appropriate that BT be required to pay interest on repayments but requested that Ofcom refrain from determining the exact level of interest that should be paid. They argue that they had not requested that Ofcom determine the level of interest in their Submission (only that interest should be paid) and note that they are currently in discussions with BT more generally about the level of interest that should be paid.

8.89 In its comments on the Disputing CPs’ Response, BT rejected claims that the level of interest should be anything other than that set out in the PPC contract.

8.90 In relation to determining the level of interest, our starting point is that we want, and have a duty under the Act, to determine the Disputes fully. This includes determining whether interest should be charged on any repayment and, if so, at what level. We note that we have no indication as to whether the Parties will be successful in re-negotiating the level of interest rate in the Agreement, whether any agreed rate will cover the period of the Disputes or if the interest rates will be the subject to a dispute.

8.91 On this basis, in the interests of certainty in determining the Disputes, we conclude that it is appropriate to determine the level of interest on the amount that BT has overcharged the Disputing CPs.

8.92 We are therefore determining, as we have proposed in our Draft Determinations, that it is appropriate to require BT to pay interest on the amount that it has overcharged the Disputing CPs. We also determine that the Oftel Interest Rate is the appropriate rate of interest in relation to the repayment in these Disputes, as, on the basis of the

Agreement, it has been the interest rate which covers the entire period of the Disputes.

Conclusions on level of repayments

- 8.93 In light of our assessment above, we have concluded that it is appropriate and proportionate for Ofcom to exercise its powers under section 190(2)(d) of the Act to require BT to repay the amounts identified in **Table 8.1** by way of an adjustment of an overpayment by the Disputing CPs. We conclude that BT should pay interest on these amounts at the Oftel Interest Rate.

Summary of our resolution of the Disputes

- 8.94 We have concluded that BT has overcharged the Disputing CPs a total of £41.688 million for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008.
- 8.95 We have concluded that BT has not overcharged for 2Mbit/s PPC trunk services in the period 24 June 2004 to 31 March 2005.
- 8.96 We have additionally concluded that BT has not overcharged for other PPC services during the period of the Disputes, though have excluded 34/45Mbit/s trunk and all 140/155Mbit/s terminating segment services from this conclusion. We intend to carry out further analysis of the 34/45Mbit/s trunk and 140/155Mbit/s terminating segment services and publish our conclusions at a later date.
- 8.97 We have concluded that BT should make repayments to the Disputing CPs as follows:
- 8.97.1 THUS: £[X]
 - 8.97.2 C&W: £[X]
 - 8.97.3 Global Crossing: £[X]
 - 8.97.4 Virgin: £[X]
 - 8.97.5 Verizon: £[X]
 - 8.97.6 COLT: £[X]
- 8.98 We have concluded that BT should be required to make payments to the Disputing CPs set at the amount by which they had been overcharged, with interest, set at the Oftel Interest Rate.

Annex 1

Determination to resolve the dispute between BT and Cable & Wireless

Determination under Sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between Cable & Wireless UK (“C&W”) and British Telecommunications Plc (“BT”) concerning BT’s charges for partial private circuits.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to Section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with Section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to Section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with Section 190(2) of the 2003 Act;

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 24 June 2004, Ofcom published a statement called “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*”²²⁶ (the “2004 LLMR Statement”) which found that BT held significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;

²²⁶ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area; and
- c) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(D) In the 2004 LLMR Statement, Ofcom imposed a series of SMP conditions on BT in these markets under section 45 of the Act, including a basis of charges obligation which requires:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 25 June 2008, Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Having considered the submissions of all the parties to the disputes referred by Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media, Ofcom set the scope of the issues in dispute to be resolved as follows-

“The finalised scope is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

iii. whether and by how much BT should reimburse the Parties.

As Ofcom progresses the resolution of these disputes, we will consider whether any of the matters arising in the disputes raise industry wide issues that it would be appropriate for us to deal with on our own-initiative.”;

(G) On 8 December 2008, Ofcom published a statement concluding a market review into the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments²²⁷ (the “2008 BCMR Statement”) which found that BT had significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including forty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area;
- c) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area; and
- d) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(H) The 2008 BCMR Statement imposed SMP conditions on BT in these markets, including a basis of charges condition, which imposes a cost orientation obligation on BT:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

²²⁷ The Business Connectivity Market Review - www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf

(I) A non-confidential draft determination was sent to the parties on 24 April 2009 and published on Ofcom's website on 27 April 2009;

(J) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of and the Community requirements set out in section 4 of the 2003 Act; and

(K) A fuller explanation of the background to the dispute and Ofcom's reasons for making this Determination is set out in the explanatory statement accompanying this Determination.

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged C&W for the provision of 2Mbit/s PPC trunk services for the period between 1 April 2005 and 30 September 2008.

2. The level of that overcharge is determined at £[<].

3. Ofcom gives a direction to BT to pay to C&W, by way of adjustment of an overpayment for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008, the sum of £[<] plus interest calculated at the rate specified in paragraph 9.7 of the Agreement.

II Binding nature and effective date

4. This Determination is binding on BT and C&W in accordance with Section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in paragraph 9 below of this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in, under or for the purposes of the 2004 LLMR Statement;
- b) headings and titles shall be disregarded; and
- c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) "2003 Act" means the Communications Act 2003 (c.21);
- b) "Agreement" means the BT Standard PPC Handover Agreement that C&W has entered into with BT;
- c) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

- d) "Ofcom" means the Office of Communications;
- e) "Relevant Period" means the period beginning on 24 June 2004 and ending on 30 September 2008;

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

14 October 2009

Annex 2

Determination to resolve the dispute between BT and THUS

Determination under Sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between THUS plc (“THUS”) and British Telecommunications Plc (“BT”) concerning BT’s charges for partial private circuits.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to Section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with Section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to Section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with Section 190(2) of the 2003 Act;

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 24 June 2004, Ofcom published a statement called “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*”²²⁸ (the “2004 LLMR Statement”) which found that BT held significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;

²²⁸ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area; and
- c) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(D) In the 2004 LLMR Statement, Ofcom imposed a series of SMP conditions on BT in these markets under section 45 of the Act, including a basis of charges obligation which requires:

"[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition."

(E) On 25 June 2008, Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT's charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Having considered the submissions of all the parties to the disputes referred by Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media, Ofcom set the scope of the issues in dispute to be resolved as follows-

"The finalised scope is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT's charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

iii. whether and by how much BT should reimburse the Parties.

As Ofcom progresses the resolution of these disputes, we will consider whether any of the matters arising in the disputes raise industry wide issues that it would be appropriate for us to deal with on our own-initiative.”;

(G) On 8 December 2008, Ofcom published a statement concluding a market review into the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments²²⁹ (the “2008 BCMR Statement”) which found that BT had significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including forty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area;
- c) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area; and
- d) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(H) The 2008 BCMR Statement imposed SMP conditions on BT in these markets, including a basis of charges condition, which imposes a cost orientation obligation on BT:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

²²⁹ The Business Connectivity Market Review - www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf

(I) A non-confidential draft determination was sent to the parties on 24 April 2009 and published on Ofcom's website on 27 April 2009;

(J) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of and the Community requirements set out in section 4 of the 2003 Act; and

(K) A fuller explanation of the background to the dispute and Ofcom's reasons for making this Determination is set out in the explanatory statement accompanying this Determination.

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged THUS for the provision of 2Mbit/s PPC trunk services for the period between 1 April 2005 and 30 September 2008.

2. The level of that overcharge is determined at £[<].

3. Ofcom gives a direction to BT to pay to THUS, by way of adjustment of an overpayment for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008, the sum of £[<] plus interest calculated at the rate specified in paragraph 9.7 of the Agreement.

II Binding nature and effective date

4. This Determination is binding on BT and THUS in accordance with Section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in paragraph 9 below of this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in, under or for the purposes of the 2004 LLMR Statement;
- b) headings and titles shall be disregarded; and
- c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) "2003 Act" means the Communications Act 2003 (c.21);
- b) "Agreement" means the BT Standard PPC Handover Agreement that THUS has entered into with BT;
- c) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

- d) “Ofcom” means the Office of Communications;
- e) “Relevant Period” means the period beginning on 24 June 2004 and ending on 30 September 2008;

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

14 October 2009

Annex 3

Determination to resolve the dispute between BT and Global Crossing

Determination under Sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between Global Crossing (UK) Telecommunications Limited (“Global Crossing”) and British Telecommunications Plc (“BT”) concerning BT’s charges for partial private circuits.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to Section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with Section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to Section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with Section 190(2) of the 2003 Act;

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 24 June 2004, Ofcom published a statement called “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*”²³⁰ (the “2004 LLMR Statement”) which found that BT held significant market power in a number of markets, including those for:

²³⁰ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area; and
- c) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(D) In the 2004 LLMR Statement, Ofcom imposed a series of SMP conditions on BT in these markets under section 45 of the Act, including a basis of charges obligation which requires:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 25 June 2008, Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT's charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Having considered the submissions of all the parties to the disputes referred by Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media, Ofcom set the scope of the issues in dispute to be resolved as follows-

“The finalised scope is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

- i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT's charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for*

the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

iii. whether and by how much BT should reimburse the Parties.

As Ofcom progresses the resolution of these disputes, we will consider whether any of the matters arising in the disputes raise industry wide issues that it would be appropriate for us to deal with on our own-initiative.”;

(G) On 8 December 2008, Ofcom published a statement concluding a market review into the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments²³¹ (the “2008 BCMR Statement”) which found that BT had significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including forty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area;
- c) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area; and
- d) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(H) The 2008 BCMR Statement imposed SMP conditions on BT in these markets, including a basis of charges condition, which imposes a cost orientation obligation on BT:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be

²³¹ The Business Connectivity Market Review - www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf

able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(I) A non-confidential draft determination was sent to the parties on 24 April 2009 and published on Ofcom’s website on 27 April 2009;

(J) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of and the Community requirements set out in section 4 of the 2003 Act; and

(K) A fuller explanation of the background to the dispute and Ofcom’s reasons for making this Determination is set out in the explanatory statement accompanying this Determination.

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged Global Crossing for the provision of 2Mbit/s PPC trunk services for the period between 1 April 2005 and 30 September 2008.
2. The level of that overcharge is determined at £[x].
3. Ofcom gives a direction to BT to pay to Global Crossing, by way of adjustment of an overpayment for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008, the sum of £[x] plus interest calculated at the rate specified in paragraph 9.7 of the Agreement.

II Binding nature and effective date

4. This Determination is binding on BT and Global Crossing in accordance with Section 190(8) of the 2003 Act.
5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—
 - a) except as otherwise defined in paragraph 9 below of this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in, under or for the purposes of the 2004 LLMR Statement;
 - b) headings and titles shall be disregarded; and
 - c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.
7. In this Determination—
 - a) “2003 Act” means the Communications Act 2003 (c.21);

- b) "Agreement" means the BT Standard PPC Handover Agreement that Global Crossing has entered into with BT;
- c) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;
- d) "Ofcom" means the Office of Communications;
- e) "Relevant Period" means the period beginning on 24 June 2004 and ending on 30 September 2008;

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the
Office of Communications Act 2002

14 October 2009

Annex 4

Determination to resolve the dispute between BT and Verizon

Determination under Sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between Verizon UK Limited (“Verizon”) and British Telecommunications Plc (“BT”) concerning BT’s charges for partial private circuits.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to Section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with Section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to Section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with Section 190(2) of the 2003 Act;

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 24 June 2004, Ofcom published a statement called “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*”²³² (the “2004 LLMR Statement”) which found that BT held significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;

²³² See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area; and
- c) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(D) In the 2004 LLMR Statement, Ofcom imposed a series of SMP conditions on BT in these markets under section 45 of the Act, including a basis of charges obligation which requires:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 25 June 2008, Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Having considered the submissions of all the parties to the disputes referred by Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media, Ofcom set the scope of the issues in dispute to be resolved as follows-

“The finalised scope is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

iii. whether and by how much BT should reimburse the Parties.

As Ofcom progresses the resolution of these disputes, we will consider whether any of the matters arising in the disputes raise industry wide issues that it would be appropriate for us to deal with on our own-initiative.”;

(G) On 8 December 2008, Ofcom published a statement concluding a market review into the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments²³³ (the “2008 BCMR Statement”) which found that BT had significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including forty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area;
- c) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area; and
- d) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(H) The 2008 BCMR Statement imposed SMP conditions on BT in these markets, including a basis of charges condition, which imposes a cost orientation obligation on BT:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

²³³ The Business Connectivity Market Review - www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf

(I) A non-confidential draft determination was sent to the parties on 24 April 2009 and published on Ofcom's website on 27 April 2009;

(J) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of and the Community requirements set out in section 4 of the 2003 Act; and

(K) A fuller explanation of the background to the dispute and Ofcom's reasons for making this Determination is set out in the explanatory statement accompanying this Determination.

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged Verizon for the provision of 2Mbit/s PPC trunk services for the period between 1 April 2005 and 30 September 2008.

2. The level of that overcharge is determined at £[X].

3. Ofcom gives a direction to BT to pay to Verizon, by way of adjustment of an overpayment for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008, the sum of £[X] plus interest calculated at the rate specified in paragraph 9.7 of the Agreement.

II Binding nature and effective date

4. This Determination is binding on BT and Verizon in accordance with Section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in paragraph 9 below of this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in, under or for the purposes of the 2004 LLMR Statement;
- b) headings and titles shall be disregarded; and
- c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) "2003 Act" means the Communications Act 2003 (c.21);
- b) "Agreement" means the BT Standard PPC Handover Agreement that Verizon has entered into with BT;
- c) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

- d) “Ofcom” means the Office of Communications;
- e) “Relevant Period” means the period beginning on 24 June 2004 and ending on 30 September 2008;

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

14 October 2009

Annex 5

Determination to resolve the dispute between BT and Virgin Media

Determination under Sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between Virgin Media Limited (“Virgin”) and British Telecommunications Plc (“BT”) concerning BT’s charges for partial private circuits.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to Section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with Section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to Section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with Section 190(2) of the 2003 Act;

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 24 June 2004, Ofcom published a statement called “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*”²³⁴ (the “2004 LLMR Statement”) which found that BT held significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;

²³⁴ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area; and
- c) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(D) In the 2004 LLMR Statement, Ofcom imposed a series of SMP conditions on BT in these markets under section 45 of the Act, including a basis of charges obligation which requires:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 25 June 2008, Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Having considered the submissions of all the parties to the disputes referred by Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media, Ofcom set the scope of the issues in dispute to be resolved as follows-

“The finalised scope is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

i. BT has or will have overcharged the Parties for PPCs (based on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much the Parties will have been overcharged; and

iii. whether and by how much BT should reimburse the Parties.

As Ofcom progresses the resolution of these disputes, we will consider whether any of the matters arising in the disputes raise industry wide issues that it would be appropriate for us to deal with on our own-initiative.”;

(G) On 8 December 2008, Ofcom published a statement concluding a market review into the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments²³⁵ (the “2008 BCMR Statement”) which found that BT had significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including forty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area;
- c) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area; and
- d) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(H) The 2008 BCMR Statement imposed SMP conditions on BT in these markets, including a basis of charges condition, which imposes a cost orientation obligation on BT:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

²³⁵ The Business Connectivity Market Review - www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf

(I) A non-confidential draft determination was sent to the parties on 24 April 2009 and published on Ofcom's website on 27 April 2009;

(J) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of and the Community requirements set out in section 4 of the 2003 Act; and

(K) A fuller explanation of the background to the dispute and Ofcom's reasons for making this Determination is set out in the explanatory statement accompanying this Determination.

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged Virgin for the provision of 2Mbit/s PPC trunk services for the period between 1 April 2005 and 30 September 2008.

2. The level of that overcharge is determined at £[X].

3. Ofcom gives a direction to BT to pay to Virgin, by way of adjustment of an overpayment for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008, the sum of £[X] plus interest calculated at the rate specified in paragraph 9.7 of the Agreement.

II Binding nature and effective date

4. This Determination is binding on BT and Virgin in accordance with Section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in paragraph 9 below of this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in, under or for the purposes of the 2004 LLMR Statement;
- b) headings and titles shall be disregarded; and
- c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) "2003 Act" means the Communications Act 2003 (c.21);
- b) "Agreement" means the BT Standard PPC Handover Agreement that Virgin has entered into with BT;
- c) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

- d) “Ofcom” means the Office of Communications;
- e) “Relevant Period” means the period beginning on 24 June 2004 and ending on 30 September 2008;

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

14 October 2009

Annex 6

Determination to resolve the dispute between BT and COLT Telecommunications

Determination under Sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between COLT Telecommunications (“COLT”) and British Telecommunications Plc (“BT”) concerning BT’s charges for partial private circuits.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to Section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the parties in accordance with Section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to Section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with Section 190(2) of the 2003 Act;

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 24 June 2004, Ofcom published a statement called “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*”²³⁶ (the “2004 LLMR Statement”) which found that BT held significant market power in a number of markets, including those for:

²³⁶ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area; and
- c) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(D) In the 2004 LLMR Statement, Ofcom imposed a series of SMP conditions on BT in these markets under section 45 of the Act, including a basis of charges obligation which requires:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 25 June 2008, Cable & Wireless, Thus, Global Crossing, Verizon and Virgin Media jointly referred disputes with BT to Ofcom for dispute resolution requesting determinations that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Separately, on 20 October 2008, COLT also referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for partial private circuits provided to them from 24 June 2004 to date (which depends on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed. In its submission, COLT stated that it had no specific evidence or unique issues in its dispute with BT that would warrant any different treatment of its case to that of the other operators that had submitted similar disputes on 25 June 2008.

(G) Having considered the submissions of COLT, Ofcom set the scope of the issues in dispute to be resolved as follows-

“The scope of the dispute is therefore to determine whether, in the period from 24 June 2004 to 30 September 2008:

i. BT has overcharged COLT for PPCs (based on whether or not BT’s charges for the underlying trunk and terminating elements of those PPCs were, during that time, reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed) and, if so;

ii. by how much COLT has been overcharged; and

iii. whether and by how much BT should reimburse COLT..“;

(H) On 8 December 2008, Ofcom published a statement concluding a market review into the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments²³⁷ (the “2008 BCMR Statement”) which found that BT had significant market power in a number of markets, including those for:

- a) the provision of traditional interface symmetric broadband origination with a bandwidth capacity up to and including eight megabits per second within the United Kingdom but not including the Hull Area;
- b) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above eight megabits per second and up to and including forty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area;
- c) the provision of traditional interface symmetric broadband origination with a bandwidth capacity above forty five megabits per second and up to and including one hundred and fifty five megabits per second within the United Kingdom but not including the Hull Area and the Central and East London Area; and
- d) the provision of wholesale trunk segments at all bandwidths within the United Kingdom.

(I) The 2008 BCMR Statement imposed SMP conditions on BT in these markets, including a basis of charges condition, which imposes a cost orientation obligation on BT:

“[x]3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

[x]3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by [the requirement to provide network access on reasonable request] is for

²³⁷ The Business Connectivity Market Review - www.ofcom.org.uk/consult/condocs/bcmr08/bcmr08.pdf

a service which is subject to a charge control under [the charge control condition], the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition [x]3.1.

[x]3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(J) A non-confidential draft determination was sent to the parties on 24 April 2009 and published on Ofcom’s website on 27 April 2009;

(K) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of and the Community requirements set out in section 4 of the 2003 Act; and

(L) A fuller explanation of the background to the dispute and Ofcom’s reasons for making this Determination is set out in the explanatory statement accompanying this Determination.

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged COLT for the provision of 2Mbit/s PPC trunk services for the period between 1 April 2005 and 30 September 2008.

2. The level of that overcharge is determined at £[~~3~~].

3. Ofcom gives a direction to BT to pay to COLT, by way of adjustment of an overpayment for 2Mbit/s PPC trunk services in the period 1 April 2005 to 30 September 2008, the sum of £[~~3~~] plus interest calculated at the rate specified in paragraph 9.7 of the Agreement.

II Binding nature and effective date

4. This Determination is binding on BT and COLT in accordance with Section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in paragraph 9 below of this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in, under or for the purposes of the 2004 LLMR Statement;
- b) headings and titles shall be disregarded; and
- c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) “2003 Act” means the Communications Act 2003 (c.21);

- b) "Agreement" means the BT Standard PPC Handover Agreement that COLT has entered into with BT;
- c) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by Section 736 of the Companies Act 1985, as amended by the Companies Act 1989;
- d) "Ofcom" means the Office of Communications;
- e) "Relevant Period" means the period beginning on 24 June 2004 and ending on 30 September 2008;

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the
Office of Communications Act 2002

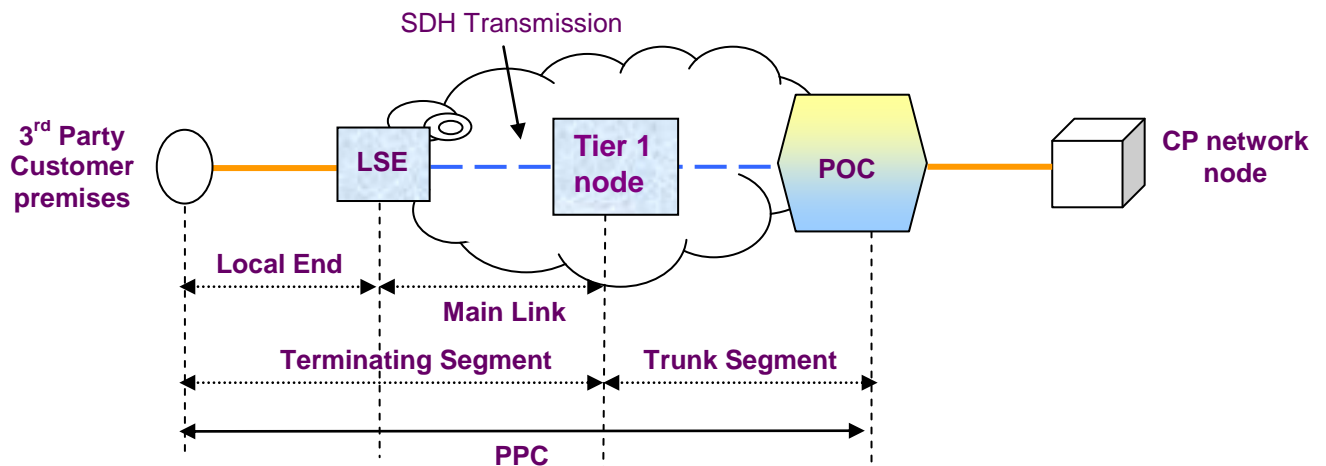
14 October 2009

Annex 7

Constituent parts of a PPC

- A7.1 PPCs provide dedicated symmetric transmission at a range of bandwidths between a 3rd party customer premise and a communications provider's network via a Point of Connection ("POC").²³⁸ The 3rd party customer premises are linked to the Local Serving Exchanges ("LSE") via copper or fibre-optic pair local ends with SDH or PDH transmission²³⁹ being used to provide the link between the customer premises and the POC.
- A7.2 PPCs can in turn be made up of 'terminating segments', which for the period of the dispute were defined as running from a customer site to a Tier 1 node in BT's network, and 'trunk segments', which typically run over longer distances between Tier 1 nodes.²⁴⁰ Not all PPCs will be sold with a trunk segment – this will generally depend on the proximity of the Altnet's POC to the LSE. All PPCs will have at least one terminating segment.

Figure A7.1: Constituent parts of a PPC



²³⁸ The meaning of the terms 'symmetric transmission' and 'Point of Connection', along with the meanings of the other technical terms used in this section, are set out in the Glossary in **Annex 16** below.

²³⁹ SDH and PDH (Plesiochronous and Synchronous Digital Hierarchy) are transmission technologies that support the transmission of various bandwidths of data over fibre optic networks and are used extensively in the provision of Leased Lines services. They are explained in more detail in the Glossary in **Annex 16**.

²⁴⁰ As set out in **Figure A7.1**, terminating segments can, in turn, be made up of local ends and main links.

Annex 8

Key provisions of the legal and regulatory framework

The legal framework

- A8.1 Regulation of electronic communications (including leased lines) across Europe is based on the CRF which was published in April 2002 and had to be implemented by the Member States by July 2003. This superseded earlier EU regulatory instruments. The CRF comprises five EU Communications Directives (together “the Directives”):
- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive);
 - Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive);
 - Directive 2002/20/EC on the authorisation of electronic communications networks and services (Authorisation Directive);
 - Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services , (Universal Service Directive); and
 - Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (Privacy Directive).
- A8.2 The Framework Directive, the Access Directive, the Authorisation Directive and the Universal Service Directive were implemented in the United Kingdom on 25 July 2003 via the Act. The Privacy Directive was implemented by Regulation which came into force on 11 December 2003.
- A8.3 Article 16 of the Framework Directive requires each NRA to carry out an analysis of the relevant markets as soon as possible after the adoption of the Commission’s recommendation on relevant product and service markets or any updating thereof (“the Recommendation”). The Commission adopted the first edition of the Recommendation on 11 February 2003.²⁴¹ The Commission issued a revised Recommendation on 17 December 2007.²⁴²

²⁴¹ Commission Recommendation 2003/311/EC of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services.
http://ec.europa.eu/information_society/policy/ecomm/doc/library/recomm_guidelines/relevant_market_s/i_11420030508en00450049.pdf

²⁴² Commission Recommendation 2007/879/EC of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.
http://ec.europa.eu/information_society/policy/ecomm/doc/library/proposals/rec_markets_en.pdf

- A8.4 Where an NRA determines that a relevant market is not effectively competitive it must identify undertakings with SMP on that market and must then impose on these undertakings appropriate specific regulatory obligations, or maintain or amend these obligations where they already exist. These obligations, commonly referred to as “the SMP conditions”, include the setting of price controls and basis of charges (cost orientation) obligation.
- A8.5 The CRF was implemented in the UK by provisions in the Act. Section 45 of the Act empowers Ofcom to set conditions of various kinds, including SMP conditions.

The regulatory framework

The cost orientation obligations

- A8.6 SMP Condition G3 states as follows:

“Condition G3 – Basis of charges

G3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition G1 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

G3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition G1 is for a service which is subject to a charge control under Condition G4, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirement of Condition G3.1.

G3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”

The charge control obligations

- A8.7 The revised SMP Condition G4 states as follows:

“Condition G4 – Charge control

G4.1 Without prejudice to the generality of Condition G3, and subject to paragraph G4.2, the Dominant Provider shall take all reasonable steps to secure that, at the end of each Relevant Year, the Percentage Change (determined in accordance with paragraphs G4.3, G4.4 or G4.5 as appropriate) in:

(a) the aggregate of charges for all of the products and services listed in Annex A to this Condition;

(b) the aggregate of charges for all of the products and services listed in Annex B to this Condition,

(c) the aggregate of charges for the connection services listed in Part 1 of Annex A to this Condition;

(d) the aggregate of charges for the rental and maintenance services listed in Part 2 of Annex A to this Condition; and

(e) each of the charges for the products and services listed in Annex B to this Condition;

is not more than the Controlling Percentage (determined in accordance with paragraph G4.6).

...

G4.6 Subject to paragraphs G4.7 and G4.8, the Controlling Percentage in relation to any Relevant Year means RPI reduced:

(a) for the category of products and services specified in paragraph G4.1(a), by 4 percentage points;

(b) for the category of products and services specified in paragraph G4.1(b), by 8.9 percentage points;

(c) for the category of products and services specified in paragraph G4.1(c), by 0 percentage points;

(d) for the category of products and services specified in paragraph G4.1(d), by 0 percentage points; and

(e) for the category of products and services specified in paragraph G4.1(e), by 3 percentage points.

G4.7 Where the Percentage Change in any Relevant Year is less than the Controlling Percentage, then for the purposes of the categories of products and services identified in paragraphs G4.1(a) and G4.1(b) the Controlling Percentage for the following Relevant Year shall be determined in accordance with paragraph G4.6, but increased by the amount of such deficiency.

G4.8 Where the Percentage Change in any Relevant Year is more than the Controlling Percentage, then for the purposes of the categories of products and services identified in paragraphs G4.1(a) and G4.1(b) the Controlling Percentage for the following Relevant Year shall be determined in accordance with paragraph G4.6, but decreased by the amount of such excess.

...

G4.13 In this Condition:

(a) "Relevant Financial Year" means the period of 12 months ending on 31 March immediately preceding the Relevant Year;

(b) "Controlling Percentage" is to be determined in accordance with Condition G4.6;

(c) *“Relevant Year” means any of the four periods of 12 months beginning on 1st October starting with 1st October 2004 and ending on 30 September 2008;*

(d) *“Retail Prices Index” means the index of retail prices compiled by an agency or a public body on behalf of Her Majesty’s Government or a governmental department (which is the Office of National Statistics at the time of publication of this Notification) from time to time in respect of all items; and*

(e) *“RPI” means the amount of the change in the Retail Prices Index in the period of twelve months ending on 30th June immediately before the beginning of a Relevant Year, expressed as a percentage (rounded to two decimal places) of that Retail Prices Index as at the beginning of that first mentioned period.*

G4.14 *In the Annexes to this Condition:*

(a) *“Partial Private Circuit” or “PPC” means a circuit provided pursuant to the PPC Contract and in accordance with any directions made by Ofcom pursuant to SMP services conditions G1, G3 or G7 under section 49 of the Act; and*

(b) *“PPC Contract” means the Dominant Provider’s Standard PPC Handover Agreement as at 24 June 2004.”*

A8.8 Again, the wording of SMP Condition GG4 is broadly similar to that of SMP Condition G4 (with references to ‘G’ being replaced with those for ‘GG’). The main exceptions being the services that are included in the Annexes to each SMP Condition and the Controlling Percentages set out in sub-paragraph 6. SMP Condition GG4.6 states:

“GG4.6 Subject to paragraphs GG4.7 and GG4.8, the Controlling Percentage in relation to any Relevant Year means RPI reduced:

(a) for the category of products and services specified in paragraph GG4.1(a), by 6.5 percentage points;

(b) for the category of products and services specified in paragraph GG4.1(b), by 8.9 percentage points;

(c) for the category of products and services specified in paragraph GG4.1(c), by 0 percentage points;

(d) for the category of products and services specified in paragraph GG4.1(d), by 0 percentage points; and

(e) for the category of products and services specified in paragraph GG4.1(e), by 3 percentage points.”

The non-discrimination obligations

A8.9 SMP Condition G2 states:

“Condition G2 – requirement not to unduly discriminate

G2.1 The Dominant Provider shall not unduly discriminate against particular persons or against a particular description of persons, in relation to matters connected with Network Access.

G2.2 In this Condition, the Dominant Provider may be deemed to have shown undue discrimination if it unfairly favours to a material extent an activity carried on by it so as to place at a competitive disadvantage persons competing with the Dominant Provider.”

- A8.10 The wording of SMP Condition GG2 and H2 is identical to that of SMP Condition G2 (with references to ‘G’ being replaced with those for ‘GG’ and ‘H’).

Network Access

- A8.11 The term “Network Access” is not specifically defined in the SMP Conditions set out in the 2004 LLMR Statement. The SMP Conditions, however, make clear that “except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them and otherwise any word or expression shall have the same meaning as it has in the Act”.²⁴³
- A8.12 Section 197 of the Act makes clear that for the purposes of Ofcom’s dispute resolution powers in sections 185 to 191 of the Act, the term “Network Access” has the same meaning as in Chapter 1 of Part 2 of the Act.
- A8.13 Section 151(1) of the Act states that, for the purposes of Chapter 1 of Part 2 of the Act (which includes sections 32 to 151 of the Act):

“ ...

“network access” is to be construed in accordance with subsection (3);

...”

- A8.14 Section 151(3) of the Act states:

“In this Chapter references to network access are references to–

(a) interconnection of public electronic communications networks; or

(b) any services, facilities or arrangements which–

(i) are not comprised in interconnection; but

(ii) are services, facilities or arrangements by means of which a communications provider or person making available associated facilities is able, for the purposes of the provision of an electronic communications service (whether by him or by another), to make use of anything mentioned in subsection (4);

²⁴³ See paragraph 3 of Schedule 1 to the Notification under sections 48(1) and 79(4) of the Act that identify the PPC markets in which SMP exists, determine the communications providers that have SMP in those markets and set out the SMP Conditions that should apply to those communications providers. The Notification is set out in Annex D of the 2004 LLMR Statement.

and references to providing network access include references to providing any such services, making available any such facilities or entering into any such arrangements.”

A8.15 Section 151(4) states:

“The things referred to in subsection (3)(b) are—

(a) any electronic communications network or electronic communications service provided by another communications provider;

(b) any apparatus comprised in such a network or used for the purposes of such a network or service;

(c) any facilities made available by another that are associated facilities by reference to any network or service (whether one provided by that provider or by another);

(d) any other services or facilities which are provided or made available by another person and are capable of being used for the provision of an electronic communications service.”

Ofcom’s dispute resolution powers

EU Legislation

A8.16 These proposed Determinations relate to the exercise by Ofcom of its dispute resolution powers. These powers derive from two provisions in the CRF, Article 20 of the Framework Directive and Article 5 of the Access Directive. Article 20 of the Framework Directive provides as follows:

“1. In the event of a dispute arising in connection with obligations arising under this Directive or the Specific Directives between undertakings providing electronic communications networks or services in a Member State, the national regulatory authority concerned shall, at the request of either party, and without prejudice to the provisions of paragraph 2, issue a binding decision to resolve the dispute in the shortest possible time frame, and in any case within four months except in exceptional circumstances. The Member State concerned shall require that all parties cooperate fully with the national regulatory authority.

2. Member states may make provision for national regulatory authorities to decline to resolve a dispute through a binding decision where other mechanisms, including mediation, exist and would better contribute to resolution of the dispute in a timely manner in accordance with the provisions of Article 9.

3. In resolving a dispute, the national regulatory authority shall take decisions aimed at achieving the objectives set out in Article 8. Any obligations imposed on an undertaking by the national regulatory authority in resolving a dispute shall respect the provisions of this Directive or the Specific Directives.”

A8.17 Article 20 thus covers all disputes arising in connection with obligations under the Framework Directive and the Specific Directives.²⁴⁴

A8.18 The 32nd Recital to the Framework Directive describes what Article 20 is meant to achieve. It states:

“32. In the event of a dispute between undertakings in the same Member State in an area covered by this Directive or the Specific Directives, for example relating to obligations of access and interconnection or to the means of transferring subscriber lists, an aggrieved party that has negotiated in good faith but failed to reach agreement should be able to call on the national regulatory authority to resolve the dispute. National regulatory authorities should be able to impose a solution on the parties. The intervention of a national regulatory authority in the resolution of a dispute between undertakings providing electronic communications networks or services in a Member State should seek to ensure compliance with the obligations arising under this Directive or the Specific Directives.”

A8.19 Article 5 of the Access Directive deals with the NRA's functions in respect to interconnection. The CRF recognises that the ability of competitors and potential competitors in the telecoms sector is entirely dependent on their ability to interconnect with the networks of the other market participants. Article 5 therefore requires Member States to confer on the NRA the power to require networks to enter into interconnection agreements with each other. Article 5(1) provides:

“National Regulatory Authorities shall, acting in pursuit of the objectives set out in Article 8 of the Framework Directive encourage and, where appropriate ensure, in accordance with the provisions of this Directive, adequate access and interconnection, and interoperability of services, exercising their responsibility in a way that promotes efficiency, and sustainable competition and gives the maximum benefit to end-users.

In particular, without prejudice to measures that may be taken regarding undertakings with significant market power in accordance with Article 8, national regulatory authorities shall be able to impose:

(a) to the extent that it is necessary to ensure end-to-end connectivity, obligations on undertakings that control access to end-users including in justified cases the obligation to interconnect their networks where this is not already the case;”

A8.20 Article 5(4) deals with the power of the NRA to resolve disputes which arise with regard to access and interconnection:

“With regard to access and interconnection, Member States shall ensure that the national regulatory authority is empowered to intervene at its own initiative where justified or, in the absence of agreement between undertakings, at the request of either of the parties involved, in order to secure the policy objectives of Article 8

²⁴⁴ ‘Specific Directives’ is defined as meaning Directive 2002/20/EC (Authorisation Directive), Directive 2002/19/EC (Access Directive), Directive 2002/22/EC (Universal Service Directive) and Directive 97/66/EC (EU Data Protection Directive).

[of the Framework Directive], in accordance with the provisions of this Directive and the procedures referred to in Articles 6 and 7, 20 and 21 of [the Framework Directive].”

- A8.21 Article 5(4) thus requires Member States to confer two powers on the NRA: the power to intervene either on its own initiative or at the request of the parties to a dispute in order to secure the policy objectives referred to. Both Articles 20 and 5(4) refer to the policy objectives set out in Article 8 of the Framework Directive. Article 8 of the Framework Directive sets out the policy objectives and regulatory principles of which the NRAs are required to take the utmost account in carrying out their tasks under the Framework Directive and the Specific Directives.
- A8.22 These objectives can be summarised as including promoting competition in the provision of electronic communications networks and services²⁴⁵ 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;
 - c) encouraging efficient investment in infrastructure and promoting innovation; and
 - d) encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources.
- A8.23 In addition, the NRAs are required to contribute to the development of the internal market²⁴⁶ by *inter alia* –
- a) removing remaining obstacles to the provision of electronic communications networks, associated facilities and services and electronic communications services at European level;
 - b) encouraging the establishment and development of trans-European networks and the interoperability of pan-European services, and end-to-end connectivity;
 - c) ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services; and
 - d) co-operating with each other and the Commission in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of the Framework Directive and the Specific Directives.
- A8.24 Finally, the NRAs are required to promote the interests of the citizens of the European Union²⁴⁷ by *inter alia* –
- a) ensuring that all citizens have access to a universal service specified in Directive 2002/22/EC (Universal Service Directive);
 - b) ensuring a high level of protection for consumers in their dealings with suppliers, in particular by ensuring the availability of simple and inexpensive dispute resolution procedures carried out by a body that is independent of the parties involved;

²⁴⁵ See Article 8(2) of the Framework Directive.

²⁴⁶ See Article 8(3) of the Framework Directive.

²⁴⁷ See Article 8(4) of the Framework Directive.

- c) contributing to ensuring a high level of protection of personal data and privacy;
- d) promoting the provision of clear information, in particular requiring transparency of tariffs and conditions for using publicly available electronic communications services;
- e) addressing the needs of specific social groups, in particular disabled users; and
- f) ensuring that the integrity and security of public communications networks are maintained.

National legislation

- A8.25 The relevant provisions of the Framework Directive and the Access Directive were implemented in the UK by the Act. Ofcom's dispute resolution powers and obligations are set out in sections 185 to 191 of the Act. These sections apply to disputes relating to the provision of network access and to other disputes relating to rights and obligations conferred or imposed by or under Part 2 of the Act.
- A8.26 In summary, where Ofcom is referred a dispute between different CPs which relates to the provision of network access, Ofcom must accept and resolve the dispute unless there are alternative means of resolving it. Once Ofcom has accepted a dispute, it must resolve it by issuing a determination within four months, unless exceptional circumstances exist.
- A8.27 Section 185 of the Act describes the types of disputes to which Ofcom's powers apply and sets out the manner in which disputes can be referred to Ofcom:

"185 Reference of disputes to OFCOM

(1) This section applies in the case of a dispute relating to the provision of network access if it is –

(a) a dispute between different communications providers;

...

(3) Any one or more of the parties to the dispute may refer it to OFCOM.

(4) A reference made under this section is to be made in such manner as OFCOM may require.

...

(8) For the purposes of this section –

(a) the disputes that relate to the provision of network access include disputes as to the terms or conditions on which it is or may be provided in a particular case;

..."

- A8.28 Section 186 of the Act sets out the action that Ofcom must take having received a dispute referred under and in accordance with section 185 of the Act:

“186 Action by OFCOM on dispute reference

...

(2) OFCOM must decide whether or not it is appropriate for them to handle the dispute.

(3) Unless they consider –

(a) that there are alternative means available for resolving the dispute,

(b) that a resolution of the dispute by those means would be consistent with the Community requirements set out in section 4; and

(c) that a prompt and satisfactory resolution of the dispute is likely if those alternative means are used for resolving it,

their decision must be a decision that it is appropriate for them to handle the dispute.

(4) As soon as reasonably practicable after OFCOM have decided –

(a) that it is appropriate for them to handle the dispute, or

(b) that it is not,

they must inform each of the parties to the dispute of their decision and of their reasons for it.

...”

A8.29 Section 187 of the Act relates to legal proceedings about referred disputes. It states:

“187 Legal proceedings about referred disputes

(1) Where a dispute is referred or referred back to OFCOM under this Chapter, the reference is not to prevent—

(a) the person making it,

(b) another party to the dispute,

(c) OFCOM, or

(d) any other person,

from bringing, or continuing, any legal proceedings with respect to any of the matters under dispute.

(2) Nor is the reference or reference back to OFCOM under this Chapter of a dispute to prevent OFCOM from—

(a) giving a notification in respect of something that they have reasonable grounds for believing to be a contravention of any obligation imposed by or under any an enactment;

(b) exercising any of their other powers under any enactment in relation to a contravention of such an obligation; or

(c) taking any other step in preparation for or with a view to doing anything mentioned in the preceding paragraphs.

(3) If, in any legal proceedings with respect to a matter to which a dispute relates, the court orders the handling of the dispute by OFCOM to be stayed or sisted—

(a) OFCOM are required to make a determination for resolving the dispute only if the stay or sist is lifted or expires; and

(b) the period during which the stay or sist is in force must be disregarded in determining the period within which OFCOM are required to make such a determination.

(4) Subsection (1) is subject to section 190(8) and to any agreement to the contrary binding the parties to the dispute.

(5) In this section “legal proceedings” means civil or criminal proceedings in or before a court.”

A8.30 Section 188 of the Act sets out the procedures that Ofcom must follow where it has decided, under section 186(2) of the Act, to accept a dispute for resolution:

“188 Procedure for resolving disputes

(1) This section applies where –

(a) OFCOM have decided under section 186(2) that it is appropriate for them to handle a dispute; or

...

(2) OFCOM must –

(a) consider the dispute; and

(b) make a determination for resolving it.

(3) The procedure for consideration and determination of the dispute is to be the procedure that OFCOM consider appropriate.

...

(5) Except in exceptional circumstances and subject to section 187(3), OFCOM must make their determination no more than four months after the following day –

(a) in a case falling within subsection (1)(a), the day of the decision by OFCOM that it is appropriate for them to handle the dispute; and

...

A8.31 Section 190 of the Act sets out the only powers that Ofcom has to resolve disputes:

“190 Resolution of referred disputes

(1) Where OFCOM make a determination for resolving a dispute referred to them under this Chapter, their only powers are those conferred by this section.

(2) Their main power (except in the case of a dispute relating to rights and obligations conferred or imposed by or under the enactments relating to the management of the radio spectrum) is to do one or more of the following—

(a) to make a declaration setting out the rights and obligations of the parties to the dispute;

(b) to give a direction fixing the terms or conditions of transactions between the parties to the dispute;

(c) to give a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by OFCOM; and

(d) for the purpose of giving effect to a determination by OFCOM of the proper amount of a charge in respect of which amounts have been paid by one of the parties of the dispute to the other, to give a direction, enforceable by the party to whom the sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment.

(3) Their main power in the excepted case is just to make a declaration setting out the rights and obligations of the parties to the dispute.

(4) Nothing in this section prevents OFCOM from exercising the following powers in consequence of their consideration under this Chapter of any dispute—

(a) their powers under Chapter 1 of this Part to set, modify or revoke general conditions, universal service conditions, access related conditions, privileged supplier conditions or SMP conditions;

(b) their powers to vary, modify or revoke wireless telegraphy licences or grants of recognised spectrum access;

(c) their power to make, amend or revoke regulations under section 1 or 3 of the Wireless Telegraphy Act 1949 (c. 54).

...

(6) Where OFCOM make a determination for resolving a dispute, they may require a party to the dispute—

(a) to make payments to another party to the dispute in respect of costs and expenses incurred by that other party in consequence of the reference of the dispute to OFCOM, or in connection with it; and

(b) to make payments to OFCOM in respect of costs and expenses incurred by them in dealing with the dispute.

...

(8) A determination made by OFCOM for resolving a dispute referred or referred back to them under this Chapter binds all the parties to the dispute.

...”

A8.32 Section 190(2)(d) of the Act, therefore, includes the power in considering a dispute to determine the proper level of a charge that has been paid and to order repayment of sums that are found to have been overpaid.

A8.33 Ofcom has published guidelines on its processes and submission requirements for the handling of complaints and disputes.²⁴⁸ The guidelines make clear that before accepting a dispute, Ofcom will require the submitting party to provide:

- a) a clear scope of the dispute that they wish to have resolved;
- b) evidence of failed commercial negotiations between the parties; and
- c) a statement by an officer of the company, preferably the CEO, that best endeavours have been used to resolve the dispute through commercial negotiation.

Ofcom's duties in carrying out its functions

A8.34 Sections 3 and 4 of the Act set out the main duties that Ofcom must have regard to when carrying out its functions, including its dispute resolution functions.

A8.35 Section 3 of the Act deals with Ofcom's general duties. To the extent that they are relevant to the Disputes, the provisions of section 3 of the Act are set out below.

“3 General duties of OFCOM

(1) It shall be the principal duty of OFCOM, in carrying out their functions –

(a) to further the interests of citizens in relation to communications matters; and

(b) to further the interests of consumers in relevant markets, where appropriate by promoting competition.

²⁴⁸ Guidelines for the handling of competition complaints, and complaints and disputes about breaches of conditions imposed under the EU Directive, July 2004. A copy of the guidelines are available on Ofcom's website at: http://www.ofcom.org.uk/bulletins/eu_directives/guidelines.pdf

(2) The things which, by virtue of subsection (1), OFCOM are required to secure in the carrying out of their functions include, in particular, each of the following –

...

(b) the availability throughout the United Kingdom of a wide range of electronic communications services;

...

(3) In performing their duties under subsection (1), OFCOM must have regard, in all cases, to –

(a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and

(b) any other regulatory principles appearing to OFCOM to represent the best regulatory practice.

(4) OFCOM must also have regard, in performing those duties, to such of the following as appear to them to be relevant in the circumstances –

...

(b) the desirability of promoting competition in relevant markets;

...

(d) the desirability of encouraging investment and innovation in relevant markets;

(e) the desirability of encouraging the availability and use of high speed data transfer services throughout the United Kingdom;

...

(5) In performing their duty under this section of furthering the interests of consumers, OFCOM must have regard, in particular, to the interests of those consumers in respect of choice, price, quality of service and value for money.

(6) Where it appears to OFCOM, in relation to the carrying out of any of the functions mentioned in section 4(1), that any of their general duties conflict with one or more of their duties under sections 4, 24 and 25, priority must be given to their duties under those sections.

(7) Where it appears to OFCOM that any of their general duties conflict with each other in a particular case, they must secure that the conflict is resolved in the manner they think best in the circumstances.

...”

- A8.36 Section 4 of the Act sets out Ofcom's duties for the purpose of fulfilling its Community obligations. To the extent that they are relevant to the Disputes, the provisions of section 4 of the Act are set out below.

"4 Duties for purpose of fulfilling Community obligations

(1) This section applies to the following functions of OFCOM –

(a) their functions under Chapter 1 of Part 2;

...

(c) their functions under Chapter 3 of Part 2 in relation to disputes referred to them under section 185;

...

(2) It shall be the duty of OFCOM, in carrying out any of those functions, to act in accordance with the six Community requirements (which give effect, amongst other things, to the requirements of Article 8 of the Framework Directive and to be read accordingly).

(3) The first Community requirement is a requirement to promote competition –

(a) in relation to the provision of electronic communications networks and electronic communications services;

(b) in relation to the provision and making available of services and facilities that are provided or made available in association with the provision of electronic communications networks and electronic communications services; and

(c) ...

(4) The second Community requirement is a requirement to secure that OFCOM's activities contribute to the development of the European internal market.

(5) The third Community requirement is a requirement to promote the interests of all persons who are citizens of the European Union (within the meaning of Article 17 of the Treaty establishing the European Community).

(6) The fourth Community requirement is a requirement to take account of the desirability of OFCOM's carrying out their functions in a manner which, so far as practicable, does not favour –

(a) one form of electronic communications network, electronic communications service or associated facility; or

(b) one means of providing or making available such a network, service or facility,

over another.

(7) The fifth Community requirement is a requirement to encourage, to such extent as OFCOM consider appropriate for the purpose mentioned in subsection (8), the provision of network access and service interoperability.

(8) That purpose is the purpose of securing –

(a) efficiency and sustainable competition in the markets for electronic communications networks, electronic communications services and associated facilities; and

(b) the maximum benefit for the persons who are customers of communications providers and of persons who make such facilities available.

...

(11) Where it appears to OFCOM that any of the Community requirements conflict with each other, they must secure that the conflict is resolved in the manner they think best in the circumstances.”

A8.37 We also exercise our regulatory functions according to the following regulatory principles.²⁴⁹

- We will regulate with a clearly articulated and publicly reviewed annual plan, with stated policy objectives;
- We will intervene where there is a specific statutory duty to work towards a public policy goal which markets alone cannot achieve;
- We will operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required;
- We will strive to ensure our interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome;
- We will always seek the least intrusive regulatory mechanisms to achieve our policy objectives;
- We will research markets constantly and will aim to remain at the forefront of technological understanding; and
- We will consult widely with all relevant stakeholders and assess the impact of regulatory action before imposing regulation upon a market.

²⁴⁹ http://www.ofcom.org.uk/consult/condocs/plan/annual_plan/regulatory_principles.pdf

Annex 9

History of negotiation between the Parties

THUS

- A9.1 THUS first wrote to BT alleging a breach of BT's PPC cost orientation obligations in July 2007.²⁵⁰ Since then, THUS and BT have discussed their respective interpretations of the cost orientation obligations, with BT maintaining throughout that it was fully compliant with the SMP obligations imposed in relation to PPCs.²⁵¹
- A9.2 Having provided BT with a copy of the RGL Report on 21 December 2007, THUS sought to discuss the contents and conclusions of the report with BT.²⁵² BT responded on 18 January 2008, advising that *"our position in this matter remains unchanged"*. BT added that they *"continue to work with Ofcom to resolve outstanding issues and we do not think it appropriate to discuss further while this is underway"*.²⁵³
- A9.3 Further discussions followed without the issues raised in the RGL Report being addressed. BT concluded discussions on the matter with its letter to THUS of 22 April 2008, confirming its position that:

"... we believe we have complied with the cost orientation obligations on PPCs and that until Ofcom have completed their consideration of the replicability matters that form the basis for much of the RGL work we do not consider any meaningful discussions can take place.

...

*However, we contend that in considering the appropriate way to resolve some of the issues you have raised in relation to how conditions should have been applied in the past, the findings of Ofcom in their forthcoming statement on the way in which such obligations should be applied – and their views on the intent of particular regulatory obligations – will be pertinent. It is for that reason that we believe that it would be inappropriate to pre-judge Ofcom's findings and hence that we should leave this matter in abeyance for just a little longer and return to discuss it after Ofcom has issued its final statement."*²⁵⁴

- A9.4 On the basis of this correspondence, Ofcom concluded that BT had effectively suspended commercial discussions with THUS on the question of any overcharging for PPCs until such point as Ofcom completed its consideration of replicability matters and published its conclusions in the 2008 BCMR Statement and 2009 LLCC Statement.

²⁵⁰ Letter from Richard Sweet (Director of Government Affairs, THUS) to Angus Flett (Director of Product Management, BT Wholesale), dated 10 July 2007.

²⁵¹ Including, for example, in letters from Angus Flett to Richard Sweet, dated 20 September 2007 and 23 November 2007.

²⁵² Letter from Richard Sweet to Angus Flett, dated 21 December 2007.

²⁵³ Letter from Angus Flett to Richard Sweet, dated 18 January 2008.

²⁵⁴ Letter from Steve Best (Director of Product Management, BT Wholesale) to Richard Sweet, dated 22 April 2008. The statement referred to in the final sentence of the quote from BT's letter is the statement that Ofcom intended to issue to conclude the 2008 BCMR.

C&W

- A9.5 Energis Communications Ltd (“Energis”) (which is now part of C&W) began discussions with BT in August 2004 in relation to when and how BT would be implementing the cost orientation requirements applicable to PPC trunk segments that had been imposed in the 2004 LLMR Statement.²⁵⁵ C&W has been seeking information from BT about how PPC charges are calculated since October 2005.²⁵⁶
- A9.6 On 21 January 2008, C&W wrote to BT to raise concerns about PPC charges, alleging that they were out of line with BT’s costs. C&W made reference to the RGL Report to support its claims.²⁵⁷
- A9.7 On 5 February 2008, BT responded to C&W with a similarly worded letter to that discussed in **paragraph A9.2** above.²⁵⁸ Following several meetings between BT and C&W, during which BT reaffirmed its position²⁵⁹, C&W wrote to BT on 16 April 2008 setting out details of the amount that they believed BT had overcharged them for PPC services and warning that unless BT agreed to repay this sum they would submit a dispute to Ofcom.²⁶⁰
- A9.8 BT responded to C&W on 22 April 2008, along the same lines set out in **paragraph A9.3** above.²⁶¹
- A9.9 On the basis of this correspondence, Ofcom concluded that BT had effectively suspended commercial discussions with C&W on the question of any overcharging for PPCs until such point as Ofcom completed its consideration of replicability matters and published its conclusions in the 2008 BCMR Statement and 2009 LLCC Statement.

Global Crossing

- A9.10 Global Crossing first wrote to BT in relation to its concerns about PPC charges on 23 January 2008. Global Crossing made reference to the RGL Report and requested that BT refund any overpayments made for PPC services.²⁶²
- A9.11 BT responded to Global Crossing on 24 January 2008, using similar wording to that set out in **paragraph A9.2** above.²⁶³ BT reaffirmed this position in an email to Global Crossing of 15 April 2008, in which BT stated:

“Our Regulatory Accounts and the information contained within them are currently being looked at by Ofcom as part of the ongoing

²⁵⁵ Email from Andrea Sheridan (Regulatory Manager, Energis) to Richard Gill (Data Connectivity Product Manager, Partial Private Circuits, BT Wholesale), dated 31 August 2004.

²⁵⁶ Email from Nick Harding (Manager, Regulatory Strategy, C&W) to Mike Hoban (Senior Manager, Wholesale Regulation, BT Wholesale), dated 24 October 2005.

²⁵⁷ Letter from Andy May (Director of Regulatory Affairs, C&W) to Angus Flett (Director of Product Management, BT Wholesale), dated 21 January 2008.

²⁵⁸ Letter from Angus Flett to Andy May, dated 5 February 2008.

²⁵⁹ Email from Angus Flett to Nick Harding, dated 18 February 2008, which summarised the discussions.

²⁶⁰ Letter from Nick Harding to Angus Flett, dated 16 April 2008.

²⁶¹ Letter from Steve Best (Director of Product Management, BT Wholesale) to Nick Harding, dated 22 April 2008.

²⁶² Email from Robert Turnbull (VP Access Management, Global Crossing) to Martin Kemp (Sales Business Manager, BT Wholesale), dated 23 January 2008.

²⁶³ Email from Martin Kemp to Robert Turnbull, dated 24 January 2008.

Replicability review. BT are working closely with Ofcom to provide all the necessary information which Ofcom need to make a decision on the accuracy of our reporting. As mentioned in our earlier letter to Global Crossing we have noted their concerns but consider it inappropriate to enter into discussions with our customers until Ofcom have completed their review and have made their recommendations. At this point we will be happy to discuss with our customers any issues they may have with our Regulatory Reports. Ofcom's investigations have not yet reached a conclusion but I will let you know as soon as they have and will be happy to meet with Global Crossing at this time."²⁶⁴

- A9.12 On 9 May 2008, Global Crossing provided BT with details of the amount that they believe they had been overcharged for PPC services.²⁶⁵ Global Crossing followed this up with a further email to BT on 22 May 2008, stating:

*"In relation to the PPC Overcharging Dispute, Global Crossing has been seeking a commercial settlement with BT in order to avoid reference to Ofcom. Am I correct to interpret from what you have said that BT no longer intends to pursue a commercial settlement with GC on this matter, pending action before Ofcom?"*²⁶⁶

BT's response was to refer Global Crossing to its previously communicated position.²⁶⁷

- A9.13 On the basis of this correspondence, Ofcom concluded that BT had effectively suspended commercial discussions with Global Crossing on the question of any overcharging for PPCs until such point as Ofcom completed its consideration of replicability matters and published its conclusions in the 2008 BCMR Statement and 2009 LLCC Statement.

Virgin

- A9.14 Virgin first raised its concerns about PPC charging at a meeting with BT on 20 December 2007.

- A9.15 BT responded to the issues raised at the meeting in an email to Virgin of 16 January 2008, stating:

"In conclusion BT believes that it has met all of its regulatory obligations with regard to PPC trunk pricing. The LLMR and PPC Price Control review are currently underway and BT would expect any re-alignment deemed necessary by Ofcom to be presented in the findings of those reviews.

I trust the above will address your issues but, should you have any further concerns, we believe that your best course of action would be

²⁶⁴ Email from Sean McMahon (Client Manager, BT Wholesale) to Robert Turnbull, dated 15 April 2008.

²⁶⁵ Email from Robert Turnbull to Martin Kemp, dated 9 May 2008.

²⁶⁶ Email from Robert Turnbull to Martin Kemp, dated 22 May 2008.

²⁶⁷ Email from Martin Kemp to Robert Turnbull, dated 26 May 2008.

*to refer these to Ofcom to be addressed as part of the current Leased Line Market Review.*²⁶⁸

- A9.16 Virgin responded on 21 January 2008, explaining that the market review work being carried out by Ofcom was unlikely to address the concerns that Virgin had raised as the market review was forward looking while Virgin's concerns related to the historical overcharging of PPC trunk services. Virgin made reference to the RGL Report to support their arguments.²⁶⁹
- A9.17 BT replied to Virgin by email on 22 January 2008, along the lines set out in **paragraph A9.2**, and additionally stating that *"we see no reason to revise our opinion on this long standing issue"*.²⁷⁰
- A9.18 Virgin wrote to BT again on 21 April 2008, reiterating their claims and quantifying the amount that they believed they had been overcharged by BT for PPC services. Virgin requested that BT confirm whether it was prepared to refund Virgin the amount claimed as they planned to refer a dispute to Ofcom if BT failed to do so.²⁷¹
- A9.19 On 28 April 2008, BT responded to Virgin using near identical language to that set out in **paragraph A9.3** above.²⁷²
- A9.20 On the basis of this correspondence, Ofcom concluded that BT had effectively suspended commercial discussions with Virgin on the question of any overcharging for PPCs until such point as Ofcom completed its consideration of replicability matters and published its conclusions in the 2008 BCMR Statement and 2009 LLCC Statement.

Verizon

- A9.21 Verizon first raised its concerns about PPC charges with BT in February 2008, making reference to the findings of the RGL Report.²⁷³
- A9.22 BT responded to Verizon on 3 March 2008.²⁷⁴ In common with its responses to the other Altnets, BT informed Verizon:

"On your substantive point, we continue to believe that our pricing is in line with our cost orientation obligations.

Happy to meet, but we see no reason to revise our opinion prior to the conclusion of the work with Ofcom."

- A9.23 Verizon wrote again to BT on 4 June 2008, reiterating their concerns about PPC charges and seeking assurances that BT was prepared to negotiate over the overpayments otherwise Verizon would refer the matter to Ofcom for resolution.²⁷⁵

²⁶⁸ Email from Richard Jones (Senior Commercial Manager, BT Wholesale) to Mark Holland (Senior Interconnect Economist, Virgin) and Vito Morawetz (Director of Interconnection, Virgin), dated 16 January 2008.

²⁶⁹ Email from Mark Holland to Richard Jones, dated 21 January 2008.

²⁷⁰ Email from Richard Jones to Mark Holland, dated 22 January 2008.

²⁷¹ Letter from Vito Morawetz to Richard Jones, dated 21 April 2008.

²⁷² Letter from Steve Best (Director of Product Management, BT Wholesale) to Vito Morawetz, dated 28 April 2008.

²⁷³ Email from Jean-Stephane Gourevitch (Director, Regulatory & Government Affairs – UK & Ireland, Verizon) to Kishor Tanna (Senior Commercial Manager, BT Wholesale), dated 26 February 2008.

²⁷⁴ Email from Kishor Tanna to Jean-Stephane Gourevitch, dated 3 March 2008.

- A9.24 On 10 June 2008, BT responded to Verizon using near identical language to that set out in **paragraph A9.3** above.²⁷⁶
- A9.25 On the basis of this correspondence, Ofcom concluded that BT had effectively suspended commercial discussions with Verizon on the question of any overcharging for PPCs until such point as Ofcom completed its consideration of replicability matters and published its conclusions in the 2008 BCMR Statement and 2009 LLCC Statement.

COLT

- A9.26 On the basis of the COLT Dispute Submission, it would appear that COLT did not seek to begin negotiations with BT in relation to the level of PPC charges until after Ofcom had received the Altnet Dispute Submission. COLT wrote to BT to formally raise the issue on 19 September 2008.²⁷⁷
- A9.27 On 22 September 2008, BT replied to COLT that it was not appropriate for BT to discuss PPC charges while those charges were the subject of a dispute to Ofcom (i.e. the Altnet Dispute).²⁷⁸
- A9.28 COLT sent a further email to BT, quantifying the level of claim and asking BT to confirm that they were refusing to discuss the issue further in order that COLT could refer the issue to Ofcom as a dispute. COLT set a deadline of 3 October 2008 for response.²⁷⁹
- A9.29 BT did not respond to COLT by 3 October 2008. On the basis that BT was unwilling to discuss the level of PPC charges with it, COLT submitted its dispute to Ofcom in October 2008.
- A9.30 On the basis of this correspondence, Ofcom concluded that BT had effectively suspended commercial discussions with COLT on the question of any overcharging for PPCs until such point as Ofcom completed its resolution of the Altnet Dispute.

²⁷⁵ Letter from Vikram Raval (Senior Manager, Regulatory and Government Affairs, Verizon) to Kishor Tanna, dated 4 June 2008.

²⁷⁶ Letter from Steve Best (Director of Product Management, BT Wholesale) to Vikram Raval, dated 10 June 2008.

²⁷⁷ Letter from Nikkan Woodhouse (Senior Regulatory Adviser, COLT) to Paul Stanley (Account Manager, BT Wholesale), dated 19 September 2008.

²⁷⁸ Email from Pauline Cowie (PPC Senior Product Manager, BT Wholesale) to Nikkan Woodhouse, dated 22 September 2008.

²⁷⁹ Email from Nikkan Woodhouse to Pauline Cowie, dated 30 September 2008.

Annex 10

Summary of the RGL Report

- A10.1 The RGL Report is based on PPC volumes, costs and revenues that were published in BT's regulatory financial statements for 2004/05, 2005/06 and 2006/07. The RGL Report calculates BT's cost recovery in the low bandwidth TISBO, high bandwidth TISBO and wholesale trunk segments markets, using information published in BT's regulatory financial statements as well as documents published by Ofcom and BT in relation to PPCs.
- A10.2 Using BT's regulatory financial statements as a starting point, RGL makes a number of adjustments to some of the PPC data contained within the financial statements to correct for what they believe to be errors in the way in which the financial statements were prepared. These adjustments are based on statements made by Ofcom in its June 2007 review of BT's PPC charging model²⁸⁰ and by BT in its PPC internal reference offer²⁸¹.
- A10.3 After making these adjustments, RGL calculated what it believed to be BT's true return on capital employed for PPC services. RGL compared these rates of return to BT's weighted average cost of capital ("WACC")²⁸² and concluded that the difference between the two represented the extent of over-recovery of costs by BT (see **Table A10.1**).

Table A10.1: Comparison of BT's rate of return (as calculated by RGL) with its WACC

Market	Estimated rate of return			BT's WACC		
	2004/05	2005/06	2006/07	2004/05	2005/06	2006/07
Low bandwidth TISBO	22%	21%	21%	13.25%	12.01%	11.40%
High bandwidth TISBO	21%	33%	50%	13.25%	12.01%	11.40%
Trunk	44%	56%	56%	13.25%	12.01%	11.40%
PPCs overall	27%	31%	33%	13.25%	12.01%	11.40%

Source: RGL Report, Tables 1 and 2

²⁸⁰ During Ofcom's review of the replicability of BT's regulated retail business services in 2006 (see www.ofcom.org.uk/consult/condocs/busretail/statement/), a number of CPs expressed concern that the operation of the PPC pricing model gave BT's downstream business a competitive advantage. As part of a follow-up review of the PPC pricing model, Ofcom identified that BT's regulatory accounting practices did not appear to provide for equivalent treatment of PPC inputs provided to internal and external customers (see *Replicability and the PPC Charging Model*, Ofcom note, 15 June 2007. A non-confidential version of the note was published in Annex 13 of the Business Connectivity Market Review consultation: <http://www.ofcom.org.uk/consult/condocs/bcmr/>). RGL used the differences highlighted by Ofcom in the 2007 review to make adjustments to BT's published PPC data to better reflect their view of BT's actual costs of providing PPCs.

²⁸¹

http://www.btwholesale.com/pages/downloads/service_and_support/contractual_information/docs/ppc_offer/ppcpro_080606.doc

²⁸² A company's WACC measures the rate of return that a firm needs to earn in order to reward its investors. It is an average representing the expected return on all of its securities, including both equity and debt.

A10.4 The RGL Report additionally expresses the difference between the rates of return and BT's WACC as a percentage of PPC revenues (see **Table A10.2**). The Disputing CPs have used this to derive an estimate of the amount by which they believe they have been overcharged by BT (see **Table A10.3**). In their submission, the Altnets argue that Ofcom should determine the amount of over-charge at a more granular level, on a service by service basis by reference to the FAC for those services.

Table A10.2: RGL estimate of BT's over-recovery as percentage of PPC revenue

Market	2004/05	2005/06	2006/07
Low bandwidth TISBO	14%	12%	12%
High bandwidth TISBO	16%	26%	43%
Trunk	45%	50%	46%
Total PPCs (weighted average)	22%	24%	26%

Source: RGL Report, Table 3

Table A10.3: Estimates from the Disputing CPs of BT's over-charging on all PPC services

[3<]

Source: Annex 9 of the Altnet Dispute Submission and Annex A of the COLT Dispute Submission

Annex 11

The Economics of cost orientation

A11.1 The cost orientation obligations imposed on BT in the PPC markets require BT to secure that *“each and every charge offered, payable or proposed for Network Access covered by Condition G1 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed”*.

Some relevant cost concepts

A11.2 Incremental cost is the cost of producing a specified additional product, service or increment of output over a specified time period. In many cases, the relevant increment may be the entire output of a particular service or group of services. The incremental costs of a service are then those costs which are directly caused by the provision of that service in addition to the other services which the firm also produces. Another way of expressing this is that the incremental costs of a service are the difference between the total costs in a situation where the service is not provided and the costs in another situation where the service is provided. When considering which costs are fixed and which are variable the time period is key. In the short-run some costs (particularly capital costs) are fixed. The shorter the time period considered, the more costs are likely to be fixed. In the long-run, all costs are (by definition) considered variable.

A11.3 LRIC is a forward-looking approach to costing that values assets on the basis of the cost of replacing them today. Ofcom has long considered that LRIC is the appropriate basis for considering interconnection charges.

“Forward looking costs constitute the appropriate cost base for interconnection charges because they reflect resource costs and are consistent with the workings of a contestable market. Ideally for economic efficiency, the prices of retail services should be set in a way which encourages consumers to take account of the resource costs of their purchasing decisions. Operators would be encouraged to set efficient retail prices if they could purchase a major input (interconnection) at a charge that was set by reference to the cost of the resources consumed by its provision. Since replacement costs would be the costs faced by a new entrant, signals would be given to encourage efficient entry into and exit from interconnection services, if the incumbent's interconnection charges were set on the basis of forward looking costs. An entrant into provision of interconnection services that was more efficient than the incumbent could make a profit by setting a charge below the incumbent's charge, whereas an inefficient firm would be unprofitable if it were to match the incumbent's charge.”²⁸³

A11.4 Incremental cost can be contrasted with the SAC of a service, which is the cost of providing that particular service on its own, including **common costs**. These common costs are those which arise from the provision of a group of services but

²⁸³ See paragraph 3.3 of Ofcom's consultation: *Network Charges from 1997 – Consultative Document* http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/netcha97/contents.htm

which are not incremental to the provision of any individual service. If the incremental costs of each service are removed from the total cost of providing all services, what are left are the common costs. The stand-alone cost of a service is the sum of the incremental cost of the service plus all of the costs which are common between that service and other services. As with many other network industries, the telecommunications industry is characterised by very significant common costs.

- A11.5 If a firm is not recovering any of its common costs from a product, it will be pricing in such a way as to cover only the incremental costs of the product (i.e. the product LRIC). If the firm was to price below this level it would incur losses on the product, effectively resulting in a negative contribution to recovery of common costs. The firm would be better off if it did not produce the service at all.
- A11.6 Because of the existence of significant common costs between BT's activities, BT will only recover costs overall if at least some of its charges are above LRIC. However, there may be many different ways of attributing these common costs to different services, none of which may be uniquely correct or uniquely reasonable. The maximum proportion of these common costs which it is reasonable for BT to recover from any given service is generally given by SAC, which includes all (relevant) common costs.²⁸⁴
- A11.7 This is consistent with guidelines issued by the OFT which state:
- "To assess the profitability of a line of business it may be necessary to allocate common costs to the particular activities identified...In some circumstances the standalone cost of the line of business may be relevant...Where an activity generates revenues that persistently and significantly exceed its standalone costs...this would be good evidence of excessive profits being earned on that activity."*²⁸⁵
- A11.8 The concept of SAC has its origins in the theory of contestable markets.²⁸⁶ A contestable market is one in which the complete absence of barriers to entry means that incumbent firms, even monopolists, are constrained to price no higher than cost by the threat of entry. The highest price that a multi-product firm could charge for any individual product or service in a contestable market is given by the efficient SAC of that good or service. This is because a price above this level would attract entry by a single product firm which would compete the price down to this level. In the multi-product context, a price (significantly and persistently) above SAC might therefore be regarded as excessive.
- A11.9 The implication of charging for one service at SAC is that, if the firm was to charge more than LRIC for any of the remaining services, it would over-recover its common costs and therefore earn profits in excess of its cost of capital.

²⁸⁴ Although as noted below, the relevant benchmark is the efficient level of SAC. This may be lower than the sum of the incurred incremental and common costs of the firm – see **paragraphs 7.98 to 7.104**.

²⁸⁵ OFT 414a: *Assessment of conduct: Draft competition law guideline for consultation*, April 2004 (http://www.offt.gov.uk/shared_offt/business_leaflets/competition_law/offt414a.pdf) – see paragraphs 2.12-2.13.

²⁸⁶ See Baumol, W., Panzar, J. and Willig, R. *Contestable Markets and the Theory of Industry Structure*, (1982), New York, Harcourt Brace Jovanovich).

Cost recovery

- A11.10 The substantial divergence between the SAC and LRIC at the individual product level provides a high degree of flexibility in how common costs can be allocated and recovered. This is particularly the case for a multi-product firm, such as BT, in an industry where there are substantial common costs which are incurred to provide a range of different products.²⁸⁷
- A11.11 While some pricing flexibility can enable a firm to recover common costs efficiently and earn a reasonable rate of return on capital, and is therefore beneficial, too much flexibility could also provide scope for a firm to act in an anti-competitive or exploitative manner. A price by a dominant firm below LRIC is normally presumed to be anti-competitive.²⁸⁸ This presumption arises because the firm could increase total profits (in the long run) by ceasing production of the service (since the costs saved would exceed the reduction in revenue). As it would not be rational for the firm to continue producing a product which could not generate sufficient revenue to cover the costs incurred to produce it, the motive for such pricing is presumed to be anti-competitive, that is with the aim of driving competitors out of the market in order to raise prices later.²⁸⁹ In addition, where two services share common costs and are both priced at LRIC, these common costs will not be recovered. So, even if each product were covering its own incremental costs, the firm would then be better off if it stopped producing both services and this again may mean that pricing of this combination of services is anti-competitive, because it is below the incremental cost of the combination of the two services. Price flexibility is therefore allowed subject to a floor of incremental cost, but this floor needs to be applied not just to individual services in isolation but also to combinations of services which share common costs.
- A11.12 Similarly, when considering whether a price is unreasonably high, it is also necessary to consider prices for combinations of services which share common costs. If all common costs are recovered from a single service which is priced at stand-alone cost, total costs will be over-recovered if any other service is priced above LRIC. Again, where two services share common costs, even if both are priced below SAC, the firm could still be pricing at unreasonable levels if revenue from the two services combined is above the stand-alone cost of the combination of the two services.
- A11.13 Therefore, in deciding the reasonableness of a particular charge, it is likely to be necessary also to consider whether the prices for different combinations of services are between the incremental and stand-alone costs of those combinations of services (the so-called “combinatorial tests”). Where all the different combinations satisfy the test then there is no over-recovery of common costs. Depending upon the size of the product portfolio and the types of common costs, the number of combinatorial tests could be very significant. This would be the case for PPC common costs as many of these costs relate to network infrastructure that is used for the provision of numerous different services by BT, including most of BT’s voice telephony and broadband services.

²⁸⁷ We note however that fixed costs are not always common costs – often fixed costs can be attributed to an individual service or product.

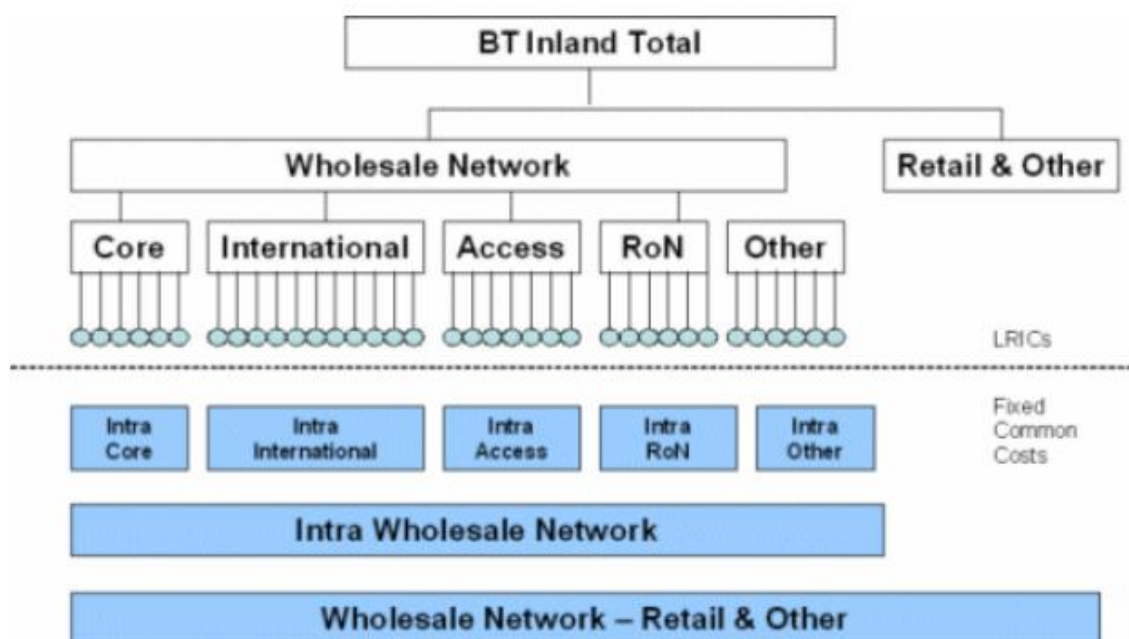
²⁸⁸ LRIC is the usual cost standard in the telecoms sector.

²⁸⁹ See paragraph 7.15 of *The Application in the Telecommunications Sector, Competition Act Guidelines*, OFT 417, March 2000.

A11.14 Given the number of potentially relevant combinations, carrying out a sufficient number of combinatorial tests is clearly not possible in the timescales available to Ofcom for resolving the Dispute. Therefore, an alternative methodology is necessary. The approach that has been adopted by Ofcom (and Oftel previously) in the context of the network charge control is the use of the DSAC and DLRIC.²⁹⁰

A11.15 DLRICs and DSACs are calculated using BT's LRIC model. A copy of BT's LRIC model structure is set out below in **Figure A11.1**.

Figure A11.1: BT's LRIC Model Structure



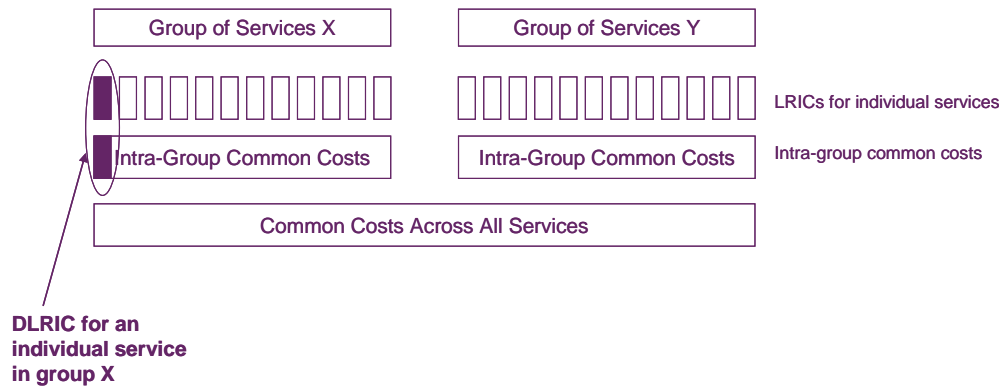
Source: Extracted from page 52 of BT's Primary Accounting Documents 2009

A11.16 In essence, a DLRIC is estimated by defining a broader increment of a product group, and then adding to the incremental cost of an individual product within that product group a share of the intra-group common costs. These are the costs within the combinatorial incremental cost of the product group which are common as between the individual products. As a consequence, the DLRIC is normally above the 'pure' LRIC for an individual product. The share of intra-group common costs is allocated to the individual products using a reasonable allocation method, such as in proportion to their respective LRICs (i.e. by using equi-proportional mark-ups).²⁹¹ So, for example, if a service shares common costs with other services in a group, then the DLRIC will be the service LRIC plus a share of the common costs allocated in proportion to the service LRIC. The concept is demonstrated in **Figure A11.2**.

²⁹⁰ See *Guidelines on the Operation of the Network Charge Controls* from October 2001, for example, http://www.ofcom.org.uk/static/archive/oftel/publications/ind_guidelines/pcr1201.htm#b

²⁹¹ Further details of DSACs and DLRICs, and how BT calculates them, can be found in BT's *Primary Accounting Documents* which are available on its website at: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/PrimaryAccountingDocuments2008.pdf>

Figure A11.2: Calculation of DLRIC



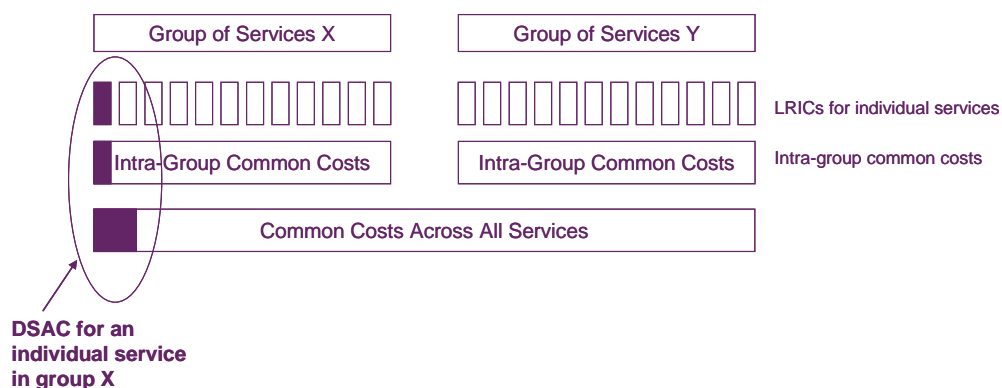
A11.17 In the example demonstrated in **Figure A11.2**, the DLRIC for the first service in group X is equal to the two purple blocks. The top block represents the LRIC for the service and the lower block represents the share of the intra-group common costs allocated to the service.

A11.18 As a consequence of the way in which the common costs are allocated across the services, the sum of the individual service DLRICs within the group is equal to the LRIC of the group of services taken as a single increment.

A11.19 A similar approach is adopted with the SAC to generate the DSAC. However, rather than only including a proportion of the intra-group common costs (as is the case with the DLRIC), the DSAC for any individual service also includes a proportion of costs that are common across all groups of services. In the example, all the common costs across all services would be allocated to group X, and this total would then be shared out among the services in group X.

A11.20 The concept is demonstrated in **Figure A11.3**. The three purple blocks represent the DSAC. As in **Figure A11.2**, the top two blocks represent the DLRIC. The lower block represents the share of costs allocated to this service which are common between the groups of services X and Y.

Figure A11.3: Calculation of DSAC



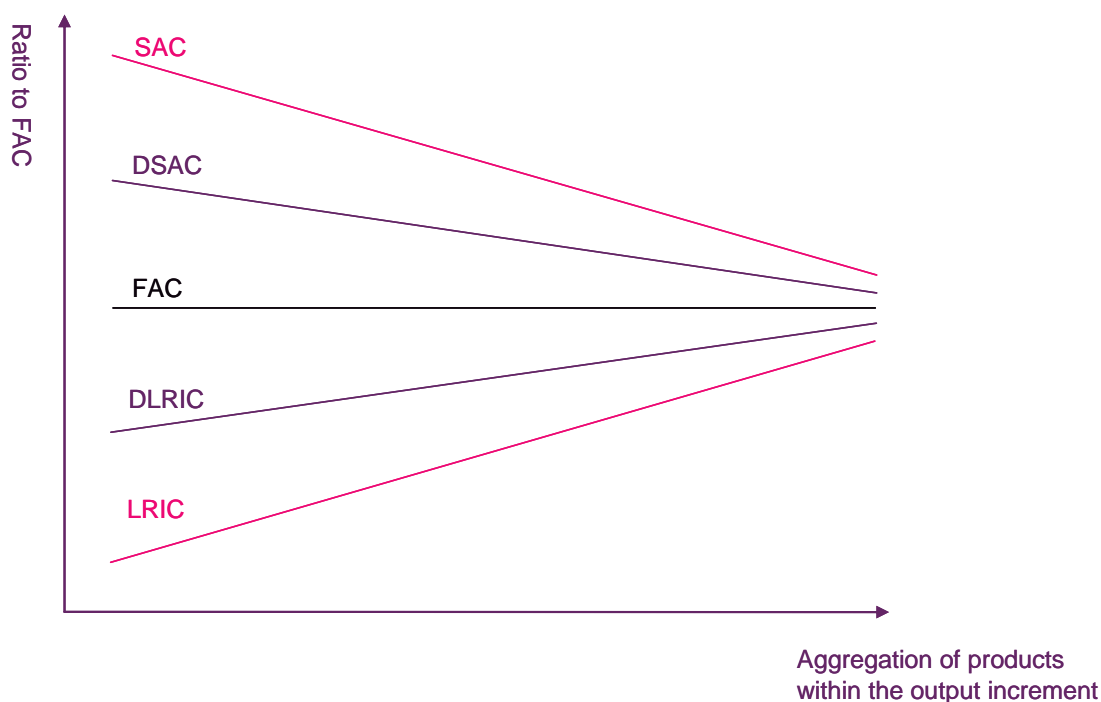
A11.21 As for DLRICs, the common costs included in the DSACs are in effect allocated among the 'Group of Services X'. Reflecting the allocation of only a proportion of the full common costs of the service, the DSAC is normally below the 'pure' SAC.

- A11.22 As with DLRICs, the sum of individual service DSACs within a service group is equal to the SAC for the service group taken as a single increment.
- A11.23 BT's regulatory financial statements contain details of the DSAC and DLRIC of each individual service (albeit referring to them as the "LRIC floor" and "LRIC ceiling" respectively).

Relationship between DLRIC, DSAC and FAC

- A11.24 FAC is an accounting concept designed to ensure that all of a firm's costs (both incremental and common) are attributed to its activities. As such, if a firm sets its charges equal to unit FAC, all things being equal, it would be expected to recover (but not over-recover) all its costs, including all of its common costs. These costs typically also include an allowance for a return on capital which is measured at the firm's cost of capital (i.e. its WACC).
- A11.25 There are numerous methodologies for generating FAC estimates, although typically firms use some form of activity-based costing. This form of analysis involves allocating all costs (both incremental and common) to individual activities and services. Other approaches can involve simply allocating common costs to services in line with the incremental or variable costs incurred. BT's approach to calculating FAC is therefore only one approach, and it is not unique. Other methodologies may also be reasonable and could produce quite different views of BT's rate of return on individual services.
- A11.26 As FAC involves allocating all the firm's common costs across all products, the costs for individual products would normally be above the LRIC and below SAC for the product. Furthermore, we would normally expect FAC to also lie in-between the DLRIC and DSAC. However, the extent to which the measures diverge depends upon the size of the output increment being considered.
- A11.27 Where the relevant increment of output is the entire output of the firm, then the entire firm's costs are incremental, including costs that may be common to groups of individual services. As such, the LRIC / DLRIC / FAC / DSAC / SAC measures all converge.
- A11.28 Conversely, where the output increment is much smaller than the entire output of the firm, a single product of a multi-product firm for example, the existence of significant common costs will result in a divergence between the cost measures.
- A11.29 These relationships with FAC are demonstrated in **Figure A11.4**.

Figure A11.4: Convergence of DSAC and DLRIC with FAC



A11.30 PPCs form only one set of products within BT's product portfolio. As a result, there are considerable common costs that are shared with other sets of products. Therefore, we would expect the DSAC and DLRIC values for individual services to diverge from the FACs for those products. Therefore, on the basis of the first order test (i.e. pricing between DLRIC and DSAC), it is entirely conceivable that BT could be pricing in a manner that is considered to be cost-orientated, but that results in a rate of return on capital in excess of its WACC.

The interaction between cost orientation and a charge control

A11.31 Charge controls are typically imposed on the prices for a basket of goods and services rather than on individual charges.²⁹² It is the weighted average of prices for all the services across the basket that is regulated by the price cap.

A11.32 By imposing price regulation at the basket level, the regulated firm is given flexibility in pricing individual services, as long as the prices across the basket are compliant with the control.

A11.33 Ofcom imposed RPI-X price controls on three PPC service baskets in the 2004 LLCC Statement – low bandwidth connection and rental and maintenance charges; high bandwidth connection and rental and maintenance charges; and POC end and third party end equipment charges. In addition, following consultation, sub-baskets were also introduced within all three main baskets.

A11.34 Within both of the main low and high bandwidth baskets two additional sub-baskets were defined:

- connection charges; and

²⁹² Although in some cases sub-caps may also be imposed on groups of services within the basket.

- rental and maintenance charges.

Within the POC end and third party equipment charge basket, all charges were subject to separate sub-caps.

- A11.35 Finally, PPC charges are also subject to the basis of charges (cost orientation) condition which requires charges to be based on LRIC plus an appropriate mark-up for recovery of common costs. The Guidelines explain that the first order test for compliance with this condition is that the charge lies between DLRIC and DSAC.
- A11.36 Therefore, although BT was obliged to price the services within the low and high bandwidth baskets in such a way that the weighted average price²⁹³ complied with the control, it had flexibility over the charges for the individual services within the basket and sub-baskets, subject to sub-caps and compliance with cost orientation.
- A11.37 For services within charge control baskets, however, BT's ability to set charges close to the ceiling will be constrained by the requirement for it to comply with the charge control. This is because the charge control is designed to regulate charges relative to the FAC or the incremental costs of providing the services plus a proportion (but not all) of the common costs shared by the services. Therefore, setting one charge within a basket near the ceiling will mean that other charges in the basket will need to be set nearer the floor to meet the requirements of the control.
- A11.38 Cost orientation obligations were therefore imposed in conjunction with basket-level charge controls to provide a complementary (but independent) constraint on BT's ability to flex individual prices in order to recover common costs in a way that could be considered inappropriate or, indeed, anti-competitive.
- A11.39 It is important to note that adherence to the charge control does not necessarily mean that each and every one of the regulated firm's charges are cost orientated. Equally, adherence to cost orientation does not necessarily imply that the firm's charges are consistent with the charge control. For example, if a firm prices all services at a level that is marginally below the individual DSAC for each of the services, on the basis of the first order test, each charge may be considered cost orientated, but it is highly unlikely that the overall set of charges would be compliant with a charge control.
- A11.40 In considering the extent to which BT's charges deviate from the FAC associated with the particular service it is important to also consider the implications of the incentive properties of a charge control. By capping the maximum prices BT can charge for circuits within a charge control (i.e. disconnecting its service revenues from its incurred costs), the charge control by design creates incentives for BT to actively seek to minimise costs and maximise volumes in order to profit maximise.
- A11.41 By virtue of this central feature of the charge control regime, we would expect BT to seek to increase the profitability of services over the charge control period. Therefore, if BT outperforms the price cap we would anticipate outturn ROCE values to trend above the WACC assumed within the charge control. This will result in revenues moving away from the FAC towards the DSAC. The gap between BT's revenues and FAC that emerges as a result of this (efficient) behaviour will then be closed (on a forward-looking basis) in the next charge control, so that the benefits

²⁹³ The average price calculation uses the previous year's revenue share to create the weights.

are shared between BT (through the within charge control excess profits) and consumers (lower prices in the long term).

- A11.42 So, if for example BT is able to deliver PPCs in a more cost efficient manner than Ofcom had anticipated in the 2004 LLCC Statement, subject to the cost orientation obligations, it would not be obliged to pass these cost savings on to customers within the charge control period. This would contribute to higher than expected profitability. However, Ofcom will take the lower cost base into account in setting the next set of price caps.
- A11.43 The existence of returns in excess of the cost of capital in markets where a charge control is in operation therefore is consistent with the charge control operating correctly, rather than necessarily being symptomatic of a problem. Similarly, the existence of returns that fall below the cost of capital may also reflect the correct operation of the charge control, if the regulated firm fails to achieve the anticipated efficiency savings. Clawing back these excess profits or losses on a backwards-looking basis, through the effective imposition of rate of return regulation, could act to significantly reduce the regulated firm's incentives to improve efficiency in the future, thereby undermining the entire charge control regime.
- A11.44 The role of cost orientation in such circumstances is therefore not to deny the incumbent firm any opportunity to earn returns in excess of its cost of capital, but rather to restrict its ability to attempt to stifle competition or otherwise act to the detriment of consumers by setting charges at anti-competitive or excessive levels.

Annex 12

PPC financial data

- A12.1 The five Tables below set out the three sets of PPC data available to Ofcom;
- A12.2 **Table A12.1** sets out the total revenue, FAC and DSAC cost ceiling for each PPC market. These have been calculated by combining various pieces of data from the regulatory financial statements originally published by BT for 2004/05, 2005/06, 2006/07, 2007/08 and 2008/09. The data has not been restated and has had no cost or revenue adjustments made to it. Additionally, it includes some services (e.g. Siteconnect) that are out of scope of the Disputes.
- A12.3 **Table A12.2** sets out the total revenue, FAC and DSAC cost ceiling for each PPC market as provided to us by BT in response to our section 191 information requests. The data for all years has been adjusted to remove out of scope services such as Siteconnect and has been prepared on a consistent basis with that set out in the 2007/08 regulatory financial statements. The data for 2004/05 and 2005/06 has therefore been revised from that published and the data for 2006/07 is the restated data contained in the 2007/08 financial statements. The data also takes account of changes to total cost data that arose when BT represented its unit costs for 2006/7. It eliminates a presentational assumption that was present in the unit cost data (but not in the market total costs) for 2Mbit/s TISBO local ends only, when originally published.
- A12.4 **Table A12.3** sets out the total revenue and DSAC cost ceiling for external customers in each PPC market and is based on the data provided by BT in response to the information requests but which has been subject to the adjustments described by Ofcom in **Section 6**. This is the data set that Ofcom has used to assess whether BT has overcharged for PPC services.
- A12.5 **Table A12.4** sets out a comparison of BT's external PPC revenues with our estimate of the external DSAC for each service.
- A12.6 **Table A12.5** sets out the rates of return on mean capital employed for low bandwidth TISBO, high bandwidth TISBO and trunk services, using BT's published regulatory financial statements.

Table A12.1: PPC financial data originally published by BT in its regulatory financial statements²⁹⁴

	2004/05			2005/06		
Service	Total revenue (£)²⁹⁵	FAC (£)	DSAC ceiling (£)	Total revenue (£)	FAC (£)	DSAC ceiling (£)
64kbit/s	169,000,000	296,973,231	564,322,725	186,907,632	259,957,159	458,075,241
2Mbit/s	487,000,000	575,269,501	898,919,307	443,957,613	547,434,798	820,252,157
LB TISBO	656,000,000	872,242,732	1,463,242,032	630,865,245	807,391,957	1,278,327,399
45Mbit/s	55,000,000	117,303,052	181,284,990	60,599,640	125,124,032	186,133,355
155Mbit/s	83,000,000	111,600,589	176,774,375	135,241,426	125,979,132	189,197,852
HB TISBO	138,000,000	228,903,640	358,059,365	195,841,066	251,103,164	375,331,207
2Mbit/s trunk	231,000,000	n/a	n/a	260,616,508	76,777,868	136,680,919
45Mbit/s trunk	19,000,000	n/a	n/a	44,723,304	18,079,340	33,861,606
155Mbit/s trunk	59,000,000	n/a	n/a	29,162,640	23,859,526	49,519,284
TOTAL TRUNK	309,000,000	110,463,378	232,864,824	334,502,451	118,716,734	220,061,809

²⁹⁴ Market totals include only those services in the scope of the Disputes (except where noted) and therefore are not the same as the market totals in the regulatory financial statements.

²⁹⁵ Total revenue as presented here is from the regulatory financial statements and includes out of scope services which are not separately disclosed for 2004/05.

Determinations to resolve the PPC Pricing Disputes

	2006/07			2007/08		
Service	Total revenue (£)	FAC (£)	DSAC ceiling (£)	Total revenue (£)	FAC (£)	DSAC ceiling (£)
64kbit/s	142,860,652	241,144,921	474,951,341	72,089,435	192,561,562	319,901,567
2Mbit/s	429,872,707	508,573,542	793,479,304	336,646,704	391,756,633	589,587,159
LB TISBO	572,733,358	749,718,463	1,268,430,645	408,736,139	584,318,195	909,488,726
45Mbit/s	66,769,258	77,379,017	126,122,246	56,008,463	77,458,967	120,941,656
155Mbit/s	131,810,457	76,089,241	133,435,907	93,828,518	95,516,631	165,183,296
HB TISBO	198,579,715	153,468,258	259,558,153	149,836,981	172,975,598	286,124,951
2Mbit/s trunk	214,652,062	74,196,047	154,627,586	179,265,673	48,743,992	83,952,403
45Mbit/s trunk	46,320,702	33,795,925	70,435,722	41,074,078	22,827,446	39,802,790
155Mbit/s trunk	21,965,060	28,012,210	68,773,448	20,690,540	18,962,880	37,651,979
TOTAL TRUNK	282,937,824	136,004,183	293,836,755	241,030,292	90,534,317	161,407,172

	2008/09		
Service	Total revenue (£)	FAC (£)	DSAC ceiling (£)
64kbit/s	68,067,072	144,842,553	249,349,372
2Mbit/s	303,415,645	230,638,872	375,719,610
LB TISBO	371,482,717	375,481,425	625,068,982
45Mbit/s	53,670,356	57,448,592	137,950,205
155Mbit/s	93,440,911	81,317,981	141,773,417
HB TISBO	147,111,266	138,766,573	279,723,623
2Mbit/s trunk	172,706,466	43,565,139	74,562,436
45Mbit/s trunk	41,874,710	20,801,605	35,943,420
155Mbit/s trunk	18,849,740	18,849,740	29,967,462
TOTAL TRUNK	233,430,916	83,216,484	140,473,317

Table A12.2: Restated and/or revised PPC financial data provided by BT in response to Ofcom's section 191 notice

	2004/05			2005/06		
Service	Total revenue (£)	FAC (£)	DSAC ceiling (£)	Total revenue (£)	FAC (£)	DSAC ceiling (£)
64kbit/s	142,703,718	299,797,740	567,459,745	183,399,597	259,275,278	456,741,572
2Mbit/s	323,214,893	547,499,763	865,430,889	325,277,297	509,213,470	769,196,802
LB TISBO	465,918,611	847,297,503	1,432,890,635	508,676,894	768,488,748	1,225,938,374
45Mbit/s	41,804,488	117,309,803	181,284,156	50,710,055	125,124,005	186,133,223
155Mbit/s	59,472,577	111,592,999	176,774,174	109,540,462	125,978,919	189,198,074
HB TISBO	101,277,066	228,902,803	358,058,330	160,250,518	251,102,924	375,331,296
2Mbit/s trunk	198,634,935	73,277,626	147,308,750	224,818,371	76,772,129	136,688,012
45Mbit/s trunk	14,201,629	13,124,715	29,642,488	37,802,585	18,079,339	33,861,758
155Mbit/s trunk	29,249,677	23,937,248	55,554,372	24,412,419	23,859,807	49,518,715
TOTAL TRUNK	242,086,241	110,339,590	232,505,609	287,033,375	118,711,274	220,068,485

	2006/07			2007/08		
Service	Total revenue (£)	FAC (£)	DSAC ceiling (£)	Total revenue (£)	FAC (£)	DSAC ceiling (£)
64kbit/s	115,690,518	229,701,069	456,598,510	72,088,290	191,722,246	318,504,956
2Mbit/s	292,252,154	445,546,175	700,497,213	301,617,080	337,224,351	515,159,549
LB TISBO	407,942,672	675,247,243	1,157,095,273	373,705,370	528,946,598	833,664,505
45Mbit/s	53,940,087	76,776,126	123,699,878	56,008,544	77,458,967	120,941,907
155Mbit/s	90,921,148	73,393,323	124,197,047	91,669,235	93,613,667	161,630,793
HB TISBO	144,861,235	150,169,449	247,896,925	147,677,780	171,072,634	282,572,700
2Mbit/s trunk	175,555,077	70,332,152	146,555,486	179,265,673	49,234,938	84,793,505
45Mbit/s trunk	43,091,671	33,796,088	70,436,027	41,074,078	22,827,446	39,802,787
155Mbit/s trunk	15,986,360	27,766,973	68,175,855	20,241,000	18,588,245	36,907,907
TOTAL TRUNK	234,633,108	131,895,213	285,167,368	240,580,752	90,650,629	161,504,199

Determinations to resolve the PPC Pricing Disputes

	2008/09		
Service	Total revenue (£)	FAC (£)	DSAC ceiling (£)
64kbit/s	68,067,072	144,742,336	249,183,682
2Mbit/s	303,414,862	352,011,154	536,672,594
LB TISBO	371,481,934	496,753,490	785,856,276
45Mbit/s	53,670,356	86,242,120	137,950,216
155Mbit/s	93,440,911	81,317,979	141,773,415
HB TISBO	147,111,266	167,560,100	279,723,631
2Mbit/s trunk	172,706,466	43,565,139	74,562,436
45Mbit/s trunk	41,874,710	20,801,605	35,943,420
155Mbit/s trunk	18,849,740	15,424,162	29,967,462
TOTAL TRUNK	233,430,916	79,790,906	140,473,317

Table A12.3: Restated and/or revised PPC financial data provided by BT and adjusted by Ofcom in line with the proposals in Section 5

	2004/05		2005/06	
Service	External revenue (£)	External DSAC (£)	External Revenue (£)	External DSAC (£)
64kbit/s	29,820,668	113,794,749	36,325,890	79,351,332
2Mbit/s	72,929,983	164,984,083	79,588,187	134,329,922
LB TISBO	102,750,651	278,778,832	115,914,076	213,681,254
45Mbit/s	7,217,428	23,692,046	10,760,459	26,236,041
155Mbit/s	690,840	1,745,709	1,398,037	1,732,837
HB TISBO	7,908,268	25,437,755	12,158,496	27,968,878
2Mbit/s trunk	23,820,288	25,130,517	31,300,445	19,277,117
45Mbit/s trunk	1,786,518	6,061,386	6,181,970	8,876,519
155Mbit/s trunk	135,316	284,237	143,161	354,376
TOTAL TRUNK	25,742,122	31,476,141	37,625,576	28,508,012

Note: Separate DSACs for internal and external circuits have been estimated to take into account the difference in SGA costs between internal and external circuits in 2004/05. This is discussed at **paragraph 6.167 to 6.169** above.

	2006/07		2007/08	
Service	External revenue (£)	External DSAC (£)	External Revenue (£)	External DSAC (£)
64kbit/s	30,220,728	105,642,127	18,422,194	75,106,039
2Mbit/s	92,306,398	173,985,415	112,294,782	157,211,749
LB TISBO	122,527,126	279,627,541	130,716,977	232,317,788
45Mbit/s	13,513,245	22,907,254	16,270,185	26,153,774
155Mbit/s	2,117,176	2,169,390	3,754,853	4,495,216
HB TISBO	15,630,421	25,076,644	20,025,038	30,648,990
2Mbit/s trunk	29,572,937	23,474,371	40,895,857	18,803,425
45Mbit/s trunk	6,978,398	10,317,786	9,542,740	8,635,616
155Mbit/s trunk	265,594	992,444	569,485	916,945
TOTAL TRUNK	36,816,929	34,784,601	51,008,082	28,355,987

	2008/09	
Service	External revenue (£)	External DSAC (£)
64kbit/s	16,283,785	63,344,468
2Mbit/s	116,692,530	176,274,059
LB TISBO	132,976,315	239,618,527
45Mbit/s	17,040,038	36,855,686
155Mbit/s	4,444,439	5,285,754
HB TISBO	21,484,478	42,141,440
2Mbit/s trunk	38,441,947	16,115,957
45Mbit/s trunk	10,070,318	7,930,758
155Mbit/s trunk	575,425	866,912
TOTAL TRUNK	49,087,690	24,913,627

Table A12.4: Comparison of BT's external PPC revenues with our estimate of the external DSACs

PPC service	2004/05	2005/06	2006/07	2007/08	2008/09	All Years
64kbit/s TISBO						
Connection	17.1%	36.9%	72.6%	12.2%	22.8%	22.4%
Main link	28.7%	36.9%	37.3%	30.4%	27.7%	32.1%
Transmission	14.1%	45.3%	17.8%	16.4%	15.0%	20.7%
Local end	50.6%	63.5%	50.7%	36.5%	63.5%	51.8%
Total	26.2%	45.8%	28.6%	24.5%	25.7%	30.0%
2Mbit/s TISBO						
Connection	48.5%	137.6%	78.7%	63.7%	61.8%	70.6%
Main link	85.1%	73.7%	114.3%	87.8%	87.6%	88.5%
Transmission	31.2%	33.3%	23.9%	51.4%	50.2%	36.4%
Local end	46.1%	60.6%	65.0%	88.1%	72.3%	66.7%
Total	44.2%	59.2%	53.1%	71.4%	66.2%	58.7%
Low Bandwidth TISBO	36.9%	54.2%	43.8%	56.3%	55.5%	48.6%
34/45Mbit/s TISBO						
Connection	-	-	-	85.5%	91.6%	-
Main link	29.4%	62.6%	122.5%	47.8%	47.2%	53.7%
Transmission	27.7%	31.8%	40.0%	73.6%	71.0%	46.2%
Local end	30.7%	40.4%	64.1%	62.6%	29.3%	41.5%
Total	30.5%	41.0%	59.0%	62.2%	46.2%	47.7%
140/155Mbit/s TISBO						
Connection	-	-	-	85.8%	110.0%	-
Main link	50.6%	98.0%	138.5%	45.4%	46.9%	56.3%
Transmission	28.0%	75.2%	64.1%	114.0%	125.9%	84.0%
Local end	52.6%	74.0%	130.4%	116.0%	106.2%	102.1%
Total	39.6%	80.7%	97.6%	83.5%	84.1%	80.4%
High Bandwidth TISBO	31.1%	43.5%	62.3%	65.3%	51.0%	51.0%
Trunk						
2Mbit/s	94.8%	162.4%	126.0%	217.5%	238.5%	159.6%
34/45Mbit/s	29.5%	69.6%	67.6%	110.5%	127.0%	82.6%
140/155Mbit/s	47.6%	40.4%	26.8%	62.1%	66.4%	49.5%
Total	81.8%	132.0%	105.8%	179.9%	197.0%	135.3%
Total PPC	40.6%	61.3%	51.5%	69.3%	66.4%	57.2%

Source: Ofcom

Note: BT were unable to provide the connection costs for 34Mbit/s and 140Mbit/s services in 2004/05 - 2006/07 as they were not reported separately in the accounts. BT advised us that the costs for these services are contained within the 2Mbit/s connection service data for the relevant years. While BT did provide revenues for 34Mbit/s and 140Mbit/s for these years we have not included them with the 2Mbit/s connection data for our calculations as it does not have any material impact on our estimates.

Table A12.5: Rates of return on mean capital employed using BT's published Regulatory Financial Statements, split by PPC market, 2003/04 to 2008/09

	CCA FAC Rates of Return					BT WACC
	Low Bandwidth TISBO	High Bandwidth TISBO	All TISBO	Trunk	All	
2003/04*	8.4%	13.3%	9.9%	76.6%	16.4%	13.5%
2004/05	1.9%	-3.5%	0.5%	65.7%	10.0%	13.5%
2005/06	3.4%	-0.2%	2.5%	78.3%	13.5%	12.3%
2006/07	2.9%	26.5%	7.5%	59.0%	15.5%	11.4%
2007/08	8.8%	8.0%	8.6%	66.7%	18.0%	11.4%
2008/09	8.3%	9.2%	8.5%	71.5%	18.0%	11.4%

Notes:*Extracted from the 2005 Regulatory Financial Statements as the 2004 Statements were not published in sufficient granularity.

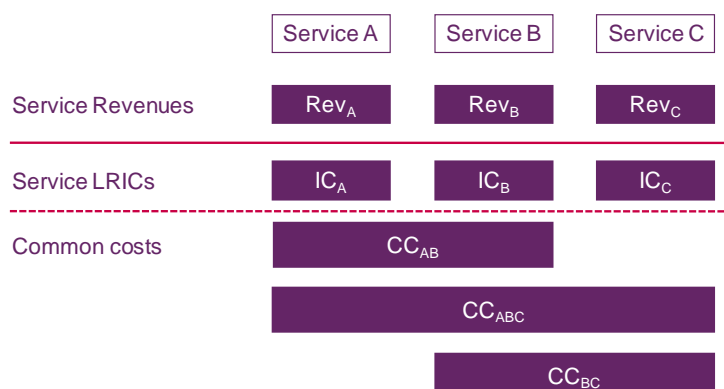
Note: in resolving the Disputes, we have used the WACCs provided by BT in its Section 191 responses. These are as reported in the regulatory accounts. For the years 2005/06 to 2008/09 the WACCs varied slightly by service. For simplicity, we have quoted the maximum WACC for each service here.

Annex 13

Undertaking combinatorial tests

A13.1 In **Figure A13.1** we provide a simplified example of a cost (and revenue) structure for a multi-product firm to demonstrate how the combinatorial tests should be undertaken.

Figure A13.1: Undertaking combinatorial tests



A13.2 In this example, the firm provides three services (A, B and C). The revenues for each service are Rev_A , Rev_B and Rev_C respectively. Each service incurs an incremental cost (IC_A , IC_B and IC_C). There are also common costs between: service A and B (CC_{AB}); service B and C (CC_{BC}); and all three services (CC_{ABC}).²⁹⁶ The charges for service B are suspected of being unreasonable.

A13.3 The SAC for service B is estimated by adding together the incremental cost for the service plus all the common costs shared by the service. Therefore:

$$SAC_B = IC_B + CC_{AB} + CC_{BC} + CC_{ABC}$$

If Rev_B is greater than SAC_B , the firm is over-recovering the common costs from service B alone. However, if revenues are below SAC, we would need to then check that the common costs shared with only service A, only service C and both other services are not over-recovered as well (i.e. undertake combinatorial tests).

A13.4 In order to test that common costs shared with only service A are not over-recovered, we would need to check that the combined revenues from service A and B are less than the SAC for service A and B combined (i.e. the sum of the incremental costs for A and B plus all the common costs that both A and B share with each other or other services). In terms of the diagram, we would need to check that:

$$Rev_A + Rev_B < IC_A + IC_B + CC_{AB} + CC_{BC} + CC_{ABC}$$

A13.5 Similarly, in order to test that common costs shared with only service C are not over-recovered, we would need to check that the combined revenues from service B and C are less than the SAC for service B and C combined, i.e. we would need to check that:

²⁹⁶ In this example all costs are 'efficient'.

$$\text{Rev}_B + \text{Rev}_C < \text{IC}_B + \text{IC}_C + \text{CC}_{AB} + \text{CC}_{BC} + \text{CC}_{ABC}$$

- A13.6 Finally, as there are also common costs that are shared by all three services (i.e. CC_{ABC}), we would also need to make sure that these are not over-recovered from the revenue of all three services combined, i.e. we would need to check that:

$$\text{Rev}_A + \text{Rev}_B + \text{Rev}_C < \text{IC}_A + \text{IC}_B + \text{IC}_C + \text{CC}_{AB} + \text{CC}_{BC} + \text{CC}_{ABC}$$

Annex 14

BT's approach to estimating SACs

A14.1 [X]

Annex 15

BT's SAC estimate calculations

[X]

Annex 16

Glossary

Term	Description
Common costs	Those costs which arise from the provision of a group of services but which are not incremental to the provision of any individual service.
Communications Provider (CP)	A person who provides an Electronic Communications Network or provides and Electronic Communications Service (as defined by section 32 of the Communications Act 2003).
Current Cost Accounting (CCA)	An accounting convention, where assets are valued and depreciated according to their current replacement cost whilst maintaining the operating or financial capital of the business entity.
Customer Sited Handover (CSH)	Interconnection occurs at a communications provider's premises.
Fully allocated cost (FAC)	An accounting approach under which all the costs of the company are distributed between its various products and services. The fully allocated cost of a product or service may therefore include some common costs that are not directly attributable to the service.
In Span Handover (ISH)	Interconnection occurring at a point between BT's premises and a communications provider's premises.
Leased line	A permanently connected communications link between two premises dedicated to the customers' exclusive use.
Long Run Incremental Cost (LRIC)	The cost caused by the provision of a defined increment of output given that costs can, if necessary, be varied and that some level of output is already produced.
Mbit/s	Megabits per second. A measure of speed of transfer of digital information.
Partial Private Circuit (PPC)	A generic term used to describe a category of private circuits that terminate at a point of connection between two communications providers' networks. It is therefore the provision of transparent transmission capacity between a customer's premises and a point of connection between the two communications providers' networks. It may also be termed a part leased line.
Plesiochronous Digital Hierarchy (PDH)	An older method of digital transmission

	used before SDH which requires each stream to be multiplexed or demultiplexed at each network layer and does not allow for the addition or removal of individual streams from larger assemblies.
Points of Connection (POC)	A point where one communications provider interconnects with another communications provider for the purposes of connecting their networks to 3 rd party customers in order to provide services to those end customers.
Public Switched Telephone Network (PSTN)	A telecommunications network providing voice telephony for the general public.
Radio Base Station (RBS) backhaul circuit	A circuit provided by BT that connects a mobile communications provider's base-station to the mobile communications provider's mobile switching centre.
Revenue System Size (RSS)	A term used by BT to describe the total number of circuits that generate revenue.
Stand-Alone Cost (SAC)	An economic concept under which the total cost incurred in providing a product is allocated to that product.
Synchronous Digital Hierarchy (SDH)	A method of digital transmission where transmission streams are packed in such a way to allow simple multiplexing and demultiplexing and the addition or removal of individual streams from larger assemblies.
Symmetric broadband origination (SBO)	A symmetric broadband origination service provides symmetric capacity from a customer's premises to an appropriate point of aggregation, generally referred to as a node, in the network hierarchy. In this context, a "customer" refers to any public electronic communications network provider or end user.
Symmetric transmission	Symmetric transmission is where the upload and download transmission rates of a communications service are identical.
Tier 1	A tier in BT's SDH network that denotes a network of nodes covering areas of high population. These nodes are connected by very high capacity line systems and denote the BT trunk network.
Traditional interface symmetric broadband origination (TISBO)	A form of symmetric broadband origination service providing symmetric capacity from a customer's premises to an appropriate point of aggregation in the network hierarchy, using a CCITT G703 interface.
Working System Size (WSS)	A term used by BT to describe the total

	number of circuits in existence.
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