



Disputes between each of Sky, TalkTalk, Virgin Media, Cable & Wireless and Verizon and BT regarding BT's charges for Ethernet services

Determinations and Explanatory Statement

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Section 1

Summary

- 1.1 Ofcom has resolved disputes between BT and each of TalkTalk Telecom Group plc ("TTG" or "TalkTalk"), British Sky Broadcasting Limited ("Sky"), Virgin Media Limited ("Virgin"), Cable & Wireless Worldwide plc group¹ ("CWW") and Verizon UK Limited² ("Verizon") (collectively, the "Disputing CPs") about BT's charges for certain of its wholesale Ethernet services (the "Disputes").
- 1.2 We have concluded that BT has overcharged the Disputing CPs for a number of wholesale Ethernet services and that BT is required to make repayments to the Disputing CPs for the full amounts by which it has overcharged them.

Background

WES and BES

- 1.3 WES and BES are types of wholesale Ethernet services. They provide dedicated transmission capacity at a range of bandwidths between sites. Wholesale Extension Services ("WES") are typically used by communications providers ("CPs") to assist in the provision of Ethernet-based leased lines from their network to a retail customer's premises. Backhaul Extension Services ("BES") link a CP's core network to its equipment within an unbundled BT local exchange.

The Disputes

- 1.4 On 27 July 2010, Sky and TTG made a joint submission to Ofcom asking us to resolve disputes with BT. They alleged that BT had overcharged them for certain BES between 24 June 2004 and 31 July 2009, on the basis that BT had failed to comply with its obligations to ensure that its charges for BES were cost orientated. Sky and TTG asked us to determine what charges should have applied and direct BT to refund any overcharge, with interest. Virgin submitted a dispute on 10 August 2010, alleging that BT had overcharged Virgin for a number of BES and WES between 1 April 2006 and 31 March 2009. Like Sky and TTG, Virgin contended that BT had failed to comply with its cost orientation obligations and asked Ofcom to determine what charges should have applied for the services and to direct BT to refund any overcharge, with interest. The disputes brought by Sky, TTG and Virgin are collectively referred to in this document as the "Initial Disputes".
- 1.5 On 17 November 2011, CWW submitted a dispute (the "CWW Dispute") regarding BT's charges for certain BES and WES. CWW alleged that these charges were too high between 1 April 2006 and 31 March 2011, and that BT had not complied with its cost orientation obligations.
- 1.6 On 22 February 2012, Verizon submitted a dispute against BT (the "Verizon Dispute") regarding BT's charges for certain WES between 1 April 2006 and 31

¹ There are a number of companies within the Cable & Wireless Worldwide plc group to which the CWW Dispute relates: Cable & Wireless Worldwide plc itself; Cable & Wireless UK; Cable & Wireless Access Ltd; Energis Communications Ltd; Thus Group Holdings Ltd; and Your Communications Group Ltd.

² Trading as Verizon Business.

March 2011, during which period it alleged that BT had failed to comply with its cost orientation obligations.

- 1.7 We decided that it was appropriate for Ofcom to resolve each of the Disputes on the basis of section 186(3) of the Communications Act 2003 (the "Act").³ BT brought an appeal against Ofcom's decision to accept the Initial Disputes for resolution on 15 November 2010. The Competition Appeal Tribunal ("CAT") heard the appeal on 7 and 8 March 2011 and dismissed BT's appeal on 3 May 2011.
- 1.8 We issued our draft determinations of the Initial Disputes on 8 February 2012 and our provisional determination of the CWW Dispute on 22 February 2012. We initially gave stakeholders until 5 April 2012 to comment on our proposals for resolving the Initial Disputes and the CWW Dispute, and subsequently extended this deadline to 20 April 2012. We published our provisional conclusions on the Verizon Dispute on 4 April 2012 and gave stakeholders until 23 April 2012 to comment on our proposals.⁴
- 1.9 We received comments from BT, all of the Disputing CPs and [X]. We shared non-confidential versions of BT's comments with each of the Disputing CPs and non-confidential versions of the Disputing CPs' comments with BT. We received further comments from BT and each of the Disputing CPs on each others' submissions between 18 and 21 May 2012.
- 1.10 On 27 July 2012 the Court of Appeal handed down its judgment (the "PPC Court of Appeal Judgment")⁵ in BT's application to appeal two judgments of the CAT. Those CAT decisions both related to Ofcom's determinations (the "2009 PPC Determinations")⁶ of certain elements of disputes about the pricing of Partial Private Circuits (the "PPC Disputes"). We invited the Parties to update their submissions in light of the PPC Court of Appeal Judgment, if they wished to do so. We received additional submissions between 20 and 24 August 2012.
- 1.11 This document sets out our resolution of the Initial Disputes, the CWW Dispute and the Verizon Dispute. The determinations resolving these Disputes are at Annexes 1 to 5.

Services in dispute

- 1.12 The Disputing CPs referred in their submissions to a number of different BES and WES services. The Disputing CPs did not all buy the same Ethernet services, and are in dispute with BT for different periods. As we explain in Section 7, we therefore considered the evidence provided in the Disputing CPs' various submissions and have concluded that the services in dispute are as set out in Table 1.1:

³ We published the scope of the Initial Disputes on 13 September 2010: see http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01052/; we published the scope of the CWW Disputes on 15 December 2011: see http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01078/; and we published the scope of the Verizon Disputes on 15 March 2012: see http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01087/.

⁴ http://stakeholders.ofcom.org.uk/binaries/consultations/dispute-verizon-bt-wes/summary/WES_Dispute.pdf (Verizon Dispute).

⁵ Case no: C3/2011/1683 *British Telecommunications plc v Office of Communications* [2012] EWCA Civ 1051.

⁶ http://stakeholders.ofcom.org.uk/binaries/consultations/draft_deter_ppc/PPC_final_determination.pdf

Table 1.1: Summary of the disputed services

	04/05	05/06	06/07	07/08	08/09	09/10*	10/11
BES 100 rental		ST	STVgC	STVgC	STVgC	STC	C
BES 1000 rental**		ST	STVgC	STVgC	STVgC	STC	C
BES 155 rental			C	C	C	C	C
BES 622 rental			C	C	C	C	C
BES 2500 rental					C		
BES 10000 rental					C		
BES 100 connection		ST	STC	STVgC	STVgC	ST	
BES 1000 connection		ST	ST	ST	ST	ST	
WES 10 rental			Vz	Vz	VgVz	Vz	Vz
WES 100 rental			VgCVz	VgCVz	VgCVz	CVz	CVz
WES 1000 rental***			VgCVz	VgCVz	VgCVz	CVz	CVz
WES 155 rental			C	C	C	C	C
WES 622 rental			C	C	C	C	C
WES 10000 rental				C	C		
Main link rental (for BES)			ST	ST	ST	ST	

S=Sky, T=TTG, Vg=Virgin, C=CWW, Vz=Verizon.

* In 2009/10, Sky and TTG are only in dispute with BT from 1 Apr 2009 to 31 Jul 2009; CWW and Verizon are in dispute with BT for the whole of 2009/10.

** Including BES 1000ER rental

*** Including WES 1000ER rental

- 1.13 We have therefore assessed whether BT has over-charged the Disputing CPs for 65 service/year combinations.

Our approach

BT's cost orientation obligations

- 1.14 In market reviews in 2004 and 2008, Ofcom has found that BT has significant market power ("SMP") in the alternative interface symmetric broadband origination ("AISBO") market, which includes the provision of wholesale Ethernet services. Based on this finding, Ofcom therefore imposed an SMP condition on BT (Condition HH3.1) which requires BT to ensure that its charges for services (including the services in dispute) are cost orientated, and to be able to demonstrate this to Ofcom's satisfaction:

"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 HH1 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."

- 1.15 The Disputing CPs alleged that BT overcharged them for various Ethernet services, in breach of Condition HH3.1. In order to resolve these Disputes, we have therefore considered whether BT complied with Condition HH3.1 in relation to the charges in dispute.

Which charges should be cost orientated?

- 1.16 We have first considered which charges must be cost orientated. This is a key issue in these Disputes because BT has contended that charges for connections and rentals are separate parts of a charge for a single service, and that it is the

aggregated charge that should be considered by Ofcom in its assessment of whether charges are cost orientated. The Disputing CPs, however, consider that each individual charge should be separately assessed.

- 1.17 In our Provisional Conclusions, we proposed to resolve the Disputes in this case by applying the terms of Condition HH3.1 to each and every disputed charge. This is consistent with the approach of the CAT to the application of an identically worded condition in the context of the PPC Disputes in its judgment disposing of BT's appeal of the 2009 PPC Determinations (the "PPC Judgment")⁷.
- 1.18 BT argues that we should apply the terms of Condition HH3.1 to the charges for connections and rentals in aggregate. However, we consider that BT's arguments do not support such an application. Rather, we consider that the terms of Condition HH3.1 that "*each and every charge offered*" should be cost orientated should be applied to the separate charges for connections and rentals for the reasons set out in Section 8. We have therefore resolved these Disputes by assessing each and every charge in dispute separately.

Methodology

- 1.19 We have decided to use our proposed methodology, having taken into account stakeholders' comments. This involves three steps:

Step 1

- 1.20 We start our analysis by considering whether BT has demonstrated to our satisfaction that each and every charge was reasonably derived from the costs of provision based on a forward looking long run incremental cost ("LRIC") approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed, in accordance with its obligations under Condition HH3.1.

Step 2

- 1.21 In the event that BT's evidence does not satisfy us that it has met the requirements of Condition HH3.1, we then go on to consider whether BT's charges were nevertheless cost orientated. We first consider this by comparing the relevant Ethernet charges with their respective Distributed Stand Alone Cost ("DSAC") to identify any revenues exceeding DSAC (the "DSAC test").

Step 3

- 1.22 Finally, before drawing our conclusions on overcharging, we consider:
- the magnitude and duration by which charges exceeded DSAC;
 - whether, and the extent to which charges exceeded fully allocated cost ("FAC"); and
 - the rate of return on capital employed.

⁷ *British Telecommunications plc v Office of Communications* [2011] CAT 5.

- 1.23 This allows us, for example, to consider whether BT has provided evidence that demonstrates that it could have reasonably expected its charges to be cost orientated.
- 1.24 If we conclude that BT overcharged for the services in dispute, we will then calculate the level of overcharge.

Cost standard

- 1.25 The second step of our methodology is to compare BT's charges with their respective DSACs. While some of the Disputing CPs supported our proposal to use DSAC as the primary cost benchmark for resolving these Disputes, others argued that FAC was a more appropriate standard.
- 1.26 We have concluded that DSAC is the appropriate primary cost benchmark for resolving these Disputes, although FAC has a role in our wider assessment of whether charges were cost orientated and is one of the other relevant factors we consider in our assessment under Step 3.

Data

- 1.27 BT is required to publish each year detailed Regulatory Financial Statements ("RFS"). The RFS set out much of the data we rely on in these Determinations, including revenues, volumes and calculations of the costs of services which are subject to cost orientation obligations (including FAC, distributed long run incremental cost ("DLRIC") and DSAC).

Which DSACs do we use for our analysis?

- 1.28 In our Provisional Conclusions, we explained that BT had told us it had discovered "*anomalies*" in its published DSACs. BT considered that we should therefore disregard its published DSACs for the years 2006/07 to 2009/10 and instead use revised DSACs calculated retrospectively according to the methodology that BT used to calculate the DSACs in its 2010/11 RFS. We said that, unless there are errors in BT's RFS or the methodology used in preparing the RFS was obviously inappropriate, Ofcom should rely on the published RFS for the purposes of determining these historic Disputes. We did not consider that BT had demonstrated that the methodology it used in 2006/07 to 2009/10 was obviously inappropriate, or that there were mathematical, input or software errors in its implementation. We therefore provisionally concluded that we should use the DSAC data published by BT in its RFS during both the 2006/07 to 2009/10 period (using BT's original methodology) and in 2010/11 (using BT's revised methodology).
- 1.29 Since publishing our Provisional Conclusions, we have received additional information from BT and our understanding of BT's DSAC methodology has evolved. Based on the evidence now available to us, the DSAC methodology BT used in the period 2006/07 to 2009/10 does not appear to reflect cost causation in its treatment of duct costs and for that reason is likely to be obviously inappropriate. BT's DSAC methodology for 2010/11 does not appear to reflect cost causation in its treatment of duct costs and is also likely to be obviously inappropriate.
- 1.30 However, we have concluded that we should nevertheless use the DSACs published in BT's RFS for the period 2006/07 to 2009/10 and 2010/11. This is because we do not consider that there is a reasonably practical way for us to calculate new DSAC

figures that would properly address the concerns that we have identified with cost causation in BT's treatment of duct costs.

Accounting adjustments to BT's published DSACs

- 1.31 We also considered in our Provisional Conclusions whether we needed to make accounting adjustments to the data published in BT's RFS. We have concluded that it is appropriate to make adjustments to the data in certain circumstances and we rely on the adjusted data in our assessment. We adjust the data where we have identified an error or an obviously inappropriate methodology and there is a reasonably practical way for us to adjust the data to correct this, taking into account concerns about retrospectively altering financial data on which previous regulatory decisions were based or creating inappropriate incentives for BT.

Our conclusions

BT overcharged the Disputing CPs for BES and WES services

- 1.32 Under Step 1 we considered the submissions put forward by BT setting out a number of arguments that it considers demonstrate that its charges were cost orientated. Having considered the evidence provided by BT and the other Parties' comments, we have concluded that BT has not demonstrated to our satisfaction that the charges in dispute were cost orientated over the period covered by the Disputes.
- 1.33 As set out above, under Step 2 of our assessment, we have identified a number of BT's charges in dispute that were above their respective DSACs for various periods.
- 1.34 Before drawing our conclusions on overcharging we considered other factors under Step 3, notably whether BT has provided evidence that demonstrates that it could have reasonably expected its charges to be cost orientated.
- 1.35 We have concluded that BT overcharged for the services in dispute as set out in Table 1.2:

Table 1.2: Services and years where BT has overcharged

Ethernet service	2006/07	2007/08	2008/09	2009/10	2010/11
BES100 Rental	Yes	Yes	Yes	Yes	No
BES1000 Rental	Yes	Yes	Yes	Yes	No
BES155 Rental	Yes	Yes	Yes	Yes	Yes
BES622 Rental	Yes	Yes	Yes	Yes	Yes
BES2500 Rental	NiD	NiD	Yes	NiD	NiD
BES10000 Rental	NiD	NiD	Yes	NiD	NiD
BES100 Connection	Yes	Yes	No	No	NiD
BES1000 Connection	Yes	No	No	No	NiD
WES10 Rental	No	No	Yes	No	No
WES100 Rental	Yes	Yes	Yes	Yes	No
WES1000 Rental	Yes	Yes	Yes	Yes	Yes
WES155 Rental	Yes	Yes	Yes	Yes	Yes
WES622 Rental	Yes	Yes	Yes	Yes	Yes
WES10000 Rental	NiD	Yes	Yes	NiD	NiD
Main link rental	n/a*	No	No	No	NiD

Source: Ofcom analysis of BT data.

NiD: not in dispute.

** In 2006/07, revenues and costs associated with main link rentals were included within the revenue and cost information for BES and WES rental services (see paragraphs 13.67 to 13.69).*

BT is required to make repayments to the Disputing CPs

- 1.36 We proposed in our Provisional Conclusions that BT was required to make repayments to the Disputing CPs. In reaching this view, we were guided by our statutory duties and Community obligations under sections 3 and 4 of the Act.
- 1.37 The Disputing CPs broadly agreed with our proposal that BT was required to make repayments. BT, however, considered that Ofcom's proposed approach was wrong in law and that there were good reasons why Ofcom should direct a reduced payment or no payment.
- 1.38 Having taken into account the Parties' comments and considered the findings of the Court of Appeal in the PPC Court of Appeal Judgment, we have concluded that BT should be required to make repayments to each of the Disputing CPs for the full amount of the overcharge.
- 1.39 If other BT customers approach BT seeking similar repayment of any overcharge for the Ethernet services which are the subject of these Disputes, we would expect BT to take account of our conclusions in these Determinations.
- 1.40 We therefore determine that BT should make repayments to the Disputing CPs, as set out in Table 1.3.

Table 1.3: Summary of repayments due to the Disputing CPs in £, split by year

Year	Sky	TTG	Virgin	CWW	Verizon	Total
2005/06	[X]	[X]	[X]	[X]	[X]	[X]
2006/07	[X]	[X]	[X]	[X]	[X]	[X]
2007/08	[X]	[X]	[X]	[X]	[X]	[X]
2008/09	[X]	[X]	[X]	[X]	[X]	[X]
2009/10	[X]	[X]	[X]	[X]	[X]	[X]
2010/11	[X]	[X]	[X]	[X]	[X]	[X]
Total	[X]	[X]	[X]	[X]	[X]	[X]

Source: Ofcom – based on data supplied by BT

- 1.41 For the reasons set out in paragraphs 15.139 to 15.144, we consider that we do not have sufficient evidence to decide whether we should also award interest, which would involve setting aside clause 12.3 of the relevant contracts, in order to meet our regulatory objectives.

Structure of the remainder of this document

- 1.42 The remainder of this document is structured in the following way:
- 1.42.1 the legal framework for Ofcom's dispute resolution is set out in Section 2;
 - 1.42.2 a summary of the Disputes and our investigation is set out in Section 3;
 - 1.42.3 Section 4 explains BT's relevant regulatory obligations;
 - 1.42.4 Section 5 explains BT's regulatory financial reporting obligations and BT's LRIC model;
 - 1.42.5 further information about BES and WES services is set out in Section 6;
 - 1.42.6 Section 7 sets out the services in dispute;
 - 1.42.7 our analysis of which charges should be cost orientated is set out in Section 8;
 - 1.42.8 our approach to determining whether BT's charges were cost orientated is set out in Section 9;
 - 1.42.9 we consider whether BT has demonstrated to our satisfaction that its charges were cost orientated in Section 10;
 - 1.42.10 we set out our framework for determining when to depart from the published RFS in Section 11;
 - 1.42.11 we consider whether we should use the DSAC data published in BT's RFS in Section 12;
 - 1.42.12 we consider which accounting adjustments to make to BT's published RFS data in Section 13;
 - 1.42.13 our assessment of whether BT's charges were cost orientated is set out in Section 14;

- 1.42.14 our consideration of whether we should require BT to make repayments to the Disputing CPs is set out in Section 15;
- 1.42.15 the Determinations setting out our resolution of these Disputes are set out in Annexes 1 to 5;
- 1.42.16 an explanation of the cost standards used in Ofcom's analysis is set out in Annex 6; and
- 1.42.17 there is a glossary of terms used in these Determinations and Explanatory Statement at Annex 7.

Section 2

Legal framework for resolution of the Disputes

Ofcom's dispute resolution function

Ofcom's duty to handle disputes

- 2.1 The Communications Act 2003 (the "Act") was amended by the Electronic Communications and Wireless Telegraphy Regulations 2011 (the "2011 Regulations") on 26 May 2011. As the Initial Disputes⁸ were referred to Ofcom prior to this date, Ofcom has considered the Initial Disputes in accordance with sections 185 to 191 of the Act as they applied before 26 May 2011; as the CWW and Verizon Disputes were referred to Ofcom after this date, Ofcom has considered the CWW and Verizon Disputes in accordance with sections 185 to 191 of the Act as they applied after 26 May 2011.
- 2.2 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 access⁹ between different communications providers ("CPs"), any one or more of the parties to such a dispute may refer it to Ofcom. As the Initial Disputes were referred to Ofcom before 26 May 2011, Ofcom decided that it was appropriate to handle them under subsection 185(1) of the Act.
- 2.3 The 2011 Regulations insert a new subsection 185(1A) into the Act. This subsection applies in the case of a dispute relating to the provision of network access if it is a dispute between a CP and a person who is identified, or is a member of a class identified, in a condition imposed on the CP under section 45 of the Act (as amended), and the dispute relates to entitlements to network access that the CP is required to provide to that person by or under that condition. The CWW and Verizon Disputes were referred to Ofcom after 26 May 2011 and Ofcom decided that it was appropriate to handle them under subsection 185(1A) of the Act, because they concern the terms on which BT provides network access to the Disputing CPs, and that network access is required to be provided by or under a condition imposed under section 45 of the Act (Condition HH3.1, set out below).¹⁰
- 2.4 Section 186(2) of the Act (before and since 26 May 2011) 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. Since 26 May 2011 section 186(3)

⁸ See paragraph 3.3 for an explanation of the terms 'Initial Disputes', 'CWW Dispute' and 'Verizon Dispute'.

⁹ Network access is defined in section 151 of the Act.

¹⁰ Had the Initial Disputes been referred to Ofcom and Ofcom had decided it was appropriate to handle them on or after 26 May 2011, these Disputes would also have fallen under subsection 185(1A) for the same reasons. We note the decision of the CAT in *Telefónica UK Limited v Ofcom* [2012] CAT 28 (the "Flip-Flopping judgment"), which confirmed that where a dispute satisfies the criteria of both section 185(1)(a) and section 185(1A), it should be treated for the purposes of Ofcom's dispute resolution jurisdiction and powers under sections 186 and 190 as a case under section 185(1A), rather than under section 185(1)(a) (see paragraphs 138 and 147 to 148 of that decision). In addition, the CAT held at paragraphs 132 to 133 of its decision that sections 185(1A), 186(2A) and 190(2A) as introduced by the 2011 Regulations do not apply to disputes referred before 26 May 2011.

provides that Ofcom must decide that it is appropriate for it to handle a dispute falling within section 185(1A) 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. Prior to 26 May 2011, the provisions of section 186(3) also applied to disputes falling under section 185(1)(a) (but this is no longer the case since 26 May 2011).

- 2.5 Section 188 of the Act (before and since 26 May 2011) 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.¹¹

Ofcom's powers when determining a dispute

- 2.6 Ofcom's powers in relation to making a dispute determination are limited to those set out in section 190(2) of the Act (these powers were identical before and after 26 May 2011). Ofcom's main power is to do one or more of the following:
- 2.6.1 make a declaration setting out the rights and obligations of the parties to the dispute;
 - 2.6.2 give a direction fixing the terms or conditions of transactions between the parties to the dispute;
 - 2.6.3 give a direction imposing an obligation on the parties to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
 - 2.6.4 for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge, 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.
- 2.7 Ofcom may also exercise certain other powers in consequence of its consideration of a dispute, including its powers under Chapter 1 of Part 2 of the Act to set, modify or revoke conditions.
- 2.8 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, and if other BT customers approach BT seeking similar repayment of any overcharge for the Ethernet services which are the subject of the Disputes, we would expect BT to take account of our conclusions in these Determinations.

Ofcom's duties when determining a dispute

- 2.9 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

¹¹ We conclude that exceptional circumstances did surround these Disputes as discussed below.

section 4 of the Act, which give effect, amongst other things, to the requirements of Article 8 of the Framework Directive.¹²

- 2.10 The 2011 Regulations insert a new subsection 190(2A) into the Act. This provides that in relation to a dispute falling within section 185(1) of the Act (as amended), Ofcom must exercise their powers in the way that seems to us most appropriate for the purpose of securing efficiency, sustainable competition, efficient investment and innovation, and the greatest possible benefit for end-users of public electronic communications services. Subsection 190(2A) does not apply in relation to a dispute falling within new subsection 185(1A).¹³ We therefore consider that subsection 190(2A) does not apply either to the Initial Disputes (since these were referred prior to 26 May 2011)¹⁴ or to the CWW and Verizon Disputes (since these fall within subsection 185(1A)).
- 2.11 In addition, the 2011 Regulations amend section 4 of the Act and insert a new subsection 4A, under which Ofcom must take account of European Commission recommendations for harmonisation in resolving disputes.

The SMP obligations

- 2.12 BT has been found to have significant market power ("SMP") in the alternative interface symmetric broadband origination ("AISBO") market (which includes the provision of wholesale Ethernet services)¹⁵. Ofcom therefore imposed SMP obligations on BT ("Conditions HH"), requiring it, among other things, to provide network access¹⁶ on reasonable request (Condition HH1).
- 2.13 The SMP obligations also include an obligation on BT to ensure and to be able to demonstrate that its WES and BES charges are cost orientated (Condition HH3.1):

"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 HH1 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."

- 2.14 BT is subject to SMP cost orientation obligations which are worded in the same way in a number of markets, for example Wholesale Local Access services¹⁷, Wholesale Broadband Access in certain geographic markets¹⁸, Traditional Interface Symmetric Broadband Origination ("TISBO") with a bandwidth capacity up to and including 8

¹² Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, as amended.

¹³ As confirmed in the decision of the CAT in the Flip-Flopping judgment referred to in the footnote to paragraph 2.3 above, paragraphs 138 to 148.

¹⁴ This is also supported by the CAT's decision in the Flip-Flopping judgment at paragraphs 132 to 133, which held that sections 185(1A), 186(2A) and 190(2A) do not apply to disputes referred before 26 May 2011.

¹⁵ This finding was first made in the Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets, 25 June 2004 (the "2004 LLMR Statement") (see further below at paragraph 4.22 *et seq.*).

¹⁶ Network Access has the same meaning as it has in the Act.

¹⁷ http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf

¹⁸ <http://stakeholders.ofcom.org.uk/binaries/consultations/wba/statement/wbastatement.pdf>

Mbit/s and TISBO with a bandwidth capacity above 8 Mbit/s and including 45 Mbit/s¹⁹.

- 2.15 BT is also subject to an SMP obligation annually to publish detailed financial statements, known as BT's Regulatory Financial Statements ("RFS"). Further information on the RFS is set out in Section 5.

The PPC Judgment and PPC Court of Appeal Judgment

- 2.16 On 22 March 2011 the Competition Appeal Tribunal (the "CAT") issued its judgment (the "PPC Judgment")²⁰ disposing of BT's appeal (the "PPC appeal") of Ofcom's determinations (the "2009 PPC Determinations")²¹ of disputes about the pricing of Partial Private Circuits (the "PPC Disputes")²². The CAT dismissed BT's appeal in its entirety and upheld Ofcom's 2009 PPC Determinations, concluding that BT's charges for certain Partial Private Circuits ("PPCs"), namely 2Mbit/s PPC trunk services, were in breach of its relevant cost orientation obligation. BT had therefore overcharged for those PPCs and was required to repay to the other parties in dispute the sums they had overpaid.
- 2.17 BT appealed the CAT's judgment on preliminary issues in the PPC appeal (the "PPC Preliminary Issues Judgment")²³ and the PPC Judgment to the Court of Appeal and on 27 July 2012 the Court of Appeal handed down judgment dismissing BT's appeal (the "PPC Court of Appeal Judgment")²⁴.
- 2.18 Condition HH3.1 is worded identically to the cost orientation obligation (Condition H3.1) considered by the CAT in the PPC Judgment and by the Court of Appeal in the PPC Court of Appeal Judgment. We therefore consider that the PPC Judgment and the PPC Court of Appeal Judgment are relevant to our determination of these Disputes and refer to them throughout these Determinations, as relevant.

Conclusion on the exercise of Ofcom's dispute resolution function

- 2.19 The task for Ofcom in this case is to make a determination for resolving the Disputes, in light of:
- 2.19.1 the legal framework, in particular Condition HH3.1; and
- 2.19.2 the facts of the case.

¹⁹ http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr/summary/bcmr_pt4.pdf

²⁰ *British Telecommunications plc v Office of Communication* [2011] CAT 5

www.catribunal.org.uk/files/1146_BT_Judgment_CAT5_220311.pdf

²¹ http://stakeholders.ofcom.org.uk/binaries/consultations/draft_deter_ppc/PPC_final_determination.pdf

²² The PPC Disputes were resolved in the 2009 PPC Determinations in respect of 2 Mbit/s PPC trunk services only. The PPC Disputes also include certain other PPC services, and remained ongoing during the course of our investigation of these Disputes. Generally, in these Determinations, where we refer to the PPC Disputes, we refer to those Disputes as a whole unless the context requires otherwise.

²³ *British Telecommunications plc v Office of Communications* [2010] CAT 15

http://www.catribunal.org.uk/files/1146_BT_Judgment_CAT15_110610.pdf

²⁴ Case no: C3/2011/1683 *British Telecommunications plc v Office of Communications* [2012] EWCA Civ 1051. The PPC Court of Appeal Judgment also disposed of BT's appeal of the CAT's Preliminary Issues Judgment.

Section 3

Summary of the Disputes and Ofcom's investigation

The Disputes

- 3.1 The disputes in this case were brought by TalkTalk Telecom Group plc ("TTG" or "TalkTalk"), British Sky Broadcasting Ltd ("Sky"), Virgin Media Limited ("Virgin"), Cable & Wireless Worldwide plc group²⁵ ("CWW") and Verizon UK Limited²⁶ ("Verizon") (collectively, the "Disputing CPs") against British Telecommunications plc ("BT").²⁷ They relate to BT's charges in respect of wholesale Ethernet services known as Wholesale Extension Services ("WES") and Backhaul Extension Services ("BES") (the "Disputes").²⁸
- 3.2 WES and BES are types of wholesale Ethernet services. They provide dedicated transmission capacity at a range of bandwidths between sites. BES are fibre optic data circuits that run between a CP's network and its equipment within an unbundled BT local exchange. They are used by Local Loop Unbundling ("LLU") operators. WES are used by CPs to provide a dedicated fibre optic data circuit between a retail customer's premises and the CP's network.
- 3.3 The Disputes include the following cases:
- 3.3.1 *Disputes between each of Sky, TalkTalk and Virgin Media and BT regarding BT's charges for Ethernet services* (CW/01055/08/10) (the "Initial Disputes");
 - 3.3.2 *Dispute between Cable and Wireless and BT about BT's charges for Ethernet services* (CW/01078/11/11) (the "CWW Dispute"); and
 - 3.3.3 *Dispute between Verizon and BT relating to BT's charges for WES* (CW/01087/02/12) (the "Verizon Dispute").
- 3.4 This document encompasses all three cases. Except where we need to distinguish between the Initial Disputes, the CWW Dispute and the Verizon Dispute, we refer to them collectively as the Disputes. Except where we need to distinguish between the time periods applicable to the individual disputes, we refer to the period between 24 June 2004 and 31 March 2011 as the "Relevant Period".

²⁵ There are a number of companies within the Cable & Wireless Worldwide plc group to which this Dispute relates: Cable & Wireless Worldwide plc itself; Cable & Wireless UK; Cable & Wireless Access Ltd; Energis Communications Ltd; Thus Group Holdings Ltd; and Your Communications Group Ltd.

²⁶ Trading as Verizon Business.

²⁷ We refer to the Disputing CPs and BT collectively as the "Parties".

²⁸ A more detailed explanation of the WES and BES services is set out in Section 6 below.

The Initial Disputes

- 3.5 TTG and Sky submitted a joint dispute (the "Joint Dispute Submission") on 27 July 2010.²⁹ They assert that from the date that Condition HH3.1 was imposed on 24 June 2004, up to 31 July 2009, BT overcharged for certain BES services because, in summary, its charges were not cost orientated. We refer to the period from 24 June 2004 to 31 July 2009 as the "Initial Disputes Period". Virgin submitted a dispute on 10 August 2010 (the "Virgin Dispute Submission"), making similar claims in relation to the cost orientation of BES services for the period 1 April 2006 to 31 March 2009 and additionally alleging that certain WES services were not cost orientated in that period.³⁰
- 3.6 Given the similarities between the issues raised in the Joint Dispute Submission and the Virgin Dispute Submission, Ofcom decided to handle the Initial Disputes together. The Disputing CPs in the Initial Disputes argue that BT should be required to repay to them the amounts that they claim to have been overcharged, which they estimate to be over £[£] in total, plus interest.
- 3.7 The Disputing CPs supplied evidence with their submissions to demonstrate that they had negotiated with BT in relation to these services but that, ultimately, those commercial negotiations had been unsuccessful.
- 3.8 BT provided initial comments on the Joint Dispute Submission on 10 August 2010, and on the Virgin Dispute Submission on 26 August 2010. In both responses, BT claimed that negotiations between the Parties had not reached an impasse but that they had merely been stalled by the PPC appeal³¹. BT additionally argued that the issues raised were not suitable for dispute resolution but rather constituted a claim that BT had failed to comply with an SMP condition. In relation to the Joint Dispute Submission, BT argued that it was unclear exactly what the parties were proposing as an appropriate and actual charge for the disputed products. BT was therefore of the view that Ofcom should not accept the Initial Disputes for resolution.³²

Scope

- 3.9 Ofcom informed the CPs and BT of its decision to accept the Initial Disputes for resolution and published details of the Initial Disputes on its website on 13 September 2010, including the proposed scope. We received no representations on the proposed scope of the Initial Disputes in the period provided for comments.
- 3.10 The published scope of the Initial Disputes is:

²⁹ The Joint Dispute Submission annexed a report by RGL Forensics entitled *BT's Pricing of BES Services*. We refer to this as the "First RGL Report".

³⁰ Virgin originally submitted a dispute on this issue on 22 April 2010 but decided to withdraw the dispute (following discussions with Ofcom) on the basis that the outcome of the dispute could potentially be affected by the outcome of the PPC appeal. Following the Joint Dispute Submission, Virgin resubmitted its dispute on 10 August 2010.

³¹ The PPC appeal is discussed above at paragraphs 2.16 to 2.18.

³² BT also argued that historic disagreements, especially those based on an allegation of historic non-compliance with an SMP condition, fall outside Ofcom's jurisdiction to resolve disputes between CPs. It argued that Ofcom did not have jurisdiction or should not have accepted the dispute for resolution because it should have been obvious that this type of dispute could not be resolved in four months, contrary to the objectives of the Common Regulatory Framework. Following the PPC Court of Appeal Judgment, BT withdrew its arguments in relation to Ofcom's jurisdiction and we do not therefore discuss this issue further in these Determinations.

"To determine whether, during the Relevant Period:³³

- i. BT has overcharged the Parties³⁴ for the BES and/or WES products concerned and, if so;*
- ii. by how much the Parties were overcharged during the Relevant Period; and*
- iii. whether and by how much BT should reimburse the Parties in relation to the overcharge."³⁵*

Exceptional circumstances

- 3.11 As noted at paragraph 2.5 above, under section 188 of the Act Ofcom must resolve disputes within four months of the date of the decision to handle the dispute, except in exceptional circumstances. When accepting the Initial Disputes, we sought the views of interested parties as to whether the apparent overlap between issues raised in the Initial Disputes and issues raised in the PPC appeal that was before the CAT at the time gave rise to exceptional circumstances (the PPC appeal is discussed above at paragraphs 2.16 to 2.18).
- 3.12 Having considered representations from the Disputing CPs, Ofcom concluded that there was a significant overlap between the issues raised in the PPC appeal and those in the Initial Disputes, and that the judgment in the PPC appeal was likely to have a significant bearing on the issues to be considered here. We therefore concluded on 5 October 2010 that exceptional circumstances existed and that as a result it might not be possible to resolve the Initial Disputes within four months. We did, however, note our intention to progress consideration of the Initial Disputes as far as possible in advance of the CAT's judgment, in order to enable us to resolve the Initial Disputes as soon as possible thereafter.³⁶

The preliminary issues appeal

- 3.13 On 15 November 2010 BT appealed Ofcom's decision to accept the Initial Disputes to the CAT. BT's submission contained two main grounds of appeal:
- 3.13.1 that Ofcom had erred in concluding that the matters could not be resolved by negotiation (and that a dispute therefore existed) as negotiations could resume after the CAT's judgment in the PPC appeal; and
 - 3.13.2 that Ofcom had erred in concluding that it was appropriate to handle the Initial Disputes when alternative means for dealing with the issues were available in the form of (a) negotiations after a judgment in the PPC appeal, or (b) enforcement proceedings under sections 94 to 103 of the Act.³⁷

³³ The 'Relevant Period' was defined as being the period between 24 June 2004 and 31 July 2009. In these Determinations, we refer to this period as the "Initial Disputes Period" (as distinct from the "CWW Dispute Period" and the "Verizon Dispute Period", see paragraphs 3.17 and 3.34 below). We refer to these time periods collectively as the "Relevant Period" (see paragraph 3.4 above).

³⁴ i.e. TTG, Sky and Virgin.

³⁵ The scope was published in Ofcom's Competition and Consumer Enforcement Bulletin - see http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01052/.

³⁶ We published an update to the Competition and Consumer Enforcement Bulletin on 5 October 2010 setting out this view.

³⁷ BT additionally argued in its submission that Ofcom had erred in deciding to progress the Initial Disputes as far as possible in advance of the PPC Judgment but BT chose not to continue with this ground of appeal when the CAT heard the appeal.

- 3.14 The appeal was heard by the CAT on 7 and 8 March 2011. The CAT issued its judgment on 3 May 2011 and unanimously dismissed BT's appeal.³⁸

Draft determinations

- 3.15 We received submissions and comments from the parties to the Initial Disputes as set out in paragraphs 3.39 to 3.50.
- 3.16 On 8 February 2012, we issued our draft determinations setting out our provisional conclusions in respect of the Initial Disputes (the "Initial Draft Determinations")³⁹. We gave the parties and interested parties until 5pm on 5 April 2012 to comment on the Initial Draft Determinations. On 26 March 2012, we extended the time for responding until 5pm on 20 April 2012.

The CWW Dispute

- 3.17 CWW submitted a dispute on 17 November 2011 concerning BT's charges to CWW for certain BES and WES services (the "CWW Dispute Submission"). CWW alleged that BT's charges for certain BES and WES services between 1 April 2006 and 31 March 2011 (the "CWW Dispute Period") were too high, and were not compliant with BT's cost orientation obligations. CWW requested that Ofcom determine the proper amount of charges for BES and WES services provided by BT and require BT to repay any overcharge, together with interest.
- 3.18 BT provided initial comments on CWW's dispute submission on 29 November 2011. BT:
- 3.18.1 restated its view⁴⁰ that the issues raised should be handled by Ofcom as a compliance complaint rather than as a dispute;
 - 3.18.2 acknowledged that its discussions with CWW regarding the level of charges for BES and WES services in the period 1 April 2006 to 31 March 2009 had not reached satisfactory resolution;
 - 3.18.3 suggested, if Ofcom were to accept the CWW Dispute for resolution, that Ofcom "merge" an initial period of the CWW Dispute (1 April 2006 to 31 July 2009) with the Initial Disputes on the basis that CWW raised similar or the same issues as those being considered in the Initial Disputes;
 - 3.18.4 noted that there had been no discussion between the parties in relation to the period 1 April 2009 to 31 March 2011; and
 - 3.18.5 made no substantive additional submissions.
- 3.19 The CWW Dispute was submitted after Ofcom had reviewed its dispute resolution processes⁴¹. Our revised processes provide that we may hold an Enquiry Phase Meeting ("EPM") before deciding whether it is appropriate for us to handle a dispute,

³⁸ *British Telecommunications plc v Office of Communications* [2011] CAT 15

http://www.catribunal.org.uk/files/1171-72_BT_Judgment_030511.pdf.

³⁹ <http://stakeholders.ofcom.org.uk/binaries/consultations/ethernet-services/summary/Ethernet-services.pdf>

⁴⁰ Previously stated in its submission of 20 May 2011 in response to the Initial Disputes and in its application to the Court of Appeal for permission to appeal the PPC Preliminary Issues Judgment and the PPC Judgment.

⁴¹ Ofcom published revised dispute resolution guidelines on 7 June 2011:

<http://stakeholders.ofcom.org.uk/binaries/consultations/dispute-resolution-guidelines/statement/guidelines.pdf>

in order to clarify the principal arguments and facts raised by the Parties and to discuss views on the potential scope of the dispute.

- 3.20 On 7 December 2011, Ofcom held an EPM with representatives of CWW and BT, at which BT and CWW confirmed that whilst there had been little discussion between them in relation to 1 April 2009 to 31 March 2011, they were unable to reach agreement in relation to the whole of the period 1 April 2006 to 31 March 2011.
- 3.21 On 9 December 2011 we decided it was appropriate for Ofcom to accept the CWW Dispute for resolution and wrote to CWW and BT informing them of our decision. We invited BT and CWW to make additional comments on the CWW Dispute by 6 January 2012.
- 3.22 CWW had no further comments to make at this time.⁴²
- 3.23 BT made the following points:⁴³
- 3.23.1 BT said that Ofcom's decision not to "merge" the initial period of the CWW Dispute with the Initial Disputes was of concern to BT, as both disputes *"concern the same underlying compliance complaint for that period"*;
- 3.23.2 BT asked us to take into account its 20 May 2011 submission made in response to the Initial Disputes (discussed further at paragraph 3.43 below) and made no other substantive additional submissions; and
- 3.23.3 BT commented that for the period between 1 April 2009 to 31 March 2011 it *"does not understand the specific basis of CWW's complaint and it is thus impossible for BT to comment on the merits of CWW's complaint for this period"*.
- 3.24 On 6 February 2012, CWW provided additional comments on BT's letter of 6 January 2012.⁴⁴ CWW reiterated its view that it is in dispute with BT for the period between 1 April 2009 and 31 March 2011.

Scope

- 3.25 On 15 December 2011 we published details of the CWW Dispute, including the scope, in our Competition and Consumer Enforcement Bulletin:⁴⁵

"The scope of the dispute is to determine whether, from 1 April 2006 to 31 March 2011:

- *BT overcharged CWW for BES and WES services; and if so*
- *by how much CWW was overcharged for those services; and*
- *whether, and by how much, BT should reimburse CWW in relation to the overcharge."*

⁴² Letter from Andrea Sheridan (CWW) to Melanie Everitt (Ofcom) dated 6 January 2012.

⁴³ Letter from Mark Shurmer (BT) to Neil Buckley (Ofcom) dated 6 January 2012.

⁴⁴ Letter from Andrea Sheridan (CWW) to Melanie Everitt (Ofcom) dated 6 February 2012.

⁴⁵ http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01078/

Exceptional circumstances

- 3.26 Ofcom concluded on 22 February 2012 that exceptional circumstances exist in relation to the CWW Dispute. The Initial Disputes and CWW Dispute both relate to the cost orientation of BT's charges for services in the AISBO market. There are overlaps between the two cases in terms of many of the services which BT sold and the time period during which they were sold. In order to give stakeholders the opportunity to see Ofcom's provisional determinations and reasoning in relation to both disputes, we aligned the deadline for comments on the Initial Draft Determinations and CWW Provisional Determination. The deadline of 5 April 2012 was designed to give all stakeholders sufficient time to comment on both disputes. We concluded that it would not therefore be possible to resolve the CWW Dispute within four months.

Provisional determination

- 3.27 On 22 February 2012, we issued our provisional determination setting out our provisional conclusions in respect of the CWW Dispute (the "CWW Provisional Determination"). We gave the parties and interested parties until 5pm on 5 April 2012 to comment on the CWW Provisional Determination. On 26 March, Ofcom decided to extend the time for responding until 5pm on 20 April 2012.
- 3.28 On 5 April 2012, we published a competition bulletin update on the CWW Dispute noting that since the publication of our provisional determination, we had received new information from BT in relation to development costs in 2010/11 which we intended to take into account in making our final determination.⁴⁶ We invited parties to comment on it. We had taken into account this new information in reaching our provisional conclusions with respect to the Verizon Dispute (and we discuss it further at paragraphs 13.129 and 13.147 below).

The Verizon Dispute

- 3.29 Verizon submitted a dispute on 22 February 2012 concerning BT's charges to Verizon for certain WES services (the "Verizon Dispute Submission"). Verizon alleged that BT's charges for certain WES services between 1 January 2007 and 31 March 2010 were too high, and were not compliant with BT's cost orientation obligations. Verizon considered that BT should be required to repay the amount overcharged, plus interest, or such other sum as Ofcom may consider appropriate.
- 3.30 On 2 March 2012, Verizon wrote to Ofcom asking us to also take account of the additional period considered in the CWW Provisional Determination (i.e. the 2010/11 financial year).
- 3.31 On 12 March 2012 Ofcom held an EPM with representatives of Verizon and BT. The parties confirmed that they were in disagreement as to what the relevant period of the dispute should be.
- 3.32 On 13 March 2012, Verizon wrote to Ofcom again setting out its view that Ofcom should resolve the Verizon Dispute taking into account the entire period considered in the provisional determination of the CWW Dispute, i.e. from 1 April 2006 to 31 March 2011. Verizon stated that it had bought the relevant WES services from BT during this period and was in dispute with BT about its charges for the whole period.

⁴⁶ http://stakeholders.ofcom.org.uk/binaries/consultations/prov-deter-cw-bt-ethernet/summary/amended_010312.pdf

- 3.33 On 14 March 2012, BT commented on Verizon's letter of 13 March 2012, stating that the relevant period of the dispute must be limited to the period up to 31 July 2009, because its discussions with Verizon were limited to this time period, or should at most be the period referred to Ofcom by Verizon on 22 February 2012.
- 3.34 On the basis of the evidence submitted to us and discussion at the EPM, Ofcom was satisfied that the parties are in dispute in relation to the period between 1 April 2006 and 31 March 2011 (the "Verizon Dispute Period"). On 15 March 2012 we informed the parties of our decision that it was appropriate for us to handle the Verizon Dispute.
- 3.35 We asked the parties to the Verizon Dispute to make any further comments in relation to the dispute by 30 March 2012. We did not receive any further comments.

Scope

- 3.36 On 15 March 2012 we published details of the Dispute, including the scope, on the Competition and Consumer Enforcement Bulletin part of our website:

"The scope of the dispute is to determine:

Whether, from 1 April 2006 to 31 March 2011:

- *BT overcharged Verizon for the following rental charges:*
 - *WES/WEES10*
 - *WES/WEES100*
 - *WES/WEES1000*
- *by how much Verizon was overcharged for those services; and*
- *whether, and by how much, BT should reimburse Verizon in relation to the overcharge.*⁴⁷

Provisional conclusions

- 3.37 On 4 April 2012, we issued our provisional conclusions in respect of the Verizon Dispute (the "Verizon Provisional Conclusions").⁴⁸ We gave the parties and interested parties until 5pm on 23 April 2012 to comment on the Verizon Provisional Conclusions.

Exceptional circumstances

- 3.38 Ofcom concluded on 11 July 2012 that exceptional circumstances exist in relation to the Verizon Dispute. This was because we considered it appropriate not to issue our final determination of the Verizon Dispute until after the PPC Court of Appeal Judgment was handed down and we had had the opportunity to consider the implications of that judgment for the Verizon Dispute.

⁴⁷ http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01087/

⁴⁸ http://stakeholders.ofcom.org.uk/binaries/consultations/dispute-verizon-bt-wes/summary/WES_Dispute.pdf

Information provided to Ofcom by the parties

The Initial Disputes

- 3.39 On 13 October 2010 we met with BT to discuss the Joint Dispute Submission and the Virgin Dispute Submission and on 22 October 2010 sent BT a notice under section 191 of the Act⁴⁹ seeking information in connection with the Ethernet services which are in dispute (the "22 October 2010 section 191 notice"). BT responded to this notice in several tranches on 3, 15 and 22 November 2010, 12 January 2011, 18 February 2011 and 4 May 2012. We also asked a series of follow-up questions on BT's responses between 8 December 2010 and 4 August 2011, to which BT responded between 13 December 2010 and 22 September 2011.
- 3.40 On 8 December 2010 BT provided its initial submission setting out why it considered that its charges are cost orientated. We shared a non-confidential version of the submission with the Disputing CPs ("BT's 8 December 2010 submission").
- 3.41 On 24 March 2011 we sent section 191 notices to Sky, TTG and Virgin seeking information relating to Ethernet services purchased from BT. TTG responded on 1 April 2011, Virgin on 7 April 2011 and Sky on 8 April 2011.
- 3.42 On 9 May 2011 wrote to Ofcom ("BT's 9 May letter") informing us that "there are anomalies in BT's LRIC model" leading to Distributed Stand Alone Cost ("DSAC") figures "significantly lower than they should have been" being published in its RFS for all of the years covered by the Initial Disputes⁵⁰ (we address this issue in detail in Section 12). We wrote to BT on 11 May 2011 seeking further information on the issue; BT responded on 20 May 2011 ("BT's 20 May 2011 response").
- 3.43 On 20 May 2011 BT also provided a confidential response to the Disputing CPs' submissions ("BT's 20 May 2011 submission"), stating that BT had discovered "*a number of errors*" in its published DSACs. BT provided a non-confidential version of this response on 27 May 2011, which we shared with the Disputing CPs. BT's submission set out its views as to how BT had complied with its cost orientation obligations and why BT believed that it had not overcharged the Disputing CPs. BT's views and our consideration of the points BT makes are set out in detail in Section 10 of this document. BT's 20 May 2011 submission also set out its views on errors of law which it considers that Ofcom made in accepting the Initial Disputes for resolution and which it would make if it followed the PPC Judgment in resolving the Initial Disputes.
- 3.44 On 25 May 2011 Sky submitted a paper explaining why it considers that Ofcom should use Fully Allocated Cost ("FAC") as the appropriate cost standard for assessing the level of any overcharge.
- 3.45 On 26 May 2011 we met with BT to discuss its amendments to its published DSACs which it proposed to use instead of those published in its RFS. On 16 June 2011 we sent BT a section 191 notice⁵¹ seeking further information on BT's proposed DSACs

⁴⁹ Referred to in these Determinations as a "section 191 notice".

⁵⁰ BT's 9 May letter, paragraphs 2 and 3.

⁵¹ This was sent as a joint information request covering both these Disputes and the PPCs Disputes, as BT's proposals impacted published data in relation to Ethernet and PPC services.

(the "16 June 2011 section 191 notice"). BT responded in two tranches on 22 June and 30 June 2011.⁵²

- 3.46 On 16 June 2011, Sky, TTG and Virgin provided comments on BT's 20 May 2011 submission.
- 3.47 On 17 June 2011 we met with BT to discuss its 20 May 2011 submission.
- 3.48 On 23 June 2011 we sent BT a draft section 191 notice seeking further information on the role and the work of BT's advisers in calculating BT's revised long run incremental costs ("LRICs") and DSACs. On 27 June 2011 BT wrote to Ofcom claiming that some of the information requested was subject to legal litigation privilege.
- 3.49 We wrote to BT on 30 June 2011 seeking further explanation of BT's reasons for claiming litigation privilege in relation to the work done by its advisers on its proposed DSACs. We held a meeting with BT on 6 July 2011, after which BT provided a worked example of its DSAC calculations on 14 July 2011. On 22 July 2011 BT provided an outline of the instructions given to its advisers (including a timeline) and the resulting output. We met with BT and its advisers to discuss this matter on 4 August 2011, and on 11 August 2011 BT provided written responses to the questions we had set out in the agenda to the meeting ("BT's 11 August 2011 response").
- 3.50 We also took into account certain information BT provided to us in the context of the CWW Dispute.⁵³

The CWW Dispute

- 3.51 We took into account all of the submissions and information that BT provided in relation to the Initial Disputes in reaching our Provisional Conclusions in relation to the CWW Dispute.
- 3.52 We also used information provided by BT on 21 December 2011 in the context of the 2012 Leased Lines Charge Control review (the "2012 LLCC Consultation") (see paragraph 4.38 below), updating its response to question 16 of a notice sent to BT on 1 July 2011 under section 135 of the Act.
- 3.53 On 22 December 2011 we sent BT a section 191 notice (the "22 December 2011 section 191 notice") asking for information for the purposes of resolving the CWW Dispute. BT responded to this notice on 12, 18, 23 and 31 January 2012. We informed BT in the 22 December 2011 section 191 notice that we intended to use certain information provided in the context of the Initial Disputes in resolving the CWW Dispute, namely information provided in response to:
 - 3.53.1 the 22 October 2010 section 191 notice;
 - 3.53.2 the 16 June 2011 section 191 notice; and
 - 3.53.3 subsequent correspondence between BT and Ofcom clarifying BT's responses to those section 191 notices.

⁵² BT's response of 22 June 2011 annexed some spreadsheets which were provided on 23 June 2011. We refer to these as the "23 June 2011 spreadsheets".

⁵³ We referred to BT's response to questions 15 and 19 of the 22 December 2011 section 191 notice.

- 3.54 On 22 December 2011 we sent CWW a section 191 notice ("CWW's 22 December 2011 section 191 notice") asking for information for the purposes of resolving the CWW Dispute. On 11 January 2012 CWW responded to this request.
- 3.55 On 18 January and 2 February 2012, we sent CWW some follow-up questions further to CWW's 22 December 2011 section 191 notice so we could fully understand the CWW businesses to which the CWW Dispute relates. On 19 January and 6 February 2012, CWW responded to our follow-up questions.
- 3.56 On 20 January 2012 we sent BT a second section 191 notice (the "20 January 2012 section 191 notice"). We requested this information so we could more fully understand the methodology that BT adopted in calculating the DSACs of the services in dispute, as published in BT's RFS 2010/11. On 27 January 2012, BT responded to this request.
- 3.57 On 24 January 2012 we sent BT a third section 191 notice (the "24 January 2012 section 191 notice"), so that we could fully understand BT's responses of 12 and 18 January 2012 to the 22 December 2011 section 191 notice. BT responded to this notice on 27 January, 3 and 6 February 2012.

The Verizon Dispute

- 3.58 As in the CWW Dispute, we took into account all of the submissions and information that BT provided in relation to the Initial Disputes in reaching our provisional conclusions in relation to the Verizon Dispute. We also used information provided by BT in relation to the CWW Dispute and the information provided in response to the 2012 LLCC Consultation referred to in paragraph 3.52.
- 3.59 On 20 March 2012, we sent Verizon a section 191 notice (the "20 March 2012 section 191 notice") asking for Verizon's internal billing data for the services in dispute for each year of the Verizon Dispute Period. This was to confirm which WES services Verizon bought from BT and over what periods. Verizon responded to this notice on 26 March 2012.

Responses to our Provisional Conclusions

- 3.60 We received responses to the Initial Draft Determinations, the CWW Provisional Determination and the Verizon Provisional Conclusions (collectively referred to as our "Provisional Conclusions") from:
- 3.60.1 Virgin Media on 19 April 2012 ("Virgin's response to our Provisional Conclusions");
- 3.60.2 BT on 20 April 2012 ("BT's response to our Provisional Conclusions")⁵⁴, followed by a confidential spreadsheet supporting its calculations and two files of additional documentation (some of which was confidential and the remainder of which was publicly available);
- 3.60.3 Sky on 20 April 2012 ("Sky's response to our Provisional Conclusions"). Sky and TTG additionally jointly provided us with a report prepared by RGL Forensics (the "Second RGL Report") and a report prepared by Frontier Economics ("the Joint Frontier Report"). Sky also provided a further

⁵⁴ BT subsequently provided a corrected version of this response.

- confidential report prepared for it by RGL Forensics (the "Sky RGL Report");
- 3.60.4 TTG on 20 April 2012 ("TTG's response to our Provisional Conclusions");
- 3.60.5 CWW on 20 April 2012 ("CWW's response to our Provisional Conclusions");
- 3.60.6 Verizon on 20 April 2012 ("Verizon's response to our Provisional Conclusions") and 23 April ("Verizon's response to the Verizon Provisional Conclusions"); and
- 3.60.7 [REDACTED] on 23 April 2012.
- 3.61 We held meetings with BT, at its request, on 29 May and 25 June 2012. BT provided slides at these meetings and further written representations on 3 September 2012 ("BT's 3 September 2012 submission"). We held a meeting with TTG and Sky at their request on 25 June 2012. They provided slides at this meeting.
- 3.62 On 4 May 2012, we provided non-confidential versions of the Disputing CPs' responses to BT and a non-confidential version of BT's response to each of the Disputing CPs. We received additional comments from:
- 3.62.1 BT on 18 May 2012 ("BT's comments on the Disputing CPs' responses");
- 3.62.2 Sky on 18 May 2012 ("Sky's comments on BT's response");
- 3.62.3 Virgin Media on 18 May 2012 ("Virgin's comments on BT's response");
- 3.62.4 Verizon on 18 May 2012 ("Verizon's comments on BT's response");
- 3.62.5 CWW on 21 May 2012 ("CWW's comments on BT's response"); and
- 3.62.6 TTG on 21 May 2012 ("TTG's comments on BT's response")

Comments on the PPC Court of Appeal Judgment

- 3.63 On 11 July 2012, we wrote to the Parties informing them that we considered it appropriate not to issue our final determinations of the Disputes until after the Court of Appeal had handed down its judgment in the PPC appeal and we had had an opportunity to consider its implications for the matters in dispute.
- 3.64 On 6 August 2012, we wrote to the Parties, drawing their attention to the PPC Court of Appeal Judgment and inviting them to consider its impact on their submissions. We received responses from:
- 3.64.1 Verizon on 20 August 2012;
- 3.64.2 TTG on 22 August 2012;
- 3.64.3 CWW and Virgin (jointly) on 23 August 2012;
- 3.64.4 Sky on 24 August 2012; and
- 3.64.5 BT on 24 August 2012.

Section 4

History of BT's cost orientation obligations

- 4.1 This Section sets out the history of BT's cost orientation obligations in relation to Ethernet services.
- 4.2 As set out in detail below:
 - 4.2.1 the cost orientation requirements on BT have been clearly set out in policy statements and guidelines; and
 - 4.2.2 the distributed long run incremental cost ("DLRIC") floors and DSAC ceilings are well established as benchmarks of cost orientation (see Annex 6 for an explanation of these measures).

The development of BT's cost orientation obligations

- 4.3 The concepts of DLRIC and DSAC, and their use as floors and ceilings respectively in a test of BT's compliance with its cost orientation obligations, have a history going back to the mid-1990s.
- 4.4 Prior to October 1997, BT's charges for all of its interconnection services (except for those that were deemed competitive) were set directly by the Office of Telecommunications ("Of tel"). This was done annually, with charges set on the basis of historic cost accounting ("HCA") and on the basis of FAC.

The Network Charge Control consultations

- 4.5 The December 1995 Network charge control ("NCC") consultation⁵⁵ (the "1995 NCC Consultation") started the process of moving away from the use of HCA and FAC methodology. Of tel stated that it was minded to "...move away from detailed control of charges for all interconnection services in every year", and towards a forward looking LRIC standard. This included a system of "floors" and "ceilings" for charges for each "network component", ⁵⁶ so that such charges would be "*limited by ceilings set by reference to stand-alone cost*".⁵⁷
- 4.6 In March 1996, Of tel published a further consultation, in which it refined its approach in relation to the "floors and ceilings" so that the focus was on "services" rather than "components".⁵⁸
- 4.7 In June 1996, Of tel published a consultation entitled *Pricing of Telecommunications Services from 1997: Of tel's proposals for Price Control and Fair Trading* (the "June 1996 Consultation").⁵⁹ The June 1996 Consultation set out the proposed "floors and ceilings" approach and proposed that the burden of proof would lie with BT to

⁵⁵ Pricing of Telecommunications Services from 1997, controls and consultative document on BT's price interconnection charging, December 1995.

http://www.ofcom.org.uk/static/archive/of tel/publications/1995_98/pricing/pri1997/contents.htm

⁵⁶ Services use a combination of components, so the cost of a service is the sum of the cost of the individual components which make up the service.

⁵⁷ Paragraphs 5.1 to 5.4 of the 1995 NCC Consultation.

⁵⁸ Pricing of Telecommunications Services from 1997, second consultative document on BT price controls and interconnection charging, March 1996

http://www.ofcom.org.uk/static/archive/of tel/publications/1995_98/pricing/pri1997a/contents.htm

⁵⁹ Pricing of Telecommunications Services from 1997: Of tel's proposals for Price Control and fair Trading, June 1996

http://www.ofcom.org.uk/static/archive/of tel/publications/1995_98/pricing/pri1997b/contents.htm

demonstrate that its charges were not anti-competitive or unfair if they were above the level of the ceiling. Oftel set out draft amendments to Condition 13 of BT's licence to introduce a cost orientation obligation.⁶⁰

- 4.8 In December 1996, Oftel published a further NCC consultation document. Oftel proposed a more flexible approach to floors and ceilings:

*"Oftel now proposes that floors and ceilings should not be used so deterministically. They will be the main yardsticks which Oftel will use as a first test to consider whether a charge is anti-competitive or not. Other factors will also be considered."*⁶¹

- 4.9 Oftel consulted again in May 1997 (the "May 1997 NCC consultation"), reiterating that floors and ceilings would be used as a first order test⁶²:

*"Oftel proposes to use floors and ceilings as a first test when investigating whether or not a charge is anti-competitive or excessive. Floors and ceilings constitute one type of evidence, but other factors are also important. In assessing the economic effects of any charge it is vital to consider the context of the market in which that charge applies. The relevant economic market must be identified and the nature of competition in that market analysed. The key question is the effect of the charge: floors and ceilings are useful yardsticks, since charges below the floor might typically be expected to be anti-competitive and charges above the ceiling usually excessive, but circumstances may exist in which a charge below the floor is beneficial to customers and has no adverse effect on the competitive process, or a charge above the ceiling may be justified."*⁶³

The 1997 NCC Statement

- 4.10 In July 1997, Oftel published a statement entitled *Network charges from 1997* (the "1997 NCC Statement"). The 1997 NCC Statement noted that BT would be producing:

*"audited LRIC Cost Statements ... that give Oftel and [Other Licensed Operators] the BT floors and ceilings for the components comprised in the Standard Services."*⁶⁴

- 4.11 The 1997 NCC Statement clarified that the use which would be made of such floors and ceilings was to be found in draft guidelines (Annex A of the 1997 NCC Statement) which were intended to:

⁶⁰ Annex D to the June 1996 Consultation.

⁶¹ Network Charges from 1997 – Consultative Document, December 1996:

http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/netcha97/contents.htm, paragraph 1.14.

⁶² BT comments (at footnote 53 of its response to our Provisional Conclusions) that our reference to a "first order test" is incorrect, as the words used in the May 1997 NCC consultation are "first test". The May 1997 NCC consultation refers to a "first order test" in Annex B, paragraph 70 and Appendix III.

⁶³ *Network Charges from 1997, Further consultation on proposals for new charging arrangements*, May 1997 http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/ncctitle.htm, paragraph 6.28. We have amended this quotation from that set out in the Initial Draft Determinations, to re-instate the words "*The key question... yardsticks, since*", which were omitted from it in the Initial Draft Determinations, as BT claims that the omitted words were crucial to its understanding at the time. We respond to this argument at paragraph 4.46.

⁶⁴ http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/ncct797.htm, paragraph 2.28.

*"set out the structure of the controls, how they will operate, and how Oftel will approach investigations of competition issues raised about interconnection charges or other terms and conditions of interconnection."*⁶⁵

Introduction of a cost orientation obligation

- 4.12 On 26 July 1997, European Directive 97/33/EC was published (the "Interconnection Directive").⁶⁶ Article 7(2) of the Interconnection Directive required charges for interconnection made by entities with SMP to be transparent and cost orientated:

"Charges for interconnection shall follow the principles of transparency and cost orientation. The burden of proof that charges are derived from actual costs including a reasonable rate of return on investment shall lie with the organization providing interconnection to its facilities. National regulatory authorities may request an organisation to provide full justification for its interconnection charges, and where appropriate shall require charges to be adjusted."

- 4.13 Articles 7(5) and 8(2) of the Interconnection Directive required National Regulatory Authorities ("NRAs") such as Oftel to ensure that entities with SMP in relevant interconnection markets kept regulatory accounts for the purpose of assessing compliance with the obligations under the Directive.
- 4.14 Oftel had proposed in its NCC consultations that BT would be subject to a cost orientation obligation in respect of interconnection services which were not competitive. On 1 October 1997, BT's licence was amended to include the following cost orientation obligation:

*"The Licensee shall secure, and shall be able to demonstrate to the satisfaction of the Director, that the charges offered, payable or proposed to be offered or payable by an Operator to the Licensee for each Standard Service are reasonably derived from the costs of providing the Service based on a forward looking incremental cost approach (except to the extent the Director considers it appropriate that for a transitional period, or in any particular case, the Licensee apply another cost standard) and related to the amounts applied to the relevant Network Components or Network Parts."*⁶⁷

The Network Charge Control Guidelines

- 4.15 In October 1997, Oftel issued the Network Charge Control Guidelines (the "1997 NCC Guidelines"). Annex C provided guidance to BT on how Oftel would approach the question of BT's compliance with the cost-orientation obligation:

*"Condition 13.4 of BT's Licence requires that the charge for each of BT's standard services be reasonably derived from the forward looking incremental costs of that service ... In the event of a complaint ... a first order test will be whether the charge in question falls between its incremental cost floor and stand-alone cost ceiling. The primary focus of investigation of a complaint under Condition...13.4 [BT's cost orientation condition] will however be the effect of the charge on competition and on consumers. The methodology for deriving floors and ceilings is described in detail at Annex C to these Guidelines."*⁶⁸

⁶⁵ 1997 NCC Statement, paragraph 1.22.

⁶⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31997L0033:EN:HTML>

⁶⁷ Licence condition 69.1.

⁶⁸ http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/ncc1097.htm, paragraph 3.5. We have amended this quotation from that set out in the Initial Draft Determinations, to re-instate

- 4.16 Annex C stated that the “stand alone cost ceiling” would not be the stand alone cost (“SAC”) of an individual component or service, but rather DSAC, being the SAC of the broad increment (as defined in BT’s LRIC model – see paragraphs 5.12 to 5.19 below for more detail), distributed among the services in that increment. Paragraph C.5 stated that:

“The methodology derives floors and ceilings initially in terms of component costs but, to be used as a test for abusive charging, they will be applied to interconnection services (because interconnecting operators purchase services not components).”

- 4.17 The 1997 NCC Guidelines were re-issued in December 2001 (“the 2001 NCC Guidelines”)⁶⁹ and reiterated a first order test using DLRIC and DSAC as the relevant floor and ceiling.⁷⁰

The Common Regulatory Framework

- 4.18 On 25 July 2003, the suite of EU directives known as the Common Regulatory Framework (“CRF”) came into effect, superseding earlier EU instruments regulating electronic communications. Those directives were implemented in the UK via the Act. The CRF comprises five EU communications directives.⁷¹
- 4.19 Article 16 of Directive 2002/21/EC (the “Framework Directive”) requires each NRA to carry out an analysis of the relevant markets; where it determines that a relevant market is not effectively competitive it must identify undertakings with SMP on that market and impose on them appropriate regulatory obligations. These obligations, commonly referred to as “SMP conditions”, include the setting of price controls and basis of charges (cost orientation) obligations. Section 45 of the Act empowers Ofcom to set conditions of various kinds, including SMP conditions.
- 4.20 Article 13(3) of Directive 2002/19/EC (the “Access Directive”) makes clear that (as under the Interconnection Directive) the burden of proof in relation to cost orientation lies on the operator concerned:
- “Where an operator has an obligation regarding cost orientation of its prices, the burden of proof that charges are derived from costs including a reasonable rate of return on investment shall lie with the operator concerned.”*
- 4.21 Ofcom has to date carried out two market reviews that have imposed regulatory obligations on BT in relation to Ethernet products.

the words “*The primary focus... on consumers*” which were omitted from it in the Initial Draft Determinations, in response to BT’s comment that they were “*crucially important*”. See further paragraphs 4.45 to 4.47.

⁶⁹ Guidelines on the operation of the Network Charge Controls from October, December 2001 http://www.ofcom.org.uk/static/archive/oftel/publications/ind_guidelines/pcrg1201.pdf

⁷⁰ We refer to the 1997 NCC Guidelines and the 2001 NCC Guidelines collectively as the “NCC Guidelines”, unless the context requires them to be distinguished.

⁷¹ The Framework Directive (see the footnote to paragraph 2.9 above), Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (the “Access Directive”), Directive 2002/20/EC on the authorisation of electronic communications networks and services (the “Authorisation Directive”), Directive 2002/22/EC on the universal service (the “Universal Service Directive”), and Directive 2002/58/EC on the processing of personal data (the “Privacy and Electronic Communications Directive”).

The 2004 Leased Lines Market Review

- 4.22 On 24 June 2004, Ofcom published a market review of leased lines (the "2004 LLMR Statement")⁷² which set out our analysis and conclusions in relation to leased lines markets (including AISBO services) at that time.
- 4.23 Ofcom concluded that BT had SMP in five markets: four wholesale markets, including the AISBO market (which includes Ethernet services), and one retail market. As a result of these conclusions, Ofcom imposed a number of SMP conditions on BT under section 45 of the Act, including a cost orientation obligation in each of the four wholesale markets.
- 4.24 Conditions HH, which were imposed on BT in the AISBO market at all bandwidths, can be found at Annex D to the 2004 LLMR Statement and include:
- 4.24.1 a requirement to provide Network Access on reasonable request (Condition HH1)⁷³;
 - 4.24.2 a requirement not to unduly discriminate (Condition HH2); and
 - 4.24.3 a basis of charges (cost orientation) obligation (Condition HH3.1), set out in full at paragraph 2.13 above.
- 4.25 We set out the reason we imposed these obligations in the 2004 LLMR Statement:
- "Regulation at the wholesale level is designed to address the problems which result from the existence of SMP in the relevant wholesale market. In particular it is designed to ensure that the SMP at the wholesale level does not restrict or distort competition in the relevant downstream markets or operate against the interests of consumers, for example through excessively high prices."*⁷⁴
- 4.26 Explaining why we were imposing basis of charges obligations, we said:⁷⁵
- "As BT has been identified as having SMP in this market, the availability of wholesale AISBO services at cost oriented prices would help to ensure that the resulting competition in the retail leased lines markets and other downstream markets should lead to lower prices."*
- "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".*
- 4.27 Ofcom considered supplementing the cost orientation obligation with a charge control obligation but concluded at the time that it was not appropriate to do so. Ofcom reasoned that:

⁷² Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets, 24 June 2004:

http://stakeholders.ofcom.org.uk/binaries/consultations/llmr/statement/state_note.pdf.

⁷³ As defined in section 151 of the Act.

⁷⁴ LLMR Statement, paragraph 7.10.

⁷⁵ *ibid.*, paragraphs 7.54 and 7.55.

on the competitiveness of the market before considering whether a price control is necessary. The need for a price control will be considered when the market is next reviewed.”⁷⁶

The 2008 Business Connectivity Market Review

- 4.28 On 8 December 2008, Ofcom published its second review of the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments, publishing its conclusions in a statement (the “2008 BCMR Statement”)^{77 78}.
- 4.29 Ofcom concluded that two separate markets should be defined for AISBO services: a low bandwidth AISBO market for services with bandwidths up to and including 1 Gbit/s and a high bandwidth AISBO market for services with bandwidths above 1 Gbit/s. Ofcom concluded that BT continued to have SMP in the market for low bandwidth AISBO services but that no CP had SMP in the high bandwidth AISBO market.
- 4.30 On this basis, Ofcom imposed a number of SMP conditions on BT in the low bandwidth AISBO market. Conditions HH1, HH2 and HH3.1 were re-imposed on BT, but only in relation to the low bandwidth AISBO market⁷⁹. The wording of Condition HH3.1 remained as set out at paragraph 2.13. Conditions HH are set out at Schedule 4 to Annex 8 of the 2008 BCMR Statement.
- 4.31 Ofcom additionally concluded that it was now appropriate to impose a charge control in relation to low bandwidth AISBO services (Condition HH4), with the terms of the charge control to be set in a separate consultation document.
- 4.32 All BT's BES and WES services were therefore subject to Condition HH3.1 from 2004 until 8 December 2008. From 8 December 2008, only its low bandwidth BES and WES (up to and including 1 Gbit/s) were subject to Condition HH3.1. Of the services listed in Table 7.5, BES 2500, BES 10000 and WES 10000 are high bandwidth services and so they are not subject to Condition HH3.1 from 8 December 2008.

The 2009 Leased Lines Charge Control

- 4.33 The Leased Lines Charge Control consultation (the “2008 LLCC Consultation”)⁸⁰ was published at the same time as the 2008 BCMR Statement and set out proposals as to the scope and form of the new charge controls that should apply to leased line services in light of the conclusions in that statement. The 2008 LLCC Consultation included details of the charge controls proposed on low bandwidth AISBO services.
- 4.34 The charge controls were set in a further statement, published on 2 July 2009 (the “2009 LLCC Statement”)^{81 82}. The 2009 LLCC Statement defines six charge control

⁷⁶ *ibid.* paragraph 7.63.

⁷⁷ <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf>

⁷⁸ The 2008 BCMR Statement followed a consultation in January:

<http://stakeholders.ofcom.org.uk/consultations/bcmr/> (the “2008 BCMR Consultation”).

⁷⁹ From 8 December 2008, BT was no longer subject to SMP conditions in the high bandwidth AISBO market.

⁸⁰ <http://stakeholders.ofcom.org.uk/binaries/consultations/llcc/summary/leasedlines.pdf>

⁸¹ <http://stakeholders.ofcom.org.uk/binaries/consultations/llcc/statement/llccstatement.pdf>

⁸² The 2009 LLCC Statement was appealed to the CAT, which referred certain price control matters to the Competition Commission (“CC”). The CC issued a determination (discussed further in Section 13). This resulted in the CAT directing Ofcom to make a number of changes to the charge control, which led to a revised charge control being published on 14 October 2010

(<http://stakeholders.ofcom.org.uk/binaries/consultations/openreachframework/statement/revisedsmcconditions.pdf>). References to the 2009 LLCC Statement in these Determinations are to the statement as amended.

baskets, of which the alternative interface ("AI") basket is of particular relevance to the issues under consideration in the Disputes. The AI basket contains all BT low bandwidth AISBO services. A charge cap of RPI-7.0% was set on this basket. BT was additionally required to reduce the price of the standard BES 1000 rental service by 17% and introduce this new charge from 1 August 2009.

4.35 The charge controls were put in place because Ofcom considered that, in the absence of competitive pressures, BT would have limited incentives to seek to reduce its costs of providing wholesale leased lines services. The charge control is therefore intended to promote efficiency in the costs of providing wholesale services by requiring BT not to increase its charges by more than a fixed amount each year. We also considered that the charge controls were appropriate to ensure sustainable competition and conferring the greatest possible benefits on users of public electronic communication services, as there was a sufficient risk that BT might fix or maintain some or all of its prices at an excessively high level. We took into account the need to ensure that BT has the correct incentives to invest and innovate.

4.36 Condition HH3.2, imposed in the 2008 BCMR Statement, provides:

"For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition HH1 is for a service which is subject to a charge control under Condition HH4, 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 HH3.1."

4.37 Para 3.49 of the 2009 LLCC Statement states:

"We do not think reliance on cost orientation would be sufficient ex-ante remedy on its own, as it is intended to complement rather than replace price cap regulation. The absence of price caps would be likely to allow BT to raise its prices significantly. In addition, a cost orientation obligation only looks at the relationship of BT's prices to its costs. A cost orientation obligation would not for example give BT's [sic] the same incentives to keep its costs under control in the same way that [a] price cap would."

The 2012 Business Connectivity Market Review and the 2012 Leased Lines Charge Control

4.38 Ofcom is undertaking a further review of the markets for retail leased lines, symmetric broadband origination and wholesale trunk segments, pursuant to its obligations under the CRF. On 18 June 2012, we published a consultation identifying concerns about the extent of competition in the provision of leased lines in the UK and proposing measures to address those concerns (the "2012 BCMR consultation")⁸³. We published a further consultation, revising some of our proposals on 15 November 2012.⁸⁴

4.39 On 5 July 2012, we published the 2012 LLCC consultation, which set out specific proposals for new charge controls for certain leased line services⁸⁵.

⁸³ <http://stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/summary>.

⁸⁴ http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-reconsultation/summary/BCMR_Nov_2012.pdf

⁸⁵ <http://stakeholders.ofcom.org.uk/consultations/llcc-2012/summary>.

Conclusion on the development of BT's cost orientation obligations

- 4.40 The requirements on BT relating to cost orientation have been set out clearly in a number of policy consultations, statements and guidelines made by both Of tel and Of com. These various statements have established DLRIC floors and DSAC ceilings as well understood benchmarks of cost orientation. This is intended to achieve a balance between regulatory certainty for all CPs and flexibility for BT. This approach is well understood by BT and industry.

Views of the Parties

- 4.41 BT comments in its response to our Provisional Conclusions that this history does not reflect *"the way that Ofcom's approach to cost orientation has developed over time"*.⁸⁶ It claims that it contains *"many inaccuracies."*⁸⁷ However, BT gives just one example of an alleged inaccuracy, arguing that the quotation taken from the May 1997 NCC consultation omitted *"the most important point"* (see paragraph 4.9 above).
- 4.42 BT also considers that Ofcom *"fails to set out crucially important parts of the 1997 Guidelines."* It refers in particular to statements in the 1997 NCC Guidelines to the effect that:⁸⁸
- 4.42.1 investigations into complaints about charges would focus on *"the effect or likely effect of the charge on competition and on consumers"*⁸⁹;
 - 4.42.2 in investigating complaints about charges, the DLRIC floors and DSAC ceilings test should not be applied *"mechanistically"* and there *"may be circumstances in which charges set out side the bands of floors and ceilings are not abusive, or charges set within the band are abusive"*⁹⁰;
 - 4.42.3 for DLRIC floors and DSAC ceilings to *"be used as a test for abusive charging, they will be applied to interconnection services (because interconnecting operators purchase services not components)"*⁹¹; and
 - 4.42.4 looking at cost information on the basis of interconnection services as increments involves a *"degree of further complexity beyond the scope of the incremental costs methodology developed so far because the incremental cost of services would depend not on the total incremental costs of the components, but on the shape of the cost function for each component"*⁹².

⁸⁶ BT's response to our Provisional Conclusions, paragraph 46.

⁸⁷ BT's response to our Provisional Conclusions, paragraph 47.

⁸⁸ BT's response to our Provisional Conclusions, paragraph 50.

⁸⁹ 1997 NCC Guidelines, paragraph 3.5 and Annex C, paragraph C.2.

⁹⁰ *ibid.*, Annex C, paragraph C.2.

⁹¹ *ibid.*, Annex C, paragraph C.5.

⁹² *ibid.*, Annex C, paragraph C.18.

4.43 TTG comments that it “*agrees with Ofcom’s analysis of the history of BT’s cost orientation obligations and that the various statements referred to by Ofcom have established a role for DLRIC and DSAC costs*”.⁹³

4.44 The Disputing CPs did not otherwise comment on this history.

Our analysis

4.45 We consider it remains useful to present the consultations and statements published by Oftel and Ofcom, which are relevant to the issues raised by these Disputes.

4.46 In response to BT’s example of an inaccuracy, we have included the full quotation from the May 1997 NCC consultation at paragraph 4.9 of this document. However, we do not consider that the words previously omitted alter the relevance of the quotation. We have also included the full quotation from the 1997 NCC Guidelines at paragraph 4.15.

4.47 We address BT’s comments in relation to the extent of the guidance on cost orientation provided by Ofcom later on in this document (paragraphs 10.146 to 10.167).

⁹³ TTG’s response to our Provisional Conclusions, paragraph 6.9.

Section 5

BT's regulatory financial reporting obligations and BT's LRIC model

History of BT's regulatory financial reporting obligations

- 5.1 The reporting of financial data is a key regulatory requirement intended to ensure that BT complies with its cost orientation obligations. BT was first required to publish financial information in 1998, following publication of the 1997 NCC Statement and the 1997 NCC Guidelines, with the aim of allowing Ofcom to monitor BT's performance against the NCC. The 1997 NCC Statement confirmed that BT would have to produce:

"audited LRIC Cost Statements ... that give Oftel and [Other Licensed Operators] the BT floors and ceilings for the components comprised in the Standard Services" (paragraph 2.28).

- 5.2 The 1997 NCC Guidelines set out the financial information BT was required to publish:

"BT is required to publish:

- Statements of incremental costs for the Network Business for 1997/8 by 30 November '98, for 1998/9 by 31 August '99, and thereafter by 31 July each year. These will show the attribution of costs to each network component and part, a matrix of interconnection components (showing the make-up from cost categories), and provide incremental cost floors and stand-alone cost ceilings for all services in the call termination, general network, and interconnection specific baskets and for those subject to RPI+0% safeguard caps.*
- CCA FAC statements annually. These are to be published each year at the same time as the LRIC Statements (for 1996/7 and 1997/8 though, CCA accounts will be published by 30 September whereas LRIC was required by 30 November as set out above).*
- HCA FAC statements until the year 1998/9. HCA FAC accounts will then be discontinued."*⁹⁴⁹⁵

- 5.3 Oftel further set out BT's reporting obligations and their purpose in the 2001 NCC Guidelines:

"BT is required to prepare and publish financial information for interconnection services unless Oftel is satisfied that it is not a proportionate obligation for it to require this level of cost and charge information. BT has to publish financial information to enable: a) the industry to view actual long run incremental, current and stand alone costs and charges for interconnection services and the components making up these services; and b) to provide transparency in the calculation of interconnection charges so that other market players are in a position to ascertain that these charges have been fairly and properly calculated.

⁹⁴ 1997 NCC Guidelines, paragraph 3.22.

⁹⁵ CCA refers to Current Cost Accounting, which is explained in Annex 6.

The financial information also helps to enable Oftel to make determinations on specific charges or in assessing whether BT has breached competition rules.”⁹⁶

- 5.4 The 2004 LLMR Statement proposed the imposition on BT of additional cost accounting and accounting separation obligations to allow for monitoring of compliance with the SMP cost orientation obligations imposed on BT in certain markets including the AISBO market:

“[...] In particular, obligations of cost orientation, price controls and non discrimination can require the imposition of financial reporting regimes to monitor dominant providers’ compliance with these obligations [...]”⁹⁷

“Given the imposition of LRIC with an appropriate mark-up for the recovery of common costs on both BT and Kingston, and a charge control for BT, Ofcom is proposing that BT and Kingston should maintain appropriate cost accounting systems, that demonstrate that the obligations of cost orientation and (for BT) the charge control are being met. This will enable Ofcom to monitor compliance with those obligations”⁹⁸.

“In order to demonstrate cost orientation of a service or product, it is necessary for the dominant provider to establish cost accounting systems that capture, identify, value and attribute relevant costs to its services and products in accordance with agreed regulatory accounting principles, such as cost causality. A key part of this process is the stage which identifies those parts of the underlying activities or elements that directly support or are consumed by those services or products. These elements are referred to as network components. As these components are frequently used to provide more than one product or service, it is also necessary to determine how much of each component is used for each service or product that should be cost-orientated. The service/product costing methodology applies the utilisation of these components (which are characterised by common usage measures) to the appropriate service product.”⁹⁹

- 5.5 The reporting obligations proposed in the 2004 LLMR Statement were imposed on 22 July 2004 in *The Regulatory Financial Reporting obligations on BT and Kingston Communications final statement and notification* (the “2004 Financial Reporting Notification”)¹⁰⁰. BT is obliged annually to provide to Ofcom and to publish detailed financial statements in accordance with the conditions set out in that statement. We refer to these documents as BT’s RFS (Regulatory Financial Statements). The RFS set out, among other data, the revenues, volumes, FAC, DLRIC and DSAC for services that are subject to cost orientation conditions. They are published after the end of the financial year to which they relate.¹⁰¹ So, for example, the 2008/09 RFS set out each of these measurements separately for BES 100 rentals for that year; they also set them out separately for BES 100 connections for that year.
- 5.6 BT also produces Additional Financial Statements (“AFS”), which give a breakdown of the published accounts information by individual service, which the RFS do not. BT does not publish the AFS but provides them to Ofcom on a confidential basis.

⁹⁶ 2001 NCC Guidelines, paragraph 3.17.

⁹⁷ 2004 LLMR Statement, paragraph 10.1.

⁹⁸ 2004 LLMR Statement, paragraph 10.10.

⁹⁹ 2004 LLMR Statement, paragraph 10.13.

¹⁰⁰ http://stakeholders.ofcom.org.uk/binaries/consultations/fin_reporting/statement/finance_report.pdf

¹⁰¹ SMP Condition OA6, set in the 2004 Financial Reporting Notification, requires that the RFS are published within four months of the end of the period to which they relate.

- 5.7 Each year, Ofcom reviews the detailed reporting requirements with BT in the light of regulatory developments in the year. Ofcom consults on any changes or updates to be adopted in the forthcoming RFS for that year, in advance of BT preparing the year end regulatory accounts. Ofcom's review does not involve an assessment of whether charges are cost orientated.

Aggregation in published RFS

- 5.8 Within the published RFS, BT reports unit volumes, average charges, unit FACs, unit DSACs and unit DLRICs for a range of services. Data for the services in dispute has been reported on an increasingly disaggregated basis (such as by bandwidth) over the Relevant Period, as set out in Table 5.1.

Table 5.1: Level of service aggregation in published RFS

Year	Services
2004/05 ¹⁰²	Short Haul Data Services (SHDS) only (i.e. aggregation at the market level)
2005/06	Wholesale and LAN Extension services in aggregate
	BES in aggregate ¹⁰³
	No split by bandwidth, or by rental, connection and main link
2006/07	For each BES bandwidth – with rental and connection services listed separately
	For each WES/WEES ¹⁰⁴ bandwidth – with rental and connection services listed separately
	Main link data was aggregated with rental services
	BES services listed 100Mbit/s, 1000Mbit/s and "Other" bandwidths
	WES services listed 10Mbit/s, 100Mbit/s, 1000Mbit/s and "Other" bandwidths
2007/08	As in 2006/07, but main link services were reported separately from rental services

Source: Ofcom based on published RFS in each year

- 5.9 For the purposes of reporting financial data in its published RFS, Ofcom confirmed in a 2005 statement on '*Changes to BT's regulatory financial reporting framework*' (the "2005 financial reporting statement") that BT could merge some "*low value services*" where operating costs are typically less than £10 million per annum.¹⁰⁵ As stated in our Provisional Conclusions, Ofcom made clear that this was permitted in order to reduce the resource burden on BT¹⁰⁶.

¹⁰² We do not consider that any services were in dispute in this year.

¹⁰³ The total revenue associated with these services was only around £6 million.

¹⁰⁴ WEES are Wholesale End to End Services, see Annex 6 for more detail.

¹⁰⁵ Paragraph 6.3, *Changes to BT's regulatory financial reporting framework – Final Statement and Notification*, 31 August 2005:

<http://stakeholders.ofcom.org.uk/binaries/consultations/regfinch/statement/statement.pdf>

¹⁰⁶ *ibid.*, paragraph 6.4. In our Provisional Conclusions we referred to paragraph 6.8 of the consultation which preceded the 2005 financial reporting statement ("*Proposed changes to BT's regulatory financial reporting framework*" – Regulatory reporting May 2005 – the "May 2005 consultation") <http://stakeholders.ofcom.org.uk/binaries/consultations/regfinch/summary/regfinch.pdf>.

- 5.10 If BT was required to report the revenue, DSAC, DLRIC and FAC associated with every single charge listed in its price list, the cost accounting obligation could lead to reporting of items which are not material for the purposes of the RFS. In setting reporting requirements we have therefore sought to strike a balance, requiring BT to publish the information needed by Ofcom and by other CPs but *“avoid[ing] undue emphasis or excessive analysis effort on immaterial activities”*.¹⁰⁷
- 5.11 However, BT must be able to demonstrate to our satisfaction that those charges covered by a cost orientation obligation are compliant with that obligation. The fact that BT is not required to publish the information to demonstrate this in its RFS does not mean it is not required to be able to provide this information if asked.¹⁰⁸

The application by BT of its LRIC model since 1997

- 5.12 BT has therefore had to comply with its regulatory financial reporting obligations since 1997 and take responsibility for setting its own prices, subject to the requirement that they comply with any charge controls imposed and that they be cost orientated. The RFS provide Ofcom and CPs with data that they can use to assess whether BT is setting charges which are cost orientated.
- 5.13 As part of this compliance process, BT adopted a model (“BT’s LRIC model”) to calculate the costs of providing services in many different markets in relation to which BT has SMP obligations, for example in the fixed call termination market. BT’s LRIC model has been used as the basis for identifying its view of its incremental costs of providing services and identifying how common costs have been apportioned between different services to derive DLRIC and DSAC information and forms an important input into the RFS. Section 12 explains the historic and ongoing function of BT’s LRIC model and addresses BT’s arguments around the validity of its model and the resulting DSACs.

Regulatory use of BT’s LRIC model

- 5.14 The RFS, which reflect the outputs from BT’s LRIC model, have been:
- 5.14.1 used by Ofcom when setting charge controls and carrying out assessments of compliance with cost orientation obligations;
 - 5.14.2 relied on by Ofcom and parties in appeals in relation to our decisions on these matters and accepted by the CAT (for example, the PPC appeal); and
 - 5.14.3 the Competition Commission (“CC”) when determining price control matters arising in appeals of charge controls set by Ofcom.
- 5.15 Ofcom has imposed cost orientation and financial reporting obligations on BT in relation to a number of markets. We have noted above that one role of financial reporting obligations is for BT to demonstrate the cost orientation of its prices (see paragraph 5.4). In each of these markets an SMP condition applies which contains a cost orientation obligation which is worded in a similar way to the SMP obligation in this case.

¹⁰⁷ Paragraph 6.10 of the May 2005 consultation.

¹⁰⁸ We discuss the availability of data not published in the RFS in Section 13.

- 5.16 In the PPC Judgment the CAT commented that one of the purposes of regulatory financial statements is to ensure that the appropriate data is published to enable compliance with SMP conditions to be monitored.¹⁰⁹
- 5.17 BT's charges which are subject to cost orientation obligations have been paid by CPs over many years (including by the customers in this case who have been purchasing services which are the subject of the Disputes over a five year period).
- 5.18 Other customers have purchased other services which are the subject of cost orientation SMP obligations in markets which include the AISBO market and are covered by BT's LRIC model. Because the LRIC model distributes costs across a number of services which are subject to a cost orientation obligation, any change in that distribution of costs to Ethernet products has the potential to have material consequential effects on the costs of those other regulated services.
- 5.19 The RFS (which use the outputs of BT's LRIC model) have been relied on by BT in disputes and in responding to consultation documents.

Views of the Parties

- 5.20 BT argues that Ofcom was wrong in its provisional conclusion that BT is required to be able to provide disaggregated data if required, despite being permitted to publish more aggregated data in its RFS. BT notes that we quoted from a consultation document¹¹⁰ which explained that BT was required *"to retain data at a service level and make this available to Ofcom"*. BT argues that this wording *"did not continue through into the resulting statement and Ofcom has not imposed on BT an obligation to have available information at a more granular level than that required to be published in the RFS"*.¹¹¹ BT argues that this is inconsistent with Ofcom's previous practice: *"for example [...] as Ofcom considered it would be disproportionate [in the 2009 LLCC Statement] to require detailed RFS reporting, it must follow that Ofcom also considered it disproportionate to have required the same detailed exercise to be carried out in relation to cost orientation"*¹¹².

Our analysis

- 5.21 We accept that the quotation BT refers to (see paragraph 5.20) was taken from a consultation, rather than a final statement. However, the financial reporting consultation and subsequent statement primarily relate to BT's obligations in relation to the publication of financial information. The quotation taken from the consultation drew the distinction between the data BT is required to publish and its more detailed financial information, which it provides to Ofcom in its AFS or on request. We also note that neither the consultation nor the final statement can take away from the obligation set out in Condition HH3.1, which requires BT to be able to demonstrate to Ofcom's satisfaction that each and every one of its charges is cost orientated (as discussed in Section 8).

¹⁰⁹ PPC Judgment, paragraph 161.

¹¹⁰ Paragraph 6.8 of "Proposed changes to BT's regulatory financial reporting framework" – Regulatory reporting May 2005

<http://stakeholders.ofcom.org.uk/binaries/consultations/regfinch/summary/regfinch.pdf>

¹¹¹ BT's response to our Provisional Conclusions, paragraph 13.

¹¹² BT's response to our Provisional Conclusions, paragraph 15.3.

Section 6

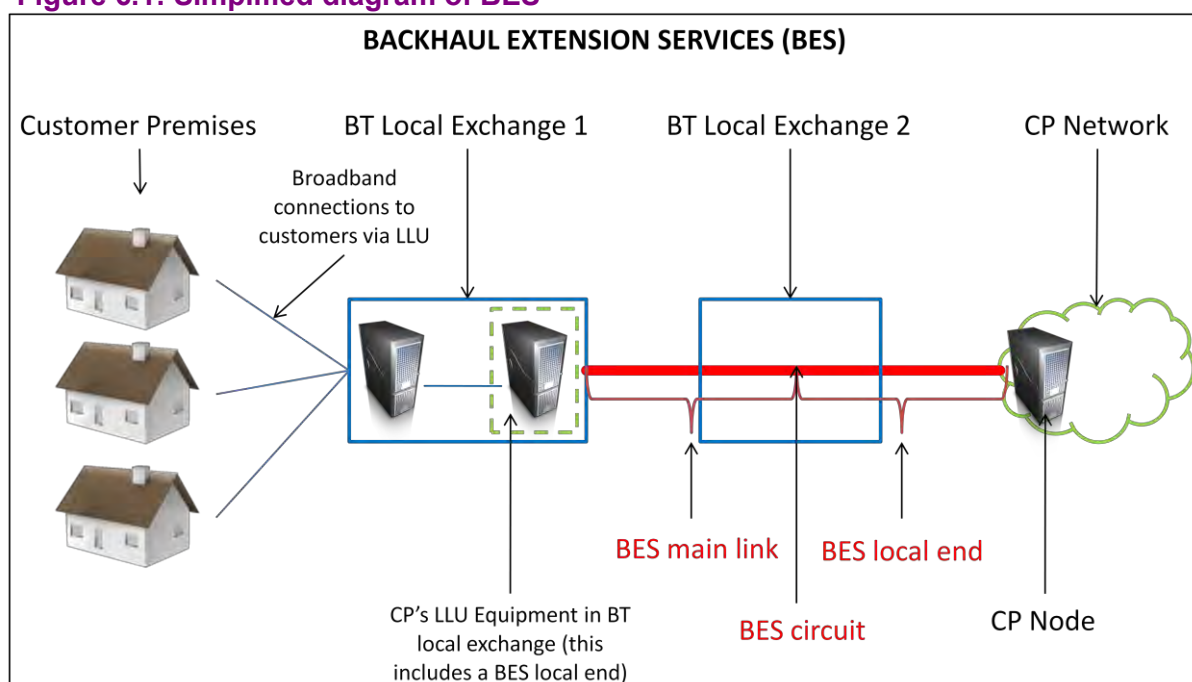
Wholesale Ethernet products

- 6.1 AISBO is a form of broadband origination providing symmetric capacity between two sites. Services based on AISBO can be used to carry many types of data.
- 6.2 Wholesale Ethernet products, which use AISBO, provide high bandwidth data connectivity over BT's network. BT supplies wholesale Ethernet products through its Openreach division to other CPs who use them to connect different parts of their own networks and to supply high bandwidth data connectivity to their business and residential customers.
- 6.3 BT provides a large number of different types of Ethernet products. These Disputes are about two particular types: BES and WES, which were purchased by the Disputing CPs during the Relevant Period¹¹³.

Backhaul Extension Services (BES)

- 6.4 BES are data circuits that run between a BT exchange and a CP's network. They are used by Local Loop Unbundling ("LLU") operators to connect the equipment they have installed in BT's local exchange to their own core network, thereby allowing them to provide telephony and/or broadband services to their customers. A simplified diagram is shown in Figure 6.1.

Figure 6.1: Simplified diagram of BES



- 6.5 As shown in Figure 6.1, a CP providing telephony and/or broadband to its customers using LLU needs to place its own equipment in the BT local exchange that serves

¹¹³ We note for completeness that there is now no new supply of BES and WES, although CPs continue to rent existing circuits. BES has been replaced by a next generation product called Ethernet Backhaul Direct ("EBD") and WES has been replaced by a next generation product called Ethernet Access Direct ("EAD").

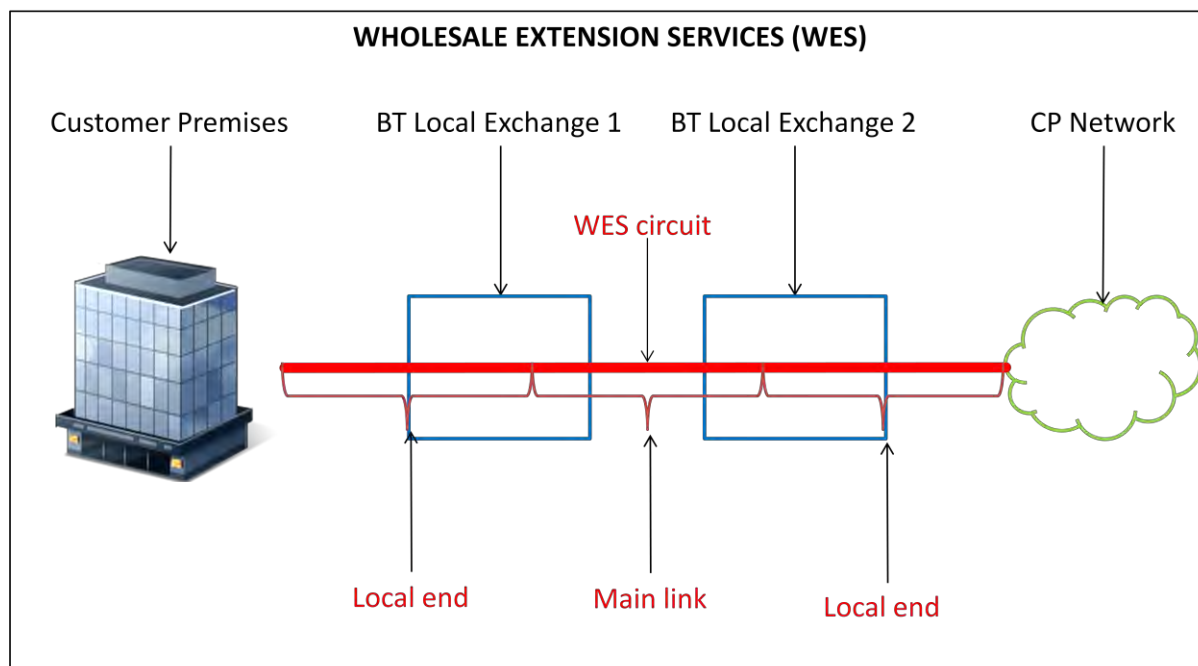
those customers. CPs need to connect this equipment to their core network but do not necessarily maintain direct connections between their core network and every BT local exchange.

- 6.6 As can be seen in the diagram, BES services can consist of “local ends” and “main links”. Local ends are used to connect a CP’s equipment in a BT local exchange to the CP’s core network, whereas a main link is required when the BES circuit passes between two BT local exchanges.
- 6.7 When a CP is providing LLU services from a BT local exchange where it already has a direct connection to its core network (i.e. BT Local Exchange 2 in the diagram), the CP will not require a main link. Where a BES circuit is routed through a second BT local exchange (as in the diagram), the CP will require a main link in addition to two local ends.
- 6.8 BES can be provided in different bandwidths starting from 10 Mbit/s, and are referred to by bandwidth, e.g. “BES 10” for 10 Mbit/s, “BES 100” for 100 Mbit/s etc.

Wholesale Extension Services (WES)

- 6.9 WES are used by CPs to provide a dedicated fibre optic high bandwidth data circuit between their customers’ premises and their own network via BT’s network. Unlike BES, WES services provide high bandwidth data connectivity directly to the CP’s customer’s premises, as shown in Figure 6.2 below.

Figure 6.2: Simplified diagram of WES



- 6.10 As shown in Figure 6.2, WES services also consist of “local ends” and a “main link”. The local end is used to connect a customer’s premises to a BT local exchange, whereas main link is used to connect that BT local exchange with another BT local exchange where the CP interconnects with BT.
- 6.11 As with BES, where the customer’s premises and the CP network are connected to the same BT local exchange, the CP will only require two local ends and will not require a main link.

- 6.12 Like BES, WES can be provided in different bandwidths starting from 10 Mbit/s, and are referred to by bandwidth, e.g. "WES 10" for 10 Mbit/s, "WES 100" for 100 Mbit/s etc.

Variants

- 6.13 BES and WES are sold in different variants, including 'extended reach', 'term' and 'daisy chain' variants, in addition to the 'standard' service:
- 6.13.1 BES (but not WES) are available in a 'term' variant, whereby BES are available for a 36 or 60 month minimum period, as opposed to the standard twelve month minimum period.
 - 6.13.2 All of the services are limited in the distance they can cover, with the basic limit being a 25km radius from the end point of the circuit. BES 1000 and WES 1000 services both have an 'extended reach' variant that can increase the distance covered to 35km.
 - 6.13.3 BES services are available in a 'daisy chain' variant, whereby a link can be provided between two exchanges containing the CP's own equipment (as distinct from the standard BES, which provides a link between an exchange containing the CP's own equipment and the CP's own network). The 'daisy chain' variant may be combined with the 'extended reach' and 'term' variants.
 - 6.13.4 WES services are available in a 'local access' variant ("WES Local Access"), whereby access is only provided as far as the serving exchange. As this is the only exchange involved, no main link is provided.

Charges for WES and BES products

- 6.14 BT's charges for main link, connection and rental services for both BES and WES, at different bandwidths, have been set out individually in the Openreach Price List ("OPL") throughout the Relevant Period, e.g. separate WES 100 rental charges and WES 100 connection charges are listed. The OPL is a publicly available document on the Openreach website.¹¹⁴
- 6.15 For each local end, BT levies a connection charge and a rental charge. The connection charge is set on a 'per unit' basis for each local end, so that a circuit with two local ends will incur two one-off connection charges. In other words, there is a charge for the "end" of the circuit which connects to the CP's network and another charge for the other "end" of the circuit which arrives at the local BT exchange (for BES) or the CP's customer's premises (for WES). BT's customer, having paid the connection charge at the start of the service provision, does not have to pay a further connection charge in subsequent years as the circuit is already connected.
- 6.16 Each local end also attracts a rental charge. However, unlike connection charges, the per unit rental charge is a periodic charge. While the one-off connection charge is

¹¹⁴ The OPL price list for BES is available at:

<http://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=K9Cqp01UhnAMs22R9huCHWVvGaJZjqBmLZgtNRLERaGoIMnGHsqdC0vzO163bJmh34D91D7M0q8u%2F%0AIIsgtIFAKw%3D%3D>

The OPL price list for WES is available at:

<http://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=bj1iaqV2rmVhUxhJRV2ltZ6l6oCf3ew2ZeuZm4VRqG0IMnGHsqdC0vzO163bJmh34D91D7M0q8u%2F%0AIIsgtIFAKw%3D%3D>

levied up front, charges for rentals are generally billed quarterly in advance (although monthly billing is available).

- 6.17 There is no connection charge for main link. The 'per unit' charge for main link rental is a charge per metre (usually charged annually). This is in contrast to the prices of local end connections and rentals, which do not fluctuate with distance from the BT local exchange.
- 6.18 The OPL also lists separate charges for different variants of the services, including separate charges for different combinations of variants (for example, BES 1000 can be purchased using any combination of the 'term', 'extended reach' and 'daisy chain' variants and separate charges are set out in the OPL for each of these combinations).
- 6.19 BT's standard terms for BES and WES services are for a minimum period of twelve months. As noted at paragraph 6.13.1, longer minimum periods of 36 or 60 months are also available for BES services.
- 6.20 In addition to the publicly available pricing information in the OPL, BT has provided billing data, which shows revenues per customer for external sales of BES and WES. The Disputing CPs have also provided information regarding the amounts they paid for each service.

Views of the Parties

- 6.21 We did not receive any substantive comments from the Parties on this Section. However, CWW noted that "*a proportion of the WES and BES circuit base will have been circuits migrated from the retail LES product and therefore would not have involved the purchase of a WES or BES connection service i.e. when the circuits migrated only rental was payable under the new wholesale basis.*"¹¹⁵

Our analysis

- 6.22 Prior to the introduction of WES and BES, BT did not supply wholesale Ethernet products. However, it sold a retail product called LAN Extension Services ("LES") which enabled the connection of two Local Area Networks. Although BT supplied LES as a retail product, it was acquired by some CPs to fulfil the function which was later fulfilled by WES and BES. We address the point raised by CWW about migrations from LES in Section 8.

¹¹⁵ CWW's comments on BT's response, paragraph 25.

Section 7

Services in dispute

Introduction

- 7.1 For the purposes of resolving the Disputes we first consider which services are in dispute between the Parties.
- 7.2 In our Provisional Conclusions, we considered the evidence supplied by the Parties in support of their claims that they had purchased the services in dispute and had been overcharged for those services. We provisionally concluded that we should investigate in greater detail whether BT has overcharged the Disputing CPs for the services set out in Tables 7.1 to 7.4 in the years identified, which are summarised in Table 7.5.

Table 7.1: Services to be investigated for overcharging – Sky and TTG

	04/05	05/06	06/07	07/08	08/09	09/10*
BES 100 rental		X	X	X	X	X
BES 1000 rental		X	X	X	X	X
BES 100 connection		X	X	X	X	X
BES 1000 connection		X	X	X	X	X
WES 10 rental						
WES 100 rental						
WES 1000 rental						
Main link rental (for BES)			X	X	X	X

X indicates Sky and TTG claim that service overcharged in that year.

** 2009/10 from 1 Apr 2009 to 31 Jul 2009*

Source: Annex 1 of Sky and TTG's Joint Dispute Submission

Table 7.2: Services to be investigated for overcharging – Virgin

	04/05	05/06	06/07	07/08	08/09	09/10
BES 100 rental			X	X	X	
BES 1000 rental			X	X	X	
BES 100 connection				X	X	
BES 1000 connection						
WES 10 rental					X	
WES 100 rental			X	X	X	
WES 1000 rental			X	X	X	

X indicates Virgin claims that service overcharged in that year.

Source: Paragraphs 20 and 24 of the Virgin Dispute Submission and response to its 24 March 2011 section 191 notice.

Table 7.3: Services to be investigated for overcharging – CWW

	06/07	07/08	08/09	09/10	10/11
BES 100 rental	X	X	X	X	X
BES 1000 rental	X	X	X	X	X
BES 1000ER rental*		X	X	X	X
BES 155 rental	X	X	X	X	X
BES 622 rental	X	X	X	X	X
BES 2500 rental			X		
BES 10000 rental			X		
BES 100 connection	X	X	X		
WES 100 rental	X	X	X	X	X
WES 1000 rental	X	X	X	X	X
WES 1000ER rental*	X	X	X	X	X
WES 155 rental	X	X	X	X	X
WES 622 rental	X	X	X	X	X
WES 10000 rental		X	X		

X indicates CWW claims that service overcharged in that year.

*ER = Extended Reach, a variant of BES 1000 rental and WES 1000 rental.

Source: CWW's response to question 1 of CWW's 22 December 2011 section 191 notice

Table 7.4: Services to be investigated for overcharging – Verizon

	06/07	07/08	08/09	09/10	10/11
WES 10 rental*	X	X	X	X	X
WES 100 rental**	X	X	X	X	X
WES 1000 rental***	X	X	X	X	X

X indicates Verizon claims that service overcharged in that year.

* includes WEES10, Local Reach and Managed variants

** includes WEES100

*** includes WEES1000 LAN/SAN and Extended Reach variants

Source: Verizon's response to the 20 March 2012 section 191 notice.

Table 7.5: Summary of the disputed services

	04/05	05/06	06/07	07/08	08/09	09/10*	10/11
BES 100 rental		ST	STVgC	STVgC	STVgC	STC	C
BES 1000 rental**		ST	STVgC	STVgC	STVgC	STC	C
BES 155 rental			C	C	C	C	C
BES 622 rental			C	C	C	C	C
BES 2500 rental					C		
BES 10000 rental					C		
BES 100 connection		ST	STC	STVgC	STVgC	ST	
BES 1000 connection		ST	ST	ST	ST	ST	
WES 10 rental			Vz	Vz	VgVz	Vz	Vz
WES 100 rental			VgCVz	VgCVz	VgCVz	CVz	CVz
WES 1000 rental***			VgCVz	VgCVz	VgCVz	CVz	CVz
WES 155 rental			C	C	C	C	C
WES 622 rental			C	C	C	C	C
WES 10000 rental				C	C		
Main link rental (for BES)			ST	ST	ST	ST	

S=Sky, T=TTG, Vg=Virgin, C=CWW, Vz=Verizon.

* In 2009/10, Sky and TTG are only in dispute with BT from 1 Apr 2009 to 31 Jul 2009; CWW and Verizon are in dispute with BT for the whole of 2009/10.

** Including BES 1000ER rental

*** Including WES 1000ER rental

- 7.3 All of the services set out in Table 7.5 were subject to Condition HH3.1 from 2004 until 8 December 2008. From 8 December 2008, only its low bandwidth BES and WES (up to and including 1 Gbit/s) were subject to Condition HH3.1. Of the services listed in Table 7.5, BES2500, BES10000 and WES10000 are high bandwidth services and so they are not subject to Condition HH3.1 from 8 December 2008 (see paragraphs 4.28 to 4.30 above).

Responses to our Provisional Conclusions

Disputing CPs' comments

- 7.4 A number of Disputing CPs argued that we should expand the list of services under consideration:
- 7.4.1 Sky does not agree with our provisional approach in relation to BES 10000 services, arguing that we were wrong to find that it had provided "*no specific data*" in relation to those services¹¹⁶ and consequently that there is no dispute between Sky and BT for those services. Sky argues that it provided us with sufficient information to conclude that Sky is in dispute with BT about BES 10000 services and has provided us with additional information which it considers shows that they were in dispute;¹¹⁷
- 7.4.2 Virgin agrees that it is in dispute with BT in relation to the services identified in Table 7.2, but argues that we should resolve the Disputes on the basis that the time period during which it was overcharged by BT extends to cover 1 April 2009 to 31 March 2011. Virgin argues that it would be disproportionate for Ofcom to require it to refer a subsequent dispute for this period, noting that we found that Verizon and BT were in dispute for a period additional to that specified in Verizon's initial dispute submission;¹¹⁸ and
- 7.4.3 CWW notes that we provisionally found overcharging in our Draft Determinations of the Initial Disputes in relation to services which CWW purchased, but had not included in its original Dispute submission, namely WES 10 rentals in 2008/09 and BES 1000 connections in 2006/07. It argues that we should extend our findings to conclude that CWW was overcharged for these service/year combinations despite the fact that overcharging for these services was not identified until after the referral was submitted, particularly in view of the broad scope of the CWW Dispute. CWW relies on the *TRD* judgment¹¹⁹ to argue that Ofcom is not bound by the dispute as referred to it by the parties. It considers that it would be disproportionate for Ofcom to require CWW to refer new disputes to Ofcom in respect of these services for these periods;¹²⁰ and
- 7.4.4 Verizon expresses concern that our provisional findings were not stated to be binding on BT in relation to CPs who are not parties to these Disputes.¹²¹

¹¹⁶ Paragraph 7.16 of the Initial Draft Determinations.

¹¹⁷ Sky's response to our Provisional Conclusions, paragraph 21.

¹¹⁸ Virgin's response to our Provisional Conclusions, paragraphs 3.1 to 3.12.

¹¹⁹ The judgment of the CAT in the Termination Rates Dispute case, *T-Mobile (UK) Ltd v Office of Communications* [2008] CAT 12.

¹²⁰ CWW's response to our Provisional Conclusions, paragraphs 17 to 22.

¹²¹ Verizon's response to our Provisional Conclusions, paragraphs 6 to 9.

BT's comments

- 7.5 BT agrees with our provisional approach in relation to BES 10000 as set out in the Initial Draft Determinations¹²², on the basis that the Joint Dispute Submission only contained “*cursory and obscure*” references to BES 10000. It considers that it is unfair to expect Ofcom “*to find and collate material to try and work out what is in dispute*” and it “*is grossly and procedurally unfair to BT*”.¹²³
- 7.6 BT did not otherwise comment on our provisional identification of the services in dispute. However, in its comments on the Disputing CPs' responses, it said:

*“for the purposes of the products in dispute in these Disputes only, and for reasons of pragmatism and to avoid the difficulties already caused by multiple disputes covering the same issues, BT is content, subject to the Disputing CPs agreeing to repay BT should any subsequent CAT or Court Judgment have the effect of setting aside or nullifying Ofcom’s Final Determinations, to treat any of the Disputing CPs’ additional claims, in the same way as the services in dispute are determined.”*¹²⁴

Ofcom's conclusions

- 7.7 We consider that the scope of the Initial Disputes and the scope of the CWW Dispute were both drafted in a manner which could potentially capture any BES or WES service which was in dispute between the parties. There is therefore no reason why the scope of either dispute, as drafted, should necessarily exclude consideration of WES 10 rentals in 2008/09, BES 1000 connections in 2006/07 or BES 10000 services in any year. We also acknowledge CWW's comment that the *TRD* judgment suggests that Ofcom is not bound by the dispute as referred to it by the parties, but may consider other matters in light of our overall regulatory remit.
- 7.8 That said, we consider for the following reasons that it is appropriate for us to resolve these Disputes only in respect of the services that we were satisfied were in dispute between the parties at the time that we decided it was appropriate for us to handle the Disputes.
- 7.9 Recital 32 of the Framework Directive indicates that the dispute resolution procedure is intended to be used by an aggrieved party that has negotiated in good faith but failed to reach agreement. This is reflected in the statutory framework set out in the Act and Ofcom's approach to dispute resolution. Under section 186(2) of the Act Ofcom must decide whether or not it is appropriate to handle a dispute referred to it under section 185(1) or (1A) or (2). This exercise involves Ofcom assessing whether the parties are in dispute and what the nature and scope of the dispute is.
- 7.10 This statutory framework is reflected in our Dispute Resolution Guidelines¹²⁵, which provide that Ofcom will use an ‘enquiry phase’ to decide whether the statutory grounds for a dispute referral under the Act have been met, whether it is appropriate

¹²² See paragraph 7.11.1 below.

¹²³ BT's comments on the Disputing CPs' responses, page 33.

¹²⁴ BT's comments on the Disputing CPs' responses, paragraph 119.

¹²⁵ <http://stakeholders.ofcom.org.uk/binaries/consultations/dispute-resolution-guidelines/statement/guidelines.pdf>, published on 7 June 2011. We note that when the Initial Disputes were accepted by Ofcom for resolution, the Dispute Resolution Guidelines had not yet come into force and that the Initial Disputes would have been handled in accordance with the Guidelines for the handling of competition complaints and disputes, July 2004 (the “2004 Guidelines”), <http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/other/guidelines.pdf>

for Ofcom to handle the dispute and to determine the scope of the dispute.¹²⁶ At that stage, Ofcom requires evidence that the parties are in dispute, including evidence that they have made reasonable endeavours to enter into good faith negotiations in order to seek to resolve their differences, and as to the nature and scope of the dispute.¹²⁷ It is therefore important that sufficient evidence is provided to Ofcom by the referring parties for these issues to be determined.

7.11 Taking these considerations into account, we make the following findings:

7.11.1 In our Initial Draft Determinations we provisionally concluded that there was no dispute between BT and Sky in relation to BES 10000 services because Sky had provided insufficient evidence in relation to those services.¹²⁸ We have carried out a detailed review of the evidence provided by Sky in support of its contention that it was in dispute with BT in relation to BES 10000 services during the Relevant Period:

- a) Sky informed us in the Joint Dispute Submission that it acquired BES 10000 services, although it is not clear from the evidence provided at that time when it acquired those services or whether Sky considered it had been overcharged for BES 10000 rentals or BES 10000 connections or both. The Joint Dispute Submission puts forward Sky (and TTG)'s case that BT overcharged them for certain services. While it specifies that BT overcharged Sky for BES 100 rentals and connections and BES 1000 rentals and connections, it does not specify that BT overcharged Sky for BES 10000 rentals or connections.
- b) Sky additionally provided us with copies of correspondence between Sky and BT regarding the services in dispute. However, none of this correspondence refers specifically to BES 10000. In response to our Provisional Conclusions, Sky provided invoices showing that it had purchased BES 10000 rental services in 2008. However, it provided no evidence that Sky and BT were in dispute in relation to BES 10000 services.

We continue to consider that the evidence provided is insufficient to demonstrate that Sky and BT were in dispute regarding BT's charges for BES 10000 services. Accordingly, we have not made findings as to whether BT overcharged Sky for BES 10000 connections or rentals at any time during the Relevant Period.

7.11.2 Virgin brought its dispute submission to us in August 2010 in respect of the period from 1 April 2006 to 31 March 2009. The additional period claimed by Virgin did not form part of the Virgin Dispute Submission and there is no evidence that Virgin and BT have negotiated in relation to that additional period. We do not consider the situation to be analogous to that in the Verizon Dispute, because Verizon's request to extend the time period of the Dispute was made before Ofcom had taken a decision to accept the Dispute for resolution, and Ofcom was satisfied that Verizon and BT were in dispute in relation to the whole of the Verizon Dispute Period.

¹²⁶ *Ibid* at 4.4. There was a similar process under the 2004 Guidelines – see paragraphs 54 and 62.

¹²⁷ *Ibid.* at 4.6. This was also a requirement under the 2004 Guidelines – see paragraphs 46, 48 and 63.

¹²⁸ Initial Draft Determinations, paragraphs 7.16-7.17.

Accordingly, we have not made findings as to whether BT overcharged Virgin for any services between 1 April 2009 and 31 March 2011.

- 7.11.3 CWW acknowledges that it did not include WES 10 rentals and BES 1000 connections in its dispute submission. CWW has not provided evidence of negotiations with BT about these services but seeks to rely only on our provisional finding of overcharging and the fact that it bought the services. Accordingly, we have not made findings as to whether BT overcharged CWW for WES 10 rentals in 2008/09 or BES 1000 connections in 2006/07.
- 7.11.4 In response to Verizon's suggestion that our findings should bind BT in relation to CPs who are not party to the Disputes, we note that a determination made by Ofcom to resolve a dispute binds all the parties to that dispute (section 190(8) of the Act). Ofcom's dispute resolution powers can therefore only bind the parties to a dispute on a bilateral basis.
- 7.12 However, we would expect dispute determinations to be read across and followed as appropriate and we note in this regard BT's proposal set out at paragraph 7.5 above. If other BT customers approach BT seeking similar repayment of any overcharge for the Ethernet services which are the subject of these Disputes, we would expect BT to take account of our conclusions in these Determinations.

Conclusions

- 7.13 The services in dispute, and which are covered by these Determinations, are therefore those set out in Table 7.5 above.

Section 8

Which charges should be cost orientated?

Introduction

- 8.1 In assessing whether or not BT's charges in dispute were cost orientated over the Relevant Period, we first have to consider which charges must be cost orientated for the purposes of Condition HH3.1.
- 8.2 The section is structured as follows:
- 8.2.1 the requirements of Condition HH3.1, and the findings of the PPC Judgment and the PPC Court of Appeal Judgment;
 - 8.2.2 a brief summary of our Provisional Conclusions;
 - 8.2.3 the responses of the Parties to the Provisional Conclusions;
 - 8.2.4 our response to the Parties' comments; and
 - 8.2.5 our conclusions on the level of aggregation to adopt in resolving the Disputes.

The requirements of Condition HH3.1

Condition HH3.1

- 8.3 We noted in our Provisional Conclusions that Conditions HH were initially imposed on BT following an analysis of the AISBO market and a finding by Ofcom that BT has SMP in that market in the 2004 LLMR Statement. They were subsequently re-imposed by Ofcom on the low bandwidth AISBO market¹²⁹ as a result of further analysis of the AISBO market in the 2008 BCMR Statement.
- 8.4 Condition HH3.1 requires 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 HH1 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.”*
- 8.5 Condition HH1 requires the provision of network access on reasonable request. The definition of network access is found in section 151 of the Act:
- “(3) 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—*

¹²⁹ Up to and including 1 Gbit/s.

(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);*

and references to providing network access include references to providing any such services, making available any such facilities or entering into any such arrangements.

(4) *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."*

The PPC Judgment and the PPC Court of Appeal Judgment

8.6 We consider that the findings of the CAT in the PPC Judgment and the Court of Appeal in the PPC Court of Appeal Judgment are relevant to our application of Condition HH3.1 in these Disputes.¹³⁰ This is because the wording of Condition HH3.1 is identical to the wording of the SMP Condition (H3.1), which was the subject of the PPC Disputes. That condition applies to the services supplied by BT in the market for the provision of wholesale trunk segments at all bandwidths (which includes PPC trunk segments). Like Condition HH3.1, Condition H3.1 was first imposed by Ofcom in the 2004 LLMR Statement and subsequently re-imposed in the 2008 BCMR Statement.

8.7 Condition H3.1 was applied by Ofcom in the 2009 PPC Determinations. On appeal, in the PPC Judgment, the CAT found that "*the starting point for any question about BT's cost orientation obligations... is the true construction of Condition H3.1*"¹³¹.

8.8 In that case the CAT held that Ofcom was correct to consider, discretely, the charges for each separate trunk service offered by BT. It found that:

*"According to Condition H3.1, "each and every charge offered" must be cost orientated. We consider that the effect of these words is to render the test for cost orientation applicable separately to each discrete trunk service - i.e. the charge for each bandwidth must be cost orientated."*¹³² (Emphasis added)

¹³⁰ We note that in its letters to Ofcom of 10 and 25 August 2010, BT argued that the meaning of "each and every charge" was a similarity or "cross-over" issue which prevented full and effective resolution of the Disputes before the outcome of the PPC appeal was known.

¹³¹ PPC Judgment, paragraph 214.

¹³² PPC Judgment, paragraph 228.

- 8.9 In the CAT's view such a construction "*makes sense*" because a purchaser of any particular service "*will want to know that the particular service he is buying is cost orientated. He will doubtless be rather less concerned with the cost orientation of services he is not purchasing*".¹³³
- 8.10 In addition, the CAT stated that if cost orientation was assessed on an aggregated basis, this would permit cross-subsidisation between different groups of purchasers of PPC circuits. The CAT considered this to be "*a powerful pointer in favour*" of its construction of Condition H3.1.¹³⁴
- 8.11 Furthermore, the CAT found that: "*...we fail to see how either OFCOM or this Tribunal could sanction an approach to cost orientation that disregarded the clear meaning of Condition H3.1.*"¹³⁵
- 8.12 The Court of Appeal upheld the CAT's approach to cost orientation. The Court of Appeal said that the question of how Condition H3.1 should be applied for the purposes of assessing BT's compliance with that Condition was what was appropriate "*on the facts and in the context of the regulatory purposes of [Condition H3.1] and the overall scheme of the Act and CRF*"¹³⁶. On the facts of that case, the Court of Appeal agreed that "*under the express terms of Condition H3.1 and under Article 13(3) of the [Access Directive] the burden was on BT to justify its prices for trunk segments of PPCs*" and BT could not do this by way of an aggregated assessment of trunk and terminating segments for PPCs.¹³⁷

Our Provisional Conclusions

- 8.13 We provisionally concluded that we should consider whether BT has secured that each and every disputed charge is cost orientated. We reached this conclusion on the basis of the specific wording of Condition HH3.1, having regard to the approach set out by the CAT in the PPC Judgment and the Court of Appeal in the PPC Court of Appeal Judgment. In particular we noted that BT lists separate charges for connections and rentals in the OPL. We further noted that the connection charge is a one-off charge, whereas the rental charge is a recurring charge. Given the wording of Condition HH3.1, we placed substantial weight on this fact.
- 8.14 We nevertheless went on to consider BT's submissions that Condition HH3.1 should be applied to charges on an aggregated basis. BT proposed three forms of aggregation: market aggregation (i.e. aggregation across the AISBO market as a whole), aggregation of main link and rental charges, and aggregation of connection and rental charges. We assessed BT's arguments in relation to each of these forms of aggregation and provisionally concluded that BT had not made any argument which persuaded us that in applying on the facts Condition HH3.1 in accordance with its clear meaning we should assess the cost orientation of the charges in dispute on the basis of any of the forms of aggregation suggested by BT.

Market level aggregation

- 8.15 We provisionally concluded that market level aggregation appeared at variance with the wording of the SMP obligation, noting that the CAT rejected aggregation, not only

¹³³ PPC Judgment, paragraph 228.

¹³⁴ PPC Judgment, paragraph 228.

¹³⁵ PPC Judgment, paragraph 229.

¹³⁶ PPC Court of Appeal Judgment, paragraph 68.

¹³⁷ PPC Court of Appeal Judgment, paragraph 80.

across markets, but also within the trunk market.¹³⁸ We did not consider that BT's arguments should lead us to depart from the clear wording of Condition HH3.1. In particular, we considered that:

- 8.15.1 it was not relevant that BT was only seeking to aggregate services within a single market rather than across markets as it did in the PPC appeal;
- 8.15.2 it was not relevant that none of the services BT was seeking to aggregate were subject to a charge control during the Relevant Period;
- 8.15.3 the aggregation of services in BT's RFS does not suggest that an aggregated assessment of cost orientation is appropriate;
- 8.15.4 BT's argument that the AISBO market was a nascent market during some of the Relevant Period did not mean that market level aggregation was appropriate; and
- 8.15.5 the purchasing patterns for CPs acquiring the services in dispute reflect that they can and do buy the various services in different proportions, and that separate charges for different services are generally economically meaningful signals.

Main link and rental charges aggregation

- 8.16 We disagreed with BT that aggregating main link and rental charges was appropriate for resolving the Disputes. We reached this view on the basis of the express requirement of Condition HH3.1 that each and every charge be cost orientated. We also considered that the nature of local end rental and main link services and the way in which they are purchased suggests that it is appropriate to assess the cost orientation of each charge separately, including because the aggregation of rentals and main link raises the risk of cross subsidisation between different groups of CPs who purchase the two services in different proportions.

Rental and connection charges aggregation

- 8.17 We disagreed with BT that aggregating the connection and rental charges for each bandwidth is the correct approach for resolving the Disputes. We reached this view on the basis of the express requirement of Condition HH3.1 that each and every charge be cost orientated.
- 8.18 We did not accept BT's arguments that we should depart from this position because of Ofcom's approach to starting charges in the 2009 LLCC Statement or that local end rentals and connections are always purchased in fixed proportions:
 - 8.18.1 We drew a distinction between the regulatory activities of setting a charge control and assessing cost orientation, and set out in detail why the approach taken in one does not imply the correct approach to take in the other. We noted that, in any event, BT could not argue that it took any comfort or guidance from the 2009 LLCC Statement when considering the appropriateness of its charges, as the 2009 LLCC Statement was published after the majority of charges in dispute were set.

¹³⁸ PPC Judgment, paragraph 228.

- 8.18.2 We considered BT's arguments that local end rentals and connections are always purchased in combination and in fixed proportion to each other. While we acknowledged that connections and rentals are only useful together, and that there is an initial period in which they are purchased together and in fixed proportions, we placed substantial weight on the fact that BT charges for connections and rentals separately. In addition, although they are purchased together, we did not agree with BT that rentals and connections "*are only ever purchased in fixed proportion to each other*"; rather, the proportions vary with the length of time for which circuits are purchased and the variations in purchasing patterns suggest that aggregation of all rental and connection charges for each bandwidth within a financial year could give rise to distorted price signals and cross-subsidisation between different groups of customers.
- 8.18.3 We did not consider that BT had a legitimate expectation that we would aggregate rental and connection charges when considering cost orientation on the basis of any statements made in a letter written by Ofcom to BT on 6 December 2010.

Views of the Parties

Market level aggregation and main link and rental charges aggregation

- 8.19 In its response to our Provisional Conclusions, BT accepted that "*it is appropriate to look at:*
- 223.1 each bandwidth individually, e.g. 10 Mbit/s separately from 100 Mbit/s;*
 - 223.2 different service types separately, e.g. WES separately from BES; and*
 - 223.3 Main Link separately from other services".*¹³⁹
- 8.20 The Disputing CPs strongly agree with our provisional conclusion that we should consider each individual charge in dispute separately. TTG, Sky, Virgin, CWW and Verizon all refer to the clear wording of Condition HH3.1¹⁴⁰.
- 8.21 TTG, Sky and CWW agree with our provisional conclusion that market level aggregation is inappropriate, on the basis that it is consistent with the PPC Judgment. TTG and Sky also argue that a "disaggregated" approach is consistent with economic efficiency considerations.¹⁴¹
- 8.22 Virgin and TTG both agree that main link and rental charges should not be aggregated.¹⁴² The other Disputing CPs do not explicitly comment on this issue.

¹³⁹ BT's response to our Provisional Conclusions, paragraph 223.

¹⁴⁰ See for example, TTG's response to our Provisional Conclusions, paragraph 7.3; Sky's response to our Provisional Conclusions, paragraph 33; Virgin's response to our Provisional Conclusions, paragraph 4.1; CWW's response to our Provisional Conclusions, paragraph 27; Verizon's comments on the PPC Court of Appeal Judgment, page 2.

¹⁴¹ TTG's response to our Provisional Conclusions, Annex A; Sky's response to our Provisional Conclusions, paragraphs 32 to 33; CWW's response to our Provisional Conclusions, paragraphs 23 to 27.

¹⁴² TTG's comments on BT's response, paragraph 7.3; Virgin's comments on BT's response, paragraph 4.5.

Rental and connection charges aggregation

BT's views

- 8.23 BT maintains its view that we should consider rental and connection charges in aggregate. It considers that Ofcom has incorrectly *"treated connections and rentals as if they were separate services [...] with separate charges that had to be separately cost orientated and compliant with Condition HH3.1"*. BT considers that connections and rentals are *"two different aspects of the charge for a single service"*.¹⁴³ It further explains its view that Ofcom's approach is wrong for the following reasons.
- 8.24 First, *"[t]he wording of Condition HH3.1 cannot override the effect of the market context. Ofcom is proposing to interpret Condition HH3.1 too inflexibly"*.¹⁴⁴
- 8.25 Second, BT argues that, in the PPC Judgment, the CAT only concluded that charges for products falling within different regulatory markets should not be aggregated, and that it was inappropriate to aggregate services provided at different bandwidths.¹⁴⁵ The CAT was considering *"the correct treatment of prices for services that differ in their technical characteristics"*. In these Disputes, BT argues, there are no such differences – *"there is just one service for which a connection and a rental price are published. Customers are not choosing between connections and rentals"*. BT distinguishes between the terminating and trunk segments under consideration in the PPC Judgment, which *"run over distinct and separate parts of the physical network infrastructure and different bandwidths make different use of the network transmission electronic equipment. On the other hand, connections and rental are different elements of the charge for one individual service that runs over the same physical network infrastructure and offers one defined speed."* BT notes the CAT's observation that a purchaser would not be concerned with the cost orientation of a service which he is not buying and argues that *"purchasers of BES and WES services buy services that necessarily include both connections and rentals so that what matters to them is the cost orientation of connections and rentals when taken together"*.¹⁴⁶
- 8.26 BT argues that the PPC Court of Appeal Judgment does not change BT's position in relation to the correct approach to aggregation. It notes that the Court of Appeal was considering the position in relation to *"separate regulatory markets, where one of these products is subject to a charge control and the other a cost orientation obligation"*. It considers that *"the position in respect of prices for services falling within the same regulatory market, whether covered by a charge control or not, remains unresolved"*.¹⁴⁷
- 8.27 Third, Ofcom has placed too much weight on the OPL and RFS. BT argues that *"[n]o conclusions should be drawn from there being separate price list entries. Connection and rental prices are different elements of the charge for a single service (network access)"*. BT also argues that no conclusions should be drawn from the format of the RFS. BT considers that *"[f]or large elements of the costs attributed to Ethernet services [...] it is largely a matter of subjective judgment as to whether a cost is attributed to 'connections' or 'rentals', i.e. it is arbitrary"*, and seeks to illustrate this

¹⁴³ BT's response to our Provisional Conclusions, paragraph 163.

¹⁴⁴ BT's response to our Provisional Conclusions, paragraph 19.

¹⁴⁵ BT's response to our Provisional Conclusions, paragraph 220.

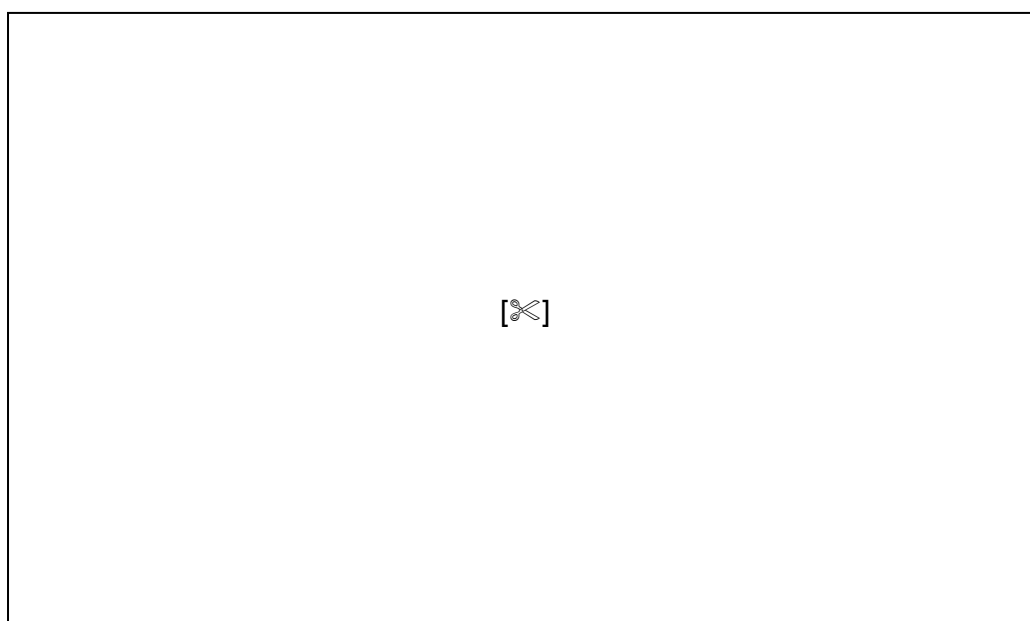
¹⁴⁶ BT's response to our Provisional Conclusions, paragraphs 168 to 171.

¹⁴⁷ BT's comments on the PPC Court of Appeal Judgment.

with the example of electronic equipment costs, which “*were attributed to connections in the years up to 2009-10 but attributed to rentals in 2010-11*”.¹⁴⁸

- 8.28 Fourth, there has been an incomplete analysis of the impact on customers based on a “snapshot” analysis of one year, 2007-08¹⁴⁹. BT seeks to refute the argument made by Ofcom in the Provisional Conclusions that aggregation of rental and connection charges could give rise to distorted price signals and cross-subsidisation between different groups of customers. It has provided an analysis of billing records (which BT refers to as its “decay analysis”), which considers the average age of ceased circuits by the date that they were connected, using its billing data for four CPs ([✂]) during the Relevant Period. BT focuses its analysis on BES 100 circuits and we reproduce these outputs in Figure 8.1. Our understanding is that the average age of the circuit is given by the centre point of each circle, while the diameter of the circle corresponds to the volume of ceased circuits that were connected in the given year for the given CP.

Figure 8.1: Average age of ceased connections by volume – BES 100



Source: reproduction of Figure 2 (page 79) of BT's response to our Provisional Conclusions

BT claims this shows that there are marked differences in when different CPs purchased Ethernet services, and there are no systematic differences between CPs in terms of the average age of their circuits. It concludes that there is no evidence that “*the relative pricing of connections and rentals has systematically affected CPs' buying patterns nor that it has systematically advantaged or disadvantaged any CP*”.¹⁵⁰

- 8.29 Fifth, BT argues that “*Ofcom needs to be careful not to unwittingly and unduly extend the scope of the basis of charges obligation. Condition HH3.1 refers to “each and every charge [for a service] but does not refer to “each and every charge [for a service] for each and every customer”* (BT's emphasis). It argues that it is a normal

¹⁴⁸ BT's response to our Provisional Conclusions, paragraphs 172 to 175.

¹⁴⁹ BT's response to our Provisional Conclusions, paragraph 177.

¹⁵⁰ BT's response to our Provisional Conclusions, paragraphs 176 to 186 and Annex B.

feature of competitive markets that it will cost less to provide a service to one customer than another and, as a result, different margins may be earned from different customers or customer groups. It argues that the only way to avoid cross-subsidisation between customers would be to prescribe tightly how prices must be set, which would be at odds with the intent of the basis of charges obligation to allow BT substantial freedom in how it recovers its costs.¹⁵¹

- 8.30 Sixth, “[t]reating connections and rentals as separate charges for network access is inconsistent with best accounting practice”. BT cites an Exposure Draft published in November 2011 by the International Accounting Standards Board (“IASB”), which states:

“...a good or service is distinct if either of the following criteria is met:

(a) the entity regularly sells the good or service separately; or

(b) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer. Readily available resources are goods or services that are sold separately (by the entity or by another entity) or resources that the customer has already obtained (from the entity or from other transactions or events).”

BT argues that this proposed standard does not support a view of the connection and rental of a telecommunications circuit as distinct services.¹⁵²

- 8.31 Seventh, “[t]reating connections and rentals as separate and distinct charges is inconsistent with normal commercial practice in competitive markets.” BT gives the example of the retail mobile market in which “contract customers customarily pay a monthly charge and are provided with a handset with no upfront cost”. It argues that any policy which assesses a connection price in isolation from the subsequent rental price is likely to have “unwanted and unintended consequences” and would “effectively prohibit” it from offering connections below DLRIC even where that may be desirable, for example to aid migration from old to new platforms.¹⁵³ It also considers that “there are good reasons to believe that setting lower upfront margins than on-going margins for Ethernet services contributed to the effective roll-out of LLU services by reducing the up-front capital requirements of the un-bundlers at a time when they were incurring heavy investment to roll-out their networks”.¹⁵⁴
- 8.32 Eighth, BT suggests that Ofcom’s proposed approach is inconsistent with a letter from Ofcom to BT of 6 December 2010 in the context of the WLA market.¹⁵⁵
- 8.33 BT suggests that Ofcom’s proposed approach is inconsistent with “the response to a specific question as to how Ofcom would treat connections and rentals for the purpose of assessing cost orientation”. BT states that “crucially, this letter was written after the PPC Judgment had been published, when Ofcom was in a position to determine how it would assess cost orientation in future in the light of this judgment”. BT states that it “relied upon the 6 December Letter as meaning that connections and rental prices may be viewed together for the purpose of both demonstrating and assessing compliance with the basis of charges obligation” and that it was

¹⁵¹ BT’s response to our Provisional Conclusions, paragraphs 185 to 186.

¹⁵² BT’s response to our Provisional Conclusions, paragraphs 187 to 195.

¹⁵³ BT’s response to our Provisional Conclusions, paragraphs 196 to 199.

¹⁵⁴ BT’s response to our Provisional Conclusions, paragraph 199.2.

¹⁵⁵ Letter from [X] (Ofcom) to [X] (BT), dated 6 December 2010.

*“instrumental in persuading BT not to appeal both the WLA and WBA charge controls”. BT concludes that “the fact that Ofcom was minded to write this letter clearly indicates that Ofcom’s policy was not closed to the combining of connections and rentals”.*¹⁵⁶

- 8.34 Ninth, Ofcom’s proposed approach is inconsistent with *“Ofcom’s past practice, in particular with its approach to setting starting charges for the 2009 LLCC”*.¹⁵⁷ BT argues that *“Ofcom is wrong to draw such a sharp and significant distinction between setting charges at the beginning of a price control and assessing cost orientation”,* noting that *“[b]oth price controls and cost orientation originate from the same Article in the Access Directive”* and *“are imposed to address the same issue [...] to ensure that BT’s charges are consistent with those that would be charged if the market in question was competitive”*.¹⁵⁸ BT further argues:

8.34.1 in relation to the need to balance competing efficiency considerations (see paragraph 8.72), *“the Access Directive also recognises the need to consider the promotion of efficiency under cost orientation (which therefore includes the impact on productive efficiency); and if Ofcom were concerned about undermining incentives for cost reduction under cost orientation, then this could be accommodated in its cost orientation assessment, given that Ofcom is explicit that there is flexibility/latitude around the level of charge which is cost orientated”*,¹⁵⁹ and

8.34.2 in relation to the fact that starting charges rely on data which may be two years old or more by the time the price control starts and may therefore not necessarily reflect costs when the starting charges come into force, BT notes that *“Ofcom can and does adjust the base year to reflect known cost trends or likely movements going forward.”* It argues that *“[t]he assessment is simply made prospectively and the question of ‘what data may be available’ is not at all linked to whether it is right in principle to combine rentals and connections [...] in assessing charges”*.¹⁶⁰

- 8.35 BT concludes that *“none of the points made by Ofcom affect the understanding and description of the market, which is the same whether or not Ofcom is considering price controls or cost orientation obligations.”* It considers that our separate treatment of charge controls and cost orientation is inconsistent with principles of good regulation, which require that *“regulators be consistent and transparent and justify their decisions, especially departures from past precedents”*.¹⁶¹

- 8.36 More generally, BT considers that our approach also gives rise to questions of *“transparency, consistency, acting in a proportionate manner and respecting the requirements of legal certainty”*.¹⁶²

Views of the Disputing CPs

- 8.37 The Disputing CPs agree with our provisional findings that the aggregation of connection and rental charges is inappropriate.¹⁶³

¹⁵⁶ BT’s response to our Provisional Conclusions, paragraphs 212 to 218.

¹⁵⁷ BT’s response to our Provisional Conclusions, paragraph 200.1.

¹⁵⁸ BT’s response to our Provisional Conclusions, paragraph 204.

¹⁵⁹ BT’s response to our Provisional Conclusions, paragraph 207.

¹⁶⁰ BT’s response to our Provisional Conclusions, paragraph 208.

¹⁶¹ BT’s response to our Provisional Conclusions, paragraphs 210 to 211.

¹⁶² BT’s response to our Provisional Conclusions, paragraphs 21 and 22.

- 8.38 Sky contests BT's argument that any differences in the proportions of connections and rentals purchased by CPs are largely a product of where CPs are in terms of rolling out their networks, arguing that *"LLU operators like Sky and TalkTalk continue to expand their LLU networks and require more Ethernet circuits as a result. This is not the case for LLU operators who are not expanding their networks or who have exited the LLU market"*.¹⁶⁴
- 8.39 Virgin and TTG comment that the level of aggregation permitted in the RFS should not detract from the explicit requirements of Condition HH3.1. TTG comments in particular that *"Ofcom has previously consented to BT to produce the RFS with less details in terms of services than that which is contained in the Openreach price list but only on the understanding that BT would still need to show compliance with its cost orientation obligation on an individual service basis if requested to do so"*.¹⁶⁵
- 8.40 The Disputing CPs have provided further reasons why connections and rentals do not constitute a single service bought in fixed proportions:
- 8.40.1 CWW and Virgin argue that connection and rentals do not comprise a single form of network access. CWW argues that *"connection and rental are separate and individual forms of Network Access"*, which they purchase and resell on distinct bases. CWW notes that *"connection is a one off activity, whereas the rental is reoccurring and variable"* and points out that *"[u]pgraded rental bandwidth may replace the rental bandwidth at the time of initial installation. Therefore a customer taking a connection and 10Mbit/s rental service can upgrade their rental service to 100Mbit/s of bandwidth without the need for a new connection"*.¹⁶⁶
- 8.40.2 CWW adds that *"a proportion of the WES and BES circuit base will have been circuits migrated from the retail LES product and therefore would not have involved the purchase of a WES or BES connection service"*.¹⁶⁷ Virgin also makes this point, adding that *"in 2007, whilst the connection charge for a WES 10 circuit was £2,200 (per local end), the cost to migrate a LES 10 to a WES 10 was £37"*.^{168, 169}
- 8.40.3 Sky points out that upgrades may take place not only between different bandwidths, but also between technologies, for example an upgrade from WES to EAD.¹⁷⁰
- 8.41 Virgin, CWW and TTG argue that BT's reference to the draft IASB standard is irrelevant: Virgin comments that *"such standards and practice are irrelevant to BT's RFS, which are produced pursuant to an SMP obligation with the sole purpose of monitoring compliance with other SMP obligations"*; TTG questions *"why a draft*

¹⁶³ See for example, TTG's comments on BT's response, paragraph 4.4; Sky's comments on BT's response, paragraph 25; Virgin's comments on BT's response, Section 2; CWW's comments on BT's response, paragraph 2 and Verizon's comments on BT's response, paragraph 4.

¹⁶⁴ Sky's comments on BT's response, paragraph 28 d).

¹⁶⁵ TTG's response to our Provisional Conclusions, Annex A, paragraph 7.13.1; Virgin's response to our Provisional Conclusions, paragraphs 4.2 to 4.4.

¹⁶⁶ CWW's comments on BT's response, paragraphs 23 to 27; see also Virgin's comments on BT's response, paragraphs 2.3 to 2.4.

¹⁶⁷ CWW's comments on BT's response, paragraph 25.

¹⁶⁸ Prices quoted from 30 June 2007: WES charge effective from 14 Jun 07 (ACCN OR036); LES charge effective from 17 Jan 05 (ACCN OR020).

¹⁶⁹ Virgin's comments on BT's response, paragraph 2.7.

¹⁷⁰ Sky's comments on BT's response, paragraph 28 c).

proposal [...] regarding the approach to preparing accounts is relevant to an assessment of WES/BES cost orientation"; CWW comments that *"the underlying cost of either rental or connection [...] has nothing to do with revenue apportionment guidance as set out in international accounting standards"*.¹⁷¹

- 8.42 TTG questions the relevance of BT's argument that aggregation is consistent with some competitive markets such as mobile where upfront costs are not recovered in connection charges but are instead recovered in rental charges. It argues, first, *"that it happens in one case does not prove that it is appropriate for such an approach to be used for WES/BES charges"*; second, that *"this type of 'cross-subsidy' is rare in wholesale markets and are primarily used in retail markets"*; and third, *"in the case of mobile there are minimum contract periods so there is a guarantee of on-going revenue"*.¹⁷²
- 8.43 Virgin argues that BT's analysis of cross subsidisation (the decay analysis set out at paragraph 8.28 above) between services *"misses the point of the obligation. The requirement for each service to be cost orientated follows from the identification of a relevant risk of adverse effects arising from price distortion as identified in the market review. [...] This goes to the point made by the CAT in the PPC judgment"*¹⁷³, that the need to show economic harm of any sort is not a pre-requisite for a finding that the Condition has been breached".¹⁷⁴
- 8.44 Virgin considers that *"connection and rental charges each have economic significance in their own right. In practice the level of, or change in, each of them is assessed separately for the purpose of developing or reviewing business cases [which will] vary by purchaser"*.¹⁷⁵ Sky also argues that *"economic harm will occur, through distortions in efficient consumption decisions or investment decisions"*, noting that *"BT cannot know in advance the exact demand profile for each and every one of its BES customers"*.¹⁷⁶ TTG also refers to the risk of distortion, commenting that *"just because connection charges are below DSAC in some competitive retail markets it does not follow that zero or low connection charges are not anti-competitive or economically inefficient in this wholesale WES/BES market"*. It adds that: *"Different CPs purchase circuits for different lengths of time meaning that there will be some distortions between customers. In particular some CPs paid zero BES connection fees for a period in 2005 since LES circuits could be migrated to BES free of charge"*.¹⁷⁷
- 8.45 CWW agrees with our provisional view that *"BT cannot have established any legitimate expectation and [...] there would have to have been an unequivocal statement by Ofcom that its Ethernet charges were compliant with its cost-orientation obligation"*.¹⁷⁸ TTG agrees that Ofcom's 6 December 2010 letter to BT was not capable of creating a legitimate expectation on BT's part, but nevertheless considers it *"of concern"* that Ofcom chose to write the letter.¹⁷⁹ TTG argues that it is BT's responsibility to comply with its cost orientation obligation and this responsibility *"cannot be handed back to Ofcom"*. It argues that Ofcom did not have the power to

¹⁷¹ Virgin's comments on BT's response, paragraph 2.10; TTG's comments on BT's response, paragraph 4.13; CWW's comments on BT's response, paragraph 29.

¹⁷² TTG's comments on BT's response, paragraph 4.14.

¹⁷³ Paragraph 327 [2011] CAT 5.

¹⁷⁴ Virgin's comments on BT's response, paragraph 2.8.

¹⁷⁵ Virgin's comments on BT's response, paragraph 2.6.

¹⁷⁶ Sky's response to our Provisional Conclusions, paragraph 33.

¹⁷⁷ TTG's comments on BT's response, paragraph 4.8.

¹⁷⁸ CWW's comments on BT's response, paragraph 3.

¹⁷⁹ TTG's response to our Provisional Conclusions, paragraph 7.13.2.

“approve” BT’s prices since it is unable to fetter its discretion in respect of future disputes and asserts that the examples BT puts forward provide no evidence that Ofcom tried to do so.¹⁸⁰

- 8.46 The Disputing CPs all argue that the PPC Court of Appeal Judgment supports a separate assessment of connection and rental charges as the approach being taken in the Disputes.¹⁸¹ Sky and TTG both draw attention to the Court of Appeal’s statement that “*as a matter of fact, BT did not have a business strategy of selling the terminating segments at a particularly low price and compensating for that low price by charging more for the trunk segments*”¹⁸² and argue that the same applies in the context of the services in dispute: “*BT did not sell connection ‘at a particularly low price’ to compensate for the high price on rental since the prices of connection (certainly for BES) were significantly above FAC [fn: Except in one case BES1000 in 08/09]*”¹⁸³. Sky also notes that “*the Court describes the approach BT took to aggregating charges as ‘fundamentally misconceived since it would undermine the regulatory regime and its objectives applicable during the relevant period...’ (paragraph 180)*”.¹⁸⁴

Our analysis

Market level aggregation and main link and rental charges aggregation

- 8.47 BT’s response to our Provisional Conclusions indicates that it no longer considers either that market level aggregation is appropriate, or that aggregation of main link and rental charges is appropriate.¹⁸⁵ We have not received any additional comments on these issues that we consider we need to address: the Disputing CPs supported our Provisional Conclusions. We do not therefore consider market level or main link and rental charges aggregation further in these Determinations.

Rental and connection charges aggregation

The requirements of Condition HH3.1

- 8.48 We have, consistent with the approach of the CAT in the PPC Judgment and the Court of Appeal in the PPC Court of Appeal Judgment, applied in this case the terms of Condition HH3.1 to each and every disputed charge.
- 8.49 BT argues that the CAT and the Court of Appeal were considering aggregation in the context of separate markets where only one product is subject to a charge control. However the CAT not only rejected BT’s arguments in relation to aggregating across the terminating segment and trunk markets but also within the trunk market (BT accepts that the CAT found that “*it was inappropriate to aggregate services provided at different bandwidths, for example 2 Mbit/s trunk with 144 Mbit/s trunk services*”¹⁸⁶).¹⁸⁷ Moreover, as explained in paragraphs 8.7 to 8.9 above, the CAT’s conclusion on which charges must be cost orientated was based on its construction of Condition H3.1 in relation to the PPC Disputes. We do not think the absence of a

¹⁸⁰ TTG’s comments on BT’s response, paragraphs 7.4 to 7.6.

¹⁸¹ See correspondence referred to in paragraph 3.64 above.

¹⁸² PPC Court of Appeal Judgment, paragraph 70.

¹⁸³ TTG’s letter dated 22 August. See also Sky’s email dated 24 August 2012.

¹⁸⁴ Sky e-mail dated 24 August 2012.

¹⁸⁵ This was confirmed in BT’s comments on the PPC Court of Appeal Judgment.

¹⁸⁶ BT’s response to our Provisional Conclusions, paragraph 220.

¹⁸⁷ PPC Judgment, paragraph 228, quoted in paragraphs 8.7 to 8.11 above.

relevant second market or charge control in this case suggests we should construe Condition HH3.1 differently: the CAT considered that *"the prices that are cost orientated by Condition H3.1 are clearly identified by that provision"*.¹⁸⁸

- 8.50 BT also argues that connection and rental constitute *"different elements of the charge for one service"*. Condition HH3.1, however, refers to 'each and every charge' and not each and every 'service'. BT publishes separate connection and rental charges, as we discuss below, and we do not consider that technical differences such as those described by BT need to exist in order for charges to be separate.
- 8.51 We do not agree with BT that we are letting the wording of the condition *"override the market context"*. Condition HH3.1 was imposed on BT in 2004 and reimposed in 2008 following detailed market analysis, with the aim of remedying the potential for economic harm identified in the AISBO market (see paragraphs 4.22 to 4.32 above).
- 8.52 We consider that if we were to apply Condition HH3.1 other than in accordance with its clear meaning we would undermine the regulatory regime established for the AISBO market by the 2004 LLMR Statement and 2008 BCMR Statement. We note that BT did not appeal against the imposition of Condition HH3.1.

The Openreach Price List and BT's RFS

- 8.53 In our Provisional Conclusions, we not only considered assessing whether each and every charge is cost orientated to be consistent with the explicit requirements of Condition HH3.1, but we also considered it to be reflected in BT's approach to connections and rentals. As set out in Section 6, BT publishes separate connection and rental charges for the services in dispute in the OPL. BT has published separate data for connections and for rentals in its RFS since 2006/07.
- 8.54 We do not agree with BT's comment that we have placed too much weight on these factors (see paragraph 8.26). Given that Condition HH3.1 requires BT to secure that *"each and every charge"* is cost orientated, we consider it appropriate to place substantial weight on the fact that BT published separate connection and rental charges in the OPL during the Relevant Period, e.g. separate WES 100 rental charges and WES 100 connection charges are listed. Further, we consider the fact that the connection charge is a one-off charge, whereas the rental charge is a recurring charge, highlights the separate and distinct nature of the charges.
- 8.55 We also disagree with BT's comment (paragraph 8.26) that we have placed undue weight on the format of the RFS, which was only one consideration in our Provisional Conclusions. More fundamental to our findings is the fact that connection and rental charges have different costs associated with them and, in the LRIC model, connections and rentals have different underlying network components. In addition, we disagree with BT's arguments for the following reasons:
- 8.55.1 BT has provided no evidence to support its argument (see paragraph 8.26) that the allocation of costs to connections and rentals was *"arbitrary"*. Instead BT simply asserts that cost allocation is arbitrary and seeks to illustrate this with the example of electronic equipment costs, which were attributed to connections up to 2009/10 and rentals in 2010/11. While the allocation of some cost elements for connections and rentals may require judgment (which is not uncommon for BT's costs), other costs will more clearly relate to a specific charge. For example, on-going use of duct by

¹⁸⁸ PPC Judgment, paragraph 238.

AISBO services appears much more relevant to the on-going rental charge than to the one-off connection charge.

- 8.55.2 BT has failed to establish that the costs it considers are allocated in an arbitrary manner represent a material proportion of the costs of the services in question (indeed it only provides one example with no indication of its importance to the overall cost stack).
- 8.55.3 Even if it was the case that a significant proportion of the costs could be considered to be allocated between connection and rental on the basis of subjective judgment, the allocation methods adopted in different years of the RFS were BT's own choices.

Fixed proportions

- 8.56 Where CPs purchase services in varying proportions, it is important that each charge is individually cost orientated. This is because the prices will generally provide economically meaningful signals for potential purchasers to take into account in their decisions on matters such as which services to purchase and from which suppliers, and in investment decisions about self-provision or entry. The CAT considered this factor to be relevant in the PPC Judgment, as noted at paragraph 8.9 above and we consider that it is also relevant for the purposes of applying Condition HH3.1 in the AISBO market.
- 8.57 If cost orientation were assessed on an aggregated basis, this would allow BT to charge a high price for service A (relative to costs), and a low price for service B (relative to costs). While in aggregate prices might be similar to costs, those who bought relatively more of service A would be disadvantaged relative to those who bought relatively more of service B, and both groups of CPs would face distorted price signals.
- 8.58 We acknowledge that there is an initial period in which connections and rentals are usually purchased together and typically in fixed proportions.¹⁸⁹ Contractually BT is able to set a minimum rental period, typically of one year. However, we do not agree with BT that rentals and connections "*are only ever purchased in fixed proportion to each other*". As noted by Sky, Virgin and CWW, a number of factors relevant to the Relevant Period mean that the proportion of connections and rentals purchased by CPs will vary between them:
- 8.58.1 AISBO circuits are not sold for fixed time periods – the rental period depends on a number of factors including (but not limited to): the length of time the CP is contracted to provide the dependent retail circuit (in the case of WES) by its retail customer; whether the CP decides to self-supply the circuit (and the lag time for building out to self-supply); and the other wholesale options available to the CP for providing the retail service. Each of these factors may be influenced by BT's AISBO charges. As a result, the combination of connection charge and rental charge which CPs pay for circuits can and does vary.

¹⁸⁹ Even within the minimum rental period, contractual provisions do allow for the possibility that the circuit rental could be terminated. We also discuss below the potential for upgrades/downgrades and the fact that some circuits were migrated from legacy retail services. Therefore, connections and rentals may not always be bought in fixed proportions in the minimum rental period.

- 8.58.2 Not all circuits relevant to these Disputes attracted a connection charge in the Relevant Period – as noted by Virgin and CWW, some Ethernet circuits (retail LES circuits) were established by CPs prior to BT launching the WES and BES portfolio. When these legacy circuits were migrated to WES/BES products, BT did not levy a new connection charge but rather a migration charge of £37¹⁹⁰. As such, not all rental charges levied by BT over the period were associated with a connection charge.
- 8.58.3 Circuit bandwidth downgrades and upgrades give rise to a mismatch of connection and rental charges. As noted by Sky, over the Relevant Period CPs were able to connect a circuit for a given bandwidth (e.g. BES 10) which could then be changed to a different bandwidth (e.g. BES 100). In such cases, connection and rental charges would relate to different bandwidths from the time of upgrade (or downgrade). Further, CPs may have paid a connection charge for a product which is within the scope of these Disputes and then changed that circuit to a new service (e.g. EBD) which is outside the scope of these Disputes.

Variation in proportions of connections and rentals by customer

- 8.59 To illustrate the variation in the proportions of connections and rentals consumed by BT's AISBO customers we presented at Figure 8.2 of the Initial Draft Determinations a breakdown by CP of BT's billing data for connection, rentals and main link for the charges in dispute in 2007/08.¹⁹¹ [✂]
- 8.60 BT correctly notes that we presented data for one year only. This was intended to illustrate the broader point that connections and rentals are not bought in fixed proportions. However, for completeness, in Figures 8.2 to 8.6 below we present data on the split of BT's billed revenues between connection, rental and main link charges by CP for each of the years relevant to the Disputes.¹⁹²
- 8.61 As is clear from the charts, the split of rental and connections not only varies from year to year for individual CPs, it also, importantly, varies substantially between CPs within each year.

¹⁹⁰ Different charges may have applied in respect of migrations which included an additional minimum contract period: see Openreach Price List.

¹⁹¹ Therefore the data excluded connection data for those WES services where connection charges were not in dispute in 2007/08.

¹⁹² These differ slightly from Figure 8.2 of the Initial Draft Determinations in that they include data for those WES connection services that are out of scope of the Disputes, where the corresponding rental services are within scope.

Figure 8.2: BT billed revenues by CP split by rental, connection and main link, 2006/07



Source: Ofcom based on BT billing data

Figure 8.3: BT billed revenues by CP split by rental, connection and main link, 2007/08



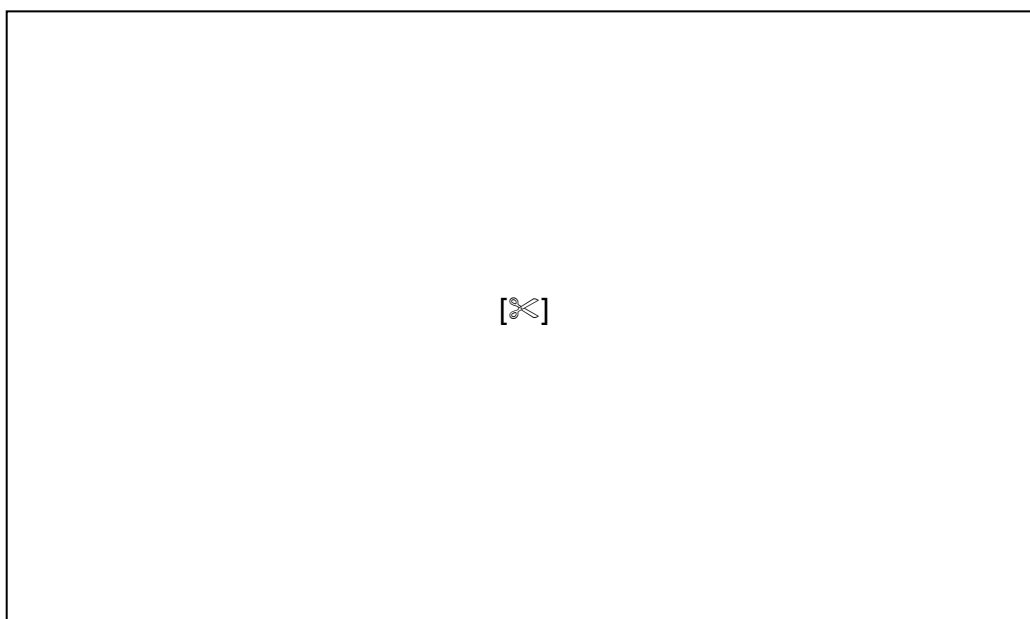
Source: Ofcom based on BT billing data

Figure 8.4: BT billed revenues by CP split by rental, connection and main link, 2008/09



Source: Ofcom based on BT billing data

Figure 8.5: BT billed revenues by CP split by rental, connection and main link, 2009/10



Source: Ofcom based on BT billing data

Figure 8.6: BT billed revenues by CP split by rental, connection and main link, 2010/11



Source: Ofcom based on BT billing data

- 8.62 We do not consider that BT's proposed approach (i.e. that connections and rentals should be aggregated in each year) is supported by the evidence regarding the purchasing patterns of its CP customers. It is clear (both from the reasoning presented in paragraph 8.58 and the purchasing patterns presented in Figures 8.2 to 8.6 above) that in each year relevant to these Disputes the proportions of connections and rentals purchased by CPs were not fixed; different CPs bought different mixes of the two services, consistent with arguments made by the Disputing CPs. This supports consideration of each charge separately as we have explained above.

BT's decay analysis

- 8.63 We do not agree that BT's decay analysis provides robust evidence in support of the aggregation of connection and rental services for the purposes of applying Condition HH3.1 in this case, both in respect of the conclusions that can be drawn from its analysis and in relation to its completeness.
- 8.64 We have not undertaken a detailed review of BT's underlying data and calculations, but on the face of the charts presented by BT (of which we reproduce one example above, for BES 100) we are not convinced that BT's analysis supports its conclusion that "*the average ages of the circuits ceased in any year are closely clustered*"¹⁹³.
[✂]¹⁹⁴

¹⁹³ BT's response to our Provisional Conclusions, paragraph 178.2.

¹⁹⁴ [✂]

- 8.65 Even if, as BT suggests, “*there are marked differences between CPs*” as to when they purchased their Ethernet services (see paragraph 8.28 above), this does not support the aggregated approach suggested by BT for the purposes of applying Condition HH3.1. The aggregation of connection and rentals each year in such circumstances would risk distortion of pricing signals and cross-subsidisation.
- 8.66 We also have some concerns in relation to the completeness of BT's decay analysis. In particular, it appears to be based on a sample of:
- 8.66.1 only four of BT's Ethernet customers – although these four CPs are BT's largest customers, BT has not provided evidence to suggest that the patterns it observes for them would hold for other, smaller customers excluded from the analysis; and
 - 8.66.2 only ceased connections – BT has not provided evidence as to the proportion of overall circuits that ceased circuits represent, nor does it provide any evidence on the extent to which the average life of ongoing circuits varies by customer. Furthermore, it is unclear whether the figures in BT's analysis include circuits that have been upgraded to a higher bandwidth after connection.

Scope of Condition HH3.1

- 8.67 We disagree that assessing charges for connections and rentals separately extends the scope of Condition HH3.1 in the manner suggested by BT (see paragraph 8.29 above). In any market there is always a choice to be made about how many distinct charges should be levied. In this case, we are reflecting BT's choice to levy separate connection and rental charges in the Relevant Period. We are not specifying how many separate prices BT must set. Given that BT levied separate charges for connections and rentals over the Relevant Period, in our view Condition HH3.1 clearly requires us to consider connections and rentals separately. We are not extending its scope by requiring connection and rental charges to be assessed separately (which does not, for example, involve considering separately for each individual customer the connection charge compared to the connection cost for that specific customer as BT's argument seems to imply).

Accounting practice

- 8.68 We do not consider that BT has established that the draft IASB accounting standard (which if adopted would apply to BT's statutory accounts rather than its RFS) is relevant to the resolution of these Disputes. In particular, it is not clear that the reasons for (potentially) introducing the accounting standard are necessarily the same as or aligned with the objectives of the regulatory regime pursuant to which Condition HH3.1 was imposed. Further, we do not consider that the draft standard is relevant to the construction of an SMP condition such as Condition HH3.1.

Commercial practice in competitive markets and the consequences of assessing connection and rental charges separately

- 8.69 BT's analogy between the AISBO market and the retail mobile market does not take account of Ofcom's finding that the AISBO market is not competitive and the imposition of a specific SMP condition by way of remedy which we consider we must apply in accordance with the clear wording of that condition. We therefore do not consider that BT's argument that a “disaggregated” approach to connection and rental charges is inconsistent with normal practice in competitive markets is relevant.

In any event, as the Disputing CPs note, BT has not demonstrated that the type of retail commercial practice to which it refers would necessarily be appropriate for the wholesale services in dispute.

Ofcom's letter of 6 December 2010

- 8.70 BT refers in its 20 May 2011 submission to a letter written by Ofcom. BT seeks to rely on this letter for the purposes of its arguments in relation to the aggregation of connections and rentals in these Disputes. The letter does not bear the reliance which BT is seeking to place on it. It was written on 6 December 2010 (after the vast majority of the Relevant Period and before the PPC Judgment¹⁹⁵) in relation to the Wholesale Local Access market.¹⁹⁶ In that context it states, *inter alia*, that one of the issues that Ofcom would be likely to consider in an assessment of cost orientated charges for WLA services was whether such services were bought together in fixed proportions, and, in relation to such services, connections and rentals have an element of fixed proportions through minimum contract periods, although there is also a variable element as contract periods vary. Contrary to BT's suggestion, we do not accept that this comment in this context can give rise to any legitimate expectation on BT's part as to how Ofcom will resolve these Disputes, nor that Ofcom has acted in a manner which is not transparent, consistent or proportionate.¹⁹⁷

Ofcom's approach to starting charges in the 2009 LLCC Statement

- 8.71 Assessing cost orientation and setting a charge control are two distinct regulatory activities and the approach taken in one does not imply the correct approach to take in the other. We disagree with BT that in our Provisional Conclusions we drew too sharp a distinction between them. While we acknowledge BT's argument that setting charge controls and assessing cost orientation are both aimed at ensuring that BT's charges are consistent with those that would be charged in a competitive market, we note that the two remedies operate in different ways and are intended to be complementary. Indeed, we stated in the 2009 LLCC Statement that we would not rely on cost orientation alone because:

*"We do not think reliance on cost orientation would be sufficient ex-ante remedy on its own, as it is intended to complement rather than replace price cap regulation. The absence of price caps would be likely to allow BT to raise its prices significantly. In addition, a cost orientation obligation only looks at the relationship of BT's prices to its costs. A cost orientation obligation would not for example give BT's [sic] the same incentives to keep its costs under control in the same way that [a] price cap would."*¹⁹⁸

- 8.72 When services are subject to a charge control, as well as applying an RPI-X control to changes in charges in each year of the control, we can require changes to the charges that are set at the beginning of the control period. In deciding whether to require such changes we need to balance a number of competing efficiency

¹⁹⁵ Whilst BT notes that "*crucially*", this letter was written after the PPC Judgment had been published, it was in fact written more than four months prior to the PPC Judgment.

¹⁹⁶ BT's 20 May 2011 submission, footnote 32.

¹⁹⁷ We note that in the context of BT seeking to advance a similar type of legitimate expectation argument in the PPC Disputes, which argument the CAT did not accept, the CAT stated that "[i]f the meaning of [the relevant condition] is clear, then what BT will have to establish is that Ofcom quite clearly stated that – despite this clear wording – [the relevant condition] will be applied in a different way" (paragraph 207 of the PPC Judgment). BT clearly cannot do this by reference to a letter written in 2010 in a different market.

¹⁹⁸ 2009 LLCC Statement, paragraph 3.49.

considerations.¹⁹⁹ On the one hand, inefficient entry signals and allocative inefficiency can arise where the prices of individual services are significantly out of alignment with the underlying costs of provision. On the other hand, starting charge changes can reduce a firm's incentives to reduce costs towards the end of a charge control period, if the firm believes the cost savings will be eliminated at the start of the next charge control.²⁰⁰

- 8.73 In general therefore, we prefer to make as few starting charge changes as possible, and to allow BT to use the flexibility within the charge control design to adjust its charges where necessary. However, in cases where charges are materially out of alignment with underlying costs, starting charge changes may be the most appropriate course of action. For example, we required BT to make a one-off reduction to the starting charge for BES 1000 rental of 17% in the 2009 LLCC Statement.²⁰¹
- 8.74 In that case, we established the appropriate level of the starting charge for BES 1000 rental by comparing the aggregate connection and rental prices over the contract life of an AISBO circuit (assumed to be three years) to the aggregate of our adjusted DSAC values for these services. We explained that in considering possible starting charge adjustments, we had looked at BT's rental and connection costs (for each BES and WES service) together, as (i) those charging elements fall in the same economic market; (ii) BT's wholesale customers would necessarily consume them together; and (iii) it is not always clear what the optimal structure of charges is, and what the balance should be between up-front (connection) and recurring (rental) elements for efficient recovery of costs.²⁰² We said that in formulating the starting charge adjustments, we had *"taken an initial view of how BT would be required to comply with its cost orientation requirement. This is not a definitive position in relation to BT's compliance with its cost orientation obligation, but it does reflect our interpretation of the requirement based on the information currently available."*²⁰³
- 8.75 However, we said in the 2009 LLCC Statement that our approach to starting charge adjustments was *"without prejudice to cost orientation"*²⁰⁴ and that *"cost orientation issues are not within the scope of the LLCC"*.²⁰⁵ As we stated when we set Condition HH3 in the 2008 BCMR Statement, *"although the charge control conditions will... limit average charges, they do not in themselves control the level of individual charges within a basket subject to an average charge control. In the absence of this [cost orientation] condition, BT might set individual charges at excessively high or anti-competitively low levels within a basket."*²⁰⁶
- 8.76 The adjustment to BES 1000 rental charges was not therefore intended to ensure that BT was compliant with its cost orientation obligation.²⁰⁷ Rather it was intended to strike a balance between the competing efficiency considerations we have identified

¹⁹⁹ 2008 LLCC Consultation, paragraph 5.45.

²⁰⁰ We explain these competing considerations and our principles for making one-off adjustments to starting charges in paragraphs 3.216 to 3.223 of the 2009 LLCC Statement.

²⁰¹ 2009 LLCC Statement, paragraph 5.89.

²⁰² 2009 LLCC Statement, paragraph 3.235.

²⁰³ 2009 LLCC Statement, paragraph 3.241.

²⁰⁴ 2009 LLCC Statement, paragraph 5.90.

²⁰⁵ 2009 LLCC Statement, paragraph 3.227.

²⁰⁶ Table 8.11 of the 2008 BCMR Statement

²⁰⁷ 2009 LLCC Statement, paragraph 5.90 and 5.94.

in paragraph 8.72 above, in the knowledge that any such starting charge changes would be complemented by the cost orientation obligations.²⁰⁸

- 8.77 Contrary to BT's argument that "*if Ofcom were concerned about undermining incentives for cost reduction under cost orientation, then this could be accommodated in its cost orientation assessment*" (see paragraph 8.32 above), our concern about undermining incentives for cost reduction (i.e. pursuing productive efficiency) does not primarily arise in relation to cost orientation but rather, as set out at paragraphs 8.71 and 8.72 in the context of charge controls. As we explain further at paragraph 9.91, there are different aspects of economic efficiency (e.g. allocative, productive and dynamic efficiency). Ensuring that charges are closely related to the underlying costs of provision promotes allocative efficiency. However, the design of charge controls, and the treatment of starting charges in particular, can have a strong bearing on the incentives for a firm to pursue productive and dynamic efficiency improvements. Given their particular importance to RPI-X charge controls, it is not surprising that a different balance between the three types of economic efficiency may be struck by the regulator when setting charge controls than when imposing a cost orientation obligation. We do not consider this balance is altered by BT's point that Ofcom is able to adjust data in order to make a prospective assessment in setting a charge control.
- 8.78 Finally, as we explained in our Provisional Conclusions, BT cannot argue that it took any comfort or guidance from the 2009 LLCC Statement when considering the appropriateness of its charges, as the 2009 LLCC Statement was published after the majority of the charges in dispute were set. While certain charges were set after publication of the 2009 LLCC Statement²⁰⁹, BT has not provided any evidence that its introduction of these charges was influenced by the 2009 LLCC Statement.
- 8.79 We also do not consider that our approach to setting starting charges in the 2009 LLCC Statement can give rise to a legitimate expectation on BT's part as to how Ofcom will resolve these Disputes.²¹⁰

Conclusions on which charges should be cost orientated

- 8.80 Condition HH3.1 requires that "*each and every charge offered, payable or proposed for Network Access*" shall be cost orientated. BT has argued that connection and rental charges should be aggregated for these purposes. For the reasons set out above, in particular the fact that BT lists separate charges for connections and rentals in the OPL, we consider that "each charge" means that connection and rental charges should be assessed separately. We do not consider that BT has made any argument which supports a conclusion that we should depart from the requirement clearly set out in Condition HH3.1 that "*each and every charge offered*" should be cost orientated. We have therefore resolved these Disputes by assessing each individual charge in dispute separately.

²⁰⁸ See, for example, 2009 LLCC Statement, paragraphs 3.228 to 3.231 and 3.240.

²⁰⁹ Specifically, BT introduced revised charges for BES 10 and BES 100 rental charges in April 2010, for BES 1000 and WES 100 rental charges in January 2010, for WES 10 rental charges in January and March 2010 and for WES 100 connections in April and September 2010.

²¹⁰ We note the CAT's comments in the PPC Judgment, as set out at the second footnote to paragraph 8.68 above in this respect, and we do not consider that our approach to setting starting charges in the 2009 LLCC Statement meets those requirements.

Section 9

Approach to determining whether BT's charges were cost orientated

Introduction

- 9.1 In this Section we set out our approach to determining whether BT's charges in dispute were cost orientated in the Relevant Period, taking into account the arguments made by the Parties both before and in response to our Provisional Conclusions.
- 9.2 In our Provisional Conclusions we set out that, given the similarities²¹¹ between these Disputes and the PPC Disputes²¹², we considered it appropriate to adopt the same approach to assessing BT's charges that we adopted in the 2009 PPC Determinations. That approach was upheld by the CAT in the PPC Judgment, which itself was upheld by the Court of Appeal in the PPC Court of Appeal Judgment. We acknowledged that the factual circumstances relevant to these Disputes are not identical to those of the PPC Disputes and considered how we would address any differences in the factual circumstances.
- 9.3 The approach we proposed to adopt seeks to address two key questions in relation to BT's charges, both of which stem from Condition HH3.1:
- 9.3.1 Has BT demonstrated to our satisfaction that its charges in dispute were cost orientated?
- 9.3.2 If it has not done so, do we nevertheless consider BT's charges to be cost orientated?
- 9.4 The scope of the Disputes relates to overcharging. Therefore, while BT's failure to demonstrate to our satisfaction that its charges are cost orientated constitutes a breach of its obligations (i.e. a 'no' to the first question), it is only where such a breach is accompanied by overcharging (i.e. a 'no' to the second question) that we consider whether to require a remedy.
- 9.5 As we set out in our Provisional Conclusions, an important stage of our proposed approach to addressing the second of these questions is the comparison of BT's charges with the DSAC cost measure (i.e. the so-called "DSAC test").
- 9.6 We received detailed comments from a number of parties on the appropriate assessment methodology in this case. Many of these comments related to the merits of using DSAC as the cost standard and the appropriate weight to be given to FAC. We consider these arguments in detail in this Section.

²¹¹ For example: consistency of the wording of the relevant SMP conditions and that the conditions were all imposed in the same market review for the same time period.

²¹² BT's 8 December 2010 submission (prior to the handing down of the CAT's PPC Judgment) notes similarities (as well as differences) between the two disputes. It anticipated that clarity would be provided by the CAT's judgment in the PPC appeal about: the nature of the 'first order' test provided by DSAC; the degree of disaggregation at which cost orientation should be assessed; the importance that should be placed on the impact on consumers and competition; and what second order tests are appropriate and the weight that should be given to them.

9.7 The remainder of this section is therefore structured as follows:

- 9.7.1 **Our proposed approach to resolving the Disputes in our Provisional Conclusions** – we start by recapping our proposed approach and reasoning, then setting out the Parties' comments and our response (paragraphs 9.9 to 9.24).
- 9.7.2 **Appropriate role for DSAC and FAC in our assessment** – the appropriate role for DSAC and FAC was a main focus of the responses from the Parties. We therefore devote a considerable portion of this Section to addressing these arguments (paragraphs 9.26 to 9.173).
- 9.7.3 **Ensuring that the DSAC test is not implemented in a mechanistic way** – where BT's charges exceed the DSAC ceiling, we consider additional factors which may be relevant, in order to avoid engaging in a mechanistic assessment (paragraphs 9.174 to 9.243).
- 9.7.4 **Our conclusions on the appropriate approach to determining whether BT's charges were cost orientated** – finally (paragraph 9.244), we set out our approach to determining whether BT's charges were cost orientated in light of the comments received from the Parties.

9.8 The various cost concepts relevant to these Determinations were discussed in detail in the 2009 PPC Determinations²¹³ and the PPC Judgment.²¹⁴ Rather than explain these concepts again in this document, we have provided brief definitions in Annex 6.

Our proposed approach to resolving these Disputes

Our Provisional Conclusions

9.9 In our Provisional Conclusions:

- 9.9.1 we started by considering what obligations Condition HH3.1 imposes on BT;
- 9.9.2 we then considered the implications of those obligations for determining these Disputes;
- 9.9.3 next we set out why we considered DSAC to be the appropriate cost benchmark to use in assessing whether the charges relevant to these Disputes are cost orientated; and
- 9.9.4 finally, we set out why and how we ensured that the DSAC test is not implemented in a mechanistic way.

9.10 At each stage, we considered the findings of the CAT in the PPC Judgment, which we considered was a relevant precedent.

9.11 Initially we address the first of the two issues in paragraphs 9.12 to 9.17 and the second in paragraphs 9.18 to 9.24. We consider the third and fourth issues later in this Section.

²¹³ 2009 Final Determinations, Annex 11.

²¹⁴ PPC Judgment, Section IV: "The Economics of Cost Orientation" and Annex B.

What do BT's obligations in relation to cost orientation require?

- 9.12 The charges in dispute are subject to Condition HH3.1, a cost orientation obligation imposed on BT in the 2004 LLMR Statement. The wording of Condition HH3.1 is identical to that of the SMP condition which was considered in the PPC Judgment (Condition H3.1).
- 9.13 BT's compliance with Condition HH3.1 is at the heart of these Disputes. Therefore in order to determine whether or not BT has overcharged the Disputing CPs, we proposed to assess BT's compliance with its cost orientation obligation in respect of each of the charges in dispute.
- 9.14 Condition HH3.1 (like Condition H3.1) requires that:
- 9.14.1 first, each and every charge covered by Condition HH3.1 must:
- a) be reasonably derived from the costs of provision based on a forward looking long run incremental cost approach;
 - b) allow for an appropriate mark up for the recovery of common costs; and
 - c) include an appropriate return on capital employed.
- 9.14.2 second, BT must be able to demonstrate this to Ofcom's satisfaction.
- 9.15 If BT is unable to fulfil these two requirements for any of the charges covered by Condition HH3.1, it will be in breach of Condition HH3.1.
- 9.16 The CAT considered in the PPC Judgment how the first of these requirements operates:²¹⁵

"Stage 1: Deriving prices from LRIC. In the first instance, prices must be reasonably derived from LRIC. This means that, essentially, SAC is to be disregarded when setting prices, and the prices are to be based upon (or reasonably derived from) incremental costs. In other words, in the first instance, prices are to be set without reference to common costs. (emphasis in original)

"Stage 2: A mark-up for common costs. It is well recognised... that if a firm prices all products or services at LRIC, common costs fall out of account, and will not be recovered. The firm will make a loss. This is recognised in the second stage of Condition H3.1, which permits "an appropriate mark up for the recovery of common costs". As we have noted (paragraphs 85 to 95 above), there are a number of ways in which common costs can be allocated between services/products, and Condition H3.1 does not stipulate which, save to say that the mark-up (and so, the method of allocation for common costs) must be "appropriate".

"Stage 3: The cross-check. Condition H3.1 expressly states that prices shall include an appropriate return on capital employed. At first blush, this provision may seem redundant, since interest on borrowed capital is a common cost that should be reflected in prices derived using Stages 1 and 2. However, return on shareholders' equity is not an accounting cost but still should be "appropriate".

²¹⁵ PPC Judgment, paragraph 245.

The provision is an important one, because it ensures that prices orientated in accordance with Stages 1 and 2 are fair in this respect."

- 9.17 In our Provisional Conclusions, we considered that the key question for resolving these Disputes is how to determine what constitutes "*an appropriate mark up for common costs*" in Stage 2 above. We noted that there is no uniquely correct or uniquely appropriate method for allocating common costs.²¹⁶ The SMP conditions therefore give BT flexibility to adopt whatever methodology it chooses, provided it is appropriate. As the CAT noted:

*"BT is given a discretion in terms of how it allocates common costs, which discretion is circumscribed by the need for the method of allocation to be "appropriate".*²¹⁷

Implications of BT's cost orientation obligations for resolving the Disputes

- 9.18 BT's discretion over its allocation of common costs at Stage 2, and the allied requirement for it to be able to demonstrate to our satisfaction that its exercise of discretion is appropriate, has implications for how Ofcom should approach disputes regarding BT's compliance with its cost orientation obligations.

- 9.19 At paragraph 249 of the PPC Judgment the CAT explained how it expects BT's discretion, and Ofcom's right to monitor the exercise of that discretion, to operate:

"(1) It is, in the first instance, for BT to decide how to allocate common costs. Were BT to do so "appropriately" then – provided this was capable of demonstration to the satisfaction of OFCOM – we do not consider that it would be open to OFCOM to impose upon BT an alternative method of allocating common costs, even if that were also an "appropriate" method. (As we have noted, there is no one way of allocating common costs, and we consider that there will generally be several "appropriate" ways.)

(2) If, however, BT were unable to demonstrate to the satisfaction of OFCOM that it had allocated common costs appropriately, this would amount to a breach of Condition H3.1 [...]

*(3) Assuming, for the moment, non-compliance with Condition H3.1, the next question that arises is how it is tested whether BT's prices for the relevant product or service are or are not cost orientated. Such a question might well arise in the course of a Compliance Process or – as here – in the course of a Dispute Resolution Process. Even assuming that BT has failed to demonstrate that its cost orientation obligation has been complied with, this does not necessarily mean that BT's prices are not cost orientated. All that has happened, is that BT has failed to demonstrate that they are cost orientated. In our view, in such circumstances, it is for Ofcom – given that BT has failed to demonstrate compliance – to test whether common costs have been appropriately allocated."*²¹⁸ (emphasis in original)

- 9.20 We proposed to follow the CAT's approach for resolving these Disputes. As such, our provisional assessment of the alleged overcharge essentially involved answering two key questions:

²¹⁶ As also explained in the 2009 PPC Determinations, Annex A11.10.

²¹⁷ PPC Judgment, paragraph 246; see also paragraph 247.

²¹⁸ PPC Judgment, paragraph 249.

- 9.20.1 Has BT demonstrated to our satisfaction that its charges in dispute were cost orientated (i.e. do they meet the criteria set out at paragraph 9.14.1 above)? If it has done so, then there is no overcharging. BT is afforded discretion in how it demonstrates that its charges are cost orientated, as long as it can demonstrate to our satisfaction that its chosen approach is appropriate.
- 9.20.2 If it has not done so, we must ask whether BT's charges were nevertheless appropriate (i.e. did they recover an appropriate allocation of common costs?). This raises an important question: what is the most appropriate cost benchmark or test for Ofcom to use in assessing compliance?

Views of the Parties

- 9.21 The Disputing CPs comment on specific aspects of our methodology, but do not explicitly comment on its general structure.
- 9.22 In its response to our Provisional Conclusions, BT made a number of submissions in relation to errors of law which it alleged the CAT had made in the PPC Judgment and Ofcom was "*in danger of adopting*" in these Disputes. BT considers that the CAT's approach to cost orientation was legally flawed because it:
 - 9.22.1 failed to have regard to Ofcom's duties under section 3(3) of the Act to act in a manner which is transparent, accountable, proportionate and consistent;
 - 9.22.2 failed to have regard to the scheme and objectives of the CRF, including the duty placed on Ofcom to promote competition; and
 - 9.22.3 failed to take account of Ofcom's 1997 and 2001 NCC Guidelines (see paragraphs 4.15 to 4.17 above), including their provision that the primary focus when assessing cost orientation is the effect or likely effect of a charge on competition and consumers.²¹⁹
- 9.23 In its comments on the PPC Court of Appeal Judgment, BT states that the Court of Appeal found that BT's arguments in relation to the CAT's approach to cost orientation were "*ones of fact and application of regulatory policy and not of law*", and that "*[g]iven the facts of this dispute and the relevant regulatory policy considerations*" BT maintains the arguments summarised above.

Our response to the views of the Parties

- 9.24 The Court of Appeal rejected BT's argument that the CAT's or Ofcom's approach to cost orientation was flawed.²²⁰ We therefore do not consider that BT's objections to the CAT's approach to cost orientation have merit.
- 9.25 We acknowledge BT's argument that the circumstances of these Disputes are not identical to those of the PPC Disputes. We consider that we have identified the differences between them and addressed them in these Determinations.

²¹⁹ BT's response to our Provisional Conclusions, paragraphs 361 to 371.

²²⁰ PPC Court of Appeal Judgment, paragraph 80.

Appropriate role for DSAC and FAC in our assessment

Our Provisional Conclusions

- 9.26 In order to assess whether charges are cost orientated, in addition to the LRIC it is necessary to allocate common costs across services (as well as including an appropriate return on capital employed). There are a number of methodologies which could potentially be used to allocate costs. We explain here why we proposed that DSAC is the appropriate cost benchmark to use in assessing whether the charges relevant to these Disputes are cost orientated.
- 9.27 In the 2009 PPC Determinations we explained that we considered DSAC to be the most appropriate cost benchmark for our assessment of BT's compliance with the relevant condition. Our decision was based on a number of reasons including:
- 9.27.1 the DSAC approach reflects the practical application of underlying economic theory, recognising the major conceptual and practical challenges of implementing SAC/combinatorial tests;²²¹
 - 9.27.2 in our view DSAC strikes an appropriate balance between the desire to provide BT with the incentives and flexibility to both reduce costs and efficiently recover common costs, and the desire to protect consumers and competition from either harmful or anti-competitive charges that could arise from boundless pricing flexibility;²²²
 - 9.27.3 the use of DSAC was recognised by BT (including in its own yearly Primary Accounting Documents ("PAD") throughout the Relevant Period) as the approach that Ofcom would adopt for analysing complaints that charges were unreasonable "*in order to avoid complex combinatorial tests*" and that the DSAC represents the "*maximum price that can be charged*".²²³
- 9.28 The CAT found in the PPC Judgment that²²⁴:
- 9.28.1 "*[i]n this case, DSAC represented the best single measure for assessing whether the condition had been satisfied and so marked the upper limit or ceiling on the permissible mark up of prices*";
 - 9.28.2 the two other approaches available to Ofcom (i.e. SAC/combinatorial testing and FAC) were not appropriate on the basis of "*FAC being too rigid and combinatorial tests being unworkable*". As a consequence it found that "*our conclusion is that in the context of orienting to cost prices like 2Mbit/s trunk, DSAC was the only practicable test to use*";
 - 9.28.3 the operation of Condition H3.1 was "*clear and we are not persuaded that there is any legal uncertainty in the present case*". Furthermore, the CAT concluded that "*DSAC was not unknown in the context of communications regulation, including to BT: given the materials that we have described, we*

²²¹ 2009 PPC Determinations, paragraph 5.56.

²²² 2009 PPC Determinations, paragraph 5.112.

²²³ 2009 PPC Determinations, paragraph 5.56. See for example section 5.3.5 (*Distributed Stand Alone Cost (DSAC) of Network Components*) of the 2009/10 PAD:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2010/PrimaryAccountingDocuments2010.pdf>.

²²⁴ PPC Judgment, paragraph 307.

do not consider that BT can have been in any way surprised or taken aback by Ofcom's resort to the DSAC test"; and

9.28.4 *"BT's third contention was that OFCOM treated prices above DSAC as intrinsically excessive and in breach of Condition H3. Our conclusion is that this is exactly what Condition H3.1 requires".*

9.29 Given the clear similarities and overlaps between the issues in these Disputes and those considered in the 2009 PPC Determinations and the PPC appeal, where BT has failed to demonstrate that its charges are cost orientated, we proposed to consider the appropriateness of BT's charges on the basis of comparing its external revenues against DSAC for those charges in dispute. This is a process that we refer to as the "DSAC test".

Views of the Parties

9.30 Our proposed use of DSAC and its rationale received detailed comment from the Parties. Both Virgin and CWW agree that DSAC is the appropriate cost standard to use in resolving these Disputes.²²⁵ In contrast:

9.30.1 Verizon argues that Ofcom should give very serious consideration to using FAC, not DSAC, as the cost standard to assess cost orientation, rather than consigning FAC *"to a "second order" or "cross check" status by default"*. Verizon considers that there is a good case for a FAC-based approach *"given that CCA FAC is the closest available proxy for LRIC+"* and it is the main standard used in BT's RFS²²⁶;

9.30.2 TTG accepts that DSAC could have a role as a first order test, but this should be followed by a further set of tests based around FAC²²⁷; and

9.30.3 Sky argues that DSAC has some merits in an assessment of cost orientation, but that it should not be applied mechanistically and that in this instance, FAC is a more appropriate cost standard²²⁸.

9.31 BT disagrees with TTG and Sky's conclusions as to the appropriate test to apply. BT accepts that DSAC (not FAC) is the appropriate cost standard to use in assessing cost orientation in this dispute^{229 230}.

9.32 We set out below their arguments, as well as issues raised in the Joint Frontier Report submitted by TTG and Sky, as to:

9.32.1 whether there is a need to consider economic efficiency;

9.32.2 whether prices set at (or based closely on) FAC would maximise economic efficiency;

9.32.3 whether FAC-based combinatorial tests are required;

²²⁵ Virgin's response to our Provisional Conclusions, paragraph 5.4; CWW's response to our Provisional Conclusions, paragraph 37.

²²⁶ Verizon's response to the Verizon Provisional Conclusions, pages 2 to 3.

²²⁷ TTG's response to our Provisional Conclusions, paragraph 6.9 and Section 3.

²²⁸ Sky's response to our Provisional Conclusions, paragraphs 50 and 58.

²²⁹ Although BT considers we should use recalculated DSACs for the period (see Section 12) and that we have applied DSAC mechanistically and inflexibly (see Section 14).

²³⁰ BT's comments on the Disputing CPs' responses, paragraph 90.

- 9.32.4 whether DSAC is rooted in economic theory;
 - 9.32.5 the relevance of the PPC Judgment;
 - 9.32.6 the risk of following an approach which would have an effect equivalent to imposing a retrospective charge control; and
 - 9.32.7 regulatory certainty.
- 9.33 The first four of Sky and TTG's arguments are criticisms of our proposed use of DSAC, while the remaining three relate to whether their proposed approach would be appropriate and consistent with our duties in light of the PPC Judgment.

Whether there is a need to consider economic efficiency

- 9.34 TTG argues that our resolution of the Disputes should be consistent with our statutory duties, and the requirements of the CRF. It argues that our duties require us to resolve the Disputes in a manner that maximises economic efficiency. For example, referring to our duty under section 3(1) of the Act to further the interests of consumers in relevant markets, where appropriate by promoting competition, TTG argues that “[t]hese objectives of consumers’ interests and promotion of competition will be best met by pricing that is economically efficient”,²³¹ TTG suggests that economic efficiency is enhanced if there are incentives to minimise costs (productive efficiency), by sending efficient entry and investment price signals based on efficient forward-looking costs (which it suggests requires prices to be set at or below FAC, i.e. at efficient FAC), and that overall there is no over-recovery of costs.²³² TTG’s more detailed arguments in relation to FAC are set out below.
- 9.35 BT argues that many of TTG and Sky’s arguments (below) seem to “*revolve around pre-supposing economically efficient costs*”. However, BT notes that the cost orientation obligation did not specify that prices had to be derived from *efficient* costs of provision, but from the costs of provision (albeit on a CCA, rather than HCA, basis). Accordingly, the underlying premise that “*the obligation must be assessed by reference to efficient forward looking costs [...] runs contrary to the actual wording of the obligation imposed on BT.*”²³³
- 9.36 Further, BT argues that there is no requirement preventing over-recovery of costs under the European Directives or the Act. It suggests that “*[s]uch a test would, in effect, mean that price regulation was solely about ensuring cost recovery. This was rejected as a form of regulation in the early 1980s.*”²³⁴
- 9.37 BT notes that a price set above DSAC can still be cost orientated. This was expressly recognised by the CAT when considering the suitability of DSAC.²³⁵ BT challenges TTG’s assertion that it was clear to BT that it had to provide evidence its prices were efficient. It argues “*BT was made aware of no such thing, and there was certainly no requirement in the cost orientation obligation that the prices had to be economically efficient prices. TalkTalk is simply re-writing the obligation.*”²³⁶ BT also states that “*Ofcom has never previously suggested that the use of DSAC [...] is conditional on*

²³¹ TTG’s response to our Provisional Conclusions, paragraph 3.21.

²³² TTG’s response to our Provisional Conclusions, paragraphs 3.19 to 3.59.

²³³ BT’s comments on the Disputing CPs’ responses, paragraphs 84 to 86.

²³⁴ BT’s comments on the Disputing CPs’ responses, paragraph 82.

²³⁵ BT’s comments on the Disputing CPs’ responses, paragraph 67. BT refers to paragraph 285 of the PPC Judgment.

²³⁶ BT’s comments on the Disputing CPs’ responses, paragraph 59d.

*various evidential matters being established.*²³⁷ It also notes that there has never been any suggestion that the ceiling might be lower than DSAC.

Whether prices set at (or based closely on) FAC would maximise economic efficiency

Introduction

- 9.38 Sky and TTG consider that the intended purpose of the cost orientation obligation is to reduce the scope for common cost over-recovery and excessive pricing while allowing the regulated firm the opportunity to recover its costs (including common costs).²³⁸ They argue that if all BT's prices were set at DSAC, BT would significantly over-recover its common costs.²³⁹
- 9.39 TTG argues: "*We accept that the rationale and methodology for imposing charge controls is different to cost orientation and more price flexibility may be warranted.*" However, it argues that our approach to charge controls is well established and therefore provides a useful reference point. It also argues that according to sections 87 and 88 of the Act, similar approaches to analysing costs should be used for assessing prices under cost orientation obligations and for setting prices in charge controls.²⁴⁰
- 9.40 TTG also argues that BT setting prices above efficient forward looking costs means that BT's downstream rivals experience higher costs than BT's own retail activities, creating a margin squeeze and resulting in weakened and distorted competition.²⁴¹
- 9.41 Sky argues that, where many services share the same common costs, the welfare loss that stems from allowing the firm to recover fixed common costs can be minimised by ensuring that common cost recovery is allocatively efficient. This could mean that services with relatively inelastic demand make a larger contribution to relevant common costs than relatively more price elastic services (i.e. following Ramsey pricing principles²⁴²).²⁴³ Therefore some deviation from FAC for individual services may be justified.
- 9.42 Frontier Economics suggests that it is inappropriate to look at the DSAC test alone, as this pushes the test to do more than it was supposed to achieve. It suggests that the DSAC ceiling was not intended to ensure prices at an aggregate level were reasonable; nor was DSAC set out as the only or determinative rule of a price ceiling for individual services, but rather as a first order test.²⁴⁴
- 9.43 BT argues that in practice allowing greater pricing flexibility and higher prices is likely to encourage entry and, as the "*Ethernet market was a new market*", there was clear

²³⁷ BT's comments on the Disputing CPs' responses, paragraph 79.

²³⁸ Sky's response to our Provisional Conclusions, paragraph 58; TTG's response to our Provisional Conclusions, paragraph 3.72.

²³⁹ Sky's response to our Provisional Conclusions, paragraph 48; TTG's response to our Provisional Conclusions, paragraph 2.9.

²⁴⁰ TTG's response to our Provisional Conclusions, paragraph 3.26.

²⁴¹ TTG's response to our Provisional Conclusions, paragraph 3.50.

²⁴² See the glossary at Annex 7. For further explanation on Ramsey pricing rules, see Laffont, Jean-Jacques and Tirole, Jean (1993), *A Theory of Incentives in Procurement and Regulation*, vol. 1, 1 ed., the MIT Press.

²⁴³ Sky's response to our Provisional Conclusions, paragraphs 36 and 39.

²⁴⁴ Joint Frontier Report, paragraph 23; TTG's response to our Provisional Conclusions paragraph 3.103.

justification for allowing higher prices which encouraged additional competition from other firms in the wholesale market.²⁴⁵ It argues:

*“TalkTalk’s suggestions are all premised on the notion that charges should be set to maximise static efficiency (where prices are in line with costs). They pay no regard to dynamic efficiency and the benefits that result from sustainable competition in the longer run. Prices above FAC can be ‘efficient’ if they are consistent with the development of competition that would not otherwise be possible because the benefits of competition in the longer run outweigh any short term loss of static efficiency”*²⁴⁶

- 9.44 BT also rejects the suggestion that there is a problem related to potential over-recovery. It argues that, excluding holding gains and losses, the rate of return on Openreach SMP services (including AISBO) assessed on a CCA basis was almost exactly in line with the cost of capital over the period between 2006/07 (the first year for which Openreach returns are available) and 2010/11, and it has not therefore over-recovered its costs. In any case, BT notes that Ofcom has never imposed rate of return regulation assessed by reference to efficient forward looking costs in the way suggested by TTG. It also notes that *“such a test has the difficulty that it requires identification of the set of relevant services outside those in dispute (and outside the relevant market)”*.²⁴⁷
- 9.45 BT considers that TTG’s argument that BT has created a margin squeeze is a new specific allegation which has never formed part of these Disputes and states that this allegation is wrong.²⁴⁸

Arguments in favour of FAC

- 9.46 Sky and TTG also suggest that the risk of over-recovery would have been reduced by a concurrent charge control. Sky argues that a charge control in this case would have *“ensured that aggregate prices across the basket would be at or near to forecast FAC”* and the use of *“DSAC and DLRIC narrow the range of possible prices of individual services within the basket”*. However, there was no charge control on AISBO services until 2009. Even if WES and BES were priced at DSAC, BT *“would have over-recovered its common costs unless there were off-setting lower common cost contributions from non-AISBO services.”* Sky claims however that there is no evidence of non-AISBO services being priced in this way.²⁴⁹
- 9.47 In Sky’s view, *“absent any compelling evidence of off-setting lower contributions to common costs by non-AISBO services, FAC is the appropriate AISBO cost orientation ceiling because it reduces (but does not eliminate) the risk of BT over-recovering its common costs”*.²⁵⁰ TTG also suggests that, without evidence as to why pricing up to DSAC was justified, the default position should be FAC.²⁵¹

²⁴⁵ BT’s comments on the Disputing CPs’ responses, paragraph 69.

²⁴⁶ BT’s comments on the Disputing CPs’ responses, paragraph 71.

²⁴⁷ BT’s comments on the Disputing CPs’ responses, paragraphs 81 to 83 and 87.

²⁴⁸ BT’s comments on the Disputing CPs’ responses, paragraphs 88 to 89.

²⁴⁹ Sky’s response to our Provisional Conclusions, paragraphs 51 and 52; TTG’s response to our Provisional Conclusions, paragraph 3.14.

²⁵⁰ Sky’s response to our Provisional Conclusions, paragraph 35 bullet 6.

²⁵¹ TTG’s response to our Provisional Conclusions, paragraph 3.81.

- 9.48 TTG, Verizon and Sky refer to the fact that CCA FAC is used as a proxy for LRIC+EPMU²⁵², and that this implies that this is a reasonable starting point for cost orientation.²⁵³

Allocative efficiency

- 9.49 TTG suggests that any assessment of cost orientation should consider the extent to which the use of pricing flexibility by BT results in economically efficient charges.²⁵⁴ Sky and TTG argue that there are two conditions for pricing up to DSAC to be allocatively efficient (and so, in their view, compliant with the cost orientation condition):
- 9.49.1 retail products supported by WES/BES need to be substantially more inelastic than other retail products which share common costs; and
 - 9.49.2 there need to be lower mark-ups for other relevant regulated products to offset above FAC pricing on WES/BES.²⁵⁵
- 9.50 They argue that BT has not provided evidence to suggest it meets these conditions and further, that neither condition has in fact been met.²⁵⁶
- 9.51 Sky argues that in order to justify pricing even marginally above FAC the relative elasticities of services in the respective downstream retail markets that are served by both purchasers of AISBO and purchasers of other services sharing the same common costs would have to be very different. It states there is no evidence of this.²⁵⁷ Moreover, even if there were such evidence, the Condition requires that BT demonstrates this to the satisfaction of Ofcom. Sky argues that, based on our Provisional Conclusions, "*BT does not appear to have offered such evidence, nor has Ofcom provided any such evidence*".²⁵⁸
- 9.52 TTG argues that "*DSAC does not bear any relation to economic efficiency considerations*" and that "*there is no economic logic that makes DSAC appropriate as the ultimate benchmark as to whether charges are cost orientated or not*". TTG therefore argues that DSAC fails to provide the "*'appropriate' level of price flexibility*" that Ofcom claims.²⁵⁹ Indeed for the use of DSAC as an upper ceiling to be justified on the basis of Ramsey pricing (and therefore allocative efficiency), TTG argues that the price elasticity of demand for retail services that WES and BES services support would need to be three times more inelastic than other relevant retail services. TTG considers this to be implausible. Frontier Economics finds that, based on its set of simplifying assumptions, the welfare-optimising price was below DSAC even if the

²⁵² LRIC plus an equi-proportionate mark-up for common costs (i.e. a mark-up in proportion to the LRICs).

²⁵³ TTG's response to our Provisional Conclusions, paragraph 3.6; Verizon E3 submission, page 3; Sky's response to our Provisional Conclusions, paragraph 42.

²⁵⁴ TTG's response to our Provisional Conclusions, 3.24.

²⁵⁵ TTG's response to our Provisional Conclusions, paragraph 3.77; Sky's response to our Provisional Conclusions, paragraphs 52 and 53; Joint Frontier Report, paragraph 65.

²⁵⁶ TTG's response to our Provisional Conclusions, paragraphs 3.78 to 3.84; Sky's response to our Provisional Conclusions paragraphs 55 to 56.

²⁵⁷ Sky's response to our Provisional Conclusions, paragraphs 55 and 57.

²⁵⁸ Sky's response to our Provisional Conclusions, paragraph 35 bullet 5.

²⁵⁹ TTG's response to our Provisional Conclusions, paragraphs 3.35 and 3.36.

elasticity of the other product was ten times more elastic than the WES product it considered.²⁶⁰

- 9.53 Furthermore, TTG argues that there is evidence to suggest that not only is there insufficient variation in the underlying relative price elasticities to justify DSAC as a price ceiling on the grounds of Ramsey pricing, but that there was no offsetting under-recovery versus FAC on other relevant services. It also notes that BT has not provided detailed evidence on either of these two issues to justify its prices, despite its obligation to demonstrate that its prices were compliant with the cost orientation obligation, and despite ample opportunity to provide such evidence.²⁶¹
- 9.54 BT argues that TTG and Sky are wrong to suggest there are no economic justifications for a significant degree of pricing flexibility. In fact, BT argues that DSAC *“does not go far enough to give effect to the underlying economic considerations justifying price flexibility”*.²⁶² BT argues that TTG and Sky's arguments focus almost exclusively on allocative efficiency, and ignore or relegate the importance of dynamic efficiency and encouraging market entry. BT considers that ignoring dynamic efficiency is what leads Frontier Economics to conclude that a FAC price ceiling is better than one based on DSAC.²⁶³

Practicability

- 9.55 TTG accepts that the use of a DSAC test is more practical than using SAC/combinatorial tests, but argues that a FAC based test is even more practicable. In addition, it claims that SAC and combinatorial tests *“should be ignored since they say nothing about whether pricing is efficient”*.²⁶⁴
- 9.56 BT did not comment on the practicability of FAC. We discuss in Section 14 BT's comments on the difficulties in predicting DSACs.

Whether FAC-based combinatorial tests are required

- 9.57 TTG argues that to maximise economic efficiency, and thereby act in accordance with its duties, Ofcom should ensure that²⁶⁵:
- 9.57.1 *“In aggregate across all products BT should not over-recover its total costs i.e. aggregate revenue should equal total FAC”;*
- 9.57.2 *“Generally prices for individual products which are close to FAC with similar mark-ups on each product will best promote efficient entry/investment and effective competition”;* and
- 9.57.3 where higher mark-ups for some products are allowed for Ramsey pricing purposes, these *“must be offset by lower than FAC prices on other products to meet the overall recovery objective”*.
- 9.58 TTG notes that *“the burden is on BT to demonstrate that its charges are compliant”* and argues that this means that *“If prices for certain products are higher than FAC then to demonstrate that its prices are economically efficient and therefore compliant*

²⁶⁰ Joint Frontier Report, annex 1.

²⁶¹ TTG's response to our Provisional Conclusions, paragraphs 3.60 to 3.85.

²⁶² BT's comments on the Disputing CPs' responses, paragraph 65.

²⁶³ BT's comments on the Disputing CPs' responses, paragraphs 68 to 74.

²⁶⁴ TTG's response to our Provisional Conclusions, paragraphs 3.152.3 and 3.152.5.

²⁶⁵ TTG's response to our Provisional Conclusions, paragraph 2.4.

*with its cost orientation obligation BT would have to provide evidence that: these product(s) were more inelastic and also provide evidence that above FAC pricing on these products was offset by below FAC pricing on other relevant products".*²⁶⁶

9.59 TTG suggests three cumulative tests:²⁶⁷

9.59.1 "Ceiling on each/every individual product test set at FAC+30%".

9.59.2 "Ceiling on WES/BES product group test set at FAC+10%".

9.59.3 "Overall cost-recovery test: Since no under-recovery on other relevant products then no justification for higher than FAC prices for external WES/BES products."

9.60 In TTG's view, we should only depart from these ceilings if BT provides relevant and reliable evidence regarding relative price elasticities of demand and under-recovery elsewhere.²⁶⁸

9.61 BT argues that "[t]he attempts of the CPs to argue for FAC, FAC plus a particular percentage, and an overall cost-recovery test should all be rejected."²⁶⁹

Whether DSAC is rooted in economic theory

9.62 TTG claims that "DSAC is not underpinned by economic theory and nor is it linked to any economic concept" but just "happens to fall between LRIC+EPMU and SAC". Further it claims that there is "no economic logic" which makes DSAC appropriate as the ultimate benchmark of cost orientation.²⁷⁰

9.63 Frontier Economics also suggests that using DSAC alone would provide poor compliance incentives for BT in future, and could provide BT with an incentive to price other services for which it has a cost orientation obligation but no charge control at or above DSAC.²⁷¹

9.64 BT argues "it is wrong to suggest that DSAC is completely divorced from economic justifications". It argues that the increased flexibility provided by applying DSAC rather than FAC is supported by economic justifications. BT's criticism of DSAC is that it does not go far enough to give effect to the underlying economic considerations justifying price flexibility. BT agrees with TTG that "DSAC may or may not alight on the right amount of flexibility", but argues that precisely the same criticism of "arbitrariness" applies to the first two limbs of TTG's three-fold test.²⁷²

²⁶⁶ TTG's response to our Provisional Conclusions, paragraph 6.18.

²⁶⁷ TTG's response to our Provisional Conclusions, paragraph 2.10; Frontier Economics suggests a similar test: first the DSAC test for each charge, then a FAC-based second check on a suitable group of services (e.g. WES, BES or both together) allowing some flexibility e.g. FAC+5% for the group as a whole.

²⁶⁸ TTG's response to our Provisional Conclusions, 2.11

²⁶⁹ BT's comments on the Disputing CPs' responses, paragraph 90.

²⁷⁰ TTG's response to our Provisional Conclusions, paragraphs 3.33 and 3.35.

²⁷¹ Joint Frontier Report, paragraphs 49 to 51.

²⁷² BT's comments on the Disputing CPs' responses, paragraphs 65 and 66.

The relevance of the PPC Judgment

- 9.65 TTG and Frontier Economics consider the PPC Judgment to be of limited relevance, putting forward their view of the differences between the circumstances of these Disputes and the PPC Disputes. Frontier refers to:²⁷³
- 9.65.1 *“The existence of a price cap on terminating segments of PPC which were generally purchased in conjunction with the trunk segments persistently priced above DSAC”;*
- 9.65.2 *“The much larger number of services priced above DSAC in the BES/WES disputes compared to a single component in the PPC dispute”;*
- 9.65.3 *“The closeness of FAC based returns for PPC services in aggregate to the cost of capital”;* and
- 9.65.4 *“The appeal and hence the CAT’s judgment is restricted to Ofcom’s determination in relation to identifying excessive pricing for 2Mbit/s trunk services which was based on a charge by charge comparison with DSAC – as such it did not have to consider tests involving groups of products.”*
- 9.66 TTG argues that:²⁷⁴
- 9.66.1 *“The CAT did not consider the merits of using ceilings lower than DSAC on each/every individual products since no lower ceilings were proposed.”*
- 9.66.2 *“The CAT did not consider what would be an appropriate ceiling on a group of products (most obviously since only one product was at issue).”*
- 9.66.3 *“The CAT did not consider (since it was not asked to) whether there had been under-recovery on other products that share common costs with 2Mbps trunk”.*
- 9.67 BT also argues that the PPC Judgment should be confined to its facts²⁷⁵, but its comments on that subject do not extend to the question of whether DSAC was the appropriate cost standard.

The risk of following an approach which would have an effect equivalent to imposing a retrospective charge control

- 9.68 BT argues that:

“If Ofcom were now to apply a FAC test, or to apply either of the first two limbs of the TTG proposal (that is, FAC plus some percentage), that would effectively be imposing an RPI-X price control on the product group in question but after the event. This would... effectively be going back and altering the deliberate decision which Ofcom made in 2004 when it decided not to impose a charge control on AISBO services in 2005 so as to avoid setting charges in line with FAC. That decision was made for good economic

²⁷³ Joint Frontier Report, paragraph 28.

²⁷⁴ TTG’s response to our Provisional Conclusions, paragraph 3.113.

²⁷⁵ BT’s response to our Provisional Conclusions, paragraphs 35 to 40.

*reasons...and it would be both incorrect, and contrary to principle to alter it now with retroactive effect.*²⁷⁶

9.69 In addition, it argues that:

*"...none of the advantages which TTG and Sky identify in terms of economic efficiency can be obtained by setting a different cost standard retrospectively. Even if for the sake of argument their approach was the correct one, it needed to be imposed at the time in order to give rise to the efficiency benefits that they describe."*²⁷⁷

Regulatory certainty

9.70 TTG argues that there is no reason of "*precedent, expectation or regulatory certainty*" to require us to use DSAC in this case as:²⁷⁸

9.70.1 The use of DSAC as a first order, but not definitive, test was well known to BT over the period.

9.70.2 Ofcom has the discretion to adopt different tests and this discretion cannot be fettered by previous approaches.

9.70.3 Previous (relevant) cases do not support the use of DSAC alone.

9.70.4 It would be "*absurd*" for BT to expect Ofcom to interpret its cost orientation obligation so as to allow it to substantially over recover its costs.

9.71 TTG argues that BT's reasonable expectation should have been that the ceiling on each product was below DSAC, with the degree to which it is lower depending on other considerations such as economic efficiency, and that it would have to provide evidence to justify its prices.²⁷⁹

9.72 TTG claims that "*It is notable that BT itself seemed to recognise that DSAC represented the highest possible ceiling that could be allowed – in other words, BT understood that the allowed price ceiling might be set below DSAC*".²⁸⁰ To support this claim, it highlights two quotes from BT's PAD:

*"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."*²⁸¹

*"To avoid complex combinatorial tests, DSACs are calculated by attributing fixed common costs shared between the Core and other increments to individual components. This results in ceilings for individual components that are below their actual SACs."*²⁸² (Emphasis added by TTG)

²⁷⁶ BT's comments on the Disputing CPs' responses, paragraph 76.

²⁷⁷ BT's comments on the Disputing CPs' responses, paragraph 77.

²⁷⁸ TTG's response to our Provisional Conclusions, paragraph 3.152.

²⁷⁹ TTG's response to our Provisional Conclusions, paragraph 3.118.

²⁸⁰ TTG's response to our Provisional Conclusions, paragraph 3.105.

²⁸¹ BT Regulatory Financial Statements, 2008 PAD s3.5.3.

²⁸² BT Regulatory Financial Statements, 2010 PAD s5.3.5.

- 9.73 TTG also argues that *“it cannot be said that Ofcom’s antecedent position/practice indicates or requires only the use of a DSAC ceiling test”*. It argues that the NCC Guidelines make it clear that DSAC is not *“the be all and end all”*, and that *“BT should have reasonably expected that Ofcom would take into account other factors and in particular economic efficiency considerations in assessing whether its prices were compliant.”*²⁸³
- 9.74 Frontier Economics suggests it could be no surprise to BT that Ofcom considers FAC measures as well as DSAC. It notes that BT itself provides analyses based on DSAC, DLRIC and FAC in the RFS under the heading cost orientation, and BT has indicated pricing decisions in relation to services where BT is subject to cost orientation obligations were taken with reference to FAC.²⁸⁴
- 9.75 Frontier Economics also highlights that Ofcom has used FAC extensively as the basis for setting price controls, so it argues there should be no element of surprise if Ofcom chose to use FAC as a metric additional to DSAC on each service if the circumstances warranted it.²⁸⁵
- 9.76 BT argues that there are *“overwhelming objections”* to applying a new cost standard for assessing compliance which was not known at the time prices were set. If a new cost standard is to be introduced it can only apply prospectively.²⁸⁶ BT argues that it would *“clearly be inappropriate to develop policy regarding a new approach to compliance using the dispute resolution process”* and that the proper place for the Disputing CPs’ suggestions of a new approach to the assessment of cost orientation would be in Ofcom’s pending forward-looking consultation on cost orientation or in response to market review and charge control consultations. Introducing a new approach retrospectively would be *“unfair and in breach of consistency, transparency, certainty and non-retroactivity”*. BT notes that Sky and TTG fail to point to any material suggesting that the use of FAC or a similar approach was *“ever intimated to BT by Ofcom”*, and suggests that in fact Ofcom accepts it has never previously considered it would be appropriate to apply a FAC-based test which set a ceiling below DSAC.²⁸⁷
- 9.77 BT argues that the arguments from the NCC Guidelines on which TTG relies to support its argument all go to the issue of *“the flexibility with which DSAC is to be applied”*, as opposed to whether another test would be more appropriate:

*“...the point being made briefly in the extracts from BT’s RFS...is no more than that DSAC provides less pricing freedom than SACs or combinatorial tests. As is obvious, those extracts do not set out to discuss the flexibility with which DSACs are to be applied, or whether prices above DSAC may be consistent with a cost orientation obligation – a point which both the NCC Guidelines and the CAT’s PPC Judgment support.”*²⁸⁸

Relevance of our approach in other cases

- 9.78 TTG argues that our approach in other cases should not tie our hands in how we approach this case, as each dispute should be determined on its own merits. TTG further argues that other cases where we have resolved similar issues or made

²⁸³ TTG’s response to our Provisional Conclusions, paragraphs 3.103 and 3.104.

²⁸⁴ Joint Frontier Report, paragraph 54.

²⁸⁵ Joint Frontier Report, paragraph 57.

²⁸⁶ BT’s comments on the Disputing CPs’ responses, paragraph 54.

²⁸⁷ BT’s comments on the Disputing CPs’ responses, paragraphs 54 and 58.

²⁸⁸ BT’s comments on the Disputing CPs’ responses, paragraph 59a.

statements about cost orientation are sufficiently different cases to be of limited relevance, or do not support our proposed approach. In this respect, TTG highlights three cases, as set out in the following paragraphs.²⁸⁹

9.79 *Interconnection products in 1997 and 2001*: TTG highlights that the DSAC test on each and every product was originally formulated in the 1997 and 2001 NCC Guidelines with respect to interconnection products.²⁹⁰ TTG highlights that a concurrent charge control (the NCC) also applied to interconnection products at the time, which constrained overall cost recovery. TTG argues the cost orientation obligation only needed to constrain the pricing of individual product(s). TTG notes that in the case of WES/BES, there was no such basket charge control (before 2009), and argues that Condition HH3.1 therefore “needs to also provide a constraint on overall cost recovery”. It argues that “the approach to cost orientation for interconnection products cannot act as a precedent as to what appropriate cost orientation tests should be”.²⁹¹

9.80 *WLR ISDN 2 dispute*: TTG refers to a dispute we resolved between Energis and BT with regard to alleged overcharging for WLR ISDN2²⁹² for the period 28 November 2003 to 1 October 2004. TTG notes that we determined the cost orientated price for this service on the basis of LRIC+EPMU (which is similar to FAC):²⁹³

“Ofcom has considered what is meant by an “appropriate mark up” and an “appropriate return on capital employed”. In the case of WLR ISDN2, BT’s SMP in the relevant market is entrenched and the product is not a new one. This means that it is reasonable for “appropriate” to be interpreted as an equal proportionate mark-up for common costs, consistent with other services in which BT has persistent SMP and Ofcom has determined charges, and an allowed rate of return equal to the cost of capital.”²⁹⁴

9.81 *PPC Disputes*: TTG argues that, for the reasons set out in paragraphs 9.65 and 9.66 above, the 2009 PPC Determinations and the subsequent appeal are of limited relevance to these Disputes. Further, it argues that in any event, the 2009 PPC Determinations were made in October 2009 and so could not have informed BT’s expectations when setting prices in the period April 2006 to July 2009. It argues that the PPC Dispute therefore cannot play any role in setting precedent or be relevant to regulatory certainty.²⁹⁵

9.82 BT considers that each case must be determined on its individual merits and notes that this forms the basis of its argument for a more flexible application of DSAC.²⁹⁶

9.83 BT argues that “[the WLR ISDN2 dispute] case was, as the quotation indicates one where BT had had “persistent SMP”. The situation is very different from the present one where Ofcom set a cost orientation obligation in view of the new nature of the market and with a view to seeing how competition developed.”²⁹⁷

²⁸⁹ TTG’s response to our Provisional Conclusions, paragraphs 3.106, 3.107, 3.109 and 3.116.

²⁹⁰ TTG response to our Provisional Conclusions, paragraph 3.110.

²⁹¹ TTG’s response to our Provisional Conclusions, paragraphs 3.110 and 3.112.

²⁹² Wholesale business ISDN2 line rental services.

²⁹³ TTG’s response to our Provisional Conclusions, paragraph 3.115.

²⁹⁴ Resolution of a dispute between Energis and BT relating to BT’s charges for WLR ISDN2 from 28 November 2003 until 1 October 2004, paragraph 46.

²⁹⁵ TTG’s response to our Provisional Conclusions, paragraph 3.114.

²⁹⁶ BT’s comments on the Disputing CPs’ responses, paragraph 59b.

²⁹⁷ BT’s comments on the Disputing CPs’ responses, paragraph 59c.

Our analysis

Whether there is a need to consider economic efficiency

- 9.84 We disagree with Sky and TTG that Condition HH3.1 requires BT to demonstrate its charges are “efficient”: the wording of the Condition (which, as noted at paragraph 9.28.3 above, the CAT considers clear) requires BT to demonstrate that its charges are cost orientated, not that they are economically efficient. It is not appropriate for us to undertake an assessment of the economic efficiency of BT’s charges when assessing compliance with its cost orientation obligations. To the extent that economic efficiency concerns are relevant to the underlying purpose of the cost orientation obligation, we take these into account at the time that we set SMP Conditions.
- 9.85 In addition, as we explain further in the following paragraphs, we do not agree with TTG and Sky’s characterisation of our statutory duties or how economic efficiency is best pursued to meet them.
- 9.86 Our objective in imposing SMP conditions is to address the competition problems we have identified in finding that BT (or another CP) has SMP in a particular market. In doing so, we must take account of our statutory duties and Community requirements under sections 3, 4 and 4A of the Act. When setting SMP conditions, we are specifically required under section 88 of the Act (in accordance with Article 13 of the Access Directive) to set an obligation appropriate for the purposes of promoting efficiency, promoting sustainable competition and conferring the greatest possible benefits on end users.
- 9.87 Our principal duty, as set out in section 3(1) of the Act, is to further the interests of citizens and consumers, where appropriate by promoting competition. Promoting economic efficiency can play an important role in furthering the interests of consumers. Competition tends to further economic efficiency and the interests of consumers through the benefits it can provide by way of lower prices, higher quality and greater choice.
- 9.88 However, we disagree with TTG’s argument that our duties require us to prevent BT from over-recovering its costs in order to maximise economic efficiency and confer the greatest possible benefits on end users. Our duties are not simply directed towards preventing over-recovery of costs. Rather, they require us to strike a balance between cost recovery concerns and ensuring firms have the incentives to invest, innovate and compete. This may legitimately involve short term divergence between prices and costs.
- 9.89 We ensured that we complied with our statutory duties when we imposed Condition HH3.1 in the 2004 LLMR Statement²⁹⁸, and again in the 2008 BCMR Statement. In the 2008 BCMR Statement, we set out in detail our consideration of our general duties under section 3 of the Act, including furthering the interests of citizens and consumers, where appropriate by promoting competition²⁹⁹ and our consideration of the Community requirements in section 4 of the Act³⁰⁰.

²⁹⁸ See, for example, 2004 LLMR Statement, paragraph 7.10.

²⁹⁹ See for example paragraphs 8.17 and 8.18 of the 2008 BCMR Statement; paragraphs 8.11 to 8.26 set out our views more fully.

³⁰⁰ *ibid.*, paragraph 8.19.

- 9.90 Although Condition HH3.1 does not require us to consider whether BT's charges are economically efficient, we nevertheless go on to consider the specific arguments made by TTG and Sky that using DSAC as the appropriate cost standard will lead to inefficiency.

Whether prices set at (or based closely on) FAC would maximise economic efficiency

Introduction

- 9.91 Generally economists identify three different types of efficiency:³⁰¹
- 9.91.1 Productive efficiency – ensuring there is no inefficiency or waste in production so that goods are produced as cheaply as possible;
 - 9.91.2 Allocative efficiency – ensuring that the right combinations of goods and services are produced given the tastes and preferences of consumers; and
 - 9.91.3 Dynamic efficiency – improvements which occur over time as investment and innovation, for example arising from increased competition, result in the development of new goods and services, and technological advances that make the production of current and future goods and services less costly.
- 9.92 Dynamic efficiency can be related back to productive and allocative efficiency, e.g. investment in a process innovation that reduces costs enhances productive efficiency and investment in an innovative new service valued by consumer enhances allocative efficiency. But it is often helpful to identify it as a third type of efficiency, emphasising the incentives to invest and innovate and the development of competition, even if there is potential for overlap with the other two types of efficiency.
- 9.93 There are sometimes tensions among the types of efficiency, in the sense that the pursuit of one type of efficiency may compromise, to some extent, the pursuit of the other types. For example, regulating prices to outturn costs (e.g. rate of return regulation) can be good for allocative efficiency as it keeps prices linked to costs, but is generally poor for other forms of efficiency, particularly productive efficiency, as it provides little incentive to minimise costs. Also, by contrast, regulators could allow regulated firms to charge relatively high charges (e.g. removing charge controls) to encourage entry and competition but this may have, at least in the short term, detrimental impacts on allocative efficiency. As a result, in deciding upon our regulatory approach in a particular case, we have to balance the effects of different options on the different types of efficiency. The appropriate balance between different efficiency considerations will depend on the circumstances of a particular case and should be guided by our regulatory objectives in accordance with our statutory duties.
- 9.94 While the power to impose both charge controls and cost orientation obligations arise from the same legislation in pursuit of the same broad objectives as highlighted by TTG (and Frontier Economics³⁰²) they are fundamentally different obligations, which allow the regulator to strike a different balance between various considerations. This not only includes balancing the different types of efficiency, but can also involve taking into account factors such as the degree and persistence of market power, the

³⁰¹ Productive and allocative efficiency are sometimes collectively referred to as 'static efficiency'.

³⁰² Joint Frontier Report, paragraph 42.

stage of development of the market, the importance of the pricing efficiencies that may be available, the risk and consequences of the firm exploiting its market power and the risk of regulatory failure, i.e. the potential for regulation to fail to achieve its desired objective and/or to have undesirable unintended consequences.

- 9.95 The risk of regulatory failure is itself important when considering how to balance the pursuit of efficiency, as the regulator faces substantial difficulty in determining the economically efficient set of prices, given the complexity of the relevant considerations and the large informational requirements. Generally firms will have a better understanding of demand conditions than regulators, and so it is often more appropriate to allow the firm flexibility to set prices to reflect this, rather than the regulator trying to regulate individual prices in a highly prescriptive manner. Therefore, allowing BT flexibility to recover common costs from its charges within suitable bounds to prevent anti-competitive or exploitative pricing which could arise from the abuse of SMP may further allocative efficiency and in some cases other desirable outcomes, such as dynamic efficiency.
- 9.96 Significant effort is therefore put into market reviews to ensure that the mix of remedies adopted for individual markets strikes the appropriate balance. We set out in paragraphs 4.22 to 4.32 the nature of the considerations we balanced in the 2004 LLMR Statement and 2008 BCMR Statement in relation to the AISBO services in dispute in imposing a cost orientation obligation from 2004 and a cost orientation obligation³⁰³ and charge control from 2009. Both market reviews involved balancing the different types of economic efficiency. For example, as set out in paragraphs 4.26 and 4.27 above, in 2004 the decision to impose a cost orientation obligation, but not a charge control, reflected greater emphasis being placed on dynamic efficiency considerations (such as the development of competition) than allocative or productive efficiency and recognised the relatively high risk of regulatory failure given the state of development of the market. However, by 2008 the market circumstances had changed such that we considered a different balance was appropriate (see paragraphs 8.252 to 8.256 of the 2008 BCMR Consultation). We therefore imposed a charge control as well as cost orientation for low bandwidth AISBO services “*in order to ensure that BT has an appropriate incentive to improve the efficiency of its operations*”.³⁰⁴ Therefore, in 2008 greater focus was given to productive and allocative efficiency than in 2004 and there was a lesser concern about regulatory failure.
- 9.97 As we set out in more detail in the following paragraphs, the approach adopted by Ofcom to assess BT's compliance with cost orientation obligations (or indeed other types of SMP condition) can have implications for all three types of economic efficiency. Not only can it directly impact on the regulated firm's ability to recover, or over-recover, its costs of provision, it can also affect incentives to invest, innovate and compete. TTG's characterisation of our duties in this case focuses to a significant degree on maximising economic efficiency by ensuring that BT does not over-recover its costs, implying that efficiency considerations generally support pricing around FAC. We do not agree that this is the case; setting all prices equal to FAC has the potential to be materially inefficient (in terms of all three kinds of economic efficiency). First, we discuss dynamic efficiency and then productive and allocative efficiency.

³⁰³ In respect of services with bandwidths up to and including 1 Gbit/s.

³⁰⁴ 2008 BCMR Consultation, paragraph 8.256.

Importance of dynamic efficiency

- 9.98 Dynamic efficiency is enhanced by giving the incumbent adequate incentives to invest efficiently, as well as by encouraging investment and competition by others. One of the key factors in creating such incentives is ensuring regulatory certainty and consistency. Consistent and stable decision making by the regulator allows all industry players to plan their investments and outputs with sufficient certainty about charging or regulatory decision making (i.e. it reduces risk). For the reasons set out in paragraphs 9.149 to 9.169 below, we do not consider that TTG and Sky's proposals in these Disputes are consistent with regulatory certainty.
- 9.99 Longer term economic efficiency can be improved if BT has incentives to innovate and invest to reduce its costs over time. The prospect of earning supernormal profits from innovation and cost reduction is liable to induce greater effort to undertake such activities than if there was no such prospect. We consider that such a stringent system of regulation as envisaged by TTG and Sky (i.e. limiting BT's charges to efficient FAC) is inconsistent with this as it eliminates the prospect of supernormal profits regardless of how those profits have arisen.
- 9.100 Moreover, we do not agree that setting prices at efficient FAC would have the benefits for entry and investment signals that TTG claims. Higher prices may encourage entry in AISBO market(s) that is statically inefficient in the short term, but this may enhance competition in the longer term, bringing benefits through dynamic and productive efficiency. The short term loss of static efficiency (from any inefficient entry) needs to be balanced against the longer term benefits of competition. Such trade-offs and considerations, along with the other types of relevant factors set out in paragraph 9.94 above, are considered when setting remedies during market reviews.
- 9.101 Our view in response to TTG and BT's representations regarding margin squeeze, is that cost orientation is a separate piece of regulation designed to provide bounded flexibility to BT in setting prices, and is not directly employed to prevent margin squeeze and discrimination. We have separate tools specifically designed to address such concerns, such as EOI, non-discrimination conditions and Competition Act powers. Therefore, we do not consider it necessary or appropriate to alter our approach to enforcing cost orientation obligations to address such concerns.
- 9.102 In addition, TTG's arguments appear to suggest that, where circumstances imply that there is the potential for a margin squeeze, such a squeeze inevitably occurs. However, whether or not a margin squeeze occurs will also depend upon BT's relevant downstream prices, upon which TTG does not comment. Further, the only way in which the potential for a margin squeeze is avoided is if wholesale prices are set at marginal cost, in which case downstream competitors face the same costs at the margin as BT's own downstream business. No one in these Disputes is contending that setting prices at marginal cost is an appropriate interpretation of cost orientation.

Productive efficiency and cost minimisation incentives

- 9.103 Sky and TTG argue that, if FAC amounts to 'rate of return regulation', so does DSAC³⁰⁵ as both reflect BT's actual costs and therefore have similar cost minimisation incentive properties (even if the level of the allowed return with DSAC would be much higher than with FAC). However, this ignores that the DSAC ceiling

³⁰⁵ Sky's response to our Provisional Conclusions, paragraphs 59 to 60; TTG's response to our Provisional Conclusions, paragraph 3.42.

may not always be a binding constraint on prices because BT can price below DSAC and still recover its costs. In contrast, we would generally expect FAC to be a binding constraint, because if prices are capped at FAC, as incurred by the regulated firm, it fails to recover its costs unless it sets prices up to this limit.

- 9.104 While it may well be the case that the cost minimisation incentives of DSAC and FAC are similar where the firm treats DSAC as a binding constraint for the pricing of a particular service, we would not necessarily expect BT to price all services up to DSAC. For example, in some cases the profit maximising price may be below DSAC (as noted by Frontier Economics³⁰⁶).
- 9.105 Non-binding ceilings can have advantages in terms of cost minimisation incentives compared to binding ceilings. With binding ceilings the firm has no incentive to reduce costs as this would just force them to reduce prices, leaving overall profitability unchanged. With ceilings above FAC (such as DSAC), not all prices have to be set up to the ceiling for the firm to recover its costs. Where prices are below the ceiling, the firm still has an incentive to reduce costs³⁰⁷ as it would be able to recoup the increased difference between price and cost as higher profit. Therefore, a ceiling above FAC can be expected to provide some additional cost minimisation incentives, albeit not as strong as those provided by charge controls.

Allocative efficiency and pricing flexibility

- 9.106 TTG's arguments about whether pricing at DSAC could be allocatively efficient appear to rest on whether such pricing is consistent with Ramsey pricing principles. As noted above, where common costs exist, and mark-ups for individual services result in prices being above marginal (or incremental) cost, the application of Ramsey pricing principles can contribute to a more allocatively efficient set of prices than other methods of allocating common costs.
- 9.107 However, economic theory suggests that there are further considerations, in addition to Ramsey pricing, which affect the welfare-optimal price for wholesale services.³⁰⁸ For example, Armstrong, Doyle and Vickers³⁰⁹ characterise the optimal access price for a wholesale input as depending not only on the marginal cost and the Ramsey-based mark-up for common costs, but also the difference between the charge for, and the marginal cost of, other inputs the incumbent supplies and, in some cases, the profit the incumbent loses when a retail customer switches to a competitor. We also note that the authors' findings are (for good reason) based on a simplified model based on a number of restrictive assumptions (e.g. about the form of competition in the retail market). Relaxing these assumptions would be likely to introduce yet further factors and complexities. Therefore, determining whether charges are economically efficient poses significant practical difficulties beyond the need to determine the appropriate Ramsey mark-up (which in itself is very difficult to estimate).
- 9.108 The rationale underlying TTG's FAC-based approach seems to be that a charge below DSAC may not be cost orientated as it is nevertheless associated with economic harm (as it does not maximise economic efficiency) compared to a charge

³⁰⁶ See footnote 32 of the Joint Frontier Report.

³⁰⁷ As long as it does not reduce them to the point where DSAC falls below the price.

³⁰⁸ For further details on the theory of welfare-optimal wholesale prices, see Chapter 1 of OECD (2004), *Access Pricing in Telecommunications* and Armstrong (2001), "The Theory of Access Pricing and Interconnection" in *Handbook of Telecommunications Economics*, Volume 1.

³⁰⁹ Armstrong, Doyle and Vickers (1996), "The Access Pricing Problem: A Synthesis", *The Journal of Industrial Economics*, Volume XLIV, No. 2 (June 1996), pp 131-150.

at the fully efficient level.³¹⁰ As we explain in paragraph 9.134.1 below, the CAT in the PPC Judgment found that an analysis of economic effects is unnecessary to assess compliance with Condition H3.1.³¹¹ TTG's underlying rationale for its proposed approach therefore appears to be at odds with the approach set out by the CAT in the PPC Judgment, which was upheld by the Court of Appeal in the PPC Court of Appeal Judgment.

- 9.109 Notwithstanding this important point, in our view, while such circumstances would be unusual, we accept that a charge below DSAC may in some circumstances represent overcharging, as set out in the 1997 NCC Guidelines and the 2009 PPC Determinations. However, in such circumstances a price above FAC (or a group of prices above FAC) is not in itself sufficient to demonstrate overcharging has occurred.

Conclusions

- 9.110 We disagree with Sky and TTG that FAC should be the starting point for assessing the cost orientation of each and every charge, for the following reasons:

9.110.1 First, the CAT rejected FAC as a reasonable approach to cost orientation for Ofcom to impose on BT due to its inflexibility.³¹²

9.110.2 Second, although when setting charge controls we consider that (CCA) FAC (as a proxy for LRIC+EPMU) is a reasonable mark-up for the basket as a whole, we do not consider it is a reasonable starting point for cost orientation of the prices of individual services in the basket. It is unlikely to be reasonable or beneficial for every charge within the basket to be set at FAC. One of the reasons for setting a basket control rather than setting charge controls for each individual product is to allow greater flexibility in how BT recovers common costs from different charges. When we have imposed a charge control we have generally also imposed a cost orientation condition as a separate and additional requirement. The charge control applies to the average price of the basket of services, whereas the cost orientation condition imposes limits on the flexibility of the prices of individual services.

9.110.3 Third, it does not follow that we consider FAC is the efficient level of all charges which are not in a charge control. Charges set at FAC would only be the welfare optimising price in a limited number of special cases. Ofcom uses FAC in setting basket charge controls where the competition concerns are sufficiently serious that such intrusive regulation is warranted despite the associated risk of regulatory failure, such as the numerous practical and conceptual difficulties in estimating welfare-optimal prices (see paragraph 9.107 above). This does not imply that we consider BT's FAC to reflect an optimal pricing level for individual services. Where the competition

³¹⁰ Frontier Economics suggested that using DSAC with no other control or cross-check could lead to a number of economic distortions (Joint Frontier Report, 52. TTG makes a similar point at 3.48 of its submission). However, we note that the distortions outlined by Frontier Economics could arise under any remedy that did not involve strictly controlling BT charges to outturn FAC. As such, they would also be relevant to an RPI-X charge control (in particular one that makes use of multiple service baskets), for example. As noted above, in setting and enforcing remedies, Ofcom needs to strike a balance between the sometimes conflicting effects of different regulatory approaches. This may involve trading off some distortions or effects for the pursuit of other, more important objectives.

³¹¹ PPC Judgment, paragraphs 294 to 305, 329.

³¹² PPC Judgment, paragraph 286(2).

concerns are less severe or the market circumstances are sufficiently different such that charge controls are not warranted, a less prescriptive regulatory approach is appropriate, allowing the regulated firm greater flexibility to set prices.

- 9.110.4 Fourth, the absence of a charge control does not strengthen the case for using FAC as the primary benchmark for assessing cost orientation based on the argument that over-recovery is not otherwise prevented. As we have set out above, the regulatory regime, including the use of cost orientation obligations, does not seek only to avoid over-recovery of costs; rather it seeks to strike a balance of considerations, of which over-recovery may only be one. Such decisions about the appropriate mix of remedies are made at the time when the SMP conditions are imposed in market reviews – in the case of the disputed charges, in the 2004 LLMR Statement and the 2008 BCMR Statement.
- 9.111 We disagree with TTG's view of the relevance of our approach to charge controls to our task in these Disputes to assess compliance with cost orientation (see paragraph 9.39 above). When imposing charge controls, Ofcom generally uses a glide path to reduce charges to the level of forecast FAC over the period of the control. This approach is designed to enhance productive and dynamic efficiency in the longer run, by providing incentives to reduce costs over the period of the control. However, these cost reductions are not passed on immediately, as charge controls are not re-opened to take into account additional efficiency improvements beyond those forecast. Therefore, this form of charge control sacrifices some short term allocative efficiency (by allowing prices to deviate from outturn costs for the period of the control) in pursuit of longer term productive and dynamic efficiency. Therefore, not even charge controls are designed to strictly limit charges to outturn FAC. It therefore seems counter-intuitive, and contrary to the relevant regulatory objectives, for services subject to cost orientation obligations (which TTG accepts may warrant more price flexibility than charge controls) to face more restrictive constraints on prices than services covered by charge controls.
- 9.112 We disagree that TTG and Frontier Economics' simplified Ramsey price modelling analysis demonstrates that the use of DSAC cannot be justified:
- 9.112.1 In TTG's example, the required variation in elasticities was -0.09 for the BES 1000 service modelled and -0.25 for the other (unspecified) retail services.³¹³ The difference between these two estimates is between a factor of 2.5 and 3. TTG does not provide empirical evidence of price elasticities for relevant services to support its claim that such a variation in elasticities is "implausible". In our view such a range is not evidently implausible, given for example that the difference in absolute terms between these elasticities is relatively small (only 0.16).
- 9.112.2 Although Frontier Economics' modelling implies a much greater degree of variation in elasticity would be required, we note the findings are sensitive to the (highly) simplified set of assumptions Frontier Economics has adopted. For example, Frontier assumes that BT only provides two services with equal volumes,³¹⁴ which is clearly not realistic.

³¹³ TTG's response to our Provisional Conclusions, endnote viii

³¹⁴ See Figure 6 in Joint Frontier Report.

Whether FAC-based combinatorial tests are required

9.113 Despite TTG raising objections to the use of combinatorial tests in this case³¹⁵, we note that in practice, its proposed three-tier FAC tests amount to a selective set of combinatorial tests. However, these tests limit pricing to FAC plus a varying mark-up (which is zero for at least one test), rather than the SAC measure that is supported by the theory of contestable markets.

9.114 TTG correctly notes that we rejected combinatorial tests in the 2009 PPC Determinations on practical grounds,³¹⁶ but we also raised a number of conceptual problems with them. These included:³¹⁷

9.114.1 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.

9.114.2 Combinations that span charge-controlled and non charge-controlled services may undermine the desired efficiency incentives of price caps.

9.114.3 Combinations that span SMP and competitive markets may distort the operator's pricing incentives in competitive and/or SMP markets.

9.114.4 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.³¹⁸

9.114.5 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.

9.115 TTG makes suggestions for dealing with some of these conceptual issues.³¹⁹ However, in the 2009 PPC Determinations we argued that the NCC Guidelines suggest evidence on SAC/combinatorial tests could 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*".³²⁰ TTG's proposal for dealing with these issues is not a generally accepted methodology.

9.116 Furthermore, we are not satisfied that TTG's suggested approach is appropriate. For example, TTG suggests excluding all services where BT does not have SMP. This

³¹⁵ TTG's response to our Provisional Conclusions, paragraph 3.132, for example.

³¹⁶ TTG's response to our Provisional Conclusions, paragraph 3.147.

³¹⁷ 2009 PPC Determination, paragraph 5.56(v).

³¹⁸ As is evident from this, it is incorrect to say that "*Ofcom has in effect toyed with applying a constraint on overall recovery since such a constraint is implicit in use of combinatorial tests*" (TTG's response to our Provisional Conclusions, endnote x) – this is in fact one of the concerns we raised with using combinatorial tests to assess cost orientation.

³¹⁹ For example, TTG suggests not including charge controlled products when looking for common cost under-recovery (TTG's response to our Provisional Conclusions, 3.73.1). TTG also suggests excluding services where BT does not have SMP (TTG's response to our Provisional Conclusions, 3.73.2).

³²⁰ 2009 PPC Determinations, paragraph 5.56(iv).

argument implicitly relies on FAC being a good estimate of welfare-optimal prices, which, as explained above, is not generally correct and only applies in a limited number of special cases. If it is not a good estimate of welfare-optimal prices, then there is little basis for regarding any price above FAC for SMP services offset by a price below FAC for non-SMP services as inappropriate, economically inefficient or a cross-subsidy. Also, in our view, there is a risk that such a restrictive approach would increase BT's incentives, when deriving its allocation methods to calculate FAC, to load costs on to regulated services and reduce the amount included in FAC for unregulated services.

- 9.117 Whilst TTG argues that the use of DSAC in this case is not supported by economic theory (on which we comment below), in our view the same argument applies to its proposed FAC-based alternatives to DSAC. As noted in paragraph 9.110.3 above, FAC or LRIC+EPMU is not supported by economic theory as being the welfare-optimal price, except under particular circumstances (and that is not the basis on which we use such a cost standard when setting charge controls).
- 9.118 TTG's suggested tests are based on FAC plus a certain percentage, which is not supported by economic theory. In particular, in the absence of a sound justification from TTG for the margins allowed above FAC, they seem to be essentially arbitrary. In presenting its arguments around the justifiable amount of flexibility in setting charges, TTG refers to some figures based on an illustrative model. However, this is presented in the context of explaining why it considers DSAC provides more flexibility than necessary to meet allocative efficiency objectives, rather than to inform the choice of FAC+10% and FAC+30% as ceilings. TTG merely asserts that these ceilings allow "*significant and sufficient flexibility...*"³²¹ with no further explanation of why these levels are "*sufficient*" or "*very generous to BT*".³²² TTG provides no good reason to consider these ceilings provide a reliable bound on welfare-optimal pricing.

Whether DSAC is rooted in economic theory

- 9.119 The economic justification for the use of DSAC was considered extensively by Ofcom in the 2009 PPC Determinations,³²³ and by the CAT during the PPC appeal. Consistent with our view in the 2009 PPC Determinations, we disagree with TTG that DSAC is not based in economic theory. As we explain below, 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.
- 9.120 As noted in Geoffrey Myers³²⁴ witness statement for the PPC appeal and cited in the PPC Judgment,³²⁵ the overarching economic context to the use of DSAC for considering cost orientation is the regulatory balance to be struck between:
- 9.120.1 providing the regulated firm with enough pricing flexibility to recover its costs, including its common costs, in an economically efficient manner; and
 - 9.120.2 ensuring that this flexibility is sufficiently bounded to prevent the regulated firm from exploiting its market power to set anti-competitive, exploitative or otherwise unreasonable charges.

³²¹ TTG's response to our Provisional Conclusions, 3.93.

³²² TTG's response to our Provisional Conclusions, 3.92.

³²³ See, for example, paragraph 5.56 onwards of the 2009 PPC Determinations.

³²⁴ Director of Competition Economics at Ofcom.

³²⁵ PPC Judgment, paragraph 282.

- 9.121 As noted above, this balance may be struck differently depending on the circumstances when deciding the appropriate SMP conditions to impose in the context of a market review. Therefore, useful benchmarks to consider in this context are those that define the *maximum* boundaries of pricing flexibility, even if it will not always be appropriate to permit the regulated firm the full extent of such flexibility.
- 9.122 The theory of contestability posits that SAC is the *maximum* charge that would be sustainable in a competitive market. SAC represents the efficient cost of producing the service in isolation (i.e. on a stand-alone basis).³²⁶ For charges to be sustainable in a contestable market, it is not only sufficient that each individual charge is below its SAC, but each and every combination of services must also be below SAC for the combination. Therefore, applying contestability theory directly would suggest using SAC as a ceiling and applying combinatorial tests.
- 9.123 However, as explained in the 2009 PPC Determinations, given the practical and conceptual problems with applying SAC/combinatorial tests, the analysis used by Of tel/Of com has involved analysing 'broad increments', i.e. much wider than any individual service. The SAC of the broad increment is therefore a combinatorial SAC, i.e. the SAC of the combination of services included in the broad increment. The DSAC of each service in the broad increment is the SAC of the broad increment, distributed among the services in that increment. This approach of the DSAC test consciously involves a departure from the textbook theory of contestability by using a test that applies at the level of individual services without the need to conduct combinatorial tests. It knowingly allows less pricing flexibility than a test of SAC for individual services (or combinatorial tests at a low level of aggregation). But, compared to combinatorial tests (using FAC or SAC) at a higher level of aggregation, DSAC is a less stringent test and it does not necessarily prevent BT from over-recovering common costs (because of the absence of combinatorial tests). It is therefore an alternative to SAC/combinatorial tests. However, it remains rooted in the theory of contestable markets. It is for this reason that we describe it as *'the practical application of underlying economic theory'*.³²⁷ Therefore, we reject TTG's assertion that DSAC is not linked to any economic concept. We also note that the CAT concluded that: *"To the extent that BT maintained its contention ...that DSAC is fundamentally flawed from an economic and regulatory viewpoint", we reject it.*³²⁸ We disagree with Frontier Economics' suggestion that our proposed approach would provide BT with an incentive to price above DSAC where it faced a cost orientation obligation but not a charge control. Condition HH3.1 is an SMP condition and, as such, and consistent with other SMP conditions (e.g. charge controls), BT can face regulatory consequences for breaching it. In our view, there is no reason why BT's incentives to comply with cost orientation obligations using a DSAC test would be weaker than those to comply with either other SMP conditions or cost orientation obligations using other cost measures (e.g. FAC) as the primary benchmark.
- 9.124 Further, the potential for BT to set prices up to DSAC widely across the services in a market is a factor we take into consideration in deciding the appropriate remedies to implement in a market review, including whether to impose a charge control. As noted above, when we found in the 2008 BCMR Statement that BT was earning returns significantly in excess of its cost of capital and became concerned about the

³²⁶ This does not, however, mean that SAC is the most economically efficient (or welfare-optimal) price. That is usually (but not always) lower than SAC.

³²⁷ 2009 PPC Determinations, paragraph 5.56 (iii).

³²⁸ PPC Judgment, paragraph 286.

effect this may have on efficient competition and end users, we imposed a charge control.³²⁹

- 9.125 In conclusion, we do not agree that DSAC has no basis in economics. It is a practical application of the underlying theory of contestability, which avoids the practical and conceptual difficulties associated with using SAC/combinatorial tests.
- 9.126 In terms of practicality, TTG argues that while DSAC is more practical than SAC/combinatorial tests, FAC is even more practical than DSAC. While FAC is more usually used by industry, we consider that DSAC is demonstrably practicable as it has in fact been used for the assessment of cost orientation (e.g. in the PPC Disputes) and in other regulatory settings (e.g. charge controls). Therefore, we do not consider that the practicability of FAC should weigh heavily in our assessment of which cost standard is to be preferred, particularly given the more fundamental concerns with TTG's proposed approach discussed below.

The relevance of the PPC Judgment

- 9.127 TTG and Frontier Economics argue that the PPC Judgment is of limited relevance to this case. We disagree with TTG and Frontier Economics. In our view the PPC Judgment is highly relevant to these Disputes and offers a number of relevant insights in relation to the proposals advanced by TTG and Frontier Economics, as we set out in the remainder of this sub-section.
- 9.128 First, the circumstances surrounding these Disputes and the PPC Disputes considered in the PPC Judgment are similar:
- 9.128.1 the wording of Condition HH3.1 is identical to the wording of Condition H3.1, which was considered in the PPC Judgment;³³⁰
 - 9.128.2 Conditions H3.1 and HH3.1 were imposed in the same market review;
 - 9.128.3 the disputes cover a broadly similar period of time. These Disputes cover the period 24 June 2004 to 31 March 2011, while the PPC Disputes cover the period 24 June 2004 to 30 September 2008. The same guidance was therefore available to BT and other CPs on how we would assess cost orientation; and
 - 9.128.4 although we disagree with TTG that the absence of a charge control on AISBO services should affect our interpretation of cost orientation in this case, we note that our approach in this case is consistent with the approach we adopted in the 2009 PPC Determinations (which were upheld by the CAT). In that case the key service in question (i.e. 2Mbit/s trunk) was also not subject to a charge control. Therefore there is a high degree of consistency in the regulatory treatment of 2Mbit/s trunk services and the AISBO services relevant to these disputes during the Relevant Period.
- 9.129 Second, the grounds of appeal before the CAT (and therefore the questions the CAT was seeking to answer) were more wide ranging than suggested by TTG and Frontier Economics. One of BT's grounds of appeal, for example, was that *"OFCOM has erred in its approach to cost orientation by relying on an unlawful and*

³²⁹ 2008 BCMR Statement, paragraphs 8.253 to 8.254.

³³⁰ This is highlighted by Virgin Media in its response (Virgin Media's response to our Provisional Conclusions, paragraph 5.4).

inappropriate rule for cost recovery and cost orientation (the distributed stand alone costs ("DSAC") test).³³¹ This ground is quite widely cast and involved the CAT considering not only "Is DSAC an appropriate test for cost orientation purposes at all?" but also "If so, what emphasis can properly be placed on DSAC? Or put another way, what does "first order" test mean?"³³² In considering these fundamental questions about how Ofcom should assess compliance with Condition H3.1, it would have been open to the CAT to conclude that DSAC was inappropriately generous as well as inappropriately stringent, and/or that another test was more appropriate, but it did not do so.

- 9.130 Third, the CAT considered the role that the DSAC test should have in any assessment and concluded that its role is important:³³³

"the use of DSAC as a test for cost orientation was not only entirely appropriate, but actually the only satisfactory available course open both to BT (in seeking to comply and show compliance with Condition H3.1) and to OFCOM (in seeking to monitor that compliance).

"...The suggestion that DSAC is simply a "screening test", triggering a further investigation, understates its significance in monitoring compliance with Condition H3.1.

"Treating DSAC as a "rebuttable presumption" in relation to the appropriateness of common cost allocation is a better description of the role that DSAC plays, but even this does not fully articulate the true effect of Condition H3.1. Treating DSAC as a rebuttable presumption also suggests that – if that presumption is rebutted – there can be an investigation into the orientation of BT's prices that carries on without reference to DSAC itself."

- 9.131 Fourth, in terms of a possible 'group test' (see paragraph [9.65.4] above) or combinatorial test, we note that the fact that two services are bought together (trunk and terminating segments, for example) does not form a sound basis for considering those services together when considering common cost recovery. Rather, the relevant span of services for a combinatorial test is the set of services that share those common costs, not the set of services that any particular CP is buying. Therefore, irrespective of other considerations (most notably the wording of Condition HH3.1 which requires each and every charge to be cost orientated), we disagree with TTG that *"had the CAT considered a group test it may have found BT compliant since other PPC products had prices below DSAC and/or below FAC and across PPC products (which were purchased in conjunction with 2Mbps trunk) the return averaged 12.2%"*³³⁴ (emphasis added).

- 9.132 Fifth, we do not agree that the approach we should adopt for assessing charges (subject to an identically worded SMP Condition) should depend upon the number of those charges in dispute (see paragraph 9.65.2 above). Such an approach could give rise to a highly inconsistent and uncertain approach to enforcing an SMP condition and runs counter to the words of Condition HH3.1.

³³¹ See ground (d) at http://www.catribunal.org.uk/files/1146_BT_PPC_Summary_30.12.09.pdf

³³² PPC Judgment, paragraph 276(2).

³³³ PPC Judgment, paragraphs 287 and 294 to 295.

³³⁴ TTG's response to our Provisional Conclusions, paragraph 3.113.2.

- 9.133 Sixth (as noted at paragraph 9.110.1 above), the CAT explicitly noted that, while it is open for BT to seek to demonstrate its compliance using FAC data for individual services, it would not have been appropriate for Ofcom to have used FAC as the primary benchmark for its testing of compliance with Condition H3.1 because of its lack of flexibility:

*"Had BT decided to meet its cost orientation obligations under Condition H3.1 by using FAC, then we consider that this would have been an appropriate approach for BT to adopt, and one that OFCOM would not have been able to challenge had it been adopted. But, of course, its very inflexibility is the reason why BT would not have adopted it. Had Ofcom sought to use FAC as the test for BT's compliance with Condition H3.1, then we consider that this would not have been an appropriate course, for precisely the same reason."*³³⁵

- 9.134 Seventh, the CAT gave no indication that the types of tests proposed by TTG and Frontier Economics or the rationale underlying them (see paragraph 9.59) were appropriate and, indeed, its approach generally points to a view that such an approach would be inappropriate:

- 9.134.1 The underlying rationale for TTG's approach is that a charge below DSAC may not be cost orientated as it is nevertheless associated with economic harm compared to a charge at the fully efficient level (as it does not maximise economic efficiency). However, the CAT explicitly found that an analysis of economic effects is unnecessary to assess compliance with Condition H3.1: "...we do not consider there to be a role for an economic harm test when OFCOM is seeking to assess whether BT has breached Condition H3.1."³³⁶ This view was upheld by the Court of Appeal in the PPC Court of Appeal Judgment. We note that, not only did a number of the Disputing CPs seem to support the CAT's view on the role of effects in our assessment,³³⁷ TTG itself argued in its response to our Provisional Conclusions that:

"We fully agree with Ofcom's position that the presence of economic harm is not a prerequisite for a finding that charges were not cost orientated. Put simply, Condition HH3.1 would have said so if economic harm was a relevant factor that had to be demonstrated".³³⁸

- 9.134.2 Further, while not central to our resolution of them, in the 2009 PPC Determinations Ofcom considered BT's rates of return on capital employed ("ROCE") post-repayment across trunk and terminating segments (i.e. we effectively considered BT's recovery of costs across a range of services beyond those few for which we found an overcharge) compared to its WACC.³³⁹ In the PPC Judgment the CAT expressed doubts that such a cross-check was needed:

³³⁵ PPC Judgment, paragraph 286(2).

³³⁶ PPC Judgment, paragraph 329.

³³⁷ See Virgin Media response, paragraph 5.3 and Sky response, paragraphs 81 to 84.

³³⁸ TTG's submission, paragraph 6.22.

³³⁹ As part of our consideration of whether it was reasonable to direct BT to repay the overcharging for 2Mbit/s PPC trunk services to DSAC, we considered what the impact of this would be on BT. We found that by repaying the overcharged revenue to its external customers BT's rate of return for PPCs over the period of overcharge would fall from 15.1% to 14.2%, which was still higher than BT's average WACC in that period.

"The effect of OFCOM's Determination is that BT must pay a considerable sum of money to the Altnets – with the likelihood of further payments to other communications providers. We consider that to be a consequence of BT's failure to comply with Condition H3.1. OFCOM, however, did take a further factor into account, namely the impact on BT of repaying the overcharged revenue to external customers on BT's rate of return for PPCs in aggregate for the period of overcharging. Essentially, OFCOM wanted to be satisfied that BT's rate of return on capital remained at around 12%. Although, given the conclusions we have stated in the preceding sub-paragraphs, we have some misgivings about this approach, we consider that it was an approach that was open to OFCOM to take..."³⁴⁰ (emphasis added).

- 9.134.3 TTG and Sky's proposed approach places great importance on understanding how cost recovery for the services in question fits in with cost recovery on other services sharing common costs. However, the CAT expressly refrained from reaching a view in the PPC Judgment on under-recovery elsewhere:

"We make no finding as to whether BT was or was not under-recovering in relation to terminating segments generally or 2Mbit/s terminating segments in particular. There is no need to do so for the purposes of this judgment."³⁴¹

If the CAT had thought it was necessary to understand how one charge fits in with overall cost recovery in order to assess compliance with the cost orientation obligation, it seems likely to us that it would have considered this in the PPC Judgment, particularly given that the rates of return post-refund were considerably above WACC for both 2Mbit/s trunk³⁴² and for the trunk market as a whole.

- 9.135 We therefore consider the PPC Judgment to be highly relevant for our approach to assessing whether BT's charges were cost orientated. The PPC Judgment sets out a number of points which support our conclusion that TTG and Sky's suggested approach is inappropriate for resolving these Disputes.

TTG's proposed approach would have an effect equivalent to imposing a retrospective charge control

- 9.136 As set out in paragraph 9.105 above, TTG's approach would retrospectively limit pricing relative to outturn FAC (for both BT as a whole and for individual groups of services). For the reasons set out below, we do not consider that BT could have reasonably expected us to adopt such an approach to assessing cost orientation compliance.

- 9.137 In this case, as set out in more detail below, in the 2004 LLMR Statement we imposed cost orientation obligations on the AISBO market for the first time, but we explicitly rejected the option of imposing a charge control. We considered that we needed to give time for the effects of the cost orientation obligation to impact on the

³⁴⁰ PPC Judgment, paragraph 338(5).

³⁴¹ PPC Judgment, paragraph 140.

³⁴² As demonstrated in Table 3 of Geoffrey Myers' witness statement in the PPC appeal, BT's rate of return on 2Mbit/s trunk services following repayments on external sales for the period where refunds were required was [X]%. This compares to BT's WACC over the period of around [X]%.

competitiveness of the market before considering further whether a price control was needed, stating:

*"[t]he AISBO market is in a relatively early stage of development and it is necessary to give time for the effects of the cost orientation obligation to impact on the competitiveness of the market before considering whether a price control is necessary".*³⁴³

9.138 This reflected, at least in part, the relatively early stage of development of the wholesale AISBO market. We explained that the need for a price control would be considered when the market was next reviewed.³⁴⁴ We considered that imposing cost orientation was an objectively justifiable and proportionate response to the extent of competition in the market, as it enables competitors to purchase services at charges that will enable them to develop competitive services to the benefit of consumers, whilst at the same time allowing BT a fair rate of return that it would expect in competitive markets.³⁴⁵

9.139 Although we did not impose a charge control on AISBO services in 2004, we considered it necessary to impose a cost orientation obligation rather than rely on competition law to control BT's prices. We explained that this was in order to provide a greater constraint on BT and greater certainty to CPs given our finding that BT had SMP:

"As BT has been identified as having SMP in this market, the availability of wholesale AISBO services at cost oriented prices would help to ensure that the resulting competition in the retail leased lines markets and other downstream markets should lead to lower prices.

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."³⁴⁶

9.140 When we reviewed the AISBO market again in 2008, the balance of considerations was different, reflecting the developments in the market over the previous review period. We considered that the returns being earned in the market were not compatible with those earned in a competitive market, and, as a result, efficient competition might be restricted or distorted. In addition, those high returns could have detrimental effects for end users through the setting of retail prices above those that could be found in a competitive market.³⁴⁷ We therefore considered that cost orientation may not be enough going forward and, following a separate consultation, imposed a charge control.³⁴⁸

9.141 Sky and TTG indicate that their concerns in relation to the use of DSAC relate to circumstances where there is no concurrent charge control³⁴⁹. As we imposed a

³⁴³ 2004 LLMR Statement, paragraph 7.63.

³⁴⁴ 2004 LLMR Statement, 7.63.

³⁴⁵ 2004 LLMR Statement, 7.67.

³⁴⁶ 2004 LLMR Statement, paragraphs 7.54 to 7.55.

³⁴⁷ 2008 BCMR Statement, 8.253.

³⁴⁸ 2008 BCMR Statement, 8.254.

³⁴⁹ Sky's response to our Provisional Conclusions, paragraphs 51 to 52; TTG's response to our Provisional Conclusions, paragraphs 3.13 to 3.14.

charge control in the AISBO market from 1 October 2009,³⁵⁰ their arguments for their proposed approach only seem relevant to the period prior to this.³⁵¹

9.142 Following TTG's and Sky's argument to its logical conclusion, this would mean that that the tests for cost orientation should be different before and after 1 October 2009, as the FAC-based limb of the tests should not need to apply once a price control on Ethernet services is in place (as the price cap then acts to ensure no (undue) over-recovery of costs). However, Ofcom has generally applied cost orientation obligations consistently whether or not a price cap is in place. In the 2004 LLMR Statement, where identically worded cost orientation obligations were imposed in different markets, some of which had a charge control and some that did not, we did not draw any distinction as to how the cost orientation obligation should be complied with depending on the presence or otherwise of a charge control. Further, in the 2009 PPC Determinations, we applied the same approach to cost orientation in respect of both terminating segment and trunk services, even though a charge control only applied to terminating segment services.

9.143 We recognise that cost orientation does not necessarily prevent over-recovery of costs and we take that into account when choosing the appropriate set of SMP conditions to impose in a market review. As set out below, the applicable circumstances for AISBO services in the 2004 LLMR Statement meant that we placed greater weight on other considerations, such as that noted in the 2004 LLMR Statement:

"Ofcom considers that the cost orientation condition [...] enables competitors to purchase services at a rate which will enable them to develop competitive services to the benefit of consumers, whilst at the same time allowing BT a fair rate of return which it would expect in a competitive market."³⁵²

9.144 We agree with BT's argument that following Sky and TTG's proposals would have a similar effect to introducing a form of retrospective charge control. As set out below, the proposed approach is not only an inappropriately tight constraint in this case, but is also inconsistent with the decision made at the time not to impose a charge control. We do not consider such an approach to be consistent with our statutory duties.

9.145 When we set a charge control, we generally use RPI-X controls. This generally forecasts the efficient projected FAC (or LRIC+EPMU) at the end of the control period, then determines the 'X' factor by which prices must be reduced in order to meet that level. Where outcomes do not follow forecasts or, crucially, where the SMP operator implements efficiency gains which 'beat' the control, these gains are not automatically passed through to consumers through lower prices.³⁵³ This gives the

³⁵⁰ In the 2008 BCMR Statement, we noted (at paragraph 1.39) that this was "now a mature market, in which BT has a position of persistent dominance and is earning high returns". We stated (at paragraph 8.270) that "In the absence of a charge control, we consider there is a significant risk that BT could increase its charges above competitive levels, and that this could lead to higher prices in retail markets, to the detriment of consumers." However, we considered that a cost orientation obligation was still required, as a charge control would not control the level of individual charges within a basket subject to an average charge control.

³⁵¹ While some of the charges in dispute relate to the period between 1 October 2009 and 31 March 2011, other charges only relate to the period immediately prior to that.

³⁵² 2004 LLMR Statement, paragraph 7.61.

³⁵³ In the short term (i.e. within the control period) the regulated firm is able to retain the benefits of efficiency improvements. However, these gains are shared with consumers in the longer term as successive charge controls are set.

SMP operator the incentive to undertake such efficiency improvements, as it can keep the additional profits from them over the period of the control. It is for this reason that such controls are favoured over rate of return regulation as providing greater incentives to improve productive and dynamic efficiency (through allowing it to earn higher returns on its investments for the period of the control).

9.146 If pricing had clearly been limited to outturn FAC *ex ante*, it would have provided little incentive for productive and dynamic efficiency, as any efficiency improvements made by BT would be automatically passed through into lower prices for BT's customers, thereby leaving its profits unchanged. Therefore, TTG's approach imposes a more limiting constraint than a charge control, which is unlikely to be appropriate.

9.147 Retrospectively amending the cost standards with which BT was required to comply (with an effect which would be similar to introducing a retrospective charge control) would be contrary to good regulatory practice (and therefore our duties). It would also be contrary to the nature and scheme of the CRF and the Act, as indicated in the Court of Appeal's findings in relation to our powers to retrospectively introduce such remedies in the MCT case:

*"The power under section 45 [of the 2003 Act] to set [SMP] conditions ...is indisputably a power to set them with prospective, not retrospective, effect. The purpose of the conditions is to regulate the future behaviour of undertakings with significant market power in markets where there is a lack of effective competition. This is made clear both by the EU directives that the 2003 Act implements and by the terms of the 2003 Act itself."*³⁵⁴

9.148 Notwithstanding our other arguments in this section, we agree with BT that the advantages sought by TTG and Sky would not be achieved by retrospectively setting a different cost standard as the decisions made by various parties on the basis of the original charges cannot be remade. However, by enforcing the cost orientation obligation in this case we can strengthen the incentives to set future prices appropriately and therefore can act to ensure future efficiency benefits.

Regulatory certainty

9.149 In this section we explain why the approach advocated by TTG and Sky is not only contrary to that set out by the CAT in the PPC Judgment, but is also contrary to that which BT could have reasonably expected us to adopt during the Relevant Period.

9.150 Regulatory certainty is important for investment and competition, and therefore dynamic and productive efficiency. Consistent and stable decision making by the regulator enables CPs to plan their investments and outputs with sufficient certainty about charging or regulatory decision making (i.e. it reduces risk). Telecommunications networks are characterised by large sunk costs and long-lived assets – such as duct. If investors are to be persuaded to invest in such assets, they will need to have a reasonable expectation of recouping their investment, plus an adequate return on their investment to reward them for the risk – without this ongoing investment and commitment from shareholders, the industry would not be sustainable over time. The regulator can create an environment which is favourable to investment by regulating in a consistent and predictable way over time. By contrast, changes in the regulatory regime, or uncertainty as to whether changes will

³⁵⁴ Judgment of the Court of Appeal in relation to the MCT case, *Vodafone Ltd v British Telecommunications Plc* [2010] EWCA Civ 391, paragraphs 37 - 39.

occur unexpectedly in the future, could make CPs reluctant to invest.³⁵⁵ It is therefore important that we follow the approach which BT and the industry could reasonably have understood we would take, unless there is good reason as to why we need to depart from that approach.

9.151 As we explain further below, not only was the important role of the DSAC test set out and understood by BT for the period in which it was levying the charges in question, at no stage was BT alerted to the prospect that we might adopt a highly restrictive interpretation of the obligation of the type advocated by TTG and Sky. Therefore we agree with BT that the appropriate place for the suggestions made by the Disputing CPs in suggesting a new approach to the assessment of cost orientation is in the pending forward-looking consultation on cost orientation or in relevant future market reviews.

9.152 As the CAT noted in the PPC Judgment:

*"BT's...contention was that that there was a lack of transparency and a lack of legal certainty in OFCOM's use of DSAC. Again, we reject this contention... We consider the operation of Condition H3.1 to be clear and we are not persuaded that there is any legal uncertainty in the present case...(i)...As we have noted in paragraph 278 above, DSAC was not unknown in the context of communications regulation, including to BT: given the materials that we have described, we do not consider that BT can have been in any way surprised or taken aback by OFCOM's resort to the DSAC test."*³⁵⁶

9.153 We therefore disagree with BT that there was any lack of clarity as to how we would consider its compliance with Condition HH3.1.

9.154 We agree with TTG that BT understood DSAC represented the maximum price allowable, as evidenced by the quotations it provides from BT's PAD. However, we do not consider it follows that *"BT understood that the allowed price ceiling might be set below DSAC"* (see paragraph 9.72 above). BT's accounting documents clearly set out that DSAC is the maximum price that can be charged for a service, which is consistent with the concept of a ceiling, and there is no suggestion that the ceiling might be lower – or for that matter higher – than DSAC:

*"Combinatorial tests 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."*³⁵⁷

"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

³⁵⁵ When setting charge controls, regulatory certainty is also important for productive efficiency, as without this certainty, regulated firms would have little incentive to 'beat' the control in the interim (i.e. further improve productive efficiency), as they could never be sure that they would keep the gains from this for the rest of the price control period.

³⁵⁶ PPC Judgment, paragraph 307(2).

³⁵⁷ BT PAD 7 September 2006 5.3.3, pg. 65

*maximum price that can be charged. This results in ceilings for individual components that are below their actual SACs.*³⁵⁸

9.155 The history of the development of BT's cost orientation obligations and the use of DSAC test is set out in further detail in Section 4. Nowhere was it suggested that there would be further tests imposing significant additional restrictions on BT's ability to recover its costs along the lines of those now suggested by TTG. Therefore we do not consider that it would be consistent with the principle of regulatory certainty to retrospectively introduce such tests in the context of this dispute. As set out above, regulatory uncertainty can be harmful to investment incentives and therefore economic efficiency.

9.156 The CAT also considered that it was clear that BT understood the significance of DSAC in assessing cost orientation.³⁵⁹ Therefore, in our view BT would not have reasonably expected to need to justify its charges as being economically efficient or in line with FAC as argued by TTG; rather, it could have expected to need to keep charges below DSAC or be able to explain why any charges above DSAC are nevertheless cost orientated.

9.157 In relation to Frontier Economics' arguments that Ofcom has used FAC extensively in the past, we note that:

9.157.1 We have used FAC as part of our non-mechanistic assessment of cost orientation, following our application of the DSAC test. This does not involve further tests as suggested by Frontier Economics and TTG and so cannot be said to indicate to BT that such an approach might be taken.

9.157.2 Frontier Economics' argument that "*BT has indicated that pricing decisions in relation to services where it is subject to cost orientation were taken with reference to FAC*"³⁶⁰ is derived from a witness statement in the PPC appeal³⁶¹ and therefore is in relation to BT's approach to compliance with its cost orientation obligations in the various PPC markets. It is not clear whether the statement applied equally to services other than PPC services. Further, BT's use of FAC in relation to PPCs involved considering revenues against FAC aggregated across a number of services. Such an approach can afford BT considerable flexibility over the level of individual charges and has the potential to offer considerably greater flexibility than the FAC+30% that TTG proposes for individual services.³⁶² In the PPCs case, because revenues for a number of terminating segment services were low as compared to FAC, the use of a test that compared revenues to FAC across trunk and terminating segment services would have afforded BT greater flexibility on its 2Mbit/s trunk charges than a service-level test based on DSAC. In any case, there is a difference between approaches that it is open to BT to take to seek to demonstrate compliance and the imposition by us of FAC as the primary benchmark, as explained by the CAT in the quotation at paragraph 9.133.

9.157.3 We generally do not use FAC as a ceiling on individual charges in charge controls, and so there is no reason why BT would expect us to do so when

³⁵⁸ BT PAD 7 September 2006 5.3.5, pg. 68

³⁵⁹ PPC Judgment, paragraph 278.

³⁶⁰ Joint Frontier Report, paragraph 54.

³⁶¹ It is taken from the witness statement of Mr Morden, quoted in the PPC Judgment, paragraph 135.

³⁶² TTG's response to our Provisional Conclusions, paragraph 2.10.

considering cost orientation. In any case, as set out above, charge controls are a very different form of regulation to cost orientation, and so it is not obvious BT would have expected us to use FAC as a metric here just because we do so in setting charge controls, particularly given that we explicitly decided not to impose a charge control on this market in the 2004 LLMR Statement.

9.158 In relation to the NCC Guidelines, we note the CAT's view that:

*"As regards documents in the more distant past – like for instance – Oftel's "Guidelines on the Operation of the Network Charge Controls", published in 1997 and 2001 – we recognise that they contribute to an understanding of how the regulatory controls and related concepts evolved. However, in terms of construction of the SMP conditions, they are of mainly historical interest, and tend to be of marginal, if any, assistance."*³⁶³

9.159 While we consider that our approach to cost orientation is consistent with the NCC Guidelines, we therefore do not place great weight on this consistency in our assessment of the appropriate roles for DSAC and FAC.

Relevance of our approach in other cases

9.160 The consistency of our approach to dispute resolution and enforcement also affects regulatory certainty. While each dispute must be decided on its merits and different situations may call for different considerations to be taken into account, failure to act consistently without a sound justification can give rise to regulatory uncertainty which, as set out above, can act against the longer term interests of citizens and consumers. By setting out how we will approach assessing compliance with remedies, we provide BT (and industry generally) with guidance on what it needs to do to comply with those remedies. Contrary to TTG's arguments, and as we set out below, we consider that this supports the use of our proposed approach.

9.161 The specific issues and indicators we will take into account in ensuring the DSAC test is not applied mechanistically depend on the circumstances of the particular case. However, this does not mean that we do not consider the results of the DSAC test to be highly relevant to our assessment.

9.162 TTG's reference to the CAT's statement that *"Ofcom would, no doubt, be open to considering fresh alternatives to DSAC were such to emerge"*³⁶⁴ is taken somewhat out of context. This discussion centred on how BT may demonstrate its charges are cost orientated (since the obligation is first and foremost for BT to be able to demonstrate its compliance with the cost orientation condition to the satisfaction of Ofcom).³⁶⁵ The CAT confirmed that it is open to BT to demonstrate its compliance in whatever way it chooses, as long as it is to Ofcom's satisfaction:

³⁶³ PPC Judgment, paragraph 204.

³⁶⁴ PPC Judgment, paragraph 287ff, quoted by TTG at paragraph 3.108 of its response.

³⁶⁵ This is clear from the fact that this discussion is given under the heading "Has BT demonstrated that its prices were cost orientated", and also from the final sentence of the paragraph which TTG only partially quotes: *"We accept this evidence. The fact is that no satisfactory alternative to DSAC was demonstrated by BT: we have explained in paragraphs 252 to 275 above why BT's suggestions for testing compliance with Condition H3.1 (the circuit analysis, international benchmarking and combinatorial tests) were unsatisfactory and rightly rejected by OFCOM in the Determinations."* (PPC Judgment, paragraph 288).

*“Stage 2 does not impose a method of allocating common costs, but leaves it to BT to select an appropriate method. In short, BT is given a discretion in terms of how it allocates common costs, which discretion is circumscribed by the need for the method of allocation to be “appropriate”.”*³⁶⁶

*“It is, in the first instance, for BT to decide how to allocate common costs. Were BT to do so “appropriately” then – provided this was capable of demonstration to the satisfaction of OFCOM – we do not consider that it would be open to OFCOM to impose upon BT an alternative method of allocating common costs, even if that were also an “appropriate” method.”*³⁶⁷

- 9.163 However, where Ofcom is seeking to establish that charges were cost orientated (in a situation where BT has been unable to do so), regulatory certainty implies that where Ofcom wishes to adopt an alternative approach to assessing cost orientation from that understood by industry,³⁶⁸ it should do so prospectively rather than applying it retrospectively and without warning.
- 9.164 Next we consider TTG's argument that our approach in other cases does not support the use of DSAC alone. In our view, the examples cited by TTG do not support its case as we set out below.
- 9.165 *Interconnection products in 1997 and 2001:* We note that many interconnection products were also included in a charge control which constrained overall cost recovery and so *“it was not necessary for cost orientation tests to constrain overall-recovery”*³⁶⁹ for these products. However, while floors and ceilings were used as a complement to a charge control in the context of the NCC, the NCC Guidelines do not state that they only apply where there is a concurrent charge control. Indeed, the two remedies are imposed on the basis of separate assessments of the need for each remedy.
- 9.166 Further, in the 2004 LLMR Statement where we applied cost orientation obligations both to services which were also subject to a charge control (as in the PPC terminating segment market) and to those where there was no charge control (such as PPC trunk and AISBO services) we used the same wording for the cost orientation condition and did not give any indication that we intended it to mean something different in the two cases. Therefore, there was no indication that our approach to assessing cost orientation by reference to floors and ceilings would be influenced by the presence or absence of a charge control.
- 9.167 *WLR ISDN2 dispute:* BT was subject to a cost orientation obligation in the relevant market (Condition AA3.1), which was worded identically to Condition HH3.1. However the ISDN2 dispute was determined primarily by reference to Condition AA10.3(a), which was imposed on BT in addition to Condition AA3.1 and which required that *“...subject always to the requirement of reasonableness, charges shall be based on the forward looking long-run incremental costs of providing Wholesale Analogue Line Rental and Wholesale Business ISDN2 Line Rental....”*³⁷⁰

³⁶⁶ PPC Judgment, paragraph 246.

³⁶⁷ PPC Judgment, paragraph 249(1).

³⁶⁸ As set out above, it was clear to BT – and to the wider industry – that DSAC is the first order test of compliance we would use when assessing cost orientation.

³⁶⁹ TTG's response to our Provisional Conclusions, paragraph 3.110.

³⁷⁰ Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets: Final explanatory statement and notification, November 2003, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/750148/fixednarrowbandstatement.pdf>.

9.168 Unlike Condition HH3.1, Condition AA10.3(a) makes no reference to an appropriate mark up for the recovery of common costs (or appropriate return on capital employed). Moreover, in the relevant market review consultation we had indicated that an appropriate forward looking LRIC based charge for WLR ISDN2 was likely to lie in the range of £38 to £50 per quarter.³⁷¹ This range was not derived using the traditional floor and ceiling approach but a different set of assumptions. We therefore consider that the ISDN2 dispute is of little relevance to this case.

9.169 *PPC Disputes:* We have already explained why we consider the PPC Judgment to be highly relevant to this case. While, as TTG points out,³⁷² this did not form part of BT's expectations when it was setting its prices, it does have an important role in guiding how we should assess cost orientation taking into account what BT could have expected (given the views on this expressed in the PPC Judgment).

Our conclusions on the role of DSAC and FAC

9.170 We conclude that it is not appropriate to deviate from the proposed role for FAC in our assessment as set out in our Provisional Conclusions and that DSAC is the appropriate primary cost benchmark to use in assessing whether the charges relevant to these disputes are cost orientated.

9.171 First, we disagree with Sky and TTG's criticisms of our proposed approach:

9.171.1 we disagree that an assessment of compliance with a cost orientation obligation requires a detailed analysis of economic efficiency or whether the prices under investigation are welfare-optimal;

9.171.2 in any case, we disagree that efficiency considerations indicate prices set at (or based closely on) FAC would necessarily maximise economic efficiency;

9.171.3 we disagree that additional, FAC-based combinatorial tests are required to analyse potential over-recovery of costs when assessing compliance with cost orientation, because the extent of concerns about the risk of over-recovery of costs on a group of services, such as WES and BES, are taken into account in a market review when deciding what SMP conditions to impose; and

9.171.4 in our view, DSAC is rooted in economic theory – it provides a practical alternative to the use of SAC and combinatorial tests which arise from the theory of contestability.

9.172 Second, applying TTG and Sky's approach in resolving these Disputes would be inappropriate and contrary to our duties:

9.172.1 the PPC Judgment is highly relevant to the approach we should adopt in resolving these Disputes, indicating not only that the DSAC test is appropriate, but that significant weight should be given to it. Further, the CAT's approach suggests that aggregated tests based on FAC are inappropriate;

³⁷¹ http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/fix_narrow0803_1.pdf, see paragraphs 3.123 to 3.238

³⁷² As TTG argued at paragraph 3.114 of its submission.

- 9.172.2 applying a set of tests such as that proposed by TTG and Sky would have an effect equivalent to, or more limiting than, imposing a retrospective charge control, contrary to the clear regulatory decision made at the time not to do so; and
- 9.172.3 BT could have reasonably expected us to rely on the DSAC test if we were required to assess the cost orientation of its charges, and could have expected pricing below DSAC would generally be considered to meet this obligation. Further, it could not have reasonably anticipated that we would undertake the sort of assessment TTG or Sky now advocates. Taking this course would therefore not be consistent with fostering regulatory certainty and therefore would be inconsistent with our duties.
- 9.173 However, we consider that a comparison of revenues to FAC can provide useful information to ensure we do not apply the DSAC test mechanistically. Although Sky, TTG and Verizon considered that FAC should play a primary role in our assessment, no party argued that the use of FAC as a cross-check was inappropriate in response to our Provisional Conclusions. Where charges are above DSAC, we therefore also consider the relationship of charges to FAC to determine whether a charge is nonetheless cost orientated. The use of FAC in this manner can act as a useful cross-check to ensure that unjust outcomes are avoided. As set out above at paragraph 9.109, a charge being above FAC is not in itself sufficient to demonstrate overcharging has occurred. However if a charge was above DSAC, and revenues were significantly above FAC, this evidence would corroborate a conclusion of overcharging.

Ensuring that the DSAC test is not implemented in a mechanistic way

Our Provisional Conclusions

Introduction

- 9.174 In our Provisional Conclusions, we explained that we did not consider it appropriate to apply the DSAC test in a mechanistic manner. This approach was consistent with our approach in the 2009 PPC Determinations, where we said: *“other factors need to be taken into consideration before it can be concluded that charges are unreasonable or otherwise anti-competitive”*³⁷³. The specific factors to be taken into account are dependent on the details of the case under consideration.
- 9.175 In the 2009 PPC Determinations we considered a range of factors beyond the DSAC test. For a number of services this led us to conclude that the charges for those services did not constitute overcharging despite failing the DSAC test for at least one year.
- 9.176 In the PPC Judgment the CAT concluded that, although Condition H3.1 requires Ofcom to treat prices above DSAC as *“intrinsically excessive”* and in breach of the Condition, *“Ofcom must guard against the possible injustices of a mechanistic application of a test for the allocation of common costs”*. The CAT considered that *“Ofcom acted appropriately in looking to other factors in addition to the mere fact that DSAC had been breached by BT’s prices”*.³⁷⁴

³⁷³ 2009 PPC Determinations, paragraph 5.37.

³⁷⁴ PPC Judgment, paragraph 305; see also paragraphs 303 and 304.

9.177 We provisionally concluded that, consistent with our approach in the 2009 PPC Determinations, we would consider the following factors beyond the DSAC test:

9.177.1 the magnitude and duration by which charges exceeded DSAC;

9.177.2 whether, and the extent to which charges exceeded FAC; and

9.177.3 the rate of return on capital employed.

9.178 In order to conclude that a charge that exceeds DSAC does not constitute overcharging due to the circumstances surrounding that charge, we stated that we would need a specific and evidence-based explanation of those circumstances. We also set out that, while it is clearly appropriate for us to take into account any factors we identify as relevant to our decision, BT is normally best placed to provide such an explanation since it has a better understanding of its pricing decisions and information available to it at the time of making those decisions than us.

Magnitude and duration by which charges exceed DSAC

9.179 We proposed to take into account the magnitude and duration by which charges exceeded DSAC³⁷⁵ when considering whether the charges in dispute are cost orientated. This is consistent with the approach we adopted in the 2009 PPC Determinations and was found to be appropriate by the CAT³⁷⁶.

9.180 The reason for doing so is that the DSACs of an individual service can vary from year to year, meaning that an unchanged charge that was below DSAC in one year might be above DSAC the following year. In considering the extent to which charges above DSAC in individual years can constitute overcharging, it is therefore relevant 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 after the end of the year, BT does not know with certainty what the appropriate value will be when setting its charges. For example, if charges do not change materially in a year but the DSAC unexpectedly declines³⁷⁷, it could be argued that it is unreasonable to consider that this one charge in isolation represents an overcharge.³⁷⁸

9.181 Each of the services in these Disputes is disputed for a different length of time, ranging over a period of five financial years. Where charges exceeded DSAC in fewer than three financial years, we proposed that the underlying reasons why BT's charges exceeded DSAC should be given more weight in determining whether it overcharged for its services.

9.182 In our Provisional Conclusions, we made some general observations in relation to BT's argument that it was more difficult for it to accurately forecast forward looking costs in the AISBO market than in the PPCs market because of the "nascent" nature of the AISBO market prior to the Relevant Period:

³⁷⁵ We consider in Section 12 the DSAC data we should use for our assessment.

³⁷⁶ PPC Judgment, paragraph 305.

³⁷⁷ For example, as a result of an unexpected holding gain incurred on an asset used by the relevant services.

³⁷⁸ In the 2009 PPC Determinations we therefore concluded that overcharging had occurred where charges had 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 PPC Disputes related). Charges above DSAC for this length of time indicated that BT had failed to take action to alter its charges appropriately. However, where charges exceeded DSAC in fewer than three financial years, we took the view that consideration of the specific circumstances was warranted (2009 PPC Determinations, paragraphs 5.95 and 5.96).

- 9.182.1 although the AISBO market may have been nascent for part of the Relevant Period, the wording of the cost orientation obligations imposed on different markets as a result of the 2004 LLMR Statement³⁷⁹ applies the same requirements regardless of whether the services are in nascent or mature markets;
- 9.182.2 we confirmed in the 2004 LLMR Statement that the cost orientation obligation imposed on the AISBO market covered all services in the market, including any new services introduced by BT³⁸⁰;
- 9.182.3 BT may not have had a great deal of historic data for the AISBO market on which to base forecasts of volumes and costs, particularly in 2005/06 and 2006/07. However, this does not relieve it from its obligations to ensure that each and every charge is cost orientated and that it can demonstrate this to us. We note that BT is able to raise compliance difficulties with Ofcom in advance of setting its charges. Indeed, under Condition HH3.2, Ofcom can direct that a charge need not be set on a forward-looking LRIC basis, if BT wishes to set a price for a service in the market on another basis and Ofcom determines it is appropriate.³⁸¹ We did not issue such a direction with respect to any service in the AISBO market;
- 9.182.4 although a number of the services within the AISBO market were relatively new wholesale services in the early years of the Relevant Period, they had existed for a number of years previously as retail services. As such, the underlying products and the costs of provision were perhaps more developed and should have been better understood than is implied by BT's contention that the AISBO market was "nascent";
- 9.182.5 even if the products were relatively new, their nature and specification must have been understood by both BT and its customers in order for them to be commercially useful. Again, this view is reinforced by the fact that they already existed as retail services;
- 9.182.6 BT's inability to accurately calculate unit DSACs for its services until after the end of the financial year is not unique to services in the AISBO market, but is true for all markets where BT has cost orientation obligations. The lack of data and uncertainty in volumes and costs may have made it more difficult for BT to forecast unit DSACs for services in the AISBO market than for services in some other markets. However, this does not mean that the DSAC test should not be applied, only that we should take account of any evidence of the potential for higher variability of unit DSACs when considering whether a charge above DSAC is cost orientated or not; and
- 9.182.7 BT had not provided any specific evidence of difficulties in establishing the cost base for these services. We reviewed BT's internal pricing papers prepared for its internal pricing governance process and found no evidence of such difficulties within those papers.
- 9.183 Notwithstanding these observations, we set out that if BT was able to demonstrate that, despite its best endeavours, its charges exceeded DSAC as a consequence of

³⁷⁹ Conditions G3.1, GG3.1, H3.1 and HH3.1.

³⁸⁰ 2004 LLMR Statement, paragraphs 7.57 and 7.58.

³⁸¹ 2004 LLMR Statement, paragraphs 7.59(ii) and 7.60.

genuine difficulties in forecasting costs, we might consider that charges above DSAC were nevertheless cost orientated.

Comparison of revenues with FAC

9.184 In our Provisional Conclusions we proposed, where charges are above DSAC, also to consider the relationship of charges to FAC. The use of FAC in this manner can act as a useful cross-check to ensure that unjust outcomes are avoided. A charge being above FAC is not in itself sufficient to demonstrate overcharging has occurred. However if a charge was above DSAC, and revenues were significantly above FAC, this evidence would corroborate a conclusion of overcharging.

Rate of return on capital employed and the appropriate WACC

9.185 In its initial submissions, BT argued that *"in a developing market like AISBO, any analysis needs first to consider rates of return within the market"*³⁸² and that any analysis of the rates of return it earned in the AISBO market must reflect the specific nature of the AISBO market. In particular, it argued that it is entitled to earn a rate of return for AISBO services above its WACC given the level of uncertainty and the developing nature of the market. It considered that:

9.185.1 Ofcom specifically gave BT wider latitude in assessing cost orientation when the market was developing and new services were being introduced. BT quotes paragraph 7.58 of the 2004 LLMR Statement:

"Ofcom confirms that all new services that are introduced into this market will also be covered by the same pricing rule ... this does not however mean that BT cannot recover costs appropriate to new wholesale services",

noting that Ofcom added in paragraph 7.59(iii):

"...there might be a range of prices which will be consistent with cost orientation given the uncertainty about the take up and future profitability of the service. In determining whether a charge is not cost orientated, Ofcom would consider whether the expected or achieved return on capital was excessive. In making this assessment Ofcom will need to take account of the risk of the new service failing and the lost investment that will result...";and

9.185.2 given the level of uncertainty in the market, returns above the WACC are not unreasonable.³⁸³

9.186 We considered the appropriate WACC for the services in dispute, both for the purposes of considering BT's evidence that its charges were cost orientated, and also because rates of return (relative to the WACC) were one of the additional factors we considered in our assessment.

9.187 We considered the appropriate WACC that should be used when considering cost orientation in terms of two questions:

9.187.1 **Should we use a product specific WACC?** Does the average WACC for "rest of BT" appropriately reflect the risks faced by BT in Ethernet services?

³⁸² BT's 20 May 2011 submission, paragraphs 69 and 70.

³⁸³ BT's 20 May 2011 submission, paragraphs 31 and 32(ii).

The WACC represents the minimum risk-adjusted rate of return that investors would expect to receive to take account of the riskiness of an investment. For the AISBO market we would usually use the “rest of BT” WACC, unless there were compelling reasons to deviate from it.

- 9.187.2 **Should we take account of “fair bet” concerns?** The WACC of a firm should be compared with the mean expected cash flows from a firm's investment. This is because investors should be allowed a “fair bet”, i.e. one where the expected return is equal to the WACC. However, where outcomes are uncertain, in order for an investor to get a “fair bet” the ‘successful’ outcomes would need to earn a rate of return above the WACC to offset the losses an investor would make when there were ‘unsuccessful’ outcomes. The extent to which there are relevant concerns that an investment does not constitute a “fair bet” will depend, among other things, on how uncertain the investment outcomes are.

Product-specific WACC

- 9.188 In our Provisional Conclusions we identified that, in considering risk,³⁸⁴ two broad categories are typically identified:

9.188.1 systematic risk – also referred to as “market” or “undiversifiable” risk; and

9.188.2 specific risk – also referred to as “diversifiable” or “idiosyncratic” risk.

- 9.189 Our approach to reflecting these risks in a firm's cost of capital was outlined in our *Cost of Capital* document of August 2005.³⁸⁵ Consistent with economic theory, our approach to setting a firm's WACC is to reflect only those risks that cannot be diversified away by investors (i.e. systematic risks). Therefore, specific risks are not typically reflected in the WACC. This approach has been confirmed by the CC's decisions in the Openreach Financial Framework Review (OFFR) and LLCC appeals.³⁸⁶

- 9.190 Since 2005, we have used two different WACCs for BT. In order to reflect the variations in systematic risk across BT we concluded that BT's business (and hence its cost of capital) can be split into two constituent parts:

9.190.1 BT's copper access business; and

9.190.2 the rest of BT.

- 9.191 As Ethernet services do not relate to BT's copper access business we use the “rest of BT” cost of capital.

- 9.192 We also set out in the provisional determinations that it could be argued that, if there were higher levels of systematic risks associated with Ethernet services than for the “rest of BT” as a whole, it may be appropriate to reflect this in a higher WACC for Ethernet services. However, in the 2005 *Cost of Capital* document we set out a

³⁸⁴ Under a Capital Asset Pricing Model (CAPM) approach in particular.

³⁸⁵ http://stakeholders.ofcom.org.uk/binaries/consultations/cost_capital2/statement/final.pdf, in particular paragraphs 3.2 to 3.5 (“2005 Cost of Capital document”).

³⁸⁶ See the CC's decisions in case 1111/3/3/09 “*The Carphone Warehouse Group plc v Office of Communications*”, August 2010 (the “LLU decision” and in case 1112/3/3/09 “*Cable and Wireless UK v Office of Communications*”, June 2010 (the “LLCC decision”).

number of criteria for identifying a WACC that is specific to a project rather than using the firm's WACC. These were:

- 9.192.1 strong *a priori* reasons for believing that the risk faced by the activity was different from that of the overall company;
 - 9.192.2 availability of evidence to assess the differences in risk; and
 - 9.192.3 an expectation that reflecting differences in risk in an adjusted rate of return would bring gains for consumers.³⁸⁷
- 9.193 We stated that in order for us to adopt a product-specific WACC for Ethernet, BT would need to demonstrate, as a minimum, that each of these three criteria is met in this case. Further, for the purposes of these Disputes, BT would also need to provide evidence of what it considers the appropriate WACC to be for Ethernet services within the Relevant Period.

"Fair bet" considerations

- 9.194 We provisionally concluded that, in considering the relevance of individual rates of return, we would expect to take into account the specific circumstances that may surround the launch of risky new services. Where outcomes are particularly uncertain, a charge that yields only a return equal to the WACC may not be sufficient to ensure firms are offered a "fair bet".³⁸⁸ The apparently high charge relative to cost may be simply the favourable outcome *ex post*, even though unfavourable, loss-making outcomes were also possible *ex ante*. Failing to take this "fair bet" consideration into account where relevant might lead to a conclusion of overcharging that, in effect, penalises "success" (whereas, if the outcome had instead been unfavourable, i.e. a "failure", the firm and its investors would have had to bear the loss themselves).
- 9.195 We set out our view that "fair bet" considerations are more likely to be relevant when:
- 9.195.1 there is significant uncertainty over demand for a service (or other factors that affect returns) when setting prices; and
 - 9.195.2 where the firm incurs significant levels of sunk cost to provide a service.
- 9.196 We said that if "fair bet" concerns underpinned BT's observations, and it provided specific evidence to demonstrate that both the two factors identified above were relevant to specific services, it might be relevant to take such concerns into account. However, in order for us to do so, BT would need to be able to supply us with evidence that "fair bet" considerations are of sufficient importance to justify or explain the specific prices and rates of return observed for the services in dispute.
- 9.197 We also noted that, to the extent that "fair bet" concerns arise, these are more likely to be relevant in the early years of a product's lifecycle. We would therefore anticipate "fair bet" concerns, where relevant, to be more important for the early years of the Ethernet products, unless BT can provide evidence to the contrary. We

³⁸⁷ See 2005 Cost of Capital document, paragraph 5.24.

³⁸⁸ For a description of the "fair bet" issue, see Annex 4 (especially paragraphs A4.3 to A4.6) of *Provision of Technical Platform Services, Guidelines and Explanatory Statement*, Ofcom, 21 September 2006: <http://stakeholders.ofcom.org.uk/binaries/consultations/tpsguidelines/statement/statement.pdf> and Annex 8 of <http://stakeholders.ofcom.org.uk/binaries/consultations/823069/summary/condoc.pdf>

noted in this context that it was worth bearing in mind that a number of BT's Ethernet products existed as retail products prior to the Relevant Period .

Economic harm

- 9.198 We noted in our Provisional Conclusions that the CAT concluded that “*the need to show economic harm – of any sort – is not a pre-requisite for a finding that Condition H3.1 has been breached*” and therefore “*we do not consider there to be a role for an economic harm test when Ofcom is seeking to assess whether BT has breached Condition H3.1*”³⁸⁹. On the basis of the CAT's conclusions we did not propose to consider economic harm.

Views of the Parties

Magnitude and duration by which charges exceed DSAC

- 9.199 BT argues that, prior to the 2009 PPC draft determinations³⁹⁰, Ofcom had never given it any indication that there could be a breach of Condition H3.1 where its prices for a product exceeded DSAC in a single year, and that the 2009 PPC Determinations (and preceding draft) suggested it would not find overcharging where price exceeds DSAC in one year out of five or six years.³⁹¹ It argues that:

“Ofcom’s previous guidance was that it would not regard BT’s charges as breaching its cost orientation obligation unless BT’s prices were persistently above DSAC (e.g. three out of four years) or there were specific circumstances warranting a finding of a breach. In the latter case Ofcom had specifically stated that it would consider in particular, the number of the financial years in which charges exceed the DSAC, the magnitude of the excess in each of those years and the trend and average charges compared to DSAC across the whole period.”³⁹² (emphasis in original)

- 9.200 BT argues that the CAT “*made clear that the duration of the excess was an important factor to be taken into account*” and that Ofcom has not followed that approach. For example, it argues Ofcom did not adequately consider the trend and the average charges across the whole period, particularly for WES 10 where we did not reach a conclusion on years outside the scope of the dispute. BT argues that, even if Ofcom were to find BT in breach of Condition HH3.1 for single years, it is not fair to require BT now to make repayments under section 190(2)(d) of the Act on the basis of information it did not have and could not have accurately forecast at time.³⁹³

- 9.201 In respect of our arguments in relation to BT's “nascent” market representations, BT notes that:

“Ofcom acknowledges in the [Initial] Draft Determinations that the particular features of the Ethernet market are capable of affecting the assessment of cost orientation...In BT's view these acknowledgements by Ofcom are

³⁸⁹ PPC Judgment, paragraphs 327 and 329.

³⁹⁰ http://stakeholders.ofcom.org.uk/consultations/draft_deter_ppc/

³⁹¹ BT's response to our Provisional Conclusions, paragraphs 298 to 300.

³⁹² BT's response to our Provisional Conclusions, paragraph 301.

³⁹³ BT's response to our Provisional Conclusions, paragraphs 302, 306 and 307.

correct, and Ofcom is required to act in accordance with them and to ensure that relevant market factors are taken into account."³⁹⁴

- 9.202 However, BT argues that we do not take sufficient account of the nature of the AISBO market during the Relevant Period. It argues that "*Ofcom appears generally dismissive of the challenges posed by a nascent and fast changing market*"³⁹⁵.
- 9.203 BT argues that we adopted a process for assessing cost orientation that "*does not include relevant market factors*" as "*market factors*" do not appear as a separate entry in the list of additional factors above.³⁹⁶
- 9.204 Virgin and CWW both agree with Ofcom that "*in line with the PPC Judgment, the DSAC test should not be applied in a mechanistic way*"³⁹⁷.
- 9.205 Virgin considers it clear that "*Ofcom fully took the state of the market, including that the services were new wholesale offerings into account when imposing the basis of charges obligation.*" It argues that "*It would be a form of double counting for BT to suggest that, having avoided the imposition of a more stringent charge control remedy ex ante due to the relatively early stage of development of the wholesale market, they should also benefit ex post in a way that loosened the SMP condition.*"³⁹⁸
- 9.206 The Disputing CPs generally accept the possibility that short periods of pricing in excess of DSAC may not constitute overcharging in appropriate circumstances. For example, CWW suggests that: "*It might be appropriate to excuse one year's price above DSAC had it been clear that BT was working hard to meet the cost orientation obligation and unexpected events lead to this error*" (although it goes on to note that "*This is however simply not the case.*")³⁹⁹. Sky argues that, while the obligation is continuous, "*in recognition that outturn costs may deviate from those forecast by BT it may be appropriate to allow minor breaches of the cost orientation ceiling.*"⁴⁰⁰
- 9.207 However, TTG argues that harm can result from a single year (or shorter period) transgression and duration should be seen in combination with "*degree*".⁴⁰¹ CWW also argues that duration is only one factor to take into account, and that other factors (in particular the magnitude by which charges exceeded DSAC) could warrant an overcharge finding where price exceeds DSAC in a single year.⁴⁰²
- 9.208 Sky argues that "*the duration of any breach should be considered in the context of the predictability of costs, whether BT had generally erred on the side of caution in its pricing decisions (i.e. whether the breach was a "one-off" and pricing was generally below the ceiling) and the scale of the overcharge.*"⁴⁰³

³⁹⁴ BT's response to our Provisional Conclusions, paragraphs 333 and 334.

³⁹⁵ BT's response to our Provisional Conclusions, paragraph 336.

³⁹⁶ BT's response to our Provisional Conclusions, paragraph 335.3.

³⁹⁷ Virgin's response to our Provisional Conclusions, paragraph 5.2; CWW's response to our Provisional Conclusions, paragraph 38.

³⁹⁸ Virgin's comments on BT's response, paragraph 4.7.

³⁹⁹ CWW's comments on BT's response, paragraph 35.

⁴⁰⁰ Sky's comments on BT's response, paragraph 34.

⁴⁰¹ TTG's comments on BT's response, paragraphs 3.7 and 3.9.

⁴⁰² CWW's response to our Provisional Conclusions, paragraphs 39 to 40.

⁴⁰³ Sky's comments on BT's response, paragraph 35.

Comparison of revenues with FAC

9.209 As set out in detail above, we received extensive comments from the Parties regarding the appropriate role for a comparison of revenues with FAC in our assessment. We do not repeat these arguments here.

Rates of return on capital employed and the appropriate WACC

9.210 BT argues that given the uncertainty as to costs and demand, it is inappropriate for Ofcom to expect BT to have set prices that conformed to the DSAC rule in 2006/07 and *"much more weight needs to be given to the return to the Ethernet portfolio as a whole"*.⁴⁰⁴

9.211 BT maintains that a higher rate of return is appropriate in the AISBO market in 2006/07:

*"Given the risks Openreach was taking and the great efforts it was making to meet demand it would be appropriate for it to be allowed a higher than normal return in the early years"*⁴⁰⁵

9.212 BT notes that:

*"Openreach invested in systems to manage the delivery of WES and BES products"*⁴⁰⁶; and

*"there was uncertainty in whether or not WES and BES products (and particular variants) would succeed or not. Take-up depended on particular customers' needs,. There was also uncertainty about the life-cycle of the products. If investment was to be recouped (both for WES and BES and from EBD and EAD development) it to be recouped from those products."*⁴⁰⁷

9.213 TTG comments that there is no sound reason to allow a higher WACC than the "rest of BT" WACC. TTG argues that:⁴⁰⁸

9.213.1 there were few WES/BES specific investments at risk, as much of the cost is expended in response to demand and many costs that might be unrecoverable in the case of lower than predicted demand (e.g. duct) could be recoverable by BT from other products (such as PPCs);

9.213.2 even at the start of the Relevant Period, demand risk was not high and demand was reasonably well proven. For example, BT introduced its first LES 1000 service description in 2000 (LES being, in effect the same as BES and WES). BES demand is highly predictable and there was little competition in the market so there was little market share risk;

9.213.3 BT would only be unable to recover invested/sunk costs in an extreme case of low demand, when it could respond by increasing prices (since cost orientated prices are linked to actual costs and its prices are not constrained by competition);

⁴⁰⁴ Paragraph 341.1 of BT's response to our Provisional Conclusions.

⁴⁰⁵ Paragraph 341.2 of BT's response to our Provisional Conclusions.

⁴⁰⁶ BT's response to our Provisional Conclusions, paragraph 338.2.3.

⁴⁰⁷ BT's response to our Provisional Conclusions, paragraph 338.4.

⁴⁰⁸ TTG's response to our Provisional Conclusions, paragraphs 3.139 to 3.143.

- 9.213.4 the “rest of BT” WACC already allows a substantial risk premium which reflects product/demand failure risk; and
- 9.213.5 the risk premium that is allowed for AISBO services is probably excessive for WES/BES since the “rest of BT” WACC reflects the risks for services that are more risky than WES/BES services.
- 9.214 Sky comments that BES and WES were not sufficiently risky to warrant special treatment or leniency when assessing the cost orientation ceiling. It argues that:⁴⁰⁹
- 9.214.1 BT did not have a “standing start” in 2005, because it was already supplying LES, which were technically identical to BES and WES.
- 9.214.2 BT was not facing a level of undue uncertainty that would justify a “risk premium” for LLU backhaul (i.e. BES) demand. In addition, the relatively few large-scale LLU operators had well-communicated roll-out programmes that were subject to long-term forecasting. Openreach cannot have been unaware of the scale and scope of LLU deployment and the resulting level of LLU backhaul demand; and
- 9.214.3 Ethernet services utilised existing fibre and duct networks and were a “*long established networking technology which is deployed in most telecommunications networks.*” Sky argued that there would be little or no risk arising from increased demand for bandwidth on a per subscriber basis or per exchange basis because Ethernet costs are bandwidth agnostic (e.g. 100Mbit/s circuit costs the same to provide as a 1 Gbit/s circuit).
- 9.215 CWW argued that fair bet considerations should not lead Ofcom to change its approach because⁴¹⁰:
- 9.215.1 DSAC permits returns above the WACC, as Condition HH3.1 “*already provides greater flexibility than has been available on other charge controlled services*”;
- 9.215.2 demand-side risk was low, as Ethernet services were not new by the time they were subject to the cost orientation obligations and at that point it was apparent that they were likely to become significant; and
- 9.215.3 there were few sunk costs, as the majority of capital was either spent because of high actual demand for Ethernet services or was investment that would have been equally useful in supporting any alternative technology that might have proved popular.

Economic harm

- 9.216 BT argues that the CAT erred in treating the 1997 and 2001 NCC Guidelines, which “*made clear that an economic harm assessment was the ‘primary focus’ of the investigation*”, as “*in effect irrelevant to the question of determining whether BT’s prices were cost orientated*”⁴¹¹. BT states that:

⁴⁰⁹ Sky’s response to our Provisional Conclusions, paragraphs 65 to 76.

⁴¹⁰ CWW’s response to our Provisional Conclusions, paragraphs 41 to 47.

⁴¹¹ BT’s response to our Provisional Conclusions, paragraph 369 and 370.

"...in any assessment of BT's cost orientation condition and in particular whether BT has breached its cost orientation obligation Ofcom must :-

- 1. carefully consider the actual effects on competition and investment;*
- 2. conduct a proper economic analysis;*
- 3. only intervene if it is proportionate; and*
- 4. act consistently with its (or its regulatory predecessor's) statements and approaches previously adopted"⁴¹²*

9.217 The Disputing CPs agreed with our proposal not to consider economic harm as part of our assessment of whether charges were cost orientated. For example:

9.217.1 TTG sets out that: *"We fully agree with Ofcom's position that the presence of economic harm is not a prerequisite for a finding that charges were not cost orientated"*.⁴¹³ In TTG's view, we considered the effect on competition and investment and made our provisional decision by reference to its economic impact.⁴¹⁴

9.217.2 Sky sets out that: *"There is no need to show economic harm in order for Ofcom to make a finding that BT has breached Condition H3.1 [sic]"*.⁴¹⁵

9.217.3 CWW sets out that: *"It is clear, as Ofcom notes, from the PPC Judgment that establishing the existence (or not) of economic harm is not a pre-requisite for assessing cost orientation"*.⁴¹⁶

Our analysis

Magnitude and duration by which charges exceed DSAC

9.218 We agree with the Disputing CPs that duration is just one factor we should take into account in ensuring we do not mechanistically apply the DSAC test, and that it must be considered alongside other factors, such as magnitude and how charges and unit costs changed over the period, in considering the reasons underlying the failure of the DSAC test.

9.219 We disagree with BT that our approach in our Provisional Conclusions is inconsistent with our approach in the 2009 PPC Determinations.

9.220 In the 2009 PPC Determinations we set out that:

"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;*

⁴¹² BT's response to our Provisional Conclusions, paragraph 365.

⁴¹³ TTG's response to our Provisional Conclusions, paragraph 6.22.

⁴¹⁴ TTG's comments on BT's response, paragraph 7.31.

⁴¹⁵ Sky's response to our Provisional Conclusions, paragraph 8.1.

⁴¹⁶ CWW response to our Provisional Conclusions, paragraph 52.

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....

*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.*⁴¹⁷

9.221 These are factors we considered in our Provisional Conclusions.⁴¹⁸ For the purposes of resolving these Disputes we do not consider average charges compared to average DSAC across the whole period, as we suggested might be relevant in the 2009 PPC Determinations. We believe our approach is appropriate given the importance placed by the CAT on the DSAC test and its findings in relation to treating charges above DSAC as "*intrinsically excessive*"⁴¹⁹. Further, the use of the dispute period as a whole as the basis for calculating the averages is largely arbitrary, particularly in this case where services are in dispute for different periods.

9.222 However we do place weight on the factual context for the failure of the DSAC test. In cases where charges are above DSAC for a limited period, and by a relatively small amount, or well below DSAC both before and after this limited period, we take account of the factual context when assessing overcharging.

9.223 In relation to BT's argument that Ofcom had never given any indication that there could be a breach of the cost orientation obligation in respect of a single year, we would expect BT to be compliant with its regulatory obligations at all times. We gave no indication in the NCC Guidelines, the 2004 LLMR Statement or the 2008 BCMR Statement that we would only find that BT had breached its cost orientation obligations where prices had exceeded DSAC for a certain period. Further, BT's RFS are reported on the basis of each year's cost and revenue data, rather than as a weighted or moving average over time. We therefore do not consider that BT could have expected anything other than to have to demonstrate that its charges were at all times compliant with its cost orientation obligations, including for a single year.

9.224 BT suggests that our previous position was that we would not regard BT's charges as breaching its cost orientation condition unless they were persistently above DSAC or there were specific circumstances warranting a finding of breach. This is not the case. Our view in the 2009 PPC Determinations was that charges above DSAC are likely to indicate overcharging, unless there are valid reasons to suggest that this is not the case. This is consistent with the CAT's view that we should treat a charge that fails the DSAC test as "*intrinsically excessive*". Where a charge exceeds DSAC for a limited period of time and/or by a narrow margin, this suggests that we should

⁴¹⁷ 2009 PPC Determinations, paragraphs 5.96 to 5.97.

⁴¹⁸ See, for example, the Initial Draft Determinations, 13.45, 13.52, 13.57

⁴¹⁹ PPC Judgment, 307(3)

consider whether there is evidence that this does not represent overcharging. It does not, however, automatically imply that the charge is not an overcharge.

- 9.225 As we noted in our Provisional Conclusions, any arguments that a charge above DSAC does not constitute overcharging need to be supported by evidence, and BT is normally best placed to provide that evidence since BT has a better understanding of its pricing decisions and the information available to it at the time of making those decisions. Therefore, we invited BT to supply us with specific evidence that demonstrates that it could have reasonably expected its charges to be cost orientated where charges exceeded DSAC in fewer than three financial years. We continue to consider this to be the appropriate approach in this case and have adopted it in these Determinations. We consider BT's evidence on these issues in Section 14.
- 9.226 We also maintain our view that Condition HH3.1 applies to all services in the AISBO market, whether it is nascent or mature. We consider that the nature of the AISBO market was taken into account in the 2004 LLMR Statement when deciding on the SMP conditions to be imposed on BT, including Condition HH3.1. However, we consider that it may be appropriate, in principle, for us to take account of any difficulties which may have been caused by the stage of market development when assessing whether individual charges amounted to overcharging. Therefore, if BT was able to demonstrate that, despite reasonable endeavours, its charges exceeded DSAC as a consequence of genuine difficulties arising from the nascent nature of the market (for example, difficulties in accurately forecasting costs), we might consider that charges above DSAC were nevertheless cost orientated. However, as we have noted above, such arguments need to be specific and evidence-based.
- 9.227 BT argues that we placed insufficient weight on its arguments in relation to the nature of the market. We disagree. The Provisional Conclusions set out what evidence we required from BT to satisfy us that it had not overcharged for services even where charges were above DSAC. They also set out why we did not consider that BT had fulfilled these requirements prior to the publication of the Provisional Conclusions. Our consideration of the magnitude and duration for which a charge exceeds DSAC is widely cast and can therefore include consideration of market factors where BT provides specific evidence to demonstrate that they are relevant to the charge. We consider BT's arguments and evidence in response to the Provisional Conclusions about the relevance of the nature of the market during the Relevant Period in Section 14.

Comparison of revenues with FAC

- 9.228 Our views on the appropriate role of a comparison of revenues with FAC are discussed in detail above. For the reasons set out above at paragraph 9.173, we remain of the view that a comparison of revenues to FAC is a useful cross-check on the DSAC test - a view with which no Party has disagreed. However, we reject Sky, TTG and Verizon's arguments that FAC should play a more prominent role in our assessment.

Rates of return on capital employed and the appropriate WACC

- 9.229 Consistent with our Provisional Conclusions, we consider that an analysis of the rates of return that BT earned on the services in dispute can provide a useful cross-check on the outcome of the DSAC test. This is consistent with the PPC Judgment, in which the CAT said that Ofcom "*acted appropriately in looking to other factors in addition to the mere fact that DSAC had been breached by BT's prices*", including the

“rate of return on capital employed”.⁴²⁰ Evidence that BT earned rates of return on capital employed above its appropriate cost of capital over the Relevant Period can provide additional evidence in support of a finding of overcharging.

9.230 However, we do not use rates of return as our primary mechanism for assessing overcharging; as we set out above, our approach uses the DSAC test as our primary mechanism. Therefore, a rate of return above the appropriate cost of capital does not, in isolation, imply overcharging. Indeed, we would expect DSAC to typically exceed FAC and therefore, given that rates of return on capital employed are based on FAC, charges may result in returns that exceed the cost of capital but nevertheless do not constitute overcharging. BT argues that it should be afforded a rate of return in excess of its cost of capital for the services in dispute, for example due to their nascent nature: we would note that the use of the DSAC test typically provides BT with some bounded latitude to earn such returns.

9.231 In considering whether the evidence on the rates of return earned by BT on the services in dispute over the Relevant Period support a finding of overcharging, it is necessary to establish the appropriate benchmark against which to compare the returns BT earned. In the paragraphs below we set out why, in this case, we do not consider that our assessment of the rates of return BT earned on the services in dispute should depart from the established ‘rest of BT’ WACC that Ofcom uses for these services in other regulatory settings (e.g. in setting charge controls), in favour of a higher WACC.

9.232 We note that BT argues in its response that in 2006/07 *“it is inappropriate for Ofcom to expect BT to have set prices that conformed to the DSAC rule”* and that *“much more weight needs to be given to the return to the Ethernet portfolio as a whole”*.⁴²¹ It is unclear how BT considers that we should give *“much more weight”* to the return on *“the Ethernet portfolio as a whole”*. As we have set out in paragraph 8.19, in its response to our Provisional Conclusions BT agrees with our view that an assessment of cost orientation that aggregates all charges across the market is inappropriate. Notwithstanding this, as we have explained above, the use of the DSAC test typically provides BT with some bounded latitude to earn returns that exceed the appropriately measured cost of capital.

9.233 We also note that TTG argues that, in the event that Ethernet services had not proved popular, BT would have been able to put up its prices for other services to recover sunk costs. However, where costs (such as duct) are common, if the volumes of Ethernet services had been low, few costs would have been allocated to them and more costs would have been allocated to other services that use the duct. In effect, to the extent that costs are common, the risk was shared across many services. The only costs that might not have been recoverable in this case were costs that were specific to Ethernet services, sunk and fixed with respect to volume. Although any bespoke systems management or billing software developed by BT for the Ethernet products may have such characteristics, we are not aware of other such examples.

Product-specific WACC

9.234 BT has failed to provide us with relevant evidence meeting the requirements we set out in the Provisional Conclusions (see paragraph 9.192 above):

⁴²⁰ PPC Judgment, paragraph 305.

⁴²¹ Paragraph 341.1 of BT's response to our Provisional Conclusions.

- 9.234.1 Although BT has asserted that there was particular uncertainty surrounding the services in question during the Relevant Period, it provided little basis to establish strong *a priori* reasons that the risk faced by BT's BES and WES activity was different to BT overall. BT refers to investment in systems to manage the delivery of WES and BES. However, it has provided no evidence to support this. In particular, it has not shown that the costs of investment were material, specific to Ethernet services or sunk. BT also notes uncertainty about take-up and the life-cycle of products. The Disputing CPs, however, disagree that BT faced a higher systematic risk on BES and WES. Given the lack of clear or compelling evidence on this point, we conclude that BT has failed to establish that there is a strong *a priori* reason(s) for believing that the risk faced by the activity was different from that for the overall company.
- 9.234.2 BT has not addressed the availability of evidence to assess the differences in risk in its response to the Provisional Conclusions. Therefore, BT has failed to establish that evidence is available to assess the differences in risk.
- 9.234.3 BT has also failed to address whether reflecting these differences in risk in an adjusted rate of return would bring gains for consumers.
- 9.235 Furthermore, not only has BT failed to demonstrate that a product specific WACC that is disaggregated from the 'rest of BT' WACC is justified in this case, it has also failed to provide evidence of what it considers the appropriate WACC to be for Ethernet services within the Relevant Period. BT's failure to provide evidence on the appropriate Ethernet specific WACC is consistent with the views it put forward in the LLCC 2009 appeal where the disaggregation of BT's WACC was considered. As noted by the CC, BT argued that "*the task of disaggregation is formidably difficult*".⁴²² The CC also stated: "*We consider that Ofcom and BT have presented credible arguments that fresh calculations to establish a cost of capital for the leased lines business were an unrealistic proposition due to the lack of evidence to support specific disaggregation*".⁴²³
- 9.236 We therefore do not consider that BT has provided the evidence required in order for us to depart from the 'rest of BT' WACC in this case.
- 9.237 We note the Disputing CPs' comments that a higher WACC is not warranted and agree that there were a number of factors which reduced the risk to BT of launching BES and WES. For completeness, we disagree with Sky's comment that Ethernet costs are bandwidth agnostic, as certain electronics costs are likely to vary between bandwidths. We discuss this further in Section 13.

Fair bet considerations

- 9.238 BT's initial submissions were unclear as to whether it was advancing a "fair bet" argument. As noted above, we explained what evidence BT would need to supply us with, for us to take such an argument into account in our assessment of charges. While BT reiterated its views, it did not provide specific evidence meeting the criteria we set out in our Provisional Conclusions.

⁴²² Competition Commission Determination, *Cable & Wireless UK v Office of Communications* Case 1112/3/3/09, 30 June 2010, paragraph 4.295.

⁴²³ *ibid.*, paragraph 4.326.

9.239 We make two further observations on this issue:

9.239.1 From 2003/04 to 2005/06, revenues increased by around 150%, with a growth rate in excess of 100% between 2004/05 and 2005/06. By 2006/07 it is unlikely that there was significant uncertainty over whether BES and WES would succeed.⁴²⁴ Even before then, the Disputing CPs question the likelihood that the Ethernet services in question would be unsuccessful, given that in a number of cases the relatively new wholesale services had existed previously but as retail services, and therefore had an established existing customer base, and also that there was a clear demand for some services (such as BES for LLU backhaul). As noted at paragraph 9.234.1 above, we therefore agree with the Disputing CPs that BT has not established the risk that BES or WES would be unsuccessful in the Relevant Period;⁴²⁵ and

9.239.2 There do not appear to be particularly significant specific sunk costs in providing BES and WES services.⁴²⁶ For example, duct, fibre and cable accounted for around [X]% of the Mean Capital Employed ("MCE") associated with WES services in 2006/07.⁴²⁷ Although these cost categories are largely fixed in nature, they are shared with many other services (such as WLR, LLU, and PPCs).

9.240 We therefore consider that BT has not provided any compelling evidence of "fair bet" considerations being relevant in the AISBO market.

Ofcom's conclusions

9.241 We conclude that:

9.241.1 the "rest of BT" WACC is appropriate for the purposes of these Disputes; and

9.241.2 BT has not established that we should take "fair bet" considerations into account in our analysis.

9.242 In any event, we remain of the view that caution is required in using rates of return to consider compliance with cost orientation. As noted in our Provisional Conclusions,

⁴²⁴ At paragraph 338.4 of its response to our Provisional Conclusions, BT asserts that there was "*uncertainty in whether or not WES and BES products (and particular variants) would succeed or not.*" However, it does not provide robust evidence to support its claims. Perhaps the closest evidence that BT does provide in relation to uncertainty is presented in paragraphs 64 to 69 of its response. This presents a forecast of external volumes for WES rentals from a BT internal pricing paper from 2006 and compares the forecast to actual volumes. This comparison shows that the forecast presented by BT significantly underestimated actual volumes for the years 2007/08 to 2009/10. However, in our view, this does not satisfactorily demonstrate the risk of failure of the WES products.

⁴²⁵ Although there may still have been residual uncertainty over how fast the market would continue to grow in 2006/07 and beyond.

⁴²⁶ We note that in paragraph 338 of its response BT claims that that it invested in successor products to WES and BES whose demand was uncertain. It appears to consider that such investment provides a justification for a higher rate of return on the legacy Ethernet services. As we discuss in paragraphs 13.166 to 13.175, the investment in successor products is not relevant when considering the cost orientation of WES and BES charges.

⁴²⁷ FAC costs are divided between a return on MCE and its operating costs (which consist both of depreciation and of its pay and non-pay costs). The riskiness of an investment is related to the amount of sunk capital a firm has to invest. If there are few actual investments a firm has to make (and hence there is a low level of MCE) then the project will not be particularly risky.

there is a risk of drawing incorrect conclusions from a particular rate of return if the circumstances surrounding a charge are not considered, and a charge which results in a rate of return above BT's average WACC does not on its own imply overcharging.

Economic harm

9.243 The Court of Appeal upheld the CAT's PPC Judgment and agreed "*that, on the particular facts of the present case [the PPC appeal], it was not necessary for Ofcom or the Tribunal to find specific adverse economic consequences of BT's pricing in order to determine that BT was in breach of Condition H3.1*"⁴²⁸. We therefore consider that we do not need to demonstrate that economic harm has occurred as a result of BT's charges in order to find it has breached its cost orientation obligations in these Disputes. However, reflecting the Parties' arguments on this issue, we set out in paragraphs 10.51 to 10.93 our views as to the likelihood of economic harm arising from BT's charges in this case.

Conclusions on the appropriate approach to determining whether BT's charges were cost orientated

9.244 Having considered the views of the Parties, for the reasons set out above, we do not consider it appropriate to depart from the approach to assessing BT's charges that we set out in our Provisional Conclusions. Therefore, we adopt the same three steps in our assessment, namely:

Step 1

We start our analysis by considering whether the evidence BT has provided in response to the Disputes demonstrates to our satisfaction that each and every charge was reasonably derived from the costs of provision based on a forward looking LRIC approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed, in accordance with its obligations under Condition HH3.1.

Step 2

In the event that BT's evidence does not satisfy us that it has met the requirements of Condition HH3.1, we then go on to consider whether BT's charges were nevertheless cost orientated. We do this by comparing the relevant Ethernet charges with their respective DSACs to identify any revenues exceeding DSAC.

Step 3

Finally, before drawing our conclusions on overcharging, we consider:

- the magnitude and duration by which charges exceeded DSAC;
- whether, and the extent to which charges exceeded FAC; and
- the rate of return on capital employed.

If we conclude that BT overcharged for the services in dispute, we will then calculate the level of overcharge.

⁴²⁸ PPC Court of Appeal Judgment, paragraph 80.

Section 10

Has BT satisfactorily demonstrated that its relevant charges were cost orientated?

Introduction

- 10.1 In this section we assess whether BT has demonstrated to our satisfaction that each and every one of its Ethernet charges in dispute was cost orientated during the Relevant Period.
- 10.2 To do this, Ofcom has considered the arguments which BT made prior to publication of our Provisional Conclusions, as well as responses by BT and the Disputing CPs to our Provisional Conclusions.
- 10.3 BT has argued that its WES and BES charges were cost orientated, based on:
 - 10.3.1 an analysis of ROCE rates;
 - 10.3.2 a comparison of revenues and DSACs;
 - 10.3.3 international benchmarking of charges; and
 - 10.3.4 an assessment of economic harm.
- 10.4 BT has also argued that it took steps to ensure compliance historically and that it relied on acts and omissions of Ofcom during the Relevant Period. It referred specifically to:
 - 10.4.1 interaction between BT and Ofcom between 2004 and 2007;
 - 10.4.2 Ofcom's position in relation to starting charges in the 2009 LLCC Statement; and
 - 10.4.3 price reductions implemented by BT in 2008/09.
- 10.5 In our Provisional Conclusions, we provisionally concluded that BT had not satisfied us that its charges were cost orientated.
- 10.6 Below, we summarise the arguments made by BT in its 20 May 2011 submission and our views as set out in our Provisional Conclusions. We then consider comments made by the Disputing CPs and by BT in response to our Provisional Conclusions and reach our final views. We do this in relation to each of BT's arguments in turn before concluding on whether BT has demonstrated that its charges in dispute were cost orientated.
- 10.7 BT has also put forward arguments in relation to why it considers its charges were cost orientated which relate to the data we used for our provisional assessment of its charges and to our provisional assessment. We consider these arguments in Sections 13 and 14 as appropriate.

BT's arguments that its charges were cost orientated

Rate of return on capital employed

BT's initial arguments and our Provisional Conclusions

- 10.8 In its 20 May 2011 submission, BT argued that *"Ofcom should not focus exclusively, or even primarily on the individual DSACs of each and every product".* It argued that *"in a developing market like AISBO, any analysis needs first to consider rates of return within the market".*⁴²⁹
- 10.9 On this basis, BT undertook an analysis of rates of return over the Relevant Period by comparing its revenues and costs in aggregate across the AISBO market. It argued that its market ROCE was sufficiently low in most years that its charges were cost orientated. Where its charges resulted in high ROCE, it sought to reduce its charges as soon as possible.
- 10.10 In our Provisional Conclusions, we argued that an analysis of rates of return for aggregated groups of charges is not sufficient to satisfactorily discharge BT's obligation under Condition HH3.1. We explained that, if BT wished to rely on a ROCE analysis, it would need to provide this in relation to each and every charge.
- 10.11 We considered a ROCE analysis carried out by BT on an aggregated basis in the 2009 PPC Determinations. We did not accept that this approach demonstrated that BT's charges were cost orientated and, in the PPC Judgment, the CAT also rejected BT's evidence on the grounds that:

"...none of the material adduced by BT to OFCOM, whether before or during the Dispute Resolution Process was sufficient to discharge the onus, which was on BT, to show that its prices for 2 Mbit/s trunk segments were compliant with the requirements of Condition H3.1. In particular:

- (1) *The data on which BT relied – which we have summarised in paragraphs 132 to 135 above – looked at the prices for PPCs on an aggregated basis, which is not what Condition H3.1 calls for.*"⁴³⁰

Views of the Parties

- 10.12 As set out above in Section 8, BT no longer argues that it is appropriate to consider charges in aggregate across the market as a whole, although as noted at paragraph 9.210, it argues that we should consider its ROCE across the Ethernet portfolio as a whole.
- 10.13 CWW comments that: *"When providing Ofcom with ROCE data for the disputed services, BT provides 'market level' data which aggregates both connection and rental services for all services and all bandwidths into a ROCE number. We agree with Ofcom that this is not a relevant comparison".*⁴³¹
- 10.14 Virgin comments that the types of evidence that BT was able to provide to Ofcom to demonstrate that its relevant charges were cost orientated had, for the most part, already been rejected by the CAT in the PPC Judgment. In addition, Virgin

⁴²⁹ BT's 20 May 2011 submission, paragraphs 69 and 70.

⁴³⁰ PPC Judgment, paragraph 274.

⁴³¹ CWW's response to our Provisional Conclusions, paragraph 49.

commented that: *"BT's analysis of ROCE is on an aggregated basis that fails to demonstrate that the relevant charges were cost orientated"*.⁴³²

10.15 TTG comments that Ofcom rightly dismissed BT's ROCE analysis, stating:⁴³³

"ROCE data provided by BT is largely irrelevant since the figures are based on an aggregated approach and not on a disaggregated service-by-service basis";

"...it is noteworthy that BT has included both internal as well as external products...The proper analysis must be done on external only as was made clear by the CAT"; and

"Even if it was accepted that a highly aggregated approach was in some way relevant, all of the ROCEs are in excess of the allowed WACC (and triple the allowed WACC in one case). BT is permitted to earn returns at WACC not three times WACC."

Our analysis

10.16 In the context of the PPC Disputes, the Court of Appeal also considered that BT's reliance on an analysis of ROCE and WACC for entire PPC circuits was *"not justified in fact or in principle"*⁴³⁴ and *"fundamentally misconceived"*⁴³⁵.

10.17 For the reasons set out in Section 8, we continue to consider that we should assess whether each individual charge is cost orientated separately. In its response to our Provisional Conclusions, BT no longer argues that an assessment based on the aggregation of all services within the AISBO market is appropriate. As we note at paragraph 9.232 above, it is unclear how BT considers we should give 'more weight' to its return on the Ethernet portfolio as a whole. Accordingly, we see no reason to change our provisional view that BT's ROCE analysis does not satisfactorily demonstrate that BT's charges were cost orientated.

Comparison of revenues to DSAC

BT's initial arguments and our Provisional Conclusions

10.18 In its 20 May 2011 submission, BT argued that the DSACs for WES and BES services in the RFS were *"too low"*.⁴³⁶ These arguments are set out in more detail in Section 12. BT revised the DSACs and used these to try to demonstrate compliance with its cost orientation obligation. BT identified that, on the basis of these revised DSACs, charges were below DSAC for the AISBO market (as a whole) in every year except for 2006/07, when revenues exceeded DSAC by just under £2 million.⁴³⁷

10.19 BT further argued that, as charges did not exceed DSAC in the AISBO market as a whole for two or more consecutive years, overcharging did not occur.⁴³⁸

⁴³² Virgin's response to our Provisional Conclusions, paragraphs 6.5 and 6.6.

⁴³³ TTG's response to our Provisional Conclusions, paragraph 6.20.

⁴³⁴ PPC Court of Appeal Judgment, paragraph 70.

⁴³⁵ PPC Court of Appeal Judgment, paragraph 80.

⁴³⁶ BT's 20 May 2011 submission, paragraph 77.

⁴³⁷ BT's 20 May 2011 submission, paragraph 80.

⁴³⁸ BT's 20 May 2011 submission, paragraph 79.

- 10.20 In addition, BT argued that if connection and rental revenues were aggregated, there was no clear and obvious pattern of overcharging. Revenues only substantially exceeded DSAC in three consecutive years for BES 1000 circuits. BT claimed this was for other reasons (such as the products being relatively new and the resulting difficulties in forecasting volumes).⁴³⁹
- 10.21 In our Provisional Conclusions, we disagreed with BT's analysis as it was based either on the aggregation of services within the AISBO market as a whole or on the aggregation of rental and connection charges and costs.
- 10.22 Given that BT's comparison of DSAC data and revenues was based on aggregated data, and therefore could not demonstrate that BT's charges were cost orientated, we did not consider BT's claims about the accuracy of the published data at this stage but when undertaking our own analysis of BT's charges.⁴⁴⁰

Views of the Parties

- 10.23 As we have already discussed in Section 8, BT is no longer arguing that it is appropriate to consider charges in aggregate across the market as a whole, although it continues to argue that aggregation of rental and connection data is appropriate. BT has made no further comments in its response to our Provisional Conclusions on its analysis comparing DSAC and revenue data.
- 10.24 CWW comments that: *"We agree with Ofcom that BT's DSAC analysis does not satisfactorily demonstrate that its charges were cost orientated as that analysis is based either on the aggregation of services within the entire market or aggregation of rental and connection charges and costs."*⁴⁴¹
- 10.25 Virgin comments that: *"BT's comparison of revenues to DSAC is at an inappropriate aggregated level that similarly fails to demonstrate that the relevant charges were cost orientated."*⁴⁴²

Our analysis

- 10.26 BT's response to our Provisional Conclusions did not provide any further evidence specifically in relation to its analysis of revenues and DSACs. For the reasons set out in Section 8, we do not consider that the aggregation of rental and connection data is appropriate (we also consider that the aggregation of data across the market, as initially proposed by BT is not appropriate, as BT now appears to accept). Furthermore, as we noted in the Provisional Conclusions, BT's analysis was based on a revised set of DSACs that are different from those originally published. We consider in detail BT's revised DSACs in Section 12. Our conclusion is that they are not the appropriate basis upon which to resolve these Disputes. Accordingly, consistent with our provisional view, BT's comparison of revenues to DSAC does not demonstrate to our satisfaction that BT's charges were cost orientated.

⁴³⁹ BT's 20 May 2011 submission, paragraphs 83 to 85.

⁴⁴⁰ Our assessment of which DSAC data we should rely on was carried out in Section 11 of the Initial Draft Determinations.

⁴⁴¹ CWW's response to our Provisional Conclusions, paragraph 49.

⁴⁴² Virgin's response to our Provisional Conclusions, paragraph 6.6.

International benchmarking

BT's initial arguments and our Provisional Conclusions

- 10.27 In its 20 May 2011 submission, BT argued that it could demonstrate that its charges for WES and BES services were “*within, and most likely at the low end, of pricing that would be expected in an effectively contestable market*”. It argued that a report it commissioned from Ovum supported this conclusion as it suggested that BT's prices were below average relative to the benchmarked countries.
- 10.28 In our Provisional Conclusions, we commented that BT's international benchmarking evidence only compared its charges against prices in four other countries. It was unclear why these were considered representative or more relevant comparators than other countries.
- 10.29 Moreover, the international benchmarking data appeared to be based on the aggregation of different services and the aggregation of connection and rental charges. For example, the benchmarking appeared to combine Ethernet Backhaul Direct (“EBD”) and BES prices (as well as BES local end and main link prices) in the ‘Backhaul services’ benchmarking comparisons. Similarly, the prices of WES Aggregation Main and WES Aggregation Spur prices appeared to be combined in the ‘WES aggregation services’ benchmarking comparisons. In both sets of comparisons, the fixed fee and monthly fee charges appeared to have been aggregated.
- 10.30 More fundamentally, however, we considered that the study only related to prices and failed to give any consideration to possible cost differences between the services being compared.
- 10.31 We noted that the CAT considered the relevance of international benchmarking in the PPC Judgment when it concluded that “*an international comparison can say very little about BT's compliance with condition H3.1*”.⁴⁴³
- 10.32 Finally, we argued that BT's obligations in relation to cost orientation are to ensure that its prices are orientated to its costs, not that they are lower than those of its international peers. The benchmarking survey did not reveal whether BT's charges in the UK were orientated to its costs in the UK.

Views of the Parties

- 10.33 BT made no further comments on this matter in its response to our Provisional Conclusions.
- 10.34 CWW commented in its response to our Provisional Conclusions that: “*Ofcom correctly notes that BT's obligation is to ensure that its prices are orientated to its costs, not that they are lower than those of its international peers*”.⁴⁴⁴ TTG also said that it believes this analysis is “*completely irrelevant*” because the issue is BT's compliance with its cost orientation obligation and not an “*‘international prices orientation’ obligation where compliance is assessed based on the relationship*

⁴⁴³ PPC Judgment, paragraph 266.

⁴⁴⁴ CWW's response to our Provisional Conclusions, paragraph 51.

*between BT's prices and other international comparators' prices".*⁴⁴⁵ CWW and Virgin also referred to the PPC Judgment.⁴⁴⁶

Ofcom's analysis

- 10.35 BT's response to our Provisional Conclusions did not provide any further evidence in relation to its international benchmarking exercise. Accordingly, we see no reason to change our original view that the international benchmarking study commissioned by BT fails to demonstrate that BT's charges were cost orientated.

The alleged absence of economic harm

BT's initial arguments and our Provisional Conclusions

- 10.36 In its 20 May 2011 submission, BT argued that, if prices had not been cost orientated, this would have led to observable economic harm. As there was no observable economic harm, BT argued that its prices must have been cost orientated.
- 10.37 BT argued that demand for WES and BES products consistently exceeded industry forecasts over the Relevant Period, during which the main external purchasers of the service all strongly grew their businesses. This indicates that BT's prices did not have any significant constraining impact on demand, and so were cost orientated.⁴⁴⁷ In addition, BT argued that its *"market share at the retail level fell significantly over the period, indicating that there was no margin squeeze"*.⁴⁴⁸
- 10.38 In our Provisional Conclusions, we disagreed that BT's analysis of economic harm demonstrated that its charges were cost orientated for two key reasons. First, in the PPC Judgment, the CAT considered that, in determining whether BT had breached Condition H3.1, it was not necessary for Ofcom to demonstrate that economic harm had occurred. The CAT found that:

*"BT is not permitted to raise prices beyond those that are cost orientated, because this would be likely to cause economic harm: this was established by the anterior finding of SMP made at the time the condition was imposed. Economic harm and breach of the cost orientation obligation are, therefore, two sides of the same coin."*⁴⁴⁹ (emphasis in original)

- 10.39 Our justification for imposing Condition HH3.1 on the AISBO market was the same as that for imposing Condition H3.1 on the TISBO market:

*"As BT has been identified as having SMP in this market, the availability of wholesale [TISBO / AISBO] services at cost oriented prices would help to ensure that the resulting competition in the retail leased lines markets and other downstream markets should lead to lower prices"*⁴⁵⁰

- 10.40 Second, notwithstanding our provisional conclusion that economic harm is not a relevant consideration in assessing cost orientation, we found that BT's analysis did

⁴⁴⁵ TTG's response to our Provisional Conclusions, paragraph 6.21.

⁴⁴⁶ CWW's response to our Provisional Conclusions, paragraph 51, Virgin's response to our Provisional Conclusions, paragraph 6.6.3.

⁴⁴⁷ BT's 20 May 2011 submission,, paragraph 92.

⁴⁴⁸ BT's 20 May 2011 submission, paragraph 93.

⁴⁴⁹ PPC Judgment, paragraph 326.

⁴⁵⁰ 2004 LLMR Statement, paragraph 6.72 for Condition H3.1, paragraph 7.54 for Condition HH3.1.

not demonstrate that economic harm had not occurred. In assessing whether BT's prices had an observable effect that resulted in economic harm, it is important to consider the correct counterfactual – i.e. what would have happened if BT's prices had been lower than they were, such as each charge being at or below DSAC. For example, the fast rate of growth that BT observes does not demonstrate that demand for BES and WES services was not suppressed in some way by high AISBO charges. If charges had been lower, it is possible that growth would have been even higher than that observed.

10.41 We also found that BT had failed to provide sufficient evidence of a lack of economic harm because:

10.41.1 BT failed to elaborate on or provide new evidence to support claims that demand for BES and WES services grew quickly or that market share fell;

10.41.2 a fall in market share does not demonstrate a lack of economic harm, as BT's retail market share performance is affected by a number of factors, not just the wholesale charges that it faces; and

10.41.3 it is not clear why the absence or otherwise of a margin squeeze is a reliable indicator of whether BT's charges were compliant with Condition HH3.1.

Views of the Parties

10.42 BT's argument that, in assessing BT's compliance with Condition HH3.1, Ofcom should conduct an analysis of economic harm is set out in paragraph 9.216.

10.43 BT does not comment directly on whether or not there is evidence that its charges led to economic harm in its response to our Provisional Conclusions. However, it does make a number of arguments that could have some relevance to an assessment of economic harm. Specifically, it argues that:

10.43.1 as connections and rentals are purchased together and CPs tend to keep circuits for a similar length of time, connection and rental charges should be assessed together. Its arguments are referred to at paragraph 8.18.2 above;

10.43.2 a balance of prices involving the connection charge below DSAC and the rental charge for that service above DSAC might be preferable to both charges being at or below DSAC⁴⁵¹. Its arguments are set out in greater detail at paragraph 8.31, above;

10.43.3 *"The existence of a DSAC below FAC [...] implies that a price which, considered in its own right is deemed to be "economically meaningful", could be below the average cost of supply (FAC) and yet at the same time still be deemed to be excessive."*⁴⁵²

10.44 BT also argues that Ofcom's Provisional Conclusions *"ignore the very positive contribution that BT's successful development, launch and continued supply of*

⁴⁵¹ BT's response to our Provisional Conclusions, paragraph 196 to 199.

⁴⁵² BT's response to our Provisional Conclusions, paragraph 259.

*Ethernet services has had on the UK's telecommunications market.*⁴⁵³ Specifically it argues that the launch and development of Ethernet services made possible.⁴⁵⁴

- 10.44.1 the expansion of LLU and a competitive consumer broadband market;
 - 10.44.2 the expansion of backhaul network and the stimulation of competition in the wholesale market; and
 - 10.44.3 increased supply of data capacity which enabled consumer take-up of broadband applications.
- 10.45 The Disputing CPs agree with our provisional conclusion that it was unnecessary to consider economic harm for the purposes of determining whether BT had overcharged for WES and BES.⁴⁵⁵ They also argue that, in any event, it was likely that BT's charges had caused economic harm, as follows.
- 10.46 TTG argues that BT's charges would have led to reduced demand due to higher retail prices:

"Some of higher WES/BES prices would have been passed through into higher retail prices resulting in:... [r]educed unbundling and investment geographically restricting competition.

*"...If the higher WES/BES prices were not passed through the effects would be: [...] [r]educed available funds for investment and lower returns on investment resulting in less investment in unbundling new exchanges, developing new services and acquiring new customers which in turn leads to weakened competition"*⁴⁵⁶.

- 10.47 Sky and TTG argue that the scale and pace of LLU roll-out were constrained:

"The excessive BES charges are likely to have constrained the scale and pace of LLU roll-out which, in turn, will have affected when and where LLU-based services were offered to consumers. For example, where LLU operators have not been able to justify the cost of unbundling an exchange (or have delayed a decision to do so):

- (a) *consumers faced higher fees for 'off-net' (i.e. not unbundled) products that offer low margins to such operators;*
- (b) *LLU operators were unable to offer off-net consumers the same superior services that can be offered to on-net customers; and*
- (c) *the LLU operator had a reduced ability to take advantage of scale economies"*⁴⁵⁷.

- 10.48 Sky argues that competition between CPs would have been distorted:

⁴⁵³ BT's response to our Provisional Conclusions, paragraph 9.

⁴⁵⁴ Paragraph 338 of BT's response to our Provisional Conclusions.

⁴⁵⁵ CWW's response to our Provisional Conclusions, paragraph 52; Sky's response to our Provisional Conclusions, paragraph 82; TTG's response to our Provisional Conclusions, paragraph 6.22; Virgin's response to our Provisional Conclusions, paragraph 5.3. Verizon does not comment.

⁴⁵⁶ TTG's response to our Provisional Conclusions, paragraphs 6.23.1.3 and 6.23.2.2. See also TTG's response to the PPC Judgment, page 2.

⁴⁵⁷ Sky's response to our Provisional Conclusions, paragraph 83.

*“not all communications providers competing in the same downstream retail markets purchase BES services (or if they do in the same proportions) and thereby there is a risk that competition may be distorted.”*⁴⁵⁸

10.49 TTG adds:

*“Some of higher WES/BES prices would have been passed through into higher retail prices resulting in... [d]istorted competition due to TalkTalk’s weakened competitive position versus BT Retail and Virgin”*⁴⁵⁹.

10.50 The Disputing CPs disagree with BT that connection and rental charges should be assessed together. Their arguments are set out in greater detail at Section 8 above.

Our analysis

Introduction

10.51 In Section 9 we set out why we do not consider an assessment of economic harm to be necessary in our assessment of BT's charges for the services in dispute. However, in light of the comments set out at paragraphs 10.42 to 10.50, we set out in this section why we nevertheless consider that any overcharging by BT in this case may be associated with economic harm (subject to the implications of potential biases in the DSAC figures, which we have been unable to quantify).

10.52 In the PPC Judgment, the CAT considered that the basis for Ofcom's conclusion that it was likely that BT's overcharging for 2Mbit/s trunk segments had caused economic harm was “*virtually self-evident*”. It found that:⁴⁶⁰

10.52.1 the increased costs borne by the disputing parties (in the form of unduly high charges for 2 Mbit/s trunk segments) were likely (in some way) to be passed on to their retail customers;

10.52.2 it was “*logically inevitable*” that those CPs needing to purchase more trunk (given the considerable variation in the disputing parties' networks) would be disadvantaged as against those whose networks mean that they can buy less; and

10.52.3 the economics of the decision whether to buy-in or self-supply trunk were distorted.

10.53 As we explain below, the nature of the types of economic harm that we consider may have arisen in this case are analogous to those identified by the CAT as having self-evidently arisen in the case of 2Mbit/s trunk.

10.54 Before considering the specific types of harm in this case, we note that Condition HH3.1 was imposed in the 2004 LLMR Statement and 2008 BCMR Statement because we found that, absent such a remedy, there was “*a relevant risk of adverse effects arising from price distortion because BT, as it has SMP in this market, has the ability to price above the competitive level, so as to have adverse consequences for end users of public electronic communications services*”.⁴⁶¹ We would typically

⁴⁵⁸ Sky's response to our Provisional Conclusions, paragraph 84.

⁴⁵⁹ TTG's response to our Provisional Conclusions, paragraph 6.23.1.2.

⁴⁶⁰ PPC Judgment, paragraph 332

⁴⁶¹ Paragraph 7.68 of the 2004 LLMR Statement. See also), paragraphs 7.54, 7.61 and 7.66 of that Statement and paragraph 8.304 of the 2008 BCMR Statement.

expect that where such SMP Conditions are breached, harm will ensue: as the CAT said, “[e]conomic harm and breach of the cost orientation condition are...two sides of the same coin”.

10.55 The starting point for our assessment is to establish the appropriate counterfactual against which to assess BT's charges. We then go on to identify the mechanisms by which adverse effects on consumers and/or competition might arise and either:

10.55.1 establish that there is a risk of the adverse effects occurring; or

10.55.2 identify the reasons why economic harm would not arise in the particular circumstances (despite price being above the relevant cost benchmark).

Establishing the appropriate counterfactual

Introduction

10.56 The analysis of economic harm generally involves identifying a counterfactual against which the actual outcome can be compared. This is especially so when considering the possible adverse effects of apparently high prices. The analysis then assesses the implications for consumers and/or competition of the actual prices charged, compared to the level assumed in the counterfactual.

10.57 In establishing the appropriate counterfactual, it is necessary to consider: 1) the appropriate aggregation of charges for the analysis; and 2) the appropriate level for the charges. As we have set out in Sections 8 and 9 above, these also need to be considered in the context of assessing compliance with Condition HH3.1. We would normally expect our conclusions in both these contexts to be consistent, however there may be considerations that are relevant to only one.

10.58 For the reasons we set out below, in this case we consider that the appropriate counterfactual is one which is consistent with our approach to assessing compliance with Condition HH3.1. It therefore entails assuming that each of the connection and rental charges in dispute is separately at or below DSAC.

The appropriate aggregation of charges for the counterfactual

10.59 In Section 8 we set out why we consider it appropriate to assess compliance with Condition HH3.1 on the basis of each and every charge separately. In the paragraphs below, we set out why we also consider this to be the appropriate basis for the counterfactual in this case.

10.60 BT argues that AISBO connections and rentals are always bought by CPs in fixed proportions, as set out in Section 8. If this were the case then ‘too low’ charges for connections and ‘too high’ charges for rentals could net each other out in aggregate and, as the meaningful pricing signal consists of the two charges together, such a charging structure would not necessarily be associated with economic harm.

10.61 However, as we have explained in Section 8, we do not agree that connections and rentals are always bought in fixed proportions. We consider that individual connection and rental charges are generally meaningful economic signals in their own right. As such, we would normally expect distortions to the individual charges to be associated with economic harm and we do not agree that a consideration of economic harm should be predicated on the aggregation of BT's connection and rental charges.

- 10.62 In any event, even if we did combine connection and rental cost and revenue data for each circuit type and bandwidth combination (e.g. BES 100) for the purposes of considering economic harm, we would still identify revenues in excess of DSAC for services relevant to these Disputes in most years. Therefore, an alternative counterfactual aggregating connections and rentals may imply that less charging in excess of DSAC has occurred, but it would not alter the conclusion that some form of charging in excess of DSAC was likely associated with BT's charges.
- 10.63 We acknowledge that there is an initial period in which connections and rentals are purchased together and typically in fixed proportions. BT is contractually able to set a minimum rental period, typically of one year. However, we note that:
- 10.63.1 as discussed in paragraph 8.58, even within the minimum rental period, contractual provisions do allow for the possibility that the circuit rental could be terminated. We also discuss below the potential for upgrades/downgrades and the fact that some circuits were migrated from legacy retail services. Therefore, connections and rentals may not always be bought in fixed proportions in the minimum rental period;
 - 10.63.2 any aggregation of connection and rental charges in the minimum rental period would not affect the rental charges for circuits outside that period, which are above DSAC; and
 - 10.63.3 aggregating connection and rental charges in the minimum rental period might reduce the extent to which the combined charges exceed DSAC, but it would not remove all charging in excess of DSAC.

The appropriate aggregation of charges: desirable balance of connection and rental prices

- 10.64 BT suggests that a balance of prices involving a connection charge below DSAC and the rental charge for that service above DSAC might be preferable to both charges being at or below DSAC. In other words, it considers there might be economic harm in the counterfactual of connection and rental charges each at or below DSAC compared to the balance of prices with connection below, and rental above, DSAC.
- 10.65 First, we note that BT's argument is different from its argument that connections and rentals are purchased in fixed proportions and the two arguments are mutually exclusive. The argument about fixed proportions claims that the balance of prices is irrelevant because the economically meaningful price signal is the aggregated price, rather than the individual prices for connection and rental. In contrast, the argument here is that it is the balance of individual prices that matters and not just the aggregated price, for example because customers have a preference for prices which set reduced connection charges with any unrecovered connection costs being recovered through higher (above DSAC) rental charges. If connection and rental were truly purchased in fixed proportions, there would be no reason for such customer preferences.
- 10.66 Second, while BT has raised this argument in principle and referred to some unrelated retail markets in which it claims customers prefer such a balance of prices, it has provided no evidence that these considerations are relevant to the specific wholesale services in dispute. For example, BT has not provided evidence that purchasers of BES and WES services have a preference for this balance of prices. Nor has it addressed whether, if the purported preference for this balance of prices arises at the retail level, such a balance of prices at the wholesale level is necessary

to achieve the benefit, or whether it is necessary for the rental charge to be above DSAC in order to achieve the customer benefit.

The appropriate cost benchmark for the counterfactual

- 10.67 In Section 9 above we set out why we consider that the appropriate cost benchmark for assessing compliance with Condition HH3.1 is DSAC. In the paragraphs below, we set out why we also consider this to be the appropriate level for charges in the counterfactual.
- 10.68 According to the 1997 and 2001 NCC Guidelines, DSAC is an effective first order test for the likelihood of exploitative charging (even if it is not determinative). This suggests that economic harm is normally expected to follow from prices above DSAC. It also suggests that pricing of the service under investigation at DSAC will usually be a reasonable counterfactual in investigations.
- 10.69 We do not consider there to be compelling arguments in this case to adopt an alternative cost benchmark for our counterfactual. We therefore have adopted a counterfactual in which each of the relevant BES and WES prices charged by BT in the Relevant Period is set at or below DSAC.
- 10.70 As we set out in detail in Section 12, BT argues that the DSAC data it published in its RFS for the years prior to 2010/11 cannot be relied upon in resolving these Disputes as they were based on an incorrect methodology. It points to the existence of DSAC below FAC in one year in support of its argument. It argues that we should replace the data with DSACs calculated using the methodology it adopted for the 2010/11 RFS. The key difference between these two approaches is the way in which BT calculated its duct costs.
- 10.71 Although in Section 12 we reject BT's arguments that we should replace the published DSACs with those calculated using a different methodology, we nevertheless consider that, based on our understanding of the available evidence, the published DSACs for the period prior to 2010/11 are based on a methodology that appears not to reflect cost causation in its treatment of duct costs. For similar reasons, we also consider that, based on our understanding of the available evidence, BT's published DSACs for 2010/11 are based on a methodology that appears not to reflect cost causation.
- 10.72 There therefore appears to be a question as to whether BT's published DSAC data form an appropriate basis upon which to establish the counterfactual in these Disputes for the purpose of assessing economic harm.
- 10.73 In paragraphs 12.231 to 12.243, we conclude that, as compared to an approach which reflects cost causation in its treatment of duct costs:
- 10.73.1 the DSACs of core transmission components are likely to be over-stated in both of the approaches BT adopted to calculating its published DSACs over the Relevant Period, although the extent of over-statement is not clear; and
- 10.73.2 it is plausible that DSACs of local access components (i.e. local ends) are under-stated in the original methodology, although this is less certain than the over-statement of core transmission component costs, and the extent of any under-statement is not clear. We have not established a reliable inference on whether the revised methodology in 2010/11 leads to an under- or over-statement as compared to the cost causation approach.

10.74 In terms of the DSACs of the services in dispute:

- 10.74.1 connection services are unaffected as they do not relate to duct costs;
- 10.74.2 for rental services the bias may result in the DSACs under a cost causation approach being higher for local ends than under BT's original approach (i.e. the published DSACs for 2006/07 to 2009/10). The direction of bias for 2010/11 is however unclear as we do not have a reliable inference for this year; and
- 10.74.3 for Ethernet main link services the bias in core transmission components is likely to result in the DSACs under a cost causation approach being lower than under either of BT's published approaches.

10.75 However, as noted above, we have been unable to reach a clear view on the size of any biases in the DSACs for either rental or main link services. It is difficult, therefore, to establish a specific counterfactual in this case which explicitly takes them into account. But we note the issue of the potential biases in DSACs in our conclusion on economic harm in this case.

Conclusion on the appropriate counterfactual

10.76 For the reasons set out above, we consider that the assessment of the types of economic harm in this case should be considered against a counterfactual in which each of the connection and rental charges in dispute is set separately at or below DSAC (subject to the implications of potential biases in the DSAC figures, which we have been unable to quantify).

Types of economic harm in this case

10.77 Economic harm arises from the distortion of efficient economic decision-making, as a consequence of distorted price signals, such that economic welfare is reduced. BT's BES and WES charges have resulted in the Disputing CPs and/or their retail customers paying BT too much for these services. As we set out in detail below, we consider that these distorted prices may have generated economic harm.

10.78 In the face of higher wholesale prices from BT (than in the counterfactual), CPs could respond in three basic ways:

- 10.78.1 continue to use WES/BES products from BT. As a result, CPs would need to either pass on (some or all of) the higher charges to retail customers or absorb the higher cost by accepting lower margins;
- 10.78.2 switch to an alternative wholesale input by self-supplying the input, buying from an alternative third party supplier or buying an alternative wholesale product from BT; or
- 10.78.3 reduce the volume purchased, or in the extreme, exit the retail market and therefore stop consuming BT products.

10.79 CPs could potentially choose a combination of these options, and different CPs may differ in their ability to adopt them depending on their network configuration. Therefore, there could also be competitive distortions at the retail level. Each of these options may create some form of economic harm by:

- 10.79.1 leading to higher prices for consumers and reducing the overall demand for retail services which are supplied using BES or WES through increasing retail prices;
- 10.79.2 distorting the investment decisions of CPs; and
- 10.79.3 distorting competition between CPs at the retail level by favouring those able to avoid using BES or WES to a greater extent than others.

We explain each of these sources of economic harm in the following sub-sections.

Impact on retail demand

- 10.80 As set out in Section 6, CPs use BT's Ethernet services to connect different parts of their own networks and to supply high bandwidth data connectivity to their business and residential customers. BES services are used by Local Loop Unbundling ("LLU") operators to connect the equipment they have installed in BT's local exchange to their own core network, thereby allowing them to provide telephony and/or broadband services to their customers. LLU-based operators made significant investments during the Relevant Period and acquired significant retail market share in broadband. WES services are used by CPs to provide a dedicated fibre optic high bandwidth data circuit between their customers' premises and their own network via BT's network.
- 10.81 The Disputing CPs' charges to their own customers for retail services are based on wholesale input costs, including the cost of WES and BES that they purchase from BT. As higher wholesale charges represent an increase in marginal cost for the Disputing CPs, it is possible that at least some of the higher charges for WES and BES purchased from BT (compared to the counterfactual) may have been passed on to the Disputing CPs' customers through higher retail prices. The exact extent to which the increased WES and BES charges to the Disputing CPs were passed on to end users depends on the demand and competitive conditions in the retail market.
- 10.82 TTG claims that some of the higher WES/BES prices would have been passed on in higher retail prices (see paragraph 10.46 above), although it does not provide supporting evidence.
- 10.83 Regardless of the exact level, as long as some level of passing-on occurred, economic harm may have been suffered as a result because end-users, such as customers consuming LLU-based products, will have faced higher prices as a consequence of BT's charges. Furthermore, it is possible that inflated retail prices suppressed retail demand for services such as LLU-based calls and broadband products. If so, this will also have generated an economic loss and may have had implications for investment, as discussed below. As described in paragraph 6.4, BES are used to provide backhaul for LLU-based broadband services. BES are also used to provide mobile and leased lines backhaul services, and so it could potentially have affected the demand for these services as well.
- 10.84 In addition to or instead of retail demand overall being lower, demand may have switched away⁴⁶² from Ethernet-based retail services to alternative retail services (e.g. to WLR related products rather than LLU-based products) that do not rely on AISBO wholesale inputs to a greater extent than would have occurred under the

⁴⁶² Or alternatively, if demand did not switch away from LLU, for example, it may not have switched to LLU as quickly as it would have under the counterfactual.

counterfactual. This may have had implications for competition, which is discussed further below.

- 10.85 In response to BT's argument that we should take into account the positive effect that Ethernet services had on other markets, we note that this was one of the considerations that led us to impose a cost orientation obligation on BT in the AISBO market in the 2004 LLMR Statement. We did so to promote downstream services which use Ethernet as an input, such as broadband via LLU. We do not consider that it provides a sound justification for BT's charges to be significantly above DSAC.⁴⁶³

Distorted investment decisions

- 10.86 Prices above DSAC may have distorted CPs' choice of wholesale input and their build or buy decisions. For example, at the margin, higher BES prices could have distorted investment decisions by deterring CPs from unbundling some local exchanges that could have been unbundled under the counterfactual. There may therefore have been less infrastructure investment than was optimal or desirable. For example, Sky and TTG argue that the scale and pace of LLU roll-out were constrained by BT's BES charges (see paragraph 10.47 above).
- 10.87 An alternative concern could be that inflated BT BES and WES prices may have encouraged inefficient entry into the market, which can also distort competition. High charges for wholesale services could give rise to circumstances in which it is profitable for the Disputing CPs to invest in self-supply of the services despite their costs of provision being higher than those of BT. CPs with larger networks can use proportionately less WES and BES from BT, and so some CPs may have been encouraged to roll out their networks further in order to avoid relying on BES and WES from BT. This is inefficient for society as a whole. However, the suggestion that this type of economic harm occurred is not made by the Disputing CPs.
- 10.88 A further possible adverse effect of BT's prices being above DSAC, suggested by TTG, is lower availability of funds for investment. As well as reduced internal funding, this argument relies on external funding being unavailable from the capital markets even for profitable investments. The banking and financial crisis may have increased the risk that such imperfect capital markets existed during the Relevant Period.

Distorted retail competition between CPs

- 10.89 Different CPs have very different networks, as noted in the PPC Judgment.⁴⁶⁴ As a result, different operators rely on wholesale products from BT to different extents. In addition, the mix of products CPs need within that overall requirement differs. CPs with large existing networks are likely to be in a relatively better position to avoid purchasing many BES and WES services than those with more limited networks, as their networks reach closer to the points that they are seeking to connect (be that customer premises or BT exchanges). As a consequence, the Disputing CPs' spend on WES and BES will be different, with some of the CPs purchasing proportionately more than others. Further, the split between local end and main link segment spend will be different, with some of the CPs purchasing proportionately more main link as they need to connect to more BT exchanges before reaching their network. Higher charges by BT have therefore led to relatively higher costs for those CPs with smaller networks of their own and, as a consequence, may have led to a distortion in retail competition.

⁴⁶³ See Section 7 of the 2004 LLMR Statement, e.g. at paragraph 7.36.

⁴⁶⁴ PPC Judgment, paragraph 33.

- 10.90 TTG argues that a consequence of BT's WES/BES prices was that it was disadvantaged in competition against Virgin and BT Retail (see paragraph 10.49 above). As regards Virgin, its extensive local access network related to the provision of cable TV and telecommunications services is likely to mean that it is less dependent on BT for services such as WES than TTG, as it is able to self supply more circuits itself (certainly within its specific geographic footprint). Therefore, it is conceivable that a distortion of competition may have arisen between these two firms.
- 10.91 The argument that competition was distorted in favour of BT Retail seems to depend on there having been a margin squeeze or discrimination between BT's retail unit and other CPs. In its 20 May 2011 submission, by contrast, BT argues that its share at the retail level fell significantly over the period, indicating that there was no margin squeeze and therefore that its charges were cost orientated.⁴⁶⁵
- 10.92 We have not investigated whether such a margin squeeze in fact took place, and no CP has provided evidence that there was a margin squeeze. As noted at paragraph 9.101 the potential for a margin squeeze does not mean that such a squeeze inevitably occurs. We therefore are not in a position to conclude that additional distortions have arisen between the Disputing CPs and BT in this case as a result of a margin squeeze.

Conclusions on economic harm

- 10.93 Both the CAT and Court of Appeal have confirmed that we do not need to demonstrate that economic harm has occurred as a result of BT's charges in order to find it has breached its cost orientation obligations. In this case we nevertheless consider that, for the reasons set out above, BT's charges for BES and WES services had the potential to cause economic harm, and such harm may have occurred in terms of higher prices to end users, reducing overall retail demand, and/or distorting investment decisions or competition between CPs (subject to the implications of potential biases in the DSAC figures, which we have been unable to quantify).

BT's arguments regarding the steps taken to comply

- 10.94 BT argued in its 20 May 2011 submission that it took the following steps to ensure compliance historically:
- 10.94.1 **Interaction with Ofcom between 2004 and 2007.** BT argued that it was relevant that there was interaction with Ofcom in the period 2004 to 2007. During this period, Ofcom handled a complaint from THUS plc ("THUS") and BT responded to an information request from Ofcom. BT argues that Ofcom's actions and omissions in relation to these matters demonstrated that its prices were cost orientated;
- 10.94.2 **Lack of action by Ofcom in respect of the LLCC 2009 Statement.** BT argued that Ofcom's adjustment of only one starting charge in the 2009 LLCC Statement suggested that Ofcom was content that BT's charges were cost orientated;
- 10.94.3 **BT sought to reduce prices in 2008/09.** It did this after it had identified potential concerns with the cost orientation of its pricing whilst reviewing the

⁴⁶⁵ BT's 20 May 2011 submission, paragraph 93.

draft RFS for 2007/08. However, it argued that price reductions were delayed due to a number of CPs objecting to a waiver of BT's 90 day notice period for price changes.

- 10.95 BT also provided a number of pricing papers to us, pursuant to formal information requests. BT argues that it was "*always aiming to achieve cost orientation as its pricing papers show*".⁴⁶⁶

Interaction with Ofcom between 2004 and 2008

BT's initial arguments

- 10.96 BT argued in its 20 May 2011 submission that it was not considering compliance with cost orientation in isolation on the basis that:

10.96.1 it worked very closely with Ofcom as BT developed its strategy in relation to AISBO/Ethernet products, altering its pricing and/or introducing new products as Ofcom developed its policies in this area; and

10.96.2 it provided "*a very significant level of information [to Ofcom] demonstrating BT's compliance with the Condition*".⁴⁶⁷

- 10.97 The close working involved many meetings, which included discussions of BT's Ethernet services and pricing, particularly in respect of BT's price review of its Ethernet products that took place during the third and fourth quarters of 2006/2007. BT contends that this close working continued through 2007 as BT developed new AISBO services and into 2008 with the publication of Ofcom's market review consultation document on 17 January 2008.⁴⁶⁸

- 10.98 BT also states that it shared detailed information with Ofcom during this period as a result of two specific events: a complaint by THUS and Ofcom's preparation for its review of the 2004 LLMR Statement (which subsequently fed into the 2008 BCMR Statement). The information shared as a result of these events included information about the basis on which BT had set its prices. BT argues that Ofcom gave no indication that BT's approach to assessing cost orientation was inappropriate or that Ofcom had any concerns as to whether BT's charges were compliant with its obligations. In these circumstances BT contends that it would be completely wrong (and, it asserts, unlawful) for Ofcom now to find BT was in breach of its cost orientation obligation.⁴⁶⁹

The THUS Complaint

- 10.99 BT notes that, on 11 May 2007, THUS made a formal complaint to Ofcom about the pricing of BT's WES/WEES Ethernet product portfolio, which THUS believed was discriminatory and not cost orientated. On 10 July 2007 Ofcom wrote to BT advising that it had decided not to open an investigation on the basis of administrative priority. Ofcom also noted that "*Ofcom does not consider it appropriate to open an investigation where the matters raised in the THUS complaint are likely to be dealt with under the LLMR...*" (which was about to begin). BT argues that this decision

⁴⁶⁶ BT's response to our Provisional Conclusions, paragraph 76.

⁴⁶⁷ BT's 20 May 2011 submission, paragraph 43.

⁴⁶⁸ BT's 20 May 2011 submission, paragraphs 44 and 45.

⁴⁶⁹ BT's 20 May 2011 submission, paragraphs 46 to 48.

clearly indicated that Ofcom had no significant concerns over BT's pricing of its WES and WEES products.⁴⁷⁰

Response to the LLMR information request

10.100 BT also notes that, in June 2007, Ofcom sent BT a notice under section 135 of the Act requiring it to provide information about, among other things, the AISBO market and in particular BT's WES and BES products (the "LLMR information request"). Ofcom required BT to provide the following information:

- *"Provide calculations demonstrating how BT's current charges (i.e. those that come into effect on 14 June 2007, following the 90 day notice period) for each and every WES and WEES product complies with BT's ex-ante cost orientation obligation (HH3) imposed under the June 2004 LLMR."*
- *"Provide calculations demonstrating how BT's proposed charges for each and every WES and WEES product, which come into effect on 2 December 2007 and 2 June 2008, complies with BT's ex-ante cost orientation obligation (HH3) imposed under the June 2004 LLMR."*
- *"Provide any information (other than that requested above) that BT considers is relevant to demonstrating that BT has satisfied its ex-ante cost orientation obligation (HH3) in relation to each and every WES and WEES product."⁴⁷¹*

10.101 BT notes that it responded fully to these questions and specifically wrote to Ofcom on 6 June 2007 commenting:

"The title and some of the commentary included in [Ofcom's letter of 5 June 2007] implies that the information is requested in order to inform a Market Review, however it is our understanding that the information requested, and that we have supplied, is to be used in order to assess BT's compliance with Ofcom's Condition HH3. It is for this purpose that the information is provided."⁴⁷²

Our Provisional Conclusions

10.102 We explained that BT's submissions appeared to imply that Ofcom had created in BT a legitimate expectation that it was satisfied that BT's charges for Ethernet services were cost orientated, such that it would be unfair if Ofcom now found it in breach of Condition HH3.1. We therefore considered BT's arguments in that light.

10.103 We provisionally concluded that none of Ofcom's actions or omissions (or any actions taken by BT) provide evidence that Ofcom considered, or gave BT grounds to believe it considered, that BT's charges for Ethernet services were cost orientated. Further, we did not think BT could ever have a legitimate expectation that Ofcom would not resolve a dispute about the cost orientation of BT's charges (in the light of an SMP obligation) in accordance with its statutory functions.

The THUS complaint

10.104 The complaint made by THUS in May 2007 alleged that certain wholesale Ethernet price changes announced by BT on 14 March 2007 were not cost orientated in breach of Condition HH3.1, and that BT was also in breach of its obligation not to

⁴⁷⁰ BT's 20 May 2011 submission, paragraphs 49 to 51.

⁴⁷¹ BT's 20 May 2011 submission, paragraphs 52 to 53.

⁴⁷² BT's 20 May 2011 submission, paragraph 54.

unduly discriminate. In particular, THUS complained that shorter distance lower bandwidth Ethernet circuits had become much more expensive in comparison with the (retail) services it had been purchasing up until that point. THUS requested that Ofcom open an investigation into the price structure and pricing of BT's wholesale Ethernet products.

10.105 Ofcom carried out an assessment to determine whether to open an investigation and, on 9 July 2007, wrote to THUS stating that we had decided not to open an investigation into its complaint *"on the basis of administrative priority"*. Ofcom made it clear that in reaching its decision, we had *"not considered the merits of THUS' allegation"*. The letter went on to say that Ofcom *"considers the merits of a complaint only once an investigation begins"*. It noted that Ofcom considered the issues raised by THUS were likely to be dealt with in the forthcoming BCMR and therefore opening an investigation would not be an efficient use of our limited resources. Finally, the letter stated that *"[a] decision not to open an investigation due to administrative priorities does not prevent Ofcom from investigating similar conduct in future, or re-considering the same conduct where significant new evidence arises"*.

10.106 We provisionally concluded that Ofcom's decision not to open an investigation was made on the grounds of Ofcom's administrative priorities, including our view of the best use of our resources. It provides no evidence that Ofcom considered BT's charges to be cost orientated. It does not amount to a statement or representation that Ofcom considered the charges to be cost orientated and it would not have been reasonable for BT to rely on it as such (see in addition paragraph 10.110 below).

Response to the LLMR information request

10.107 As part of our review of the 2004 LLMR Statement (this review developed into the 2008 BCMR Statement – see Section 4, above), and prompted by THUS' complaint referred to above, Ofcom issued BT with an information request under section 135 of the Act on 5 June 2007. This required BT to provide details of calculations showing that its current and future charges for each and every WES/WEES service complied with BT's cost orientation obligations imposed under the 2004 LLMR Statement.

10.108 When we issued the LLMR information request to BT, we stated that it had the following purpose:

"Subject matter and purpose of review"

"Ofcom is in the process of reviewing the telecommunications markets for retail leased lines; any other forms of retail business connectivity services (that it might be appropriate to include in the relevant market); and associated wholesale services."

"On 24 June 2004, Ofcom published its findings in the review of the retail leased lines, symmetric broadband origination and wholesale trunk segments market (LLMR). Ofcom concluded that BT has significant market power (SMP) in a number of markets including the market for alternative interface symmetric broadband origination (AISBO), in which BT was found to have SMP."

"As a result of this SMP finding, Ofcom imposed certain SMP services conditions upon BT. These include a requirement that each and every charge offered, payable or proposed for Network Access covered by Condition HH1 is reasonably derived from the costs of provision based on a forward looking long run incremental costs (LRIC) approach and allowing an appropriate mark up for"

the recovery of common costs and an appropriate return on capital employed. This requirement applies to the provision of BT's Ethernet-based products Wholesale Extension Service (WES) and Wholesale End to End Service (WEES), as these products fall within the AISBO market.

"Openreach launched the current portfolio of WES and WEES products on 1 October 2006, and on 14 March 2007, Openreach announced revised pricing that would come into effect in three stages, on 14 June 2007, 2 December 2007 and 2 June 2008.

"The purpose of this notice is to obtain specified information that relates to the provision of WES and WEES products, and the revised pricing for these products announced by BT on the 14 March 2007."

10.109 BT responded to the information request on 6 June 2007, providing spreadsheet calculations which, in its view, demonstrated that the WES/WEES prices were cost orientated. BT provided FAC on a historic cost basis, together with the resulting ROCE analysis; these were both at an aggregated level. BT did not provide DSAC data in its response. BT's cost calculations were discussed by Ofcom and BT at a meeting on 12 June 2007, but no indication was provided by Ofcom as to whether we considered that BT's data showed that its charges were cost orientated.

10.110 Ofcom set out a high level comparison of the price of BT's wholesale Ethernet services with Ofcom's preliminary assessment of the cost of delivering those services in Annex 12 to the 2008 BCMR Statement. Ofcom stated that based on the work performed to date using 2006/07 cost data,⁴⁷³ it did not appear to Ofcom that THUS' allegations were supported by the data gathered. However, its preliminary analysis suggested that:⁴⁷⁴

10.110.1 overall revenues for WES/WEES services⁴⁷⁵ exceeded Ofcom's estimate of FAC by over 10%;

10.110.2 the then pricing structure for WES/WEES was unbalanced: in general connection charges appeared to significantly exceed underlying FAC costs, whereas some local end rental charges fell below them; and

10.110.3 backhaul per metre distance charges were double FAC.

10.111 Annex 12 to the 2008 BCMR Statement notes Ofcom's aims, consistent with the stated purpose of the LLMR information request:

*"We are proposing to price control alternative interface services in future. Work is underway to set charge controls from 1 October 2008. We are actively considering whether there should be a one-off adjustment to individual charges at the outset. With this aim in mind we are seeking to refine our understanding of the underlying costs of these services."*⁴⁷⁶

⁴⁷³ Ofcom made a further section 135 information request on 7 August 2007 to obtain cost and volume information for this comparison.

⁴⁷⁴ 2008 BCMR Statement, paragraph A12.4.

⁴⁷⁵ Ofcom stated that it was unable to prepare estimates of costs for daisy chain circuits separately from standard BES circuit costs as the data were not available. As a result it only presented the results of its analysis for WES/WEES circuits, which were the services THUS had complained about. See BCMR Statement, paragraph A12.24.

⁴⁷⁶ 2008 BCMR Statement, Annex 12.5.

10.112 In our Provisional Conclusions, we noted BT's comment (quoted at paragraph 10.101 above) regarding the use to which its response would be put. However, we pointed out that Ofcom did not reply to BT accepting its purported revision of the purpose of the LLMR information request. Further, as this was a notice issued by Ofcom under section 135 of the Act, we did not consider that BT could legitimately expect that its statement could replace or supersede the purpose stated in the statutory notice. We did not accept that BT could unilaterally determine or alter the purpose of a statutory information request issued by Ofcom.

10.113 We provisionally concluded that we would only be in a position to reach a conclusion on whether or not BT's charges were cost orientated after we had carried out a detailed investigation of BT's costs. We did not carry out such a detailed investigation and did not reach a conclusion on whether BT's charges were cost orientated during our work in preparing the 2008 BCMR Statement and the subsequent 2009 LLCC Statement, or at any other time. Indeed, Annex 12 of the BCMR explicitly states:

*"For this particular exercise we confined ourselves to comparing costs prepared on a fully attributed cost (FAC) basis with individual service prices. We therefore did not attempt to obtain incremental ("floor") and standalone cost ("ceiling") information."*⁴⁷⁷

10.114 We did not consider that BT had offered any evidence to the effect that Ofcom indicated to BT that the information BT provided demonstrated to Ofcom's satisfaction that BT's charges were cost orientated. Ofcom's actions (or lack of action) did not imply any approval of BT's position nor relieve BT of the obligation to ensure that its charges were cost orientated.

10.115 More generally, we did not accept that Ofcom could be precluded by earlier comments or actions from exercising its statutory functions to resolve disputes in the light of the relevant facts and evidence at the time that they arise.

BT's response

10.116 BT now argues that its submissions should not be seen as relevant only to the question of whether it had a legitimate expectation that its charges would be considered to be cost orientated, but also to *"the way in which Ofcom proposes to exercise its statutory powers in these Disputes"*.⁴⁷⁸

10.117 BT argues that *"Ofcom was under a duty, in the circumstances of these Disputes, to make its policy as regards the parameters of cost orientation and compliance with Condition HH3.1 clear"*. BT considers that this duty flows from Ofcom's obligations under section 3(3) of the Act to act in a transparent, accountable, proportionate, consistent and targeted manner, as well as to follow regulatory best practice.⁴⁷⁹

10.118 BT also argues that Ofcom is under a duty to have regard to the principle of legal certainty, which it asserts is a constitutional principle in the UK and a general principle of EU law, which requires that:

10.118.1 obligations are transparent, clear and foreseeable, and are known in advance so as to respect the principle of non-retroactivity; and

⁴⁷⁷ 2008 BCMR Statement, Annex 12.21.

⁴⁷⁸ BT's response to our Provisional Conclusions, paragraphs 21 to 22.

⁴⁷⁹ BT's response to our Provisional Conclusions, paragraphs 28 to 30.

- 10.118.2 the rules of legal certainty are all the more strictly observed in the case of obligations liable to have financial consequences or in cases where penalties, including of a non-criminal nature, may follow.⁴⁸⁰
- 10.119 BT argues that, contrary to these principles, it was given *"little (or no) guidance as to how it should approach cost orientation in the Ethernet market. Where guidance has been given by Ofcom (or previously Oftel), Ofcom in the Draft Determinations has radically (and unfairly) departed from that approach, including not carrying out an effects assessment."*⁴⁸¹
- 10.120 BT argues specifically that:
- 10.120.1 the 1997 NCC Guidelines provided guidance that "[t]he primary focus of investigation [...] will however be the effect or likely effect of the charge on competition and on consumers"; and
- 10.120.2 although the DLRIC floors and DSAC ceilings initially looked at component costs, when *"used as a test for abusive charging they had to be applied to the service as a whole 'because interconnecting operators purchase services not components'"* – BT argues that the 1997 NCC Guidelines recognised the limitations of relying solely on component costs.⁴⁸²
- 10.121 BT argues that the guidance available *"prior to condition HH3"* did not make clear:
- 10.121.1 *"how exactly the floors and ceilings would be applied, and certainly did not suggest that they would be applied inflexibly, without taking account of other relevant market features"*;
- 10.121.2 *"the level of disaggregation at which the obligation would apply"*; or
- 10.121.3 that BT could 'fail' the test *"on the basis of a single year of assessment"*.⁴⁸³
- 10.122 Similarly, BT considers that the 2004 LLMR Statement did not explain how Condition HH3.1 was to be applied and *"[s]uch indications as there were suggested that there would be latitude arising from the fact that Ofcom recognised that the AISBO market was a nascent market."*⁴⁸⁴
- 10.123 BT argues that Ofcom has applied Condition HH3.1 inflexibly without making it clear how it would interpret the condition *"at the time when BT was setting the prices which are the subject of the present disputes and was therefore still able to re-organise its prices"*.⁴⁸⁵
- 10.124 Had it appreciated that cost orientation would be assessed using a test *"with very rigid parameters"* (emphasis in original), BT states that it is *"more than likely"* that it would have adjusted its charges, or discussed relaxation of the obligation or sought a direction that the obligation did not apply.⁴⁸⁶

⁴⁸⁰ BT's response to our Provisional Conclusions, paragraphs 31 to 32.

⁴⁸¹ BT's response to our Provisional Conclusions, paragraph 44.

⁴⁸² BT's response to our Provisional Conclusions, paragraph 50.

⁴⁸³ BT's response to our Provisional Conclusions, paragraph 51.

⁴⁸⁴ BT's response to our Provisional Conclusions, paragraph 104.

⁴⁸⁵ BT's response to our Provisional Conclusions, paragraph 91.

⁴⁸⁶ BT's response to our Provisional Conclusions, paragraphs 26 and 27.

10.125 Further, BT argues that “[t]he lack of clarity or guidance from Ofcom as to the meaning of cost orientation during the Relevant Period indicates that the application of a strict test based on DSAC ceilings for each individual component service or price list entry is disproportionate and breaches Ofcom’s duties of proportionality and transparency, in particular when applied retrospectively.”⁴⁸⁷

10.126 BT argues that since the parameters of the cost orientation test were never made clear to BT or those purchasing BES and WES, “the Disputing CPs cannot rely on the fact that Condition HH3.1 would be interpreted in the way Ofcom seeks to interpret it”.⁴⁸⁸

10.127 BT considers this lack of clarity is highlighted by Ofcom’s issue and withdrawal of guidance in Annex 14 to the Fixed and Narrowband Service Wholesale Market Review. BT argues that “Ofcom withdrew Annex 14 specifically because it considered it had first to consult upon it, i.e. the underlying policy was not clear. A better example of the uncertainty inherent in the cost orientation obligation could not be given.”⁴⁸⁹

10.128 BT also argues that it had “a close working relationship with Ofcom throughout 2006-2008 regarding the development of BT’s and Ofcom’s strategic approach to Ethernet product pricing” as a result of the then recently introduced EOI obligations⁴⁹⁰. BT asserts that “Ofcom was well aware that BT was seeking to re-balance its prices” and notes that “there was a considerable focus by Ofcom on seeing that BT made the services available and allowed the development of LLU. It was not suggested at any stage that BT’s pricing was an impediment to that development.”⁴⁹¹

10.129 In summary, BT argues that Ofcom’s proposed approach would be “contrary to its duties as regulator, including the requirements of transparency, consistency, acting in a proportionate manner and respecting the requirements of legal certainty”.⁴⁹²

The THUS complaint

10.130 BT disagrees with our provisional conclusion that Ofcom would only be in a position to reach a conclusion as to whether BT’s charges were cost orientated after carrying out a detailed investigation, which had not occurred. BT points out that Ofcom wrote to BT at the time that it decided not to open an investigation into the THUS complaint. We set out below the full text of the e-mail, with the emphasis placed by BT⁴⁹³:

“I am writing to inform you that Ofcom has decided, on the basis of administrative priority, not to open an investigation into the THUS complaint about BT’s Ethernet product portfolio. In reaching this decision, Ofcom has not considered the merits of THUS’s allegation that BT’s WES/WEES Ethernet product portfolio is discriminatory and not cost oriented, in contravention of SMP conditions HH1,

⁴⁸⁷ BT’s response to our Provisional Conclusions, paragraph 113.

⁴⁸⁸ BT’s response to our Provisional Conclusions, paragraph 26.

⁴⁸⁹ BT’s response to our Provisional Conclusions, paragraph 120.

⁴⁹⁰ BT’s response to our Provisional Conclusions, paragraph 70. ‘EOI’ stands for ‘Equivalence of Inputs’. This is the concept established in undertakings provided by BT to Ofcom in which BT provides, in respect of a particular product or service, the same product or service to all CPs (including BT) on the same timescales, terms and conditions (including price and service levels) by means of the same systems and processes, and includes the provision to all CPs (including BT) of the same commercial information about such products, services, systems and processes.

⁴⁹¹ BT’s response to our Provisional Conclusions, paragraph 74 and 110.

⁴⁹² BT’s response to our Provisional Conclusions, paragraph 22.

⁴⁹³ BT’s response to our Provisional Conclusions, paragraph 89.3.

HH2 and HH3. Ofcom considers the merits of a complaint only once an investigation begins.

"In deciding whether to open an investigation, Ofcom considered the factors set out in its Draft Enforcement Guidelines, in particular, whether there are alternative proceedings within Ofcom that are likely to achieve the same ends, or deal with the same issues, as a possible investigation of the matters THUS has raised. As you know, Ofcom is in the process of reviewing the telecommunications market for retail leased lines, any other forms of retail business connectivity services (that it might be appropriate to include in the relevant market) and associated wholesale services (the "LLMR"). Having considered the THUS complaint carefully we consider that the issues raised are likely to be dealt with in the LLMR".

"Therefore, Ofcom does not consider it appropriate to open an investigation where the matters raised in the THUS complaint are likely to be dealt with under the LLMR, and does not consider that an investigation would be an efficient and appropriate use of its limited resources.

"A decision not to open an investigation due to administrative priorities does not prevent Ofcom from investigating similar conduct in future, or re-considering the same conduct where significant new evidence arises." (emphasis in original)

- 10.131 BT reiterates its view that the issues raised by THUS had been addressed in the review of the 2004 LLMR Statement. It submits that it *"was therefore fully entitled to conclude (and certainly Ofcom never made the contrary clear) that Ofcom would in the LLMR consider the issues of cost orientation because that was the alternative means by which it would deal with the complaint."* (emphasis in original)⁴⁹⁴

Response to the LLMR information request

- 10.132 BT considers that *"if Ofcom was accepting the information for an entirely different basis to that on which it was proffered, it was incumbent on Ofcom to make it clear that it was not going to use the information for that purpose...this is not a question of legitimate expectation, it is one of regulatory certainty and transparency."*⁴⁹⁵

- 10.133 Ofcom asked a number of follow-up questions about BT's WES and WEES products on 5 December 2007, including requesting further volume and cost information. BT responded to these questions on 9 January and 8 February 2008. There were also further follow-up emails to clarify Ofcom's understanding of the information provided by BT.⁴⁹⁶ BT argues that *"nothing in the s.135 demand or what happened thereafter gave BT any indication that Ofcom was not considering whether BT's charges were cost orientated"*.⁴⁹⁷

Views of the Disputing CPs

- 10.134 CWW, TTG and Sky disagree that the obligations on BT were unclear:

10.134.1 CWW considers that Condition HH3.1 is *"clear in its meaning"* and that the PPC Judgment makes clear that it *"is not required to be accompanied by guidelines on how compliance should be achieved. Rather, BT has*

⁴⁹⁴ BT's response to our Provisional Conclusions, paragraph 89.4.

⁴⁹⁵ BT's response to our Provisional Conclusions, paragraph 88.

⁴⁹⁶ BT's 20 May 2011 submission, paragraph 55.

⁴⁹⁷ BT's response to our Provisional Conclusions, paragraph 89.

*discretion as to how it chooses to comply and its compliance must be demonstrated to Ofcom when required.*⁴⁹⁸

10.134.2 TTG notes that *"Ofcom's policy has been articulated ever since Ofel/Ofcom published the cost orientation guidelines in 1997"*. It accepts that the obligation was *"not highly precise – for instance, it did not set a maximum price in £ and pence for each product as would be specified under a charge control"* but argues that *"a lack of precision is not unusual with regulations"*⁴⁹⁹ and it is wrong to infer that such lack of precision *"meant it was impossible or difficult for BT to comply with the obligation"*.⁵⁰⁰

10.134.3 Sky and TTG argue that, in any event, BT should not now be able to rely on a lack of clarity as an excuse for non-compliance, with Sky arguing that *"it is incumbent upon the regulated firm to arrive at a considered view as to how to comply with its formal obligations"* and Condition HH3.1 is no different. It considers that *"if BT were uncertain as to its compliance, it should have acted quickly to resolve that uncertainty."*⁵⁰¹

10.134.4 Sky considers that *"far from there being a lack of clarity, it was quite clear that BT's pricing was far in excess of the relevant cost benchmarks which are likely to be relevant when assessing compliance with Condition HH3.1. The Network Charge Control Guidelines from 1997 and 2001 explained that Ofcom would assess cost orientation by reference to Distributed Long Run Incremental Cost floors and DSAC ceilings while Ofcom typically sets price caps by reference to FAC. BT includes these three cost measures in its ... RFS and does not produce any other alternative unit cost measures."*⁵⁰²

10.135 Sky comments that, in the event of uncertainty, *"one would expect, given the seriousness of a breach of its SMP conditions, BT to have erred on the side of caution by ensuring that its prices were well below the DSAC ceiling for each and every charge."*⁵⁰³

10.136 TTG suggests that, if BT was uncertain about its obligations, a reasonable approach would be for BT to *"Seek clarity; and [...] Develop its own views on how Ofcom might interpret cost orientation and thus apply its own robust cost orientation tests and maintain an audit trail; and [...] Err on the safe side in setting prices"*.⁵⁰⁴

10.137 Sky and CWW argue that BT's conduct reveals a lack of focus on its regulatory obligations, rather than a considered approach in the face of uncertainty. Sky argues that BT's admission that *"In truth the calculation of DSAC's received too little attention by BT..."* shows a disregard for Ofcom's guidance and its own accounting transparency obligation.⁵⁰⁵ CWW likewise suggests that *"BT did not take its cost orientation obligations seriously"*. It comments that *"BT's staff demonstrated*

⁴⁹⁸ CWW's comments on BT's response, paragraph 2.

⁴⁹⁹ TTG refers to other examples of regulation which show a lack of precision, citing the "Network Access obligation" (e.g. Condition HH1), the "no undue discrimination obligation" (e.g. Condition HH2) and *"Most General Conditions [...]. For example, GC5"*.

⁵⁰⁰ TTG's comments on BT's response, paragraphs 2.15 to 2.21.

⁵⁰¹ Sky's comments on BT's response, paragraphs 12 and 13.

⁵⁰² Sky's comments on BT's response, paragraph 15.

⁵⁰³ Sky's comments on BT's response, paragraph 20.

⁵⁰⁴ TTG's comments on BT's response, paragraph 2.25.

⁵⁰⁵ Sky's comments on BT's response, paragraphs 15 and 16.

*understanding of DSAC floors and ceilings in the PPC appeal hearing [...] but failed to implement compliance measures within product pricing processes.*⁵⁰⁶

10.138 CWW agrees with Ofcom's provisional conclusion that BT could not have a legitimate expectation *"that Ofcom would not resolve a dispute about cost orientation in accordance with its statutory duties in the light of the relevant facts and evidence at the time that they arise and regardless of any earlier comments or actions."*⁵⁰⁷ It refers by way of support to the section of the PPC Judgment quoted at paragraph 10.187.

10.139 Virgin says that it agrees with Ofcom that *"none of its actions or omissions (or any actions taken by BT) provide evidence that Ofcom considered, or gave BT grounds to believe it considered, that BT's charges for Ethernet services were cost orientated"*. Virgin also said that it agreed that *"BT could never have had a legitimate expectation that Ofcom would not resolve a dispute about the cost orientation of BT's charges (in light of an SMP obligation) in accordance with its statutory functions"*.⁵⁰⁸

The THUS complaint

10.140 CWW (which acquired THUS in 2008) considers that *"BT appears to misrepresent the nature of the 2007 THUS complaint into Ethernet pricing. The THUS complaint was principally focused on the transitional arrangements proposed by BT for moving from BT's retail LES product pricing structure to Openreach's WES and WEES pricing structure, where THUS had a sizable installed LES base and was faced with a steep overnight increase in rental charges with little or no means of mitigation."*⁵⁰⁹ CWW argues that *"[i]n no way were the very specific issues raised in the THUS complaint, and Ofcom's later decision not to open an investigation, any kind of prima facie signal or endorsement that BT's Ethernet prices were cost orientated."* The focus of the THUS complaint was *"on the transitional arrangements when moving from the old retail pricing structure to the new wholesale pricing, and its detrimental impact on THUS in particular [...] not therefore on cost orientation, save for consideration of the issue in the context of the retail to wholesale migration."* In any case, *"BT could not take any comfort from Ofcom with regard to its standard pricing approach for wholesale services. In declining to take the complaint forward, Ofcom did not provide any commentary on BT's wholesale Ethernet pricing and was at pains to point this out to all stakeholders."*⁵¹⁰

10.141 TTG also does not consider that Ofcom's decision on the THUS complaint was relevant to the present dispute, saying that it did not agree that *"a decision to close a dispute constituted Ofcom signing away its powers to resolve a dispute regarding cost orientation"*.⁵¹¹

Response to the LLMR information request

10.142 TTG said that it was *"plainly clear"* that the communications between BT and Ofcom *"are principally about what BT said to Ofcom not what Ofcom said to BT"* and that *"Ofcom's silence on the issue cannot be taken as tacit approval"*.⁵¹²

⁵⁰⁶ CWW's comments on BT's response, paragraph 5.

⁵⁰⁷ CWW's response to our Provisional Conclusions, paragraph 55.

⁵⁰⁸ Virgin's response to our Provisional Conclusions, paragraph 6.9.

⁵⁰⁹ CWW's response to our Provisional Conclusions, paragraph 62.

⁵¹⁰ CWW's response to our Provisional Conclusions, paragraphs 65 to 66.

⁵¹¹ TTG's comments on BT's response, paragraph 7.7.

⁵¹² TTG's comments on BT's response, paragraph 7.6.

10.143 TTG noted that “[a]lthough Ofcom may have gathered cost and price data from BT, Ofcom never conducted a detailed investigation let alone concluded [...] that BT’s charges were or were not cost orientated. In any case, Ofcom could not have reached such a conclusion without [...] notifying and/or consulting with CPs.”⁵¹³ TTG considers that the discussions with Ofcom, sharing of cost data and treatment of THUS’ complaint cited by BT “provide *“no representation or reassurance”*” in respect of the cost orientation of BT’s charges.⁵¹⁴

10.144 TTG argues that BT must know that it is BT’s responsibility to comply with its cost orientation obligation and that this cannot be handed back to Ofcom and that Ofcom did not have the legal powers to ‘approve’ BT’s prices *“in some closed room agreement not least since it is unable to fetter its discretion in respect of future disputes”*.⁵¹⁵

10.145 TTG also argues that BT’s arguments that the EOI obligations led to a close working relationship with Ofcom (see paragraph 10.128 above) are irrelevant because *“[e]quivalence obligations did not affect pricing at all [...] The fact that WES/BES helped competition is all the more reason to get pricing compliant rather than allow it to be anti-competitive [...] The efforts required to re-organise and introduce new products cannot justify neglecting a regulatory obligation”*.⁵¹⁶

Our analysis

10.146 Condition HH3.1 clearly places an obligation on BT to ensure that its charges are cost orientated. If BT has any doubt as to how this is to be achieved, it is for BT to direct its attention to this question and to develop an appropriate response. BT has not provided evidence that it undertook either of these steps.

10.147 BT argues that Ofcom’s approach to cost orientation has been unclear and inconsistent over the Relevant Period, in contravention of our duty under section 3(3) of the Act. We do not agree with BT’s view for the following reasons:

10.147.1 the wording of Condition HH3.1 is clear;

10.147.2 we have provided clear guidance regarding how cost orientation will be assessed, which BT has not demonstrated that it tried to follow; and

10.147.3 we have seen no evidence of a statement or representation by Ofcom that Ofcom considered BT’s charges were cost orientated.

10.148 As discussed at paragraph 8.6, the wording of Condition HH3.1 is identical to that of Condition H3.1 and both conditions were set in the 2004 LLMR Statement. We therefore consider the CAT’s view of Condition H3.1 in the PPC Judgment, which was upheld by the Court of Appeal, to be relevant.

10.149 In the PPC Judgment, the CAT found the 2004 LLMR Statement and the scope of Conditions H to be *“extremely clear”* and did not consider there to be room for *“any legitimate expectation that does not accord with the true construction of Condition H3.1”*.⁵¹⁷ The CAT considered that *“BT’s section 3(3) point must fail because the*

⁵¹³ TTG’s response to our Provisional Conclusions, paragraph 6.25.

⁵¹⁴ TTG’s letter of 22 August 2012, quoting the PPC Court of Appeal Judgment, paragraph 78.

⁵¹⁵ TTG’s comments on BT’s response, paragraphs 7.4 and 7.5.

⁵¹⁶ TTG’s comments on BT’s response, paragraph 7.9.

⁵¹⁷ PPC Judgment, paragraph 236.

*prices that are cost orientated by Condition H3.1 are clearly identified by that provision”.*⁵¹⁸

10.150 Condition HH3.1 states that ‘each and every’ charge must be cost-orientated. We therefore consider that it is clear that cost orientation will be assessed in relation to each individual charge in dispute, in accordance with the wording of the condition (see Section 8).

10.151 The fact that an obligation is not prescriptive does not mean that it lacks clarity. In the PPC Judgment, the CAT found the economic concepts in Condition HH3.1 to be “very specific and clear”.⁵¹⁹ Furthermore it held:

*“We consider the operation of Condition H3.1 to be clear and we are not persuaded that there is any legal uncertainty in the present case. BT had a discretion in how it chose to orientate its prices for individual PPC services, subject to that orientation being appropriate and subject to OFCOM’s regulatory scrutiny”.*⁵²⁰

10.152 We have provided guidance on the application of DLRIC floors and DSAC ceilings in assessing cost orientation since 1997, as described in Section 4. BT has provided no evidence as to whether it has considered this guidance or attempted to apply it in setting charges for the services in dispute.

10.153 We consider that our approach is consistent with the NCC Guidelines. For example, in Section 14 we ensure that our application of the DSAC test is not mechanistic and in paragraphs 10.51 to 10.93 we consider the likely effect of BT’s charges on competition and consumers.

10.154 We reject BT’s argument that the reference in the 1997 NCC Guidelines to operators purchasing services not components supports its position. In our view this argument is based on a misunderstanding of the nature of components and services. The importance of a correct understanding of this distinction is clear at paragraph 12.8 below, where we explain their application in calculating DSACs.

10.155 We discuss BT’s argument that Ofcom had never given any indication that there could be a breach of the cost orientation obligation in respect of a single year at paragraphs 9.223 and 9.224. We conclude that we would expect BT to be compliant with its obligations at all times and gave no indication in the NCC Guidelines, the 2004 LLMR Statement or the 2008 BCMR Statement that we would only find that BT had breached the obligation where prices had exceeded DSAC for a certain period. However, where the DSAC ceiling is exceeded for only a short period of time, we are able to take this into account as part of our non-mechanistic assessment of BT’s compliance.

10.156 We discuss BT’s arguments that we should apply a more flexible approach because of the ‘nascent’ nature of the AISBO market at paragraph 9.226. We conclude that it is not appropriate for us to depart from the clear wording of Condition HH3.1, but we can take market conditions into account when assessing whether individual charges are cost orientated.

⁵¹⁸ PPC Judgment, paragraph 238.

⁵¹⁹ PPC Judgment, paragraph 244.

⁵²⁰ PPC Judgment, paragraph 307(2).

- 10.157 We do not consider that the withdrawal of Annex 14 to the Fixed and Narrowband Service Wholesale Market Review has the significance attributed to it by BT. Annex 14 provided guidance on cost orientation in relation to specific markets, which did not include the AISBO market⁵²¹. The withdrawal of Annex 14 reflected representations made to Ofcom that further consultation on the interpretation of cost orientation obligations in those markets would be beneficial. No additional rationale should be ascribed to this action.
- 10.158 Whilst BT and Ofcom had a number of meetings and discussions on issues relating to the development of Ethernet products, this is not unusual. Ofcom regularly meets BT, as it also meets with other CPs, to discuss a range of different topics.
- 10.159 BT has not provided any evidence to demonstrate that Ofcom made any statement or representation during the course of these meetings and discussions as to whether or not it believed that BT's charges were cost orientated. As such, it is difficult to see how these meetings between Ofcom and BT can amount to evidence that Ofcom considered BT's charges were cost orientated.
- 10.160 Accordingly, Ofcom does not believe that any of its actions or omissions (or any actions taken by BT) provide evidence that Ofcom considered, or gave BT grounds to believe it considered, that BT's charges for Ethernet services were cost orientated. Further, we do not think BT could ever have a legitimate expectation that Ofcom would not resolve a dispute about the cost orientation of BT's charges (in the light of an SMP obligation) in accordance with its statutory functions.
- 10.161 For these reasons, we do not accept BT's contention that Ofcom has been inconsistent in its approach to assessing cost orientation or that Ofcom has failed to provide sufficient legal certainty.
- 10.162 The approach we have taken in the Disputes follows that taken in the PPC Disputes, and upheld by the CAT and the Court of Appeal. We consider that it is an appropriate and proportionate assessment of the cost orientation of BT's charges.

The THUS complaint

- 10.163 We note BT's statement that it expected the review of the 2004 LLMR Statement to deal with cost orientation. However, while the 2008 BCMR Statement (which resulted from that review) considered issues of cost orientation, including some of the issues referred to in the THUS complaint, it did not set out a determination of any specific complaint and we do not consider that BT was entitled to take the view that it did so.
- 10.164 We refer to the statement in our letter of 9 July 2007 that we had not considered the merits of THUS' complaint (see paragraph 10.105 above). In light of that statement, we consider it was clear that our further statement that we had "*considered the THUS complaint carefully*" reflected the need for us to take care in reaching a decision whether to accept the complaint for investigation. It did not reflect that Ofcom had considered the merits of the complaint.
- 10.165 We note that, although there is some limited overlap between the services in dispute and the services which were the subject of THUS' complaint, there are also significant differences between the services and the time period covered. For example, the THUS complaint related only to WES and WEES, not to BES. The

⁵²¹ The relevant markets are wholesale analogue exchange line services, wholesale ISDN2 exchange line services, call origination on fixed public narrowband networks and interconnection circuits.

complaint also related to prices notified by BT on 14 March 2007, which took effect for a range of time periods which were not co-extensive with the Relevant Period⁵²².

Response to the LLMR information request

10.166 We sent BT a notice under section 135 of the Act requiring it to provide information for a specified purpose. When BT responded to that statutory notice, it purported to vary the purpose for which the information was required. We did not respond to BT explicitly rejecting its purported variation, nor did we respond to BT accepting it. However, we do not consider that there can have been any uncertainty about the purpose of the information request, given Ofcom's clear initial statement. We do not accept that it was incumbent on Ofcom to provide any additional explanation as to its purpose, given that the initial statement was clear and Ofcom had provided BT with no reason to believe that the stated purpose might have changed.

10.167 We note that the 2008 BCMR Statement did not indicate any intention to determine whether BT's charges were cost orientated and there is nothing in that document to suggest that such an exercise had been undertaken. Therefore, whatever work BT may have thought Ofcom was engaging in prior to the 2008 BCMR Statement, it should have been clear that no question of cost orientation had been resolved. Again, we do not consider that this departs from principles of legal certainty, nor do we consider there is a lack of transparency in Ofcom not extending the scope of the 2008 BCMR Statement to include an assessment of the cost orientation of specific charges.

LLCC starting charge adjustments

BT's initial arguments and our Provisional Conclusions

10.168 BT argued in its 20 May 2011 submission:

*"That BT had taken appropriate steps to comply with its cost orientation obligation is affirmed by Ofcom's own subsequent actions in the 2009 leased lines charge control when Ofcom considered that only BT's BES 1000 rental prices required a start price adjustment. It seems inconceivable to us that Ofcom would commence a charge control that did not comply with the basis of charges obligation, HH3."*⁵²³

10.169 We explained in our Provisional Conclusions the context in which adjustments to starting charges were made in the 2009 LLCC Statement. As we explain in paragraph 8.74 above, as part of the 2009 LLCC Statement, Ofcom required a one-off starting charge reduction of 17% to BT's BES 1000 rental charge. This was the only AISBO charge for which we required a starting charge change. As noted in paragraph 8.76, in requiring this change we explicitly noted that "*Our starting charge adjustments are without prejudice to BT's cost orientation obligations.*"⁵²⁴ and that "*Issues regarding cost orientation are not within the scope of the LLCC*".⁵²⁵

⁵²² See OPL, *op cit*.

⁵²³ BT's 20 May 2011 submission, paragraph 8.

⁵²⁴ 2009 LLCC Statement, paragraph 5.94.

⁵²⁵ 2009 LLCC Statement, page 66.

10.170 In advance of the charge control, BT voluntarily made a number of significant reductions to its Ethernet charges in February 2009. BT's specific charge reductions included:⁵²⁶

10.170.1 WES/WEES 10 Mbit/s connection charges reduced by up to 33%;

10.170.2 WES/WEES 100 Mbit/s reduced to the same price as 10 Mbit/s products for both connection and rental, representing a reduction of up to 65% for connection and up to 16% for rental;

10.170.3 WES/WEES 1000 Mbit/s connection charges reduced by up to 62% and rental by up to 33%;

10.170.4 BES 10 Mbit/s connection charges reduced by 19%;

10.170.5 BES 100 Mbit/s reduced to the same price as BES 10 Mbit/s for connection and rental, representing a reduction of up to 65% for connection and up to 26% for rental; and

10.170.6 BES 1Gbit/s connection reduced by up to 62% and rental by up to 31%.

10.171 The BES 1000 rental starting charge reduction was part of a package of changes required as part of the charge control, including, for example, reductions to BT's 2 Mbit/s trunk charges. The starting point for this package was a set of proposals made by BT. In putting forward its proposals, BT's aims were:

10.171.1 to bring individual 2008/09 prices more into alignment with DLRIC and DSAC; and

10.171.2 to propose the minimum number of changes to minimise disruption.⁵²⁷

10.172 As we explained in paragraphs 08.71 to 8.74 above, Ofcom shared BT's preference to minimise the number of starting charge changes, preferring instead to allow BT to use the flexibility within the charge control itself to adjust charges where necessary.

10.173 In the 2009 LLCC Consultation, we explained that there were arguments for and against making starting charge changes for some of the AISBO services, but reflecting the considerations identified above, on balance we agreed with BT that such changes were not warranted. However, in making this assessment we noted that:

*"Our analysis indicated that further adjustments to the level of prices may be required, because some charges remain above DSAC, even allowing for some possible imprecision in our DSAC estimates."*⁵²⁸ [emphasis added]

10.174 Furthermore we raised the potential issue of the compatibility of BT's AISBO charges with the DSAC test, albeit without an explicit reference to cost orientation. In this context, we noted that:

*"Our analysis indicates that even after Openreach's recent price cuts some WES and BES rental prices will be above their DSAC value."*⁵²⁹ (emphasis added)

⁵²⁶ 2009 LLCC Statement, paragraph 5.77.

⁵²⁷ 2009 LLCC Consultation, paragraph 4.84.

⁵²⁸ 2009 LLCC Consultation, paragraph 5.44.

10.175 Our decision to require a change to BT's BES 1000 rental charge in the 2009 LLCC Statement reflected concerns raised by respondents to our proposals in the consultation document. As we explained:

"One stakeholder noted that it is of paramount importance for Ofcom to... revisit its starting charge proposals such that BT's charges are within the stipulated floors and ceilings from the outset."⁵²⁹

"Another respondent also requested further [one-off]⁵³¹ price cuts to the starting level of regulated AISBO prices, in particular BES. In its view BES prices, even after Openreach's voluntary price cuts, were still above DSAC and at these levels they would fail the first order cost orientation test."⁵³²

10.176 Therefore, stakeholders had also raised as a potential issue the compatibility of BT's AISBO charges with the DSAC test.

10.177 In addition, in paragraph 4.190 of the 2009 LLCC Statement relating to TISBO services we set out that it was not within the scope of the LLCC to require BT to bring the remaining services that we identified as outside the floors and ceilings back within them:

"We have concluded that it is not within the scope of these charge controls to require BT to bring the remainder of charges within appropriately measured DSAC and DLRIC. BT has an obligation to ensure that it complies with all its SMP obligations at all times and it is not within the scope of this Statement to examine BT's compliance. In setting these charge controls we therefore do not conclude on whether BT's charges are cost orientated or not."

10.178 In reviewing the case for making starting charge adjustments, we were therefore explicit that:

10.178.1 BT has an obligation to ensure its own compliance with SMP obligations, including cost orientation, at all times;

10.178.2 BT should not infer any conclusions in relation to cost orientation from our decisions in the 2009 LLCC Statement; and

10.178.3 we considered there to be charges outside of the DLRIC/DSAC range that BT had not addressed in its proposals.

10.179 On that basis, we provisionally concluded that Ofcom's consideration of starting charges in the 2009 LLCC Consultation and Statement did not provide BT with any reason to expect that Ofcom would subsequently consider its charges to be cost orientated.

Views of the Parties

10.180 BT's further arguments in relation to this issue are set out at paragraph 8.32 above. In summary, BT argues that Ofcom's approach in these Disputes is inconsistent with its approach to setting charge controls in the 2009 LLCC Statement, noting that

⁵²⁹ 2009 LLCC Consultation, paragraph 5.46.

⁵³⁰ 2009 LLCC Statement, paragraph 5.84.

⁵³¹ Corrected for a typological error in the original.

⁵³² LLCC 2009 Statement, paragraph 5.82.

charge controls and cost orientation both “*originate from the same Article in the Access Directive*” and “*are imposed to address the same issue*”.⁵³³

10.181 TTG questions the relevance of BT's arguments in relation to the 2009 LLCC Statement. It characterises BT's argument as suggesting “*that the fact that Ofcom required a reduction in a single BES charge after the period of investigation shows that all other charges were cost orientated during the period of investigation*”. It also notes that BT “*refers to single charge (BES 1000 rental charge) in stark contradiction to its main argument elsewhere that cost orientation should be assessed on an aggregated basis*”.⁵³⁴

10.182 More generally, TTG urges caution in how Ofcom uses statements such as the Leased Lines Market Review 2009, Ofcom's letter of 6 December 2010⁵³⁵ and the 2009 LLC Statement and the 2009 PPC Determinations, “*since all of these occurred after the disputed period and therefore could not have effected [sic] how BT set the disputed prices*”.⁵³⁶

10.183 None of the other Disputing CPs made comments on this point.

Our analysis

10.184 We consider that the parties' arguments relate to two issues. The first is whether our approach to cost orientation is consistent with our approach to charge controls. The second is whether our approach to charge controls could have given rise to a legitimate expectation regarding our approach to cost orientation.

10.185 In relation to the first issue, our response to BT's arguments that our approach to cost orientation is inconsistent with our approach to charge controls is set out at paragraphs 8.71 to 8.78 above.

10.186 In relation to the second issue, as noted at paragraph 8.79, we do not consider that the approach we took to setting charge controls in the 2009 LLCC Statement can give rise to any legitimate expectation on BT's part as to how Ofcom will resolve these Disputes. We do not consider that Ofcom can be precluded from applying the clear words of Condition HH3.1.⁵³⁷ BT has not put forward specific reasons why it considers that a legitimate expectation might have arisen.

10.187 .We remain of the view that:

10.187.1 BT has an obligation to ensure its own compliance with SMP obligations, including cost orientation, at all times;

⁵³³ BT's response to our Provisional Conclusions, paragraphs 200 to 211.

⁵³⁴ TTG's response to our Provisional Conclusions, paragraph 6.26.

⁵³⁵ See paragraphs 8.70 above.

⁵³⁶ TTG's comments on BT's response, paragraph 7.06.

⁵³⁷ We note the view of the CAT in the PPC Judgment that: “*Members of the public [...] have an expectation that public law instruments [such as Condition H3.1] will be interpreted and applied according to their terms. Here, we are very conscious that were BT to have a legitimate expectation in relation to Condition H3.1 that was different to that of the Altnets, applying Condition H3.1 in accordance with BT's legitimate expectation might very well be unfair to the Altnets. We consider this to be a relevant factor in assessing whether BT's reliance on any statements or representations that may have been made by OFCOM was reasonable* (PPC Judgment, paragraph 207(5), emphasis in original).

10.187.2 BT should not infer any conclusions in relation to cost orientation from our decisions in the 2009 LLCC Statement; and

10.187.3 we considered there to be charges outside of the DLRIC/DSAC range that BT had not addressed in its proposals.

10.188 Our views in relation to Ofcom's letter of 6 December 2010 are set out at paragraph 8.70 above.

Delays to the introduction of price reductions

BT's initial arguments and our Provisional Conclusions

10.189 BT stated in its 20 May 2011 submission that it identified from the draft 2007/08 RFS that its ROCE was high and sought to change its prices. At the same time, it sought a waiver of its price notification obligations from Ofcom in November 2008 to enable it to introduce changes to its Ethernet prices without having to provide 90 days advance notification to its customers. In response to a consultation by Ofcom⁵³⁸, a number of CPs, including Virgin, objected to the proposed waiver, with the result that BT was unable to introduce the new prices until February 2009.⁵³⁹⁵⁴⁰

10.190 BT argued that, had it been able to introduce the price changes sooner in 2008/09, the revenues it generated on the Ethernet services would have been lower. BT calculates that the reported return for the AISBO market would have been 26% rather than 37%. The price changes notified in November 2008 reduced the ROCE for the AISBO portfolio from 37.3% in 2009 to 13.5% in 2010. The delays will also impact the comparison of revenue with DSACs.⁵⁴¹

10.191 Virgin noted in its response to BT's 20 May 2011 submission that it had objected to the proposed waiver on the basis that its initial work suggested that: *"all of the notified connection charges that it has been able to compare in the time available to it are below BT's LRIC floor and that this may in itself be a breach of Condition HH3 dealing with the requirement for cost orientation"*. Virgin maintains that this is not inconsistent with its current claim, which is primarily based on it having been overcharged for rental services. Virgin now considers that it was in error in November 2008 when it identified that the BES 100 connection charge was below cost.⁵⁴²

10.192 Virgin added that *"...BT's broader argument that much of the overcharge is attributable to Virgin's opposition to it introducing prices early cannot withstand scrutiny. It is BT's obligation to comply with all of its regulatory obligations including both the requirement to ensure its prices are cost oriented and the requirement to give 90 days notice of price changes."*

10.193 Virgin further argued that BT's explanation for the reduction in the ROCE of the AISBO portfolio is misleading and should be ignored. Virgin considered that a large portion of the reduction in ROCE from 2009 to 2010 is due to the change in duct valuation. Virgin suggested that if similar adjustments are made to duct revaluation as are being proposed in the current Charge Control Reviews for LLU and WLR, then ROCE in 2010 is likely to be more than 25.4%.

⁵³⁸ <http://stakeholders.ofcom.org.uk/binaries/consultations/btprice/summary/btpricecondoc.pdf>

⁵³⁹ [http://stakeholders.ofcom.org.uk/binaries/consultations/btprice/statement/Draft Waiver Statement Jan 1.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/btprice/statement/Draft%20Waiver%20Statement%20Jan%201.pdf)

⁵⁴⁰ BT's 20 May 2011 submission, paragraphs 57 to 61.

⁵⁴¹ BT's 20 May 2011 submission, paragraph 66.

⁵⁴² Virgin's response of 16 June 2011 to BT's 20 May 2011 submission.

- 10.194 In our Provisional Conclusions, we explained that BT is obliged, under Condition HH6, to send to Ofcom and to every person with which it has entered into a certain contract (known as an access contract) a written notice at least 90 days in advance of introducing price changes to WES, WEES and BES products. Ofcom may give consent in writing to adjust the operation of the price notification requirements. However, before doing so, Ofcom must be satisfied that the giving of such consent would be objectively justified, non-discriminatory, proportionate and transparent, in accordance with section 49(2) of the Act. In addition, Ofcom must publish a notification setting out its proposals to give consent and must provide an opportunity for interested parties to comment on the matter.
- 10.195 On 24 November 2008, BT notified its customers and Ofcom of new prices for some of its WES, WEES and BES services. In its notification, BT stated that some of these new prices were to become effective from the date of the publication of the notification (i.e. 24 November 2008), whilst others would become effective on 1 February 2009. In doing so, BT failed to comply with the obligation to give 90 days advance written notice of any new price for existing products and services to Ofcom, customers and competitors as required by Condition HH6.
- 10.196 Following a complaint alleging a breach of the notification obligation, Ofcom intervened and BT withdrew the new charges on 17 December 2008. On the same day, BT also issued a revised notification of the new charges, providing 90 days advance written notice. In the revised notification, it was stated that the new proposed prices would become effective on 1 April 2009.
- 10.197 On 7 January 2009, BT wrote to us requesting consent to waive the 90 days notice period for the notified price changes. On 16 January 2009 Ofcom published the consultation entitled *Waiver of BT's price notification requirements for certain of BT's WES, WEES and BES prices, Notification of a proposal to give consent to affect the operation of BT's price notification requirements*.⁵⁴³
- 10.198 Following consideration of the available evidence and responses to this consultation, Ofcom concluded that it was appropriate to grant consent to the requested waiver. A statement giving effect to this decision was published on 30 January 2009.⁵⁴⁴
- 10.199 We therefore acknowledged in our Provisional Conclusions that the implementation of BT's price reductions was delayed by a period of nearly ten weeks from the date it first intended they would take effect. We also noted that BT was under an obligation to provide 90 days notice of the proposed price change. Where a possible breach of Condition HH3.1 has been prolonged because BT was prevented from introducing lower prices sooner than is usually allowed for under Condition HH6, we considered we could take this into consideration in our non-mechanistic approach to assessing cost orientation in Section 14.

Views of the Parties

- 10.200 BT did not make any further comments on this issue.
- 10.201 CWW and TTG argue that BT should have considered the need to provide notice of a price change at an earlier stage: TTG states that "*BT needs to make sure that it*

⁵⁴³ <http://stakeholders.ofcom.org.uk/consultations/btprice/statement/>

⁵⁴⁴ <http://stakeholders.ofcom.org.uk/consultations/btprice/statement/>

takes into account the need to give 90-days notice when it considers on an ongoing basis whether its charges are cost orientated".⁵⁴⁵

10.202 Virgin notes that "BT was forced to withdraw its November 2008 price notification because it was in breach of another SMP obligation (Condition HH6) in failing to give the requisite 90 days advance written notice of price changes". It also argues that "it is clearly inappropriate for BT to rely on the reduction of notice periods in order to meet its cost orientation obligations".⁵⁴⁶

Ofcom's analysis

10.203 BT's response to our Provisional Conclusions did not provide any further evidence in relation to the delays to the introduction of price reductions and we remain of the view that we can take into account in our assessment of whether BT's prices were cost orientated any prolonging of a breach because BT was prevented from introducing lower prices before the expiry of the 90 day notice period provided for by Condition HH6.

BT's pricing papers

Our Provisional Conclusions

10.204 We noted in our Provisional Conclusions that we had reviewed pricing papers provided by BT in its response to the 22 October 2010 section 191 notice.⁵⁴⁷ We considered whether they contained evidence that BT had taken steps to comply with its cost orientation obligations. We provisionally found that they demonstrated that BT was aware of its obligation to ensure that its charges were cost orientated. For example, one of BT's pricing papers ([redacted]) states:

[redacted]⁵⁴⁸

10.205 In relation to the CWW Dispute, we asked BT for further information relating to the processes it followed to ensure prices were cost orientated. [redacted]^{549 550}

⁵⁴⁵ CWW's response to our Provisional Conclusions, paragraphs 57 to 61; TTG's response to our Provisional Conclusions, paragraph 6.27.

⁵⁴⁶ Virgin's response to our Provisional Conclusions, paragraphs 6.10 to 6.13.

⁵⁴⁷ BT's response of 15 November 2010 to question 15 of the 22 October 2010 section 191 notice.

⁵⁴⁸ [redacted]

⁵⁴⁹ [redacted]

⁵⁵⁰ [redacted]

[REDACTED]⁵⁵¹

10.206 [REDACTED]

10.207

Further information received

10.208 On 4 May 2012, BT provided us with a further file containing pricing papers, stated to be in response to the 22 October 2010 section 191 notice.

Our analysis

10.209 Having reviewed the additional pricing papers provided by BT, we consider they show that BT was aware of its obligation to ensure that its charges were cost orientated. However, we do not consider that they show that BT took appropriate steps to secure compliance. [REDACTED]⁵⁵²

10.210 We therefore conclude that the pricing papers we have seen do not reveal that BT took the right steps to ensure that its obligation to ensure its prices were cost orientated was complied with.

⁵⁵¹ [REDACTED]
⁵⁵² [REDACTED]

Conclusions on whether BT has demonstrated that its charges in dispute were cost orientated

10.211 Having considered the submissions made by BT in relation to these Disputes, and the comments of the Disputing CPs, we conclude that BT has failed to demonstrate to our satisfaction that its WES and BES charges in dispute were cost orientated, in summary for the following reasons:

10.211.1 **Analysis of rates of return on capital employed.** We consider that BT has undertaken its ROCE analysis using an inappropriate level of aggregation and has therefore not satisfactorily demonstrated that its relevant charges were cost orientated.

10.211.2 **Comparison of revenues relative to DSAC.** We do not agree that BT's DSAC analysis demonstrates that its charges were cost orientated, as we consider that BT has used an inappropriate level of aggregation to consider the question of cost orientation.

10.211.3 **International benchmarking of charges.** We do not consider that BT's international benchmarking analysis demonstrates that BT's charges for the services in dispute are cost orientated, as it relates solely to prices and fails to give any consideration to possible cost differences between the services being compared. Furthermore, it is based on aggregated connection and rental charges rather than individual charges.

10.211.4 **The extent to which its charges gave rise to economic harm.** We disagree that BT's analysis demonstrates that its charges are cost orientated because:

- (a) economic harm is not a pre-requisite for considering whether BT's charges are cost orientated; and
- (b) in any event, BT's analysis does not demonstrate that economic harm has not occurred and in our view harm may have occurred (subject to the implications of potential biases in the DSAC figures, which we have been unable to quantify).

10.212 We do not consider that BT has shown that it took sufficient steps to ensure compliance historically:

10.212.1 **Interaction with Ofcom between 2004 and 2008.** We consider that our approach to cost orientation has been clear and consistent, in accordance with our statutory duties, and we do not consider that the actions of Ofcom gave BT any legitimate expectation that Ofcom considered its charges for the services in dispute were cost orientated.

10.212.2 **Lack of action by Ofcom in respect of the LLCC 2009 Statement.** We made it clear that our starting charge adjustments were without prejudice to BT's cost orientation obligations. Therefore, we do not consider that the single starting charge adjustment should have been understood by BT or could have given rise to a legitimate expectation that Ofcom considered that the remainder of its charges were cost orientated.

10.212.3 **BT sought to reduce prices in 2008/09.** We note BT's arguments and acknowledge that BT was prevented from implementing the price

reductions for a period of nearly ten weeks. We consider that applying the DSAC test non-mechanistically allows us to take into account the duration of any breach.

10.212.4 **BT's pricing papers.** Although BT's pricing papers show that BT was aware of its obligation to ensure that its charges were cost orientated, those pricing papers that we have seen do not reveal that BT took the right steps to ensure that this obligation was met.

Section 11

How do we establish BT's costs of providing Ethernet services?

Introduction

- 11.1 Given our conclusion in Section 10 that BT has failed to demonstrate to our satisfaction that its relevant charges were cost orientated during the Relevant Period, we must now undertake our own assessment of BT's charges. As described in Section 9, we do this by first applying the DSAC test.
- 11.2 In order to resolve the Disputes, we need to establish the appropriate data for assessing cost orientation. This Section sets out the framework we will use to consider:
 - 11.2.1 whether, as BT has argued, we should depart from BT's original DSACs as published in the RFS for 2006/07 to 2009/10 and replace them with BT's revised DSACs which are based on a revised methodology, and whether we should use BT's DSACs as published in the RFS for 2010/11 which are based on the revised methodology; and
 - 11.2.2 whether we should make accounting adjustments to BT's costs as reported in the RFS.
- 11.3 We apply this framework to consider what the appropriate DSACs are in Section 12 and then consider the accounting adjustments in Section 13.

Our Provisional Conclusions

- 11.4 In our Provisional Conclusions, we noted that BT has considerable discretion as to its approach to calculating DSACs and there may be more than one 'appropriate' methodology. However, we also noted the importance of Ofcom and CPs being able to rely on the figures published in BT's RFS to assess whether BT complied with its obligations at the relevant time.
- 11.5 We noted in respect of BT's revised DSACs that the amendments retrospectively change the DSACs not only for the services relevant to these Disputes but also for a range of other services. In addition, for some of these other services BT's published cost data has formed the basis of previous regulatory decisions.
- 11.6 We explained that Ofcom's approach to allowing revisions of historic published data such as the RFS has important implications for BT's incentives to provide appropriate and accurate information in its RFS in the future. We considered that allowing BT to change its methodology retrospectively when the original methodology is not obviously inappropriate or subject to errors, risks creating an incentive for BT to change its methodology whenever a change may be to BT's advantage.
- 11.7 We therefore proposed that Ofcom should rely on the published RFS for the purposes of determining these Disputes, unless there are errors in BT's RFS, or the methodology used in preparing the RFS was obviously inappropriate. We argued that this was consistent with the views of the CAT in the PPC Judgment.

- 11.8 We considered that the decision as to whether a specific approach is appropriate is necessarily linked to the analytical issue or policy objective that it is being used to address, and that if the approach is evidently inconsistent with the objective, then this would support a conclusion that it was obviously inappropriate.
- 11.9 We also set out in our Provisional Conclusions how we proposed to analyse the costs and revenue associated with each service. We considered that there were some areas where it was necessary to make adjustments to BT's published data to ensure it could be relied upon for determining the Disputes, in particular to:
- 11.9.1 correct for straightforward errors in the RFS data, especially for misstatements of volumes and the associated impacts on revenues and costs; and
 - 11.9.2 ensure that revenues are compared against the appropriate costs. We noted that it is not always possible to directly compare the revenues and costs reported in BT's RFS because the data for a service may include revenues and costs associated with a different service, or relevant revenues and costs may be reported elsewhere. This means that the costs of a service may not always be matched against the revenues to which they relate.
- 11.10 In making these adjustments we noted the CAT's comment in the PPC Judgment that Ofcom's adjustments to the RFS "*may, perhaps, be justified because BT's originally published regulatory financial statements could not be relied upon.*"⁵⁵³

Views of the Parties

- 11.11 TTG, CWW and Virgin all consider that Ofcom and CPs should be able to rely on the published RFS to assess cost orientation and amendments should be exceptional.⁵⁵⁴
- 11.12 TTG agrees that Ofcom should rely on the published RFS "*unless there are clear arithmetic, input or software errors but even then the onus should be on BT to show that they could not reasonably have discovered those before.*"⁵⁵⁵ TTG refers to the regulatory obligation requiring BT to publish its regulatory accounts and argues that "*it would make a charade of the regulatory obligation if BT were able to change them after the event at its own discretion.*" It also emphasises the importance of the RFS for CPs: "*the RFS play a pivotal role in allowing CPs to identify potential overcharging and bring disputes.*"⁵⁵⁶
- 11.13 Virgin considers that our proposed approach "*concurs with the CAT's view that where there is no error, BT's RFS should stand without great investigation or adjustment by Ofcom.*"⁵⁵⁷
- 11.14 It considers that it is one thing to correct factual errors in volumes and revenues but "*quite another to try to retrospectively introduce a new cost allocation methodology affecting a number of services and not just Ethernet services, and where Ofcom (and*

⁵⁵³ PPC Judgment, paragraph 161.

⁵⁵⁴ TTG's response to our Provisional Conclusions, paragraph 5.5; CWW's response to our Provisional Conclusions, paragraph 78 and 79; Virgin's response to our Provisional Conclusions, paragraph 7.8.

⁵⁵⁵ TTG's response to our provisional conclusions, paragraph 5.5.

⁵⁵⁶ TTG's response to our Provisional Conclusions, paragraphs 5.5 to 5.7.

⁵⁵⁷ Virgin's comments on BT's response, paragraph 3.4.

BT) have relied on the data in numerous regulatory decisions...".⁵⁵⁸ Virgin argues that "[w]hat should not be permissible is for the methodology to be retrospectively altered when this would create incompatible and inconsistent results in relation to the dispute determination on services with linked and shared costs".⁵⁵⁹ Virgin emphasises that Ofcom should consider "the need to ensure consistency of decisions" when assessing adjustments proposed by BT.⁵⁶⁰ Virgin considers that "it would send entirely the wrong message to BT in terms of the need to comply with its regulatory obligations if BT were permitted to restate its figures using a different methodology every time its compliance with a cost orientation obligation was questioned in order to mitigate the effects of a dispute".⁵⁶¹ CWW says that it accepts that retrospective adjustments may be appropriate in some circumstances, such as if BT has made "a significant error which is disadvantageous to its customers"⁵⁶², but it considers that "a wholesale retrospective change of methodology is clearly unacceptable".⁵⁶³

- 11.15 CWW considers that *"it is essential that BT is incentivised to get the RFS right first time. Correction should not be expected and, if it is permitted at all, should certainly be exceptional... Given the clear incentives BT has when proposing RFS changes, it is essential that any retrospective change is done in a way that is not just within the range of what BT can justify as being appropriate but rather Ofcom can be absolutely sure that it is fair and reasonable to all stakeholders."*⁵⁶⁴
- 11.16 Sky sets out why it considers it would be inappropriate to make further adjustments and corrections to the DSAC data proposed by BT, noting the informational advantage BT has, which results in *"an inherent asymmetry and bias"* and an *"incentive to only put forward cost changes that work in its favour"*. Sky expresses concern that *"accepting some of BT's adjustments would [...] move certain costs into AISBO services from elsewhere"* when *"previous regulatory decisions – such as cost orientation assessments and the setting of charge controls – have been predicated on the basis of the previous cost allocations."*⁵⁶⁵
- 11.17 TTG and CWW also raise concerns regarding information asymmetry in relation to adjustments proposed by BT. CWW refers to *"[t]he unfairness of the general asymmetry of access to BT's accounting information which results is evidenced by the adjustments BT proposes which are all in BT's favour"*.⁵⁶⁶ TTG considers that *"BT has no incentive to look for errors that were against [it] or disclose such errors if it found them"* and argues that adjusting for such errors would *"create an intolerable inequity and asymmetry whereby BT could find errors in its favour but other CPs did not have the ability to find errors that work in their favour"*.⁵⁶⁷
- 11.18 BT comments that it is *"wrong for a regulator to reject any consideration of the most up to date figures, regardless of the precise reason why exactly the new figures are more accurate"*.⁵⁶⁸ BT argues that it is *"inconsistent and contrary to proper certainty*

⁵⁵⁸ Virgin's response to our Provisional Conclusions, paragraph 7.15.

⁵⁵⁹ Virgin's comments on BT's response, paragraph 3.10.

⁵⁶⁰ Virgin's comments on BT's response, paragraph 3.14.

⁵⁶¹ Virgin's response to our Provisional Conclusions, paragraph 7.3.

⁵⁶² CWW's response to our Provisional Conclusions, paragraph 84.

⁵⁶³ CWW's response to our Provisional Conclusions, paragraph 71.

⁵⁶⁴ CWW's response to our Provisional Conclusions, paragraph 79.

⁵⁶⁵ Sky's comments on BT's response, paragraph 31.

⁵⁶⁶ CWW's comments on BT's response to our Provisional Conclusions, paragraph 10.

⁵⁶⁷ TTG's comments on BT's response to our Provisional Conclusions, paragraph 6.11.

⁵⁶⁸ BT's response to our Provisional Conclusions, paragraph 227.

*for Ofcom effectively to reject the best available evidence” when considering whether BT has breached its cost orientation obligation and the amount it should repay.*⁵⁶⁹

- 11.19 BT notes that in the PPC Judgment, the CAT held that in carrying out the first stage of an assessment of cost orientation, it is for BT to decide how to allocate common costs.⁵⁷⁰ Given the seriousness of the allegation and consequences of breach, “[b]asic fairness to BT and natural justice” means that evidence which may show BT was not in breach should not be ignored at the second stage either, even if there are “administrative concerns about effects elsewhere”.⁵⁷¹
- 11.20 BT notes that in the 2009 PPC Determinations and in these Disputes, Ofcom has made its own adjustments to obtain what it considers to be the most appropriate evidence for assessing cost orientation. BT argues that its proposed changes to its published DSACs “are as valid as the other adjustments Ofcom has made”⁵⁷² and considers that Ofcom’s proposal not to adjust BT’s DSACs, but to make other adjustments, is inconsistent and applies a ‘double standard’.⁵⁷³ It argues that “[e]ither the DSAC figures originally published in the RFS are conclusive or both Ofcom and BT should be able to re-examine them.”⁵⁷⁴
- 11.21 BT argues that Ofcom’s argument that not applying the corrected methodology to the published DSAC figures would create poor incentives for BT is “ill-considered” and “Ofcom ought not to be effectively fining BT considerable sums for having made an error in the published accounts”.⁵⁷⁵

Our analysis

The RFS are an important reference point for determining BT’s costs and revenues

- 11.22 As set out in Section 5, BT’s RFS are an important part of the regulatory framework. Not only are they of importance to us in performing our regulatory functions in accordance with our statutory duties, but they are also important for BT’s customers and competitors as they provide the information needed to assess whether BT is abiding by its regulatory obligations and competing fairly. We would normally therefore expect the RFS to constitute the best available information for us to use in fulfilling our regulatory functions, including dispute resolution.
- 11.23 In the 2004 Financial Reporting Notification we explained the need for regulatory financial information:
- 11.23.1 “Regulatory financial information is fundamental to the economic regulation of the electronic communications sector and in particular to many of the decisions of Ofcom.”⁵⁷⁶

⁵⁶⁹ BT’s response to our provisional conclusions, paragraph 237.

⁵⁷⁰ BT’s response to our provisional conclusions, paragraph 239.

⁵⁷¹ BT’s response to our provisional conclusions, paragraph 240.

⁵⁷² BT’s response to our provisional conclusions, paragraph 232.

⁵⁷³ BT’s response to our Provisional Conclusions, paragraphs 242 to 246.

⁵⁷⁴ BT’s response to our provisional conclusions, paragraph 245.

⁵⁷⁵ BT’s response to our Provisional Conclusions, paragraph 236.3.

⁵⁷⁶ Paragraph 2.21 of the 2004 Financial Reporting Notification.

11.23.2 “...where...obligations have been imposed it is essential that they are monitored and enforced properly. Therefore, it is necessary to have appropriate regulatory reporting.”⁵⁷⁷

11.23.3 “Examples [of where] Ofcom requires good-quality financial information from dominant providers, in order to inform decisions and actions, include:

- the need for a dominant provider to demonstrate compliance with conditions for cost orientation and non-discrimination;
- investigations into potential breaches of conditions, including potential anticompetitive practices, either based on complaints received or on Ofcom's own initiative;
- monitoring obligations to ensure compliance with conditions, including deterring anti-competitive practices; and
- setting and monitoring price controls.”⁵⁷⁸

11.24 As we explained in our Provisional Conclusions, we and other industry stakeholders should be able to rely on the RFS, as the CAT noted in the PPC Judgment:

*“...in ordinary circumstances (where there is no error in BT's audited regulatory financial statements) we would expect the figures in these statements to stand without great investigation, re-checking or adjustment by OFCOM. That, after all, is one of the purposes of regulatory financial statements: to ensure that the appropriate data is published to enable compliance with SMP conditions to be monitored.”*⁵⁷⁹

11.25 BT has a degree of discretion in relation to how it calculates and allocates its costs within the broad frameworks agreed with Ofcom. Allowing BT flexibility is generally desirable because it is unlikely to be proportionate for Ofcom to dictate every single cost allocation method, especially where services are new.⁵⁸⁰ However the regulatory regime, and specifically the decisions we make in respect of the use of BT's financial information, should seek to incentivise BT to provide appropriate and accurate information in the RFS.

11.26 We disagree with BT that taking into account the impact on its incentives to ensure it publishes appropriate and accurate data is inappropriate or effectively constitutes “fining” it. Rather we consider it to be acting consistently with our duties.

Adjustments are sometimes necessary and appropriate

11.27 Our starting point for making regulatory decisions assessing compliance with cost orientation obligations which require consideration of BT's costs and revenues, is BT's view of its costs, as published in its RFS. As we set out above, we would expect the RFS to contain the best available information for those decisions. However we have adjusted BT's accounting data on occasion in the past where we considered that this was necessary and appropriate. We have made such adjustments where the

⁵⁷⁷ Paragraph 2.23 of the 2004 Financial Reporting Notification.

⁵⁷⁸ Paragraph 2.24 of the 2004 Financial Reporting Notification.

⁵⁷⁹ PPC Judgment, paragraph 161.

⁵⁸⁰ BT has over 50,000 cost items that have to be allocated in its accounts. The summarised methodology for allocating costs runs to over 1,000 pages.

published data is in error or based on an obviously inappropriate methodology, to ensure that, as far as possible, we accurately reflect BT's costs and revenues when resolving disputes and undertaking other regulatory duties.

11.28 In the 2009 PPC Determinations we made adjustments to:

11.28.1 correct for volume errors;

11.28.2 modify assumptions in the RFS that were not appropriate for the services in dispute;

11.28.3 ensure that the revenues of a service were appropriately matched with the costs of the service; and

11.28.4 exclude costs not relevant to the provision of the services in dispute.

11.29 We can only make adjustments where it is reasonably practical to do so with the evidence available to us. Where we are concerned that data may contain an error or have been produced using an obviously inappropriate methodology, we can only change the data if we have sufficient information to properly address the concern with the published data. If sufficient data is not available to us, the original data in the RFS may still represent the best available information.

Adjustments may lead to undesirable consequences

11.30 We therefore accept that it may be necessary to make adjustments to BT's RFS in cases where we have identified that there is an error or the methodology is obviously inappropriate and it is reasonably practical to make the adjustments. However, in determining the best available information for a specific case, we need to balance this against other considerations which might mean that it is inappropriate to make adjustments. We set out below the factors which we consider relevant to our decision as to which cost data we should use in these Disputes. However, they are not intended to be an exhaustive list which would necessarily apply in every situation.

11.31 Under BT's cost structure, there are many costs that are shared between a large number of services, such as the costs of BT's duct network which is used by both regulated and unregulated services. An allocation of these common costs may represent a sizeable proportion of the costs of a service. Changes in the allocation of common costs are therefore likely to impact on the costs of individual services.

11.32 Where adjustments to BT's cost allocations for particular services are limited they may have a fairly immaterial impact on other services. However, if the adjustments involve a larger reallocation of costs then it is likely that they will affect not just the services in question, but also other services that share those costs.

11.33 Where BT (or indeed Ofcom) suggests an adjustment which involves a change to BT's cost allocation methodology and materially affects the costs not just of the services in dispute but other services, we should carefully consider the wider implications of making such an adjustment.

11.34 BT has a discretion regarding how it allocates costs, but once it has determined the methodology it will use and published its RFS, we agree with the Disputing CPs who argue that it is important that Ofcom and CPs can rely on the reported allocation methodology. If we permit retrospective changes to cost allocations that materially affect a large number of services then we risk undermining confidence in BT's RFS.

- 11.35 We would also provide BT with an incentive not to allocate costs in its RFS in an accurate and appropriate manner, but instead in a manner which is to its advantage in regulatory decisions, especially those with regard to past charges such as in these Disputes. BT would know that, if necessary, it would be able to revise the allocation in future to produce a favourable outcome to a different regulatory decision such as through restating previously published RFS using a different costing methodology.
- 11.36 In addition, where data published in the RFS have been used in other regulatory decisions (such as for the purposes of setting a charge control), by retrospectively reallocating costs between services we risk introducing inconsistency between regulatory decisions. This can impact on BT's ability to recover its costs, potentially leading to it either under- or over-recovering its costs, and will also affect other stakeholders.
- 11.37 There is an asymmetry of information between BT on the one hand and other CPs and Ofcom on the other. BT has access to information which enables it to consider the effect of individual changes to its published accounts. It has the ability and the incentive to propose changes which will operate in its favour.⁵⁸¹ In considering whether to accept changes to its published data proposed by BT, we should take this into account, reflecting the importance we place on incentivising BT to provide appropriate and accurate information in the RFS.

How should we consider whether to make adjustments to BT's published financial data?

- 11.38 In deciding whether to make an adjustment to BT's published data, we need to make a regulatory judgment as to how we should balance the various factors relevant to our decision in order to achieve an outcome which most appropriately meets our statutory objectives.
- 11.39 We remain of the view that we should take into account the factors identified in our Provisional Conclusions. However, in light of the responses to our Provisional Conclusions, we consider that it is possible that even where the RFS are based on a methodology that is obviously inappropriate or there are errors in BT's published cost data, in some cases it may not be appropriate to depart from the RFS taking all the relevant considerations into account. We consider that it is appropriate to take the following factors into consideration:
- 11.39.1 **Does the adjustment correct an error in BT's published RFS?** For example, if revenues or circuit volumes have been misstated; or
- 11.39.2 **Does the adjustment correct a methodology used in the published RFS that is obviously inappropriate for the purpose of resolving the dispute?** For example, to ensure appropriate matching of revenues and costs of a service.
- We consider it necessary for the answer to be 'yes' to one of these two questions for us to consider departing from BT's published RFS.
- 11.39.3 **With the available evidence, is it reasonably practical to implement the proposed adjustment to the published data in a way that properly**

⁵⁸¹ BT's proposed changes to its costs in the Disputes generally favour BT in that they increase the costs of the services in dispute over the course of the Relevant Period, although they may decrease the costs for some services in some years.

addresses the error or inappropriate methodology? In order for us to make a change to the RFS, it is also necessary for it to be reasonably practical for us to do so in a way that properly addresses the issue identified and provides evidence that is clearly better for the purpose of resolving the Disputes. Where relevant, we should therefore take into account the practical difficulties of making a satisfactory adjustment or implementing a satisfactory revised methodology. Where changes are made to BT's cost allocation methodology, changing one element could have significant knock-on effects on other costs, which may simply be too challenging to model, especially within the context of a dispute, or they may have unforeseen adverse consequences. We should also consider the extent to which it is proportionate for us to investigate different possible changes to costs for the purpose of resolving a dispute.

We therefore also consider it necessary for the answer to be 'yes' to this question for us to consider departing from BT's published RFS.

11.39.4 Does the proposed adjustment retrospectively alter the financial data on which we relied in previous regulatory decisions including for services outside the scope of the dispute? As noted at paragraph 11.32 above, if the proposed adjustment involves a change in cost allocation methodology, then such a change could alter the costs of other services not in dispute. We further note at paragraph 11.36 that if the costs of these other services were used in making other regulatory decisions then we should consider the effect that such a retrospective amendment would have on those costs. Introducing inconsistencies in the financial data upon which we make decisions can otherwise impact on BT's ability to recover its costs, potentially leading to it either under- or over-recovering its costs, and will also affect other stakeholders.

11.39.5 Does accepting revised data create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future? Allowing BT to change its methodology retrospectively risks creating an incentive for BT to change its methodology whenever a change may be to BT's advantage. Further, as noted at paragraph 11.37 above, BT is better placed to propose adjustments than other CPs, which may be beneficial to BT if they increase costs of a service in dispute. This does not necessarily make such an adjustment inappropriate, but overall we need to take account of the fact that BT has additional information compared to CPs that enables it to propose adjustments that are in its favour which may affect its incentives for compliance and to produce accurate financial information.

11.40 Whether it is appropriate to make an adjustment or not will depend on the specific circumstances of the change in costs and the regulatory decision in question. We will therefore consider whether to make each of the proposed adjustments to BT's financial data on the facts of these Disputes, taking into account the factors set out above. Where an adjustment has effects on previous regulatory decisions or creates inappropriate incentives for BT, these considerations will (on their own) favour not making the adjustment. In such circumstances, a judgment is required to balance the competing considerations, taking account of the nature and seriousness of the error or inappropriate methodology compared to the consequences for previous regulatory decisions and BT's incentives. We may also consider the materiality of any change which results from consideration of these factors before deciding whether to make the adjustment.

- 11.41 We consider that applying this framework should ensure consistency in our decisions in these Disputes as to whether it is appropriate to depart from the RFS and avoid the risk of the double standard alleged by BT.

Next steps

- 11.42 Having set out the factors relevant to our consideration of which cost data we should use to resolve these Disputes, we go on to consider in the next two Sections:
- 11.42.1 whether we should depart from BT's original DSACs as published in the RFS for 2005/06 to 2009/10 and replace them with BT's revised DSACs which are based on a revised methodology, and whether we should use BT's DSACs as published in the RFS for 2010/11 which are based on the revised methodology; and
 - 11.42.2 whether we should make accounting adjustments to BT's financial information as reported in the RFS.

Section 12

Which are the appropriate DSAC data for assessing cost orientation?

Introduction

- 12.1 We consider that we should rely on the DSAC figures in BT's published RFS unless it is appropriate to use revised data in accordance with the framework set out in Section 11.
- 12.2 Before we published our Provisional Conclusions, BT argued that we should not use the original DSAC figures it published in its annual RFS between 2006/07 and 2009/10 as the basis for the DSAC test and that we should instead use new DSAC figures that BT has calculated using a revised methodology for the purposes of these Disputes.⁵⁸² BT also used this revised methodology to generate the DSACs published in its 2010/11 RFS. We provisionally concluded that we should use the DSAC data published by BT in its RFS during both the 2006/07 to 2009/10 period (using BT's original methodology) and in 2010/11 (using BT's revised methodology).
- 12.3 Since publishing our Provisional Conclusions, we have received additional information from BT and our understanding of the drivers behind BT's DSAC calculations has evolved. We conclude below that we should continue to use the DSAC data published in BT's RFS in both of those periods, but our reasoning has evolved and reflects our updated understanding. This Section sets out that reasoning.
- 12.4 The remainder of this section is structured as follows:
- 12.4.1 **Background:** We set out some background information which is necessary to understand how BT's DSACs are calculated.
 - 12.4.2 **Provisional Conclusions:** We summarise the reasons why we provisionally decided to rely on the DSAC data published in BT's RFS.
 - 12.4.3 **Views of the Parties:** We set out the arguments put to us by the Parties in response to our Provisional Conclusions.
 - 12.4.4 **Our analysis:** We then set out our current understanding of how BT's DSACs are calculated and respond to the other issues raised by the Parties having regard to the framework set out in Section 11.
 - 12.4.5 **Conclusions:** Finally, we set out our decision as to which DSAC figures we should use in carrying out the DSAC test and summarise our reasons for that decision.

Background

- 12.5 This sub-section provides a brief overview of the methodology BT has used for calculating DSACs for publication in its annual RFS since 1997. Further detail can

⁵⁸² BT's 20 May 2011 submission, paragraph 12.

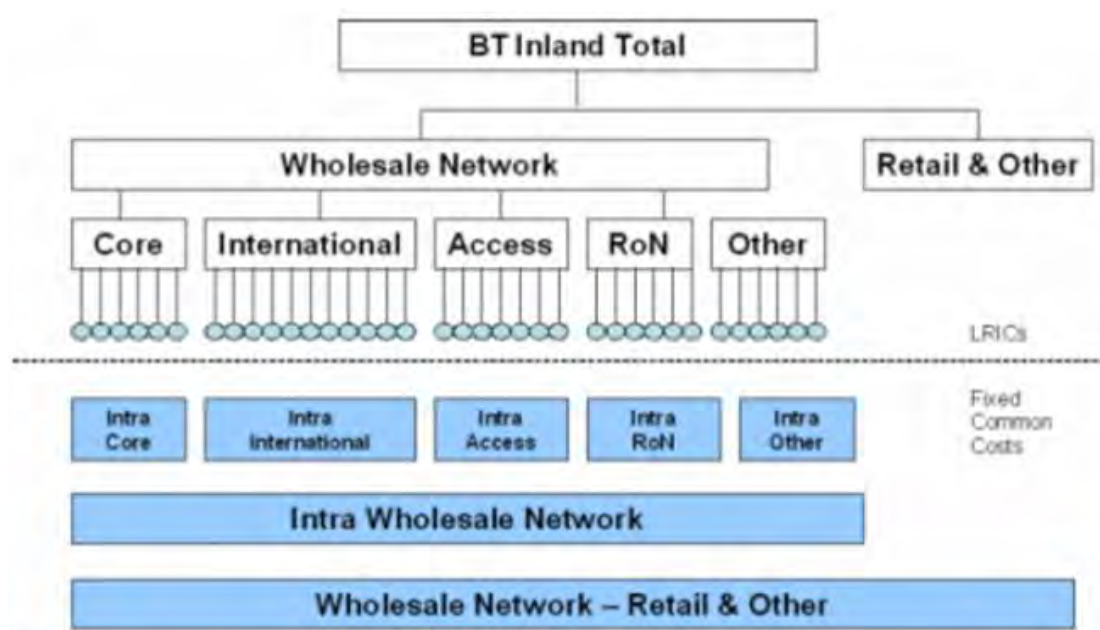
be found in BT's PAD which are published annually with its RFS. Alongside the PAD, BT publishes its Long Run Incremental Costs Model: Relationships & Parameters ("LRIC R&P") documents which set out in detail how BT calculates its DSACs (and DLRICs).⁵⁸³

- 12.6 As noted at paragraphs 12.93 to 12.103, BT has provided additional information which has given us a fuller understanding of the methodology BT has used for calculating the DSACs in its RFS. The following paragraphs therefore differ in some respects to the explanation we included in our Provisional Conclusions, which reflected our understanding at the time.

BT's LRIC model structure

- 12.7 As set out in Section 5, DLRICs and DSACs are calculated using BT's LRIC model. An illustration of the high-level structure of BT's LRIC model is set out below in Figure 12.1.

Figure 12.1: BT's LRIC Model Structure



Source: Extracted from page 52 of BT's Primary Accounting Documents 2009⁵⁸⁴

- 12.8 For resolving these Disputes, the DSACs of interest are those related to the services in dispute. BT's LRIC model however does not directly generate DSACs for individual services. Rather, it calculates DSACs for the individual components that are used by services. To generate the service DSACs reported in the RFS, BT combines (in a calculation made outside of BT's LRIC model) the relevant component DSACs into service DSACs on the basis of specified usage factors (i.e. how much of each component is used by a service).

⁵⁸³ The 2006/07 PAD, LRIC R&P and other accounting documents can be found at <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2007/Regulatoryfinancialstatements2007.htm>. The 2010/11 versions of these documents are available at <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2011/index.htm>

⁵⁸⁴ This refers to the financial year 2008/09, but has not changed over the Relevant Period.

- 12.9 When allocating costs, BT's LRIC model divides BT's Wholesale Network into sections known as "increments". As shown in Figure 12.1 above, these five increments are Core, International, Access, Rest of Network ("RoN") and Other. These increments are in turn divided into components (indicated by the circles in the diagram above). The model contains LRICs for each component, each increment and each section of the network (as shown above the line in the diagram) and Fixed Common Costs ("FCCs") that are shared between the components in each increment, between increments and across the whole network (shown below the line).
- 12.10 Which components are within each of the increments is critical when calculating DSACs. Conceptually the DSACs of core components are equivalent to calculating the SAC⁵⁸⁵ of the Core as a single increment and distributing it over the components within the increment. The SAC of the Core will depend on what components it contains as the inclusion of a single component could increase the SAC of the Core significantly.
- 12.11 To illustrate this, consider the simple case of a cost category with two components. A and B, both with a LRIC of 50, and a FCC between them of 900 (and for illustration assuming no other relevant FCCs). Considering only this cost category (and abstracting for simplicity from all the other cost categories), if both A and B are defined within the same Core increment, the 900 will be an intra-Core FCC. Hence it will be allocated when calculating DLRIC, so A and B will have a DLRIC of 500 (50 + an equal proportionate share of 900), and a DSAC also of 500 (as for this illustrative example we have assumed no further FCCs). However, if A is defined in the Core increment and B in the Access increment, then the 900 will be an Intra-Wholesale Network FCC and A will have DLRIC of 50 (the same as its LRIC as there are now no intra-Core FCCs) and a DSAC of 950 (the same as its SAC, 50 + 900). Therefore, increment definition can have a material effect on DLRICs and DSACs.

Historic changes to BT's LRIC model increments

- 12.12 The Core increment currently contains the local ends of private circuits⁵⁸⁶. However, BT's approach has changed over time. The summary below reflects our understanding of how BT's approach has changed over time based on relevant documentation we have identified since publishing our Provisional Conclusions. We note that given that some of these changes were made up to 15 years ago, complete documentation is not readily accessible. While it is possible that the documentation available to us may not be complete, we believe that it provides sufficient historical context to the key changes relevant to this case.
- 12.13 In 1996/97, the local ends of private circuits were contained within the Access increment in BT's LRIC model. Private circuits, including local ends, were sold from the "Network" business from an Accounting Separation (AS) point of view. BT's accounting documents at the time set out the significance of local ends being within the LRIC model Access increment:

"The AS Access relates to the exchange line services...However, Access Network in the LRIC context does not include retail related activities, but it does

⁵⁸⁵ The SAC of the Core is the cost of producing all the components contained within the Core increment and nothing else. For further details see Annex 6.

⁵⁸⁶ Private circuits provide a connection which has dedicated capacity, at a range of bandwidths, between two points and can be used to carry voice and data traffic.

include the 'local ends' of private circuits. LRIC 'Core Network' and AS 'Network' differs in that the former does not include the local ends of private circuits....These differences are very important. For example, a significant element of fixed common costs that are intra-Access Network in the LRIC analysis would straddle Access and Network under the AS definitions"⁵⁸⁷. (emphasis added)

- 12.14 BT changed the increment definition in 1997/98. The change involved moving the local ends of private circuits from the Access increment to the Core increment. In its 1997/98 Accounting Documents BT stated that:

"The Access increment no longer includes the local ends of Private Circuits, which were previously included in the Access increment (for LRIC purposes in 96/7). This change has been made to ensure consistency with AS"⁵⁸⁸.

- 12.15 BT's change to its increment definition was considered by Oftel in 2001 when setting BT's Network Charge and Retail Price Controls. Oftel used LRIC+EPMU data as the basis for setting the charge controls. Oftel noted that:

"Since 1997, BT has changed the way costs are attributed in the LRIC model. Specifically, as a corollary of the removal of the local ends of private circuits from the access business to the network business, the cost of duct has been treated as a common cost of access and the core network. Oftel believes that this change is not economically justified and that the cost of duct should continue to be regarded as part of the incremental cost of the access network since it is clearly associated with the provision of local lines. This change also results in an inconsistency with the way the charge control was set in 1997 and with the way the charge for LLU has been set."⁵⁸⁹ (emphasis added)

- 12.16 Reflecting Oftel's concerns in relation to the increment definition, BT provided cost information with local ends included in the Access increment which Oftel used to set the Network Charge and Retail Price Controls in 2001.⁵⁹⁰

- 12.17 Ofcom restated Oftel's concerns as to whether BT's revised increment definition was economically justified in the consultation for the 2005 Network Charge Controls. Although Ofcom decided in the final statement to set the charge controls on the basis of FAC rather than LRIC+EPMU data, prior to the consultation Ofcom once again asked BT to provide cost data based on the local ends being included in the Access increment:

"...the LRIC+EPMU figures initially supplied by BT for setting the next NCCs assumed methodological changes to BT's LRIC model which Ofcom believes are not economically justified. This meant that BT's core network costs were materially overstated. In order to produce an appropriate LRIC+EPMU data,

⁵⁸⁷ Page 4 of 1996/97 LRIC R&P.

⁵⁸⁸ BT Accounting Documents, BT, 13 November 1998, paragraph 6.3.1.3.

⁵⁸⁹ *Proposals for Network Charge and Retail Price Controls from 2001*, Oftel, February 2001, paragraph 4.12.

⁵⁹⁰ *Proposals for Network Charge and Retail Price Controls from 2001*, Oftel, February 2001, paragraphs 4.14 to 4.16.

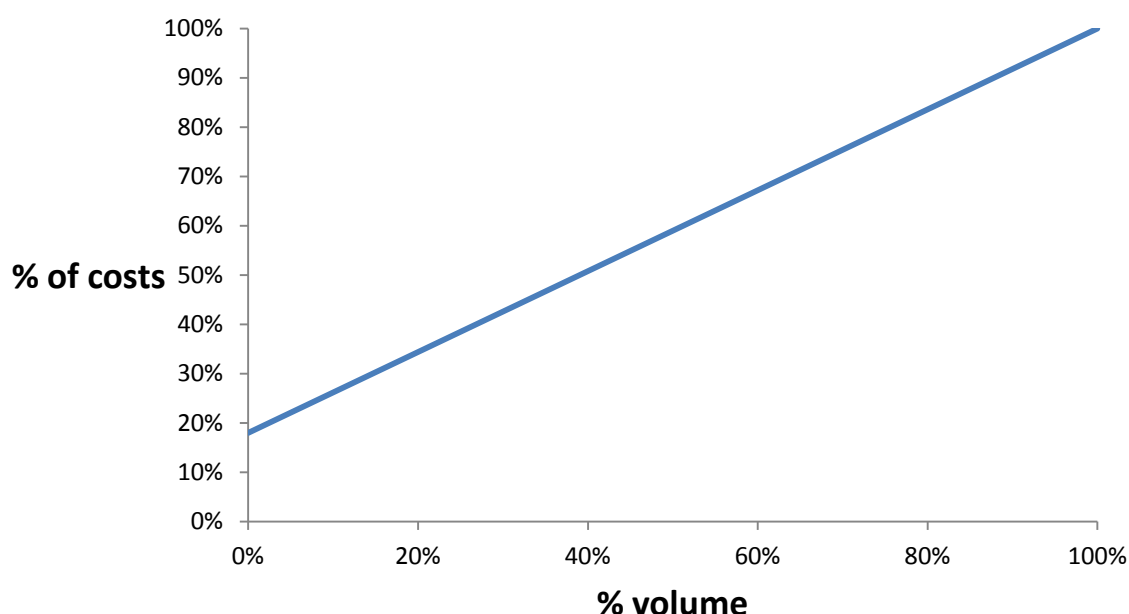
*Ofcom asked BT to adjust and re-run the LRIC+EPMU model. BT has not yet been able to perform this time consuming task.”*⁵⁹¹

- 12.18 BT has continued since 1997/98 to include private circuit local ends in the Core increment within its LRIC model. BT did not change the increment definition after 2001 when Ofcom commented that it was not economically justified and used cost data reflecting a different increment definition to set the charge network charge controls (with local ends in the Access increment), nor after Ofcom's comments in 2005.

Calculating LRICs

- 12.19 BT's LRIC model consists of around 400 distinct "cost categories" which form the building blocks for the component costs. For an individual component the total LRIC is the sum of the shares of the various relevant LRICs for the cost categories that are used by that component. The LRICs for the various combinations of cost category and component are calculated using cost volume relationships ("CVRs"). A CVR specifies how BT's total costs⁵⁹² vary as the volume of a network component or set of components changes. For example, the Core Transmission Cable (Fibre) CVR specifies that 18% of the costs within the cost category to which the CVR is applied are fixed, with the remaining 82% driven linearly by volume (as set out in Figure 12.2 below – we refer to this as a "straight line CVR"). These CVRs are then used to calculate LRICs. The CVRs and a more detailed explanation of how they are used by BT are contained in BT's LRIC R&P.⁵⁹³

Figure 12.2 - Example of a CVR: 18% fixed costs⁵⁹⁴



Source: 2006/07 LRIC R&P, CV019 for Core Transmission Cable (Fibre).

⁵⁹¹ *Review of BT's network charge controls: consultation*, Ofcom, 23 March 2005, paragraph 4.70. A similarly worded paragraph is contained at paragraph 6.75 of the final statement ("*Review of BT's network charge controls*") which was published on 18 August 2005.

⁵⁹² Which are produced in BT's accounting system ASPIRE.

⁵⁹³ See Section 5 of BT's 2009/10 PAD. References to pages of the LRIC R&P in this document are to the 2006/07 LRIC R&P unless otherwise specified.

⁵⁹⁴ See CV019 for Core Transmission Cable (Fibre) from the LRIC R&P 2007.

Distribution of FCCs for DLRICs and DSACs

- 12.20 DLRICs are calculated by distributing FCCs between the components that share the FCCs using an Equi-Proportionate Mark Up ("EPMU") methodology, i.e. proportionate to the LRICs of the components for each individual cost category. FCCs that are shared between components within all wholesale increments of the model are shown in Figure 12.1 as "Intra-Wholesale Network" FCCs. FCCs that are only shared between components in the Core increment are shown as "Intra-Core" FCCs.
- 12.21 The DLRIC of a component in the Core increment is therefore calculated by taking the LRIC of that individual component and adding to it a share of the Intra-Core FCCs. The share of the FCC is worked out using EPMU. Essentially this means that Intra-Core FCCs are distributed between the components within the Core increment based on the relative size of their LRICs by cost category (i.e. if Component X has twice the LRIC of Component Y in the cost category that gives rise to the FCC, its DLRIC will include twice as much Intra-Core FCC).
- 12.22 A similar approach is adopted when calculating the DSAC of a component. However, rather than only including a proportion of the intra-increment FCCs, the DSAC also includes a proportion of the FCCs of the "Intra-Wholesale Network", also known as intra-Network FCCs (i.e. those FCCs shared across the whole of the BT wholesale network) and a share of the 'Wholesale Network – Retail and Other' FCCs, also known as "intra-R&O FCCs". The DSAC of a component in the Core increment will therefore be calculated by taking the LRIC of that individual component and adding to it a share of the Intra-Core FCCs, a share of the Intra-Wholesale Network FCCs and a share of the Wholesale Network – Retail & Other FCCs.⁵⁹⁵ The entirety of all these FCCs is distributed to the components in the Core increment, since the sum of all of the DSACs in the Core increment is equal to the SAC of that increment.
- 12.23 In summary for a Core component:
- 12.23.1 DLRIC is equal to LRIC plus a proportionate share of intra-Core FCCs; and
 - 12.23.2 DSAC is equal to DLRIC plus a proportionate share of intra-Network FCCs plus a proportionate share of intra-R&O FCCs⁵⁹⁶.

The role of split cost categories

- 12.24 The calculation of a DSAC for a Core network component therefore consists of two main stages. First, the calculation of LRICs and FCCs for each of the network component and cost category combinations. Second, the allocation of the relevant FCCs in proportion to the calculated LRICs. There are a number of potentially reasonable ways that these two stages can be implemented within the broad approach for calculating DSACs and BT has a degree of discretion as to which it chooses. As set out above, its chosen approach involves the two stages being performed across around 400 distinct cost categories.

⁵⁹⁵ As with DLRICs, these shares are calculated using an EPMU methodology.

⁵⁹⁶ There are also common costs that are allocated across only a sub-set of Core components, such as those related to all of Inland Private circuits but these tend to be small.

- 12.25 Most cost categories use a single CVR to calculate LRICs reflecting the existence of one cost driver⁵⁹⁷ for that cost category. However, since 2001, for some cost categories there are two cost drivers. In such circumstances the underlying CVR is three-dimensional, meaning that a three-dimensional diagram would be needed to describe the CVR, with the vertical axis showing the cost and two horizontal axes, one for each cost driver. However, as a simplification BT splits this into two two-dimensional CVRs, i.e. two different types of incremental costs (i.e. one for each driver as in Figure 12.2), but only one set of FCCs. The most significant of these split cost categories are those related to BT's duct network.⁵⁹⁸
- 12.26 It appears that, when BT introduced the split cost categories for duct in 2001, it had considered the two new duct CVRs in detail and specified that core transmission and local access duct had different LRICs per km. In the core transmission CVR, BT stated that: *"The majority of core transmission network duct has several bores"*⁵⁹⁹, whereas it stated in relation to the local access duct CVR that *"[a]lthough the majority of local access duct is single bore, where many cables share the same duct for part of their routes more than one bore will be required."*⁶⁰⁰ BT also made clear that the local access duct contains fixed costs associated with private circuits.⁶⁰¹
- 12.27 In preparing its 2010/11 RFS, BT altered its methodology for calculating DSACs.⁶⁰² BT explained its revised methodology in its responses to our supplementary questions of 11 May 2011 and the 16 June 2011 section 191 notice. It provided further arguments in support of its methodology in its response to the 20 January 2012 section 191 notice. In summary, BT's revised methodology removed the split cost categories by amalgamating sub-categories into single categories. Each of these new single categories therefore contained a single aggregated CVR in place of the two separate CVRs which were previously contained in the two sub-categories. As a consequence of revising the CVRs, the revised methodology changed both the LRICs and common cost allocations for component DSACs. We explain our understanding of this change and its implications for these Disputes further below.

Our Provisional Conclusions

BT's proposed changes to its published DSACs

- 12.28 In May 2011, BT informed us of possible anomalies in the DSAC figures published in its RFS for all of the years covered by the Initial Disputes. It based its view on the fact that some DSACs were below FAC:

"In this case, DSAC should never be below FAC and these flaws must be corrected especially if Ofcom intends to use DSAC as a measure of cost"

⁵⁹⁷ A cost driver is the factor that caused the income, cost or capital employed to be incurred.

⁵⁹⁸ 14 cost categories are split in BT's LRIC model.

⁵⁹⁹ CVR025 of 2001/02 LRIC R&P.

⁶⁰⁰ CVR003 of 2001/02 LRIC R&P.

⁶⁰¹ See last paragraph of CVR003 of the 2001/02 LRIC R&P, which states *"The intercept [of the CVR] contains that cost which is specific to local access, i.e. Duct route and bore volumes solely for access delivery. This includes payphone lines and private circuits in Network in addition to Access itself."*

⁶⁰² This revised methodology is the same revised methodology that BT used to re-calculate its DSACs for the period 2006/07 to 2009/10, referred to at paragraph 12.2.

orientation and/or as a proxy for a cost orientated price to establish the quantum of any excessive pricing.”⁶⁰³

12.29 BT commissioned a report from [X] to identify the underlying cause of the instances of DSAC being below FAC. The report identified a number of cases where components had a DSAC below FAC and found that the most significant examples of this involved split cost categories.⁶⁰⁴ BT suggested two options for eliminating the alleged anomaly, both of which involve changing how DSACs are calculated:

- i) *“both the LRIC and common cost allocation should be performed at the level of sub-category or*
- ii) *“the LRIC and common cost allocation should both be calculated at the full category level.”⁶⁰⁵*

12.30 BT proposed to follow option (ii) above. To do this, it removed the “.C” (i.e. calls) and “.L” (i.e. lines) sub-cost categories and created a single cost category with a single CVR. BT argued that this would ensure that the ratio of LRIC<FAC<DSAC would be maintained, which it considered to be important.

12.31 We noted in the Initial Draft Determinations that, based on data from BT's RFS, only one service in one year relevant to the Initial Disputes had a DSAC to FAC ratio of below 100% (i.e. BES 100 rental in 2006/07). We presented the data reproduced in Table 12.1 below which shows the DSAC to FAC ratios for each of the Ethernet services disputed in the Initial Disputes.

Table 12.1: Ratio of DSAC to FAC cost data published in the RFS for the services in dispute

AISBO service	2006/07	2007/08	2008/09	2009/10
BES 100 rental	96%	141%	131%	106%
BES 1000 rental	102%	164%	132%	116%
BES 100 connection	138%	216%	169%	n/a
BES 1000 connection	133%	215%	168%	186%
WES 10 rental	106%	128%	131%	134%
WES 100 rental	111%	132%	130%	135%
WES 1000 rental	117%	150%	132%	144%
Main link rental	n/a	251%	318%	302%

Source: Ofcom based on BT data.

Note: The data for 2006/07 comes from the document entitled “Additional information in relation to BT's Current Cost Financial Statements for 2008” published alongside the 2007/08 RFS. The data for 2007/08 relates to the restated figures in the 2008/09 RFS. In both 2006/07 and 2007/08 the restatements related to changes to volume and revenue information. The figures for 2008/09 and 2009/10 are per the original RFS in those years. n/a = not available.

12.32 We found that the outcome of BT's proposals would be to change the levels of LRIC for components and services, with some services (e.g. many Ethernet services) seeing an increase in their LRICs and other services (e.g. many PPC services) seeing their LRICs reduced.⁶⁰⁶ As a result of the change in LRIC levels, the allocation

⁶⁰³ BT's 20 May 2011 response, paragraphs 2 to 4.

⁶⁰⁴ Slides provided at meeting dated 4 August 2011, page 5.

⁶⁰⁵ BT's 11 August 2011 response, paragraph 2a.

⁶⁰⁶ BT's view on the impact of its proposals changed during the course of our consideration of the Disputes. In BT's 20 May 2011 response (See paragraph 6c), BT considered that its proposed

of FCCs between components and services would also change (in a similar manner). Consequently, the DSAC figures against which we would assess whether BT has overcharged for WES and BES services would increase significantly, potentially reducing the extent to which BT may be deemed to have overcharged for those services. Correspondingly, the DSAC figures for other services outside the Disputes would fall significantly. BT calculated that an additional £417 million of costs should be spread across the DSACs for Ethernet services and that £229 million⁶⁰⁷ should be removed from the DSACs of PPC services (which are outside the scope of these Disputes) over the period 2006/07 to 2009/10.

- 12.33 The impact of BT's proposed adjustments to the DSAC figures for the Ethernet services in scope of the Initial Disputes are set out in the Tables below. Table 12.2 sets out the published DSACs in BT's RFS for the years covered by the Disputes (per local end⁶⁰⁸), Table 12.3 sets out the revised DSACs proposed by BT for the same services in the same years and Table 12.4 shows the percentage differences between the published unit DSACs and the revised unit DSACs.

Table 12.2: BT's published unit DSACs per local end

AISBO service, £ per local end	2006/07	2007/08	2008/09	2009/10
BES100 rental	£2,536	£994	£1,621	£1,731
BES1000 rental	£2,749	£1,570	£1,660	£2,239
BES100 connection	£1,119	£1,875	£1,704	n/a
BES1000 connection	£3,842	£6,731	£6,026	£26,861
WES10 rental	£2,416	£1,725	£1,790	£2,239
WES100 rental	£2,560	£1,802	£1,782	£2,319
WES1000 rental	£2,750	£2,456	£1,822	£3,028
Main link rental (per km)	n/a	£959	£583	£963

Source: The data for 2006/07 comes from the document entitled "Additional information in relation to BT's Current Cost Financial Statements for 2008" published alongside the 2007/08 RFS. The data for 2007/08 relates to the restated figures in the 2008/09 RFS. In both 2006/07 and 2007/08 the restatements related to changes to volume and revenue information. The figures for 2008/09 and 2009/10 are per the original RFS in those years. n/a = not available.

adjustments "only amended the apportionment of the FCC. In practice therefore all of the difference between our adjusted DSACs and the published values can be explained by the changes to FCC."

⁶⁰⁷ BT's 20 May 2011 response, question 6.b.i. We note that additional detailed information provided by BT in response to Question 10 of our 16 June 2011 section 191 notice suggests a small change in BT's estimates to those provided in BT's 20 May 2011 response: around £360 million of additional costs to Ethernet service DSACs and £236 million of additional costs from PPC service DSACs.

⁶⁰⁸ BT reported its unit volumes for BES and WES services differently in 2006/07 and 2007/08 to 2008/09 and 2009/10. In 2006/07 and 2007/08 the unit data was presented per circuit, whereas in 2008/09 and 2009/10 the unit data was presented per local end. For ease of comparison we have converted unit values to a "per local end" basis for 2006/07 and 2007/08. We have done this by assuming that each circuit requires two local ends.

Table 12.3: BT's proposed unit DSACs per local end

AISBO service, £ per local end	2006/07	2007/08	2008/09	2009/10
BES100 rental	£6,507	£1,220	£2,025	£2,328
BES1000 rental	£6,721	£1,795	£2,065	£2,848
BES100 connection	£1,120	£1,875	£1,704	n/a
BES1000 connection	£3,843	£6,731	£6,026	£26,861
WES10 rental	£5,034	£2,218	£2,245	£3,042
WES100 rental	£5,178	£2,296	£2,237	£3,127
WES1000 rental	£5,369	£2,950	£2,277	£3,862
Main link rental (per km)	n/a	£861	£499	£826

Source: BT submission of 22 June 2011

Table 12.4: Change between published unit DSACs and revised unit DSACs

AISBO service	2006/07	2007/08	2008/09	2009/10
BES100 rental	157%	23%	25%	35%
BES1000 rental	144%	14%	24%	27%
BES100 connection	0%	-	-	n/a
BES1000 connection	0%	-	-	-
WES10 rental	108%	29%	25%	36%
WES100 rental	102%	27%	26%	35%
WES1000 rental	95%	20%	25%	28%
Main link rental (per km)	n/a	(10%)	(14%)	(14%)

Source: BT submission of 22 June 2011

Our rationale for using DSAC as a benchmark for assessing cost orientation

- 12.34 As we explain in Section 11, we proposed to conclude that we should only consider departing from using BT's published RFS if they contain errors or are based on a methodology which is obviously inappropriate. We noted that the decision as to whether a specific approach is appropriate is necessarily linked to the analytical issue or policy objective underlying the earlier regulatory decision and that if the approach is evidently inconsistent with the objective, then this would support a conclusion that it was obviously inappropriate.
- 12.35 Therefore, in order to consider whether to depart from the approach to calculating DSACs that BT adopted for its published RFS we need to consider the policy objective DSAC is used to address and whether BT's chosen approach is consistent with that objective.
- 12.36 Multiple product firms such as BT are characterised by large common costs that are shared across a broad range of services. These common costs arise primarily as a result of the network nature of the business. For example, BT's duct network and optical cables are key inputs to many different services.
- 12.37 These common costs need to be recovered from the services that share them for the firm to fully cover its costs. Regulators can, and indeed Ofel historically did, control the pattern of common cost recovery across individual services, for example by ensuring that charges were based on cost measures such as FAC. However, such an inflexible approach is unlikely to be economically efficient as the pattern of common cost recovery does not necessarily reflect the nature of market demand

and, therefore, does not minimise the potential for economic distortions that can arise as a result of common cost recovery.

- 12.38 A regulated firm is typically much better placed to understand the nature of demand for its products than the regulator. As a result, it can be more economically efficient to allow the firm to decide how it should recover its common costs. By allowing it to reflect the underlying market demand elasticities in this process, the regulator can allow the firm to act in a way that minimises the impact on demand from the common cost mark-up. For example, consider a firm that sells two products which share a common cost. One product ("product A") has perfectly inelastic (market) demand with respect to price, while the other product ("product B") is considerably more price elastic. Under such circumstances it would normally be economically efficient for the firm to recover all the common costs from product A as the mark-up on incremental cost for product A will not have any impact on consumption patterns.
- 12.39 However, where firms such as BT enjoy SMP in the relevant markets, it would not be appropriate for this flexibility to be boundless. While pricing flexibility can be used to improve economic efficiency, it can also be used in an anti-competitive or otherwise unreasonable manner. For example, rather than pricing to improve the efficiency of common cost recovery, the firm could manipulate its prices to ensure that any potential market entry is suppressed through relatively low prices, while recovering its costs through services where entry is much less likely. In such markets the use of competition law alone may not be sufficient to prevent such undesirable pricing behaviour by the firm with SMP.
- 12.40 As discussed in Section 9 (for example paragraph 9.121), cost orientation, and therefore the use of DSAC as a pricing ceiling (and DLRIC as a pricing floor), is designed to strike a balance between conflicting considerations. Specifically, the use of DSAC as a ceiling for individual charges provides BT with an appropriately bounded degree of pricing flexibility over how it recovers common costs across the services that share those common costs.
- 12.41 The pricing flexibility provided for by the use of DSAC arises from the fact that in calculating DSAC, the SAC of a broad increment, such as Core, is distributed over the services within the increment. There are a number of potentially reasonable approaches to the detail of how DSACs are calculated that adhere to this basic principle. BT has discretion over which of the approaches it uses.
- 12.42 Each of these different approaches involves the distribution of the SAC of the broad increment but may well result in a different distribution to individual components (and therefore services). However, independent of the precise allocation of DSAC to individual components, by distributing the SAC of the broad increment to the components within the increment, the pricing flexibility afforded to BT across the increment as a whole is greater than that embodied by FAC (which in effect limits BT to a single price for each charge) but remains appropriately bounded.

Why do we observe DSAC below FAC for some services in BT's RFS?

- 12.43 We noted our explanation in Annex 11 of the 2009 PPC Determinations that, at a high level, DSACs are calculated on the basis of distributing the SAC of a broad increment across the services within that increment. As such, certain FCCs that would be allocated to all the services provided by the firm under a FAC methodology are allocated to a smaller set of services under a DSAC methodology. We said that on this basis, we would typically expect that the DSAC for an individual service would be greater than the FAC for that service.

- 12.44 However, we considered that rather than being a function of an error or an inappropriate DSAC methodology, the observed cases of DSAC being below FAC would seem to be the consequence of the two cost measures being calculated on a different basis using two largely separate models. BT's FAC values are calculated using an Activity-Based Costing methodology.⁶⁰⁹ In contrast the DSAC figures (alongside the DLRIC figures) are calculated using BT's LRIC model outputs. If BT had derived FAC and DSAC from consistent models, we would expect DSACs always to be greater than or equal to FAC.
- 12.45 We noted that there are circumstances not affected by the split-cost category issue raised by BT where DSAC is still below FAC.⁶¹⁰ However, in these cases BT decided:
- “...not to make any changes to the DSAC of the categories as:*
- i) The impact of these was much less material; and*
- ii) Any change for these categories would need to be structural in nature which could lead to inconsistencies in the model”*⁶¹¹
- 12.46 We also noted that there are a very few instances in which the combination of BT's specific implementation of DSAC and the difference in the approaches to calculating DSAC and FAC meant that the typical relationship breaks down. Based on the information in BT's RFS, DSAC is below FAC for one service in one year for the charges in dispute (BES 100 rental in 2006/07).
- 12.47 We did not consider that these isolated instances undermine the policy objective of providing BT with an appropriately bounded degree of pricing flexibility over the services that share common costs. The more relevant measure of pricing flexibility in the context of BT's cost orientation obligation is the gap between DSAC and DLRIC, which is significant for the services in dispute: in many cases DSAC is at least twice DLRIC (including for BES 100 rental in 2006/07).

Calculating DSACs and FACs at different levels of granularity

- 12.48 In the case of split cost categories, we provisionally found that LRICs are calculated at a different level of granularity to common costs. We noted BT's arguments that:
- “FCCs will not be allocated to components in proportion to their LRICs if LRICs are calculated at one level of disaggregation and DSACs at another”*⁶¹²; and
- “for the appropriate calculation of DSAC, it is essential that the LRIC and FCC are calculated at the same level of cost disaggregation”*⁶¹³
- 12.49 However, we disagreed with BT's argument that, because LRICs and DSACs are calculated at different levels of granularity, the FCCs will not be allocated to components in proportion to their LRICs. We explained that BT's LRIC model effectively combines the LRICs for sub-categories before it distributes FCCs to components at the cost category level. The allocation of FCCs for split cost

⁶⁰⁹ i.e. costs are allocated on the basis of a series of accounting rules.

⁶¹⁰ [§], Slides provided at meeting dated 4 August 2011, page 5.

⁶¹¹ Slides provided at meeting dated 4 August 2011, slide 5.

⁶¹² BT's 11 August 2011 response, paragraph 1b.

⁶¹³ Slides provided at meeting dated 4 August 2011, slide 2.

categories, we argued, is exactly the same as for other cost categories that are not split and results in an allocation which is in proportion to the component LRICs at the cost category level.

- 12.50 We also considered that there appeared to be a reasonable economic rationale for why BT had adopted its existing approach (i.e. that used for the published RFS in the years prior to 2010/11 relevant to these Disputes) to calculating LRICs and FCCs where there are split cost categories. We argued that its approach reflected BT's characterisation of the existence of two cost drivers for such cost categories (and in that context represents a simplification compared to modelling a three-dimensional CVR). Furthermore, we felt that there also appeared to be a reasonable economic rationale for why the sub-categories are effectively combined before the FCCs are allocated to calculate DSACs (i.e. because the FCCs are only meaningful at the category level). On this basis, in the case of cost categories with two cost drivers, we set out that we did not agree with BT's argument that the approach is incorrect unless both the LRIC calculation and DSAC calculation are performed at the same level of granularity.

No mathematical or software errors in relation to BT's published DSACs

- 12.51 We reviewed in detail the outputs of BT's LRIC model and the DSAC outputs in 2006/07, as well as a worked example⁶¹⁴ of how BT's existing LRIC model calculates DSAC, to identify whether BT's allocation of FCCs to components at the cost category level was subject to mathematical or spreadsheet error. We did not identify any such errors. BT confirmed that it did not consider that there was a mathematical or software error in the LRIC model but that *"the calculation method used to determine DSAC figures for cost categories that have been split in two after being imported from ASPIRE was inappropriate"*.⁶¹⁵

Consistency of BT's published DSACs with Ofcom's guidance

- 12.52 BT claimed that *"The LRIC model does not allocate FCCs to components in proportion to LRICs as described in the 1997 and 2001 Guidelines and in Geoffrey Myers' witness statement [in the PPC appeal]."*⁶¹⁶ We set out our provisional view that the LRIC model allocates FCCs to components in proportion to LRICs, and we therefore disagreed with BT in this respect.
- 12.53 We noted that the 1997 and 2001 NCC Guidelines provide only a high level description of DSACs and how they should be calculated. They do not seek to prescribe the exact process for distributing SAC and, as such, are silent on the use of cost categories and split cost categories. Rather, BT is afforded discretion over how the broad concept is implemented. Moreover, the NCC Guidelines state that a description of the detailed methodology can be found in BT's accounting documentation⁶¹⁷ (this includes the LRIC R&P, which we discuss below).
- 12.54 Similarly, Geoffrey Myers' witness statement in the PPC appeal was intended to provide a high level explanation to the CAT of how BT's DSACs are calculated in order to explain the concept of DSAC and why it was relevant to the PPC Disputes. It did not provide a detailed explanation of how BT's LRIC model works and did not comment on the issues associated with split cost categories.

⁶¹⁴ Provided to us by BT on 14 July 2011.

⁶¹⁵ BT's 11 August 2011 response, paragraph 1a.

⁶¹⁶ BT's 11 August 2011 response, paragraph 1c.

⁶¹⁷ 2001 NCC Guidelines, paragraph B.3.

- 12.55 BT's model distributes the SAC of the Core increment on a granular basis using multiple cost categories. We noted that this granular approach is not inconsistent with the 1997 and 2001 NCC Guidelines or Geoffrey Myers' witness statement, as it is one way to implement the DSAC approach described at a high-level in those documents.

Consistency of BT's published DSACs with BT's published methodology

- 12.56 BT argued that its LRIC model was inconsistent with its accounting documents in that the LRIC model does not allocate FCCs in line with LRICs.⁶¹⁸ We explained that the LRIC R&P provides a simplified explanation of the way in which the LRIC model operates, in particular how it deals with split cost categories.
- 12.57 We considered that two issues were relevant in relation to split cost categories:
- 12.57.1 the calculation of LRICs and FCCs for split categories (i.e. the application of CVRs); and
- 12.57.2 how FCCs are allocated where there are split cost categories.
- 12.58 In relation to the first point, we noted that the LRIC R&P contains a summary of the approach taken when a cost category has two cost drivers,⁶¹⁹ explaining that although there is a three dimensional cost function for such cost categories, for the sake of simplicity two CVRs are created from this overall cost function:
- "In these cases the cost categories are split into two and denoted by a [".L"] and [".C"] suffix (Lines and Calls). Separate cost volume relationships are defined for the lines and calls drivers."*⁶²⁰
- 12.59 We verified that BT's LRIC modelling uses two separate CVRs for the ".C" and ".L" sub-categories and did not observe any inconsistency between the description of the modelling of the sub-categories in the LRIC R&P and the modelling itself.
- 12.60 In relation to the second point, we noted that the allocation of FCCs is discussed in BT's LRIC R&P when it describes how DLRICs and DSACs should be calculated:

*"First, the LRIC of Core is calculated by treating Core as a single increment. Then the LRICs of the network components comprising Core are calculated. The Intra-Core Fixed Common Costs are calculated as the difference between the LRIC of Core and the sum of the LRICs of the components within Core. The Intra-Core FCCs are then distributed to the components within Core on a Cost Category by Cost Category basis using an equal proportional mark-up. This method attributes the FCC to the relevant components in proportion to the amounts of the Cost Category included within the LRICs of each component. Finally the LRIC of each component is added to the distribution of the Intra Core FCC to give the resultant DLRICs."*⁶²¹ (emphasis added)

"The Stand Alone Cost of the Core is calculated as a single figure and this control total is then apportioned to the underlying components. The SAC of Core will include not only elements of the Intra-Wholesale Network FCC but

⁶¹⁸ BT's 20 May 2011 response, answers 3 and 16.

⁶¹⁹ See appendix 2 of LRIC R&P.

⁶²⁰ See Section 2.3 of the LRIC R&P.

⁶²¹ Section 2.5.2 of the LRIC R&P.

also those parts of the Wholesale Network –R&O FCC which straddle Core ... The distribution of the Fixed Common Costs which are shared between Core and other increments are apportioned over the Core components using equal proportional mark-ups to derive DSACs. This method attributes FCC to the components in proportion to the amounts of the Cost Category included within the LRIC of each component.”⁶²² (emphasis added)

- 12.61 We noted that the LRIC R&P does not describe how FCCs should be allocated when there are split cost categories. However, although BT's modelling generates LRICs for the individual sub-categories, because separate FCCs cannot be identified for the two sub-categories on a causal basis, the distribution of FCCs for sub-cost categories is carried out at the aggregate cost category level. We therefore did not observe an inconsistency between BT's modelling approach and that explained in its LRIC R&P documents.
- 12.62 In summary, having reviewed the LRIC R&P in conjunction with the detailed outputs of BT's DSAC calculations, we were not able to identify any inconsistencies in either the calculation of the LRICs and FCCs for split cost categories or how the FCCs are distributed to those categories.

Which DSAC data should we use for the period prior to 2010/11?

- 12.63 We proposed to rely on BT's DSACs published in its RFS as the starting point for our assessment of whether BT's charges were consistent with its cost orientation obligations in 2005/06 to 2009/10. We proposed not to use DSAC data calculated using BT's revised methodology because BT had not demonstrated that the approach used to calculate its published DSACs contained an error or was obviously inappropriate. We considered that the method BT used to produce its published DSAC data was consistent with the policy objective that they were designed to address and appeared to have a reasonable economic justification.
- 12.64 We noted that our approach to BT's proposed revisions of historic published data could have important implications for BT's incentives to provide appropriate and accurate information in its RFS. BT's revised DSACs not only change DSACs for the services relevant to these Disputes but also for a range of other services. In addition, for some of these other services BT's published cost data has formed the basis of regulatory decisions. Allowing BT to change its methodology retrospectively when the original methodology is not obviously inappropriate (even if there may be other appropriate methodologies) or subject to errors, risks creating an incentive for BT to change its methodology whenever a change may be to BT's advantage.

Which DSAC data should we use for 2010/11?

- 12.65 We considered that the revised methodology adopted by BT for calculating the DSACs reported in its 2010/11 RFS fulfils the broad policy objective of providing BT with an appropriately bounded degree of pricing flexibility over how it recovers common costs across the services that share those common costs and therefore, on this measure, did not seem to be obviously inappropriate. Further, we were not aware of any errors in BT's implementation of the revised methodology.
- 12.66 We made some observations around the revised methodology and its robustness in generating DSACs:

⁶²² Section 2.5.3.1 of the LRIC R&P.

- 12.66.1 First, BT had told us that the new (i.e. aggregated) CVRs for the combined cost categories which are used to calculate its revised DSACs (and which replace the two individual CVRs for each of the previously split cost categories) are “*simplified*” estimates which provide “*indicative results*”.⁶²³
- 12.66.2 Second, some cost categories within BT's LRIC model are dependent upon the level of costs for other cost categories (e.g. if cost X increases, cost Y also increases). BT's revised methodology had not been implemented by changing the LRIC model itself. Rather, BT had made an off-line adjustment to the LRIC model outputs.⁶²⁴ As a consequence, BT has not reflected the “ripple-through” effect that arises where other cost categories are dependent on the cost categories with revised CVRs. In principle, this could give rise to some inaccuracies.
- 12.67 We asked BT⁶²⁵ whether it still considered its new CVRs to be “*indicative*” and what further work it had undertaken that gave it confidence that the CVRs were “*a very good proxy*”⁶²⁶ for the output that would result if it re-ran the LRIC model using CVRs derived using engineering derivations. BT's response did not explain whether it considered the CVRs used in the preparation of its 2010/11 RFS to be indicative. Rather, it described the process through which it had developed the revised methodology and set out that this revised methodology produced the expected relationship between LRIC, FAC and DSAC.⁶²⁷
- 12.68 We also asked BT why it did not recalculate dependent cost categories to reflect the revised methodology, and asked it to provide any analysis it had conducted of the effect that recalculating dependent cost categories might have had on reported DSACs of BES and WES services in 2010/11. In response, BT stated that the revised methodology was implemented as an overlay as additional delays would have resulted from reworking the LRIC model in full. In particular, it would have required a further delay to the publication of the RFS, which Ofcom did not agree to.⁶²⁸ BT stated that its initial assessment showed that the differences for DSACs for WES and BES services if dependent cost categories were included in the adjustment were likely to be in the range of 0% to 2% (i.e. DSACs would have been 0% to 2% higher if the cost dependencies had been fully reflected in BT's revised DSACs).⁶²⁹ It provided a spreadsheet showing the calculation of this range, however it did not explain the basis for its calculations.
- 12.69 We stated that we were not fully satisfied that BT had addressed our questions about the robustness of its revised methodology. However, as we noted above, BT has discretion over the methodology it uses to generate DSACs in its RFS. On balance, we did not consider that our observations, and the evidence we had in relation to them, were sufficient to conclude that the revised methodology was obviously inappropriate or its implementation contained errors.
- 12.70 Therefore, for 2010/11 we proposed to use BT's DSACs as published in the 2010/11 RFS.

⁶²³ BT response to question 8 of the 16 June 2011 section 191 notice.

⁶²⁴ BT's 20 May 2011 response, answers 6a and 7.

⁶²⁵ In our 20 January 2012 section 191 notice.

⁶²⁶ BT's 20 May 2011 response, answer 6a.

⁶²⁷ BT response to question 2 of the 20 January 2012 section 191 notice.

⁶²⁸ BT response to question 4 of the 20 January 2012 section 191 notice.

⁶²⁹ BT response to question 5 of the 20 January 2012 section 191 notice.

Summary

- 12.71 We therefore proposed to use BT's DSACs published in its RFS as the basis of our analysis for the whole of the Relevant Period (subject to the adjustments discussed in Section 13). This means that the DSACs we proposed to use for 2006/07 to 2009/10 were calculated using BT's original methodology (where cost categories are split into sub-categories as outlined in the LRIC R&P for each of these years) while for 2010/11 the DSACs are based on BT's revised methodology (where categories are not split).

Views of the Parties

- 12.72 The Parties commented on the issues referred to in our Provisional Conclusions. In addition, BT provided further information in support of its arguments that its published DSACs during the period 2006/07 to 2009/10 were incorrect. We set out these comments and BT's additional information below.

Ofcom's approach to BT's DSAC revisions in these Disputes

- 12.73 We set out the views of the Parties in relation to Ofcom's approach to whether we should depart from BT's DSACs as published in the RFS in Section 11 (see paragraphs 11.11 to 11.21). We set out below additional points the Parties make in relation to whether we should adopt BT's revised data for 2006/07 to 2009/10 and whether we should use BT's published DSACs for 2010/11.
- 12.74 In BT's view, *"the revised methodology proposed by BT (and accepted by Ofcom for the 2010-11 and future RFS) produces results more appropriate to the assessment of cost orientation in line with Ofcom's state purposes"*.⁶³⁰ BT argues that: *"The published numbers are wrong and Ofcom must use the adjusted numbers (calculated according to the alternative methodology accepted as correct by Ofcom) in assessing cost orientation...just as it is right to correct for other errors in the published RFS"*.⁶³¹
- 12.75 As noted in Section 11, BT claims that Ofcom is under a duty to use the best available information and that not accepting BT's revised DSACs would be inconsistent with Ofcom's previous approach to adjustments to the RFS and unfair to BT.⁶³² BT argues that *"...it is wrong for Ofcom to ignore plainly relevant evidence which shows that the figures Ofcom used are most certainly not definitive"*.⁶³³
- 12.76 TTG, CWW and Virgin support Ofcom's proposal to reject BT's revised data for 2006/07 to 2009/10 and to rely on BT's published DSACs for those years.⁶³⁴
- 12.77 Virgin considers that given that the methodology used at the time was neither obviously inappropriate nor contained any mathematical, input or software errors, *"there is no justification in insisting on the revised methodology"*.⁶³⁵

⁶³⁰ BT's response to our Provisional Conclusions, paragraph 235.4.

⁶³¹ BT's response to our Provisional Conclusions, paragraphs 231 and 232.

⁶³² BT's response to our Provisional Conclusions, paragraphs 237 to 246.

⁶³³ BT's response to our Provisional Conclusions, paragraph ES17.

⁶³⁴ Virgin's response to our Provisional Conclusions, paragraph 7.2; TTG's response to our Provisional Conclusions, paragraph 5.5; CWW's response to our Provisional Conclusions, paragraph 70.

⁶³⁵ Virgin's response to our Provisional Conclusions, paragraph 7.6; TTG's response to our Provisional Conclusions, paragraph 5.7.

- 12.78 As noted in Section 11 above, both TTG and Virgin consider that we should refuse to adopt BT's revised DSACs because it would undermine the regulatory obligation requiring BT to publish the RFS if it was allowed to retrospectively change them at its own discretion.
- 12.79 TTG and Virgin note that CPs rely on BT's RFS to monitor BT's compliance with its regulatory obligations and in developing their own business plans.⁶³⁶ Virgin argues that *"the wider implications of making that adjustment [accepting the revised DSACs] would be hugely disruptive to the market"* and would undermine BT's customers' confidence in the RFS.⁶³⁷
- 12.80 CWW notes that BT's methodology *"was relied upon for the creation of the RFS over the period and for the resolution of a number of important regulatory decisions not least the PPC dispute."* It argues that *"BT now seeks to game both disputes by attempting to reload the costs that reduced its overcharging for PPC trunk into Ethernet to reduce overcharging in this situation."*⁶³⁸
- 12.81 CWW disagrees with Ofcom's proposal to use the DSAC figures in the RFS for 2010/11.⁶³⁹ It argues that BT should determine an appropriate cost allocation for each of its products and then set forward looking charges based on the costs to be recovered. In the case of 2010/11, it suspects that BT modified its cost methodology at or towards the end of the financial year to give the appearance of less or no overcharging. CWW urges Ofcom to investigate the timing of BT's decision to change its methodology and *"if the activity was instigated past the point at which prices were set"*, Ofcom should not use the revised methodology.⁶⁴⁰
- 12.82 CWW considers that, given that Ofcom is not fully satisfied that BT has addressed Ofcom's questions about the robustness of its revised methodology, Ofcom should reject the revised methodology.⁶⁴¹ It requests that Ofcom ask BT to produce DSACs for 2010/11 using *"the proper LRIC model (old methodology)"*.⁶⁴²

Does DSAC below FAC necessarily indicate that we should depart from the published DSACs?

- 12.83 BT considers that the level of the DSACs relative to FAC and *"[i]n particular the single DSAC below FAC strongly suggests there is an error in the modelling"*.⁶⁴³ It argues that DSAC and FAC are calculated using a consistent set of models and, as FAC is used as an input to the LRIC model, one would expect FAC to lie between the DLRIC floor and DSAC ceiling.⁶⁴⁴ It considers that:

"if the relationship between DSAC and FAC does not follow the pattern... [of DSAC being greater than FAC], then this is a matter which warrants investigation

⁶³⁶ TTG's response to our Provisional Conclusions, paragraph 5.7; Virgin's comments on BT's response, paragraph 3.8.

⁶³⁷ Virgin's comments on BT's response, paragraph 3.17.

⁶³⁸ CWW's comments on BT's response, paragraph 34.

⁶³⁹ CWW's response to our Provisional Conclusions, paragraph 80.

⁶⁴⁰ CWW's response to our Provisional Conclusions, paragraph 81.

⁶⁴¹ CWW's response to our Provisional Conclusions, paragraph 86.

⁶⁴² CWW's response to our Provisional Conclusions, paragraph 92.

⁶⁴³ BT's response to our Provisional Conclusions, paragraph 247.

⁶⁴⁴ BT's response to our Provisional Conclusions, paragraph 251.

*especially given the use to which the DSAC data is being put by Ofcom.*⁶⁴⁵
(emphasis in original)

- 12.84 Virgin and TTG argue that a single instance of DSAC below FAC does not indicate that the calculation of DSACs in the RFS in 2006/07 to 2009/10 was incorrect; it is a function of how BT chose to calculate these values.⁶⁴⁶ Virgin notes that “[t]he fundamental point is that two different cost models are being used by BT to calculate FAC (using Activity Based Costing methodology/model) and DSACs (using its LRIC model outputs) separately, an (in Virgin Media’s view inconsistent) approach which does not always produce DSACs that are greater than FAC... Virgin Media also supports Ofcom’s point...that if BT had derived both FAC and DSAC on the basis of a consistent model you would expect DSACs always to be greater than or equal to FAC.”⁶⁴⁷ The other Disputing CPs did not comment on this issue.

Consistency of BT’s published DSACs with Ofcom’s policy objectives

- 12.85 BT argues that the original methodology is inconsistent with Ofcom’s policy objectives in using DSAC. BT states that “[b]ecause the published numbers are wrong they do not serve the stated purpose of Ofcom’s approach to cost orientation of giving BT the intended degree of “bounded flexibility” over how it recovers its costs”.⁶⁴⁸ In particular:

12.85.1 BT argues that Ofcom is clear that the function of DSAC is to set a first order price ceiling that is “above FAC”.⁶⁵⁰ BT questions how the use of DSAC can provide appropriate bounded pricing flexibility when it generates a price ceiling that is below FAC and therefore would not allow BT to recover even the same level of common costs included in FAC. It notes that in his witness statement for the PPC appeal Geoffrey Myers noted that the DSAC approach “provides for substantial (but bounded) pricing flexibility”. BT argues that “[e]ither the DSAC approach to cost orientation allows BT to increase the recovery of common costs by a ‘very substantial’ (but still bounded) amount over and above the allowance already included in FAC, or it does not. It is simply not possible to have consistent regulation unless regard is paid to such matters consistently from case to case”;

12.85.2 BT refers to Ofcom’s statement in the Initial Draft Determinations that “[i]mposing FAC as the maximum level of any charge would also risk imposing ‘rate of return’ regulation” and argues that using a DSAC which is below FAC is even more restrictive than rate of return regulation;

12.85.3 BT argues that if DSAC is less than FAC then a price in line with (or lower than FAC) could be considered so high as to be “anti-competitive, exploitative or otherwise unreasonable.” It states that: “The existence of a DSAC below FAC... implies that a price which considered in its own right is deemed to be “economically meaningful”, could be below the average cost of supply (FAC) and yet at the same time still be deemed to be excessive...the same also applies if DSAC is only slightly above FAC”;

⁶⁴⁵ BT’s response to our Provisional Conclusions, paragraph 255.

⁶⁴⁶ Virgin’s response to our Provisional Conclusions, paragraphs 7.9 to 7.12; TTG’s response to our Provisional Conclusions, paragraph 5.8.

⁶⁴⁷ Virgin’s response to our Provisional Conclusions, paragraphs 7.10 and 7.11.

⁶⁴⁸ BT’s response to our Provisional Conclusions, paragraph ES20.

⁶⁴⁹ BT’s response to our Provisional Conclusions, paragraphs 256 to 269.

⁶⁵⁰ BT’s response to our Provisional Conclusions, paragraph 256.

- 12.85.4 BT notes that the DSAC ceiling for Ethernet services allowed BT to earn a lower rate of return than in the PPCs trunk market and argues this discrepancy arises from the errors in DSAC calculation and has no economic justification. BT argues that *"[f]or Ofcom still to consider that BT's published DSAC figures are appropriate for resolving these Disputes, it needs to explain both why a price ceiling for an Ethernet service (BES 100 rental in 2006/07) is one that earns less than the cost of capital on an FAC basis; and why, when subject to a cross-check on an FAC ROCE basis, the price ceiling for Ethernet services is very much lower than that allowed under the same obligation for Trunk circuits."*;
- 12.85.5 BT argues that it is *"far from satisfactory"* that *"Ofcom attempts to square the circle regarding its continued use of the original DSACs despite their small margin above FAC by claiming that "pricing flexibility is provided by the gap between DSAC and DLRIC which is significant for the services in dispute"*". BT argues that the gap between DSAC and DLRIC is not relevant when considering whether a charge was too high. It also claims that there could be a high ratio between DSAC and DLRIC, but if both are below FAC then there is no meaningful flexibility over how BT can recover its common costs. BT states that the DLRIC floor is irrelevant to assessing whether a price includes an unreasonably large amount of cost recovery. BT also suggests that *"Ofcom has never previously suggested that consideration of the DSAC:DLRIC ratio...constitutes a second order test for cost orientation...It is therefore in BT's view inappropriate to now replace the "second order tests" used in the PPC Determination with a consideration of the difference between DLRIC and DSAC"*; and
- 12.85.6 BT argues if DSAC is in line with FAC (as was the case in 2006/07), BT is unable to price its services according to relative price elasticities, particularly as many products which share the same FCCs are charge controlled.
- 12.86 BT considers that published DSACs for 2006/07 to 2009/10 are therefore *"obviously inappropriate"*.⁶⁵¹
- 12.87 CWW disagrees with *"BT's interpretation that the PPC case sought to establish an Ofcom policy around the acceptable differential between FAC and DSAC and the acceptable level of ROCE. [...] In the PPC case these were given as facts of the case rather than indicators of Ofcom policy and we therefore disagree with BT that Ofcom has further explanation or justification to provide on this matter."*⁶⁵²

Consistency of BT's published DSACs with BT's published methodology and Ofcom's guidance

- 12.88 BT does not make any further arguments in relation to the consistency or otherwise of its published DSAC methodology with either BT's published methodology or Ofcom's guidance in its response to our Provisional Conclusions.
- 12.89 RGL however notes in its report on behalf of TTG and Sky that it has *"reviewed the NCC Guidelines and agree[s] with Ofcom, in as much as the Guidelines provide only a high level explanation of DSACs and the methodology for calculating them. It does not follow, therefore, that BT's methodology differs from the NCC Guidelines."*

⁶⁵¹ BT's response to our Provisional Conclusions, paragraph 271.

⁶⁵² CWW's comments on BT's response to our Provisional Conclusions, paragraph 33.

RGL has also reviewed BT's Primary Accounting Documents and consider that the methodology set out therein is not inconsistent with the methodology applied by BT. In particular, the application of common cost mark ups at the component level is set out in the Primary Accounting Documents."⁶⁵³

No mathematical or software errors in relation to BT's published DSACs

- 12.90 BT argues that the DSACs are mathematically wrong, in the sense that "*[i]t is a mathematical error to use the wrong formula to produce a desired result*"⁶⁵⁴. However, none of the Parties argued that BT's published DSACs contained software errors, or mathematical errors in the sense of errors in calculation.
- 12.91 Virgin considers that "*[m]athematical error, in this context, does not equate to using the wrong formula or wrong methodology. BT appears to be trying to stretch Ofcom's wording to suit its purpose. It is of note that BT previously conceded that it was not a calculation error, but the calculation method was wrong.*"⁶⁵⁵
- 12.92 Sky considers that Ofcom explained in its Provisional Conclusions its reasons for considering that "*BT's so-called 'DSAC errors' are not errors at all but are, instead, the outcome of a different methodological approach to the one previously adopted*" and says that it has not identified anything in BT's response to our Provisional Conclusions "*that proves that its previous DSAC calculations are in error in relation to this point*". Sky considers this a reason as to why it would be inappropriate for Ofcom to accept BT's proposal.⁶⁵⁶

BT's further explanation of why it considers the DSACs published in the RFS before 2010/11 to be wrong

- 12.93 BT continues to consider that it would be inappropriate to use the published DSAC figure for the Relevant Period prior to 2010/11 to resolve these Disputes.⁶⁵⁷ BT argues that:
- "the published DSACs are wrong as they reflect a process in which, for certain components, the value of duct under the DSAC methodology is significantly less than (in some cases under half) the FAC value. There is no economic rationale for this result, which is simply perverse."*⁶⁵⁸
- 12.94 BT goes on to explain that:
- "BT has...sought to understand why the LRIC model has produced results which are so at variance with those to be expected (in extremis, where DSAC is below FAC)...BT has established that there is a structural issue with the model and which had not been appreciated until the focus on the Ethernet DSACs in these Disputes."*⁶⁵⁹
- 12.95 The "*structural issue*" with the model, BT argues, stems from the use of split cost categories, which are denoted by the codes ".C" and ".L" in the LRIC model. BT explained that the ".C" sub-category relates to components between local

⁶⁵³ Second RGL Report, paragraph 3.06.8.

⁶⁵⁴ BT's response to our Provisional Conclusions, paragraph 228.

⁶⁵⁵ Virgin's comments on BT's response to our Provisional Conclusions, paragraph 3.5.

⁶⁵⁶ Sky's comments on BT's response to our Provisional Conclusions, paragraph 31d.

⁶⁵⁷ BT's response to our Provisional Conclusions, paragraph 225.

⁶⁵⁸ BT's response to our Provisional Conclusions, paragraph 225.

⁶⁵⁹ BT's response to our Provisional Conclusions, paragraphs 272 and 275.

exchanges (i.e. core transmission components), while the “.L” sub-category relates to components between local exchanges and end users or business premises (i.e. local access components).⁶⁶⁰

- 12.96 BT explains that the increment definitions within the LRIC model (i.e. “Core” and “Access”) do not align with the “.C” and “.L” definitions (i.e. the geographic layout of the duct network):⁶⁶¹

*“The Core Increment in the LRIC model includes a mixture of [.C] cost components (for example Ethernet Main Link) and [.L] cost components (for example Backhaul Extension Services Fibre). The Access Increment in the LRIC model, created specifically for narrowband access, consists entirely of [.L] components.”*⁶⁶²

- 12.97 BT further explains⁶⁶³ that because some local access (“.L”) components are included in the Core increment in BT’s LRIC model (i.e. the LRIC model increment definitions do not match up with the geographic layout of duct actually used), the DSAC calculation results in the local access fixed costs being spread over all core components, including core transmission components. Consequently, the DSACs of core transmission components are higher than they should have been. It also means that the DSAC of some local access components are below FAC as the DSACs were lower than they should have been. BT argues that this means that *“FCCs... [are] inadvertently allocated away from local services to an extent that has no economic rationale”*.⁶⁶⁴

- 12.98 In BT’s view:

*“the end result is particularly perverse as the FCCs primarily relate to the local network due to the fact that it has a large fixed cost (the local duct network is larger than the core and its costs are reduced by less as volumes decline). Thus, the [.L] local components ought to be bearing more of the costs of the local network and [.C] core components ought to be bearing less.”*⁶⁶⁵

- 12.99 BT identified two ways to address the problem.⁶⁶⁶

12.99.1 allocate FCCs using a single CVR; or

12.99.2 allocate core FCC only across core components and local FCC only across local components.

- 12.100 BT explains that its revised methodology adopts the first of these approaches because.⁶⁶⁷

⁶⁶⁰ BT’s response to our Provisional Conclusions, paragraph 276.

⁶⁶¹ Prior to publication of our Provisional Conclusions, BT had only explained the “.C” and “.L” as being related to “calls” and “lines” respectively, and had not related the issue to the underlying geography of the duct network.

⁶⁶² BT’s response to our Provisional Conclusions, paragraph 277.

⁶⁶³ In addition to BT’s response to our Provisional Conclusions, it also prepared a presentation explaining the issues it had identified with the LRIC model in more depth. This presentation was given to Ofcom on 25 June 2012. Our summary of BT’s views therefore incorporates its explanations provided in both its written response to our Provisional Conclusions and those provided in the presentation of 25 June 2012.

⁶⁶⁴ BT’s response to our Provisional Conclusions, paragraph 284.

⁶⁶⁵ BT’s response to our Provisional Conclusions, paragraph 285.

⁶⁶⁶ Slide 22 of BT’s slide pack dated 25 June 2012.

12.100.1 *"it was simpler;*

12.100.2 *it was consistent with the treatment of FCCs for other categories;*

12.100.3 *it also led to the smallest change to the published DSACs".*

12.101 BT argues that under its revised methodology *"the attribution of FCC is consistent between the audited FAC approach and calculation of DLRIC in the revised calculation"* and the revised methodology is therefore clearly *"superior"*.⁶⁶⁸

12.102 Although BT considers that the treatment of the large fixed costs of the local access duct network in its DSAC calculation is incorrect,⁶⁶⁹ BT has not provided a precise explanation as to why this approach was adopted. BT states:

*"This appears to be a simple error, for which BT has been unable to find any explanation. Certainly there is no good economic or accounting reason for adopting such an approach".*⁶⁷⁰

12.103 BT also notes that:

*"It might be said that the errors in the published numbers should have been discovered earlier. Clearly it would have been better had they been but they were not. In truth the calculation of the DSACs received too little attention by BT and others until the rash of disputes made their significance clear. This said this is no reason not to use the corrected numbers just as it is right to correct for other errors in the published RFS. The revised numbers put forward by BT are fit for Ofcom's purposes. The original published numbers are not."*⁶⁷¹

Our analysis

Introduction

12.104 As set out above, in this case BT argues that we should replace the DSAC data it published between 2006/07 and 2009/10 with DSAC data calculated using the revised methodology it employed for the 2010/11 RFS. Those respondents who comment on this issue disagree with BT and, with the exception of CWW, argue that we should continue to use the published DSAC data for all years of the Relevant Period. CWW argues that we should use the DSAC data published between 2006/07 and 2009/10, while for 2010/11 we should reject BT's revised methodology and use data based on the previous methodology.

12.105 In Section 11 we set out our framework for considering when to depart from the data published in BT's RFS for resolving these Disputes. We apply our framework in the remainder of this Section in deciding:

12.105.1 whether we should replace the DSACs in the published RFS for 2006/07 to 2009/10 with the revised DSACs that BT proposes for those years using its revised methodology; and

⁶⁶⁷ Slide 22 of BT's slide pack dated 25 June 2012.

⁶⁶⁸ BT's response to our Provisional Conclusions, paragraph 293.

⁶⁶⁹ BT's response to our Provisional Conclusions, paragraphs 284 to 285.

⁶⁷⁰ BT's response to our Provisional Conclusions, paragraph 230.

⁶⁷¹ BT's response to our Provisional Conclusions, paragraph ES25.

12.105.2 whether we should depart from the DSACs in the published RFS for 2010/11 which used BT's revised methodology, as CWW proposes.

12.106 We start by considering whether the necessary conditions as set out at paragraphs 11.39.1 to 11.39.3 are met in this case, before going on to assess the implications of the remaining two considerations for departing from the published data as set out at paragraphs 11.39.4 and 11.39.5. This involves asking:

12.106.1 Does the adjustment correct an error in BT's published RFS? or

12.106.2 Does the adjustment correct a methodology used in the published RFS that is obviously inappropriate for the purpose of resolving the dispute?

We consider it necessary for the answer to be 'yes' to one of these two questions for us to consider departing from BT's published RFS.

12.106.3 With the available evidence, is it reasonably practical to implement the proposed adjustment to the published data in a way that properly addresses the error or inappropriate methodology? In order for us to make a change to the RFS, it is also necessary for it to be reasonably practical for us to do so in a way that properly addresses the issue identified and provides evidence that is clearly better for the purpose of resolving the Disputes. Where relevant, we should therefore take into account the practical difficulties of making a satisfactory adjustment or implementing a satisfactory revised methodology. Where changes are made to BT's cost allocation methodology, changing one element could have significant knock-on effects on other costs, which may simply be too challenging to model, especially within the context of a dispute, or they may have unforeseen adverse consequences. We should also consider the extent to which it is proportionate for us to investigate different possible changes to costs for the purpose of resolving a dispute.

We therefore also consider it necessary for the answer to be 'yes' to this question for us to consider departing from BT's published RFS.

Does the adjustment correct an error in BT's published RFS?

12.107 In response to the Provisional Conclusions, BT argues that the DSACs are mathematically wrong as "*it is a mathematical error to use the wrong formula to produce a desired result*".⁶⁷² We consider this argument in our consideration of whether the methodologies used by BT in the published RFS were obviously inappropriate. None of the Parties argued that BT's published DSACs contained software errors, or mathematical errors in the sense of errors in calculation.

12.108 We therefore conclude that there are no material errors (in the sense of mathematical or software errors) in BT's published RFS for the Relevant Period.

Are the methodologies used in the published RFS obviously inappropriate for the purpose of resolving these Disputes?

12.109 In this section we set out our final conclusions on whether BT's DSAC methodology used for the 2006/07 to 2009/10 RFS, and/or that used for the 2010/11 RFS, are obviously inappropriate. We consider two questions in reaching our conclusions:

⁶⁷² BT's response to our Provisional Conclusions, paragraph 228.

12.109.1 **Does BT's chosen approach reflect cost causation?** – if BT's chosen approach does not reflect cost causation then it would not have a reasonable economic justification and would, therefore, be obviously inappropriate; and

12.109.2 **Does BT's chosen approach provide BT with appropriately bounded pricing flexibility?** – we continue to consider that the decision as to whether a specific costing approach is inappropriate or not is necessarily linked to the analytical issue or policy objective that the cost measure is being used to address. As set out above, DSAC is used as a ceiling for individual charges to provide BT with an appropriately bounded degree of pricing flexibility over how it recovers common costs across the services that share those common costs.

Do BT's DSACs reflect cost causation?

Introduction and overview

12.110 Following our consideration of BT's response to our Provisional Conclusions we have an improved understanding of the underlying geography of BT's duct network and the way the duct network was treated within its LRIC model. It is now our understanding that too little of the local access duct cost was allocated to the local access components that caused it to arise, because some of the local access duct cost was allocated to core transmission components that did not give rise to this cost, i.e. this cost appears not to be causally related to those components. Consequently, the DSACs of core transmission components are likely to be overstated and the DSACs of local access components may be understated because the DSAC methodology does not appear to follow the principle of cost causation, which requires in this context that costs should be recovered from services which give rise to them being incurred (either individually or in combination with other services). This problem of not following cost causation affects both BT's DSAC methodology for the 2006/07 to 2009/10 RFS and that for the 2010/11 RFS.

12.111 BT's submissions before the Provisional Conclusions and in its response to our Provisional Conclusions both focussed on the role of split cost categories in the DSAC methodology prior to BT's change in methodology for the 2010/11 RFS. As we explain in this section, the use of split cost categories is not necessarily a problem in itself, as they appear to reflect the fact that BT's duct network consists of different elements that have different cost structures.⁶⁷³ However, because the definition of the Core increment included local access and core transmission components and because of the particular way BT chose to implement its LRIC model, our understanding is that the local access duct costs were not allocated in line with cost causation. BT's change in methodology for the 2010/11 RFS removes the split cost categories but does not amend the increment definition. As such, the 2010/11 RFS seems not to allocate costs in line with cost causation.

12.112 In our view, and as we explain in detail below, BT's change in methodology addresses a symptom of the underlying cost causation problem (i.e. some instances of DSAC below FAC) rather than addressing the underlying problem itself (i.e. the increment definition).

⁶⁷³ Specifically as a percentage of costs, as set out below, the core transmission duct has a lower proportion of fixed costs than the local access duct. Therefore the costs of local access duct are less sensitive to changes in volume.

12.113 The following sub-sections provide further detail on BT's duct costs and its implications for cost allocation, under the following headings:

12.113.1 The cost structure of BT's duct network;

12.113.2 The use of duct by PPC and Ethernet circuits; and

12.113.3 The role of increment definition and the allocation of FCCs.

12.114 However, we start by explaining how our understanding of BT's duct costs has changed since the Provisional Conclusions and how our revised understanding affects the arguments we made in relation to the appropriateness of calculating LRIC and DSAC at different levels of granularity.

Our understanding of BT's duct costs has changed since the Provisional Conclusions

12.115 As set out in our Provisional Conclusions we explained why we considered the DSAC methodology that BT used for its published RFS over the period 2006/07 to 2009/10 appeared to have a reasonable economic justification. This informed our provisional conclusion that we did not have reason to believe that BT's chosen methodology was obviously inappropriate.

12.116 Our argument (set out at paragraphs 12.48 to 12.50 above) was based on an understanding that the intra-Network FCCs generated by BT's LRIC model could not be meaningfully split between the ".C" and the ".L" cost drivers. However, since then our understanding of the duct CVRs has advanced and we now consider that some, but not all, intra-Network FCCs could be identified with particular drivers. Specifically, we now understand that not all of the intra-Network FCCs identified by BT's LRIC model reflect shared duct. Rather, it appears that they include two other types of FCC, namely that which relates to the local access network only and that which relates to the Core transmission network only.

12.117 We set out the reasons why we understand that the intra-Network FCCs extend beyond just shared duct, and why this results in BT's DSAC methodology failing to reflect cost causation, in detail at paragraphs 12.136 to 12.139 below. However, we remain of the view, as we set out in the Provisional Conclusions, that it is not inappropriate in principle for LRICs and FCCs to be calculated at different degrees of granularity if this reflects the underlying economics of the duct network.

12.118 If FCCs cannot be meaningfully split between the two cost drivers (such as genuinely shared duct) then those FCCs should be allocated across both cost drivers, as is the case with shared duct FCCs, even if there are separate CVRs, i.e. even if the calculation of the LRICs and the allocation of FCC is at a different level of granularity.

The cost structure of BT's duct network

12.119 Each duct route consists of a number of bores, and can be single-bore (where there is just one pipe laid on the route), or can be multi-bore (where multiple pipes are laid on the same route).

12.120 Duct routes can be identified as one of three types: for local access cables only; for core transmission cables only; or for shared use.

- 12.121 The cost of each of these three types of duct can be categorised as either LRICs or FCC⁶⁷⁴.
- 12.122 Our understanding is that BT calculates the LRICs of its duct network in the following way. As with all CVRs, BT calculates the LRICs from the cost of its existing network. To do this BT calculates the reduction in costs if its duct network consisted of single bore routes instead of multiple bore routes.⁶⁷⁵ The cost of installing double or triple bore duct will not be significantly higher than installing single-bore duct,⁶⁷⁶ so the LRIC of double or triple bore duct may be quite low.⁶⁷⁷ Where a large number of bores are installed, the LRICs will be proportionally higher because, if multiple bores are installed, wider and more expensive trenches would have to be built.
- 12.123 The LRIC of duct is therefore the reduction in cost caused by laying single-bore duct instead of multiple-bore duct. As would be expected, the LRIC relative to overall costs is lower than for many other cost categories, as there are significant fixed costs associated with installing a duct network.
- 12.124 The LRICs of local access and core transmission duct are different because local access and core transmission duct have a different number of bores per km.⁶⁷⁸ BT acknowledged this in its LRIC model by splitting the duct cost category into sub-categories known as ".C" (calls – referring to core transmission duct) and ".L" (lines – referring to local access duct).
- 12.125 The fixed cost of the duct network is what remains of the costs after the LRICs of local access and core transmission duct have been removed. The fixed cost of BT's duct network relates to the residual cost of a single bore network.
- 12.126 BT's methodology prior to its revision in 2010/11 involved further categorising the fixed cost of a single bore network into:
- 12.126.1 single bore required for local access only;
 - 12.126.2 single bore required for Core transmission only; and
 - 12.126.3 single bore shared between local access and Core transmission.⁶⁷⁹
- 12.127 Our understanding is that BT's LRIC model therefore identified the following sets of costs:

12.127.1 [REDACTED],⁶⁸⁰

⁶⁷⁴ The cost of the duct network includes a return on MCE, and a depreciation element, as well as ongoing operating costs. However, all of these are subject to the same CVR so we do not distinguish between the different categories of costs.

⁶⁷⁵ This process is known as "thinning".

⁶⁷⁶ NERA, *Reconciliation of top down and bottom up models of Incremental Costs: Final report*, December 1996, page 17:

http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/top296.htm .

⁶⁷⁷ Many local access duct routes will be single bore and as such would have a LRIC of zero. Some Core transmission routes could have a relatively high LRIC if there are many bores installed on a single route.

⁶⁷⁸ See CVR003 and CVR025 of LRIC R&P 2002 (not available online).

⁶⁷⁹ These fixed costs are estimated using cost functions known as SVs that describe Increment Specific Fixed Costs ("ISFCs"). The local access duct fixed cost was associated with SV003 available on page 168 of the LRIC R&P. The core transmission duct fixed costs was associated with SV025 available on page 171 of the LRIC R&P.

12.127.2 [REDACTED],⁶⁸¹

12.127.3 [REDACTED],⁶⁸²

12.127.4 [REDACTED],⁶⁸³ and

12.127.5 [REDACTED].

12.128 From an economic point of view it appears reasonable both that local access and Core transmission duct would have different LRICs (to take account of the likelihood that Core transmission routes have additional bores)⁶⁸⁴, and that there would be FCC of duct that could be uniquely identified as being either local access or core transmission⁶⁸⁵.

12.129 Below we discuss the allocation of the different types of FCCs when DSACs for components in the Core increment are derived in BT's LRIC model, both using BT's original DSAC methodology and its revised methodology. In doing so, we examine in particular the FCC of local access duct, because it accounts for such a large proportion of duct cost (around [REDACTED]%).

The use of duct by PPC and Ethernet circuits

12.130 PPC and Ethernet circuits are made up of different services, and these services consume either core transmission, local access, or shared duct, as illustrated in Figure 12.3 below.

⁶⁸⁰ CVR003 of LRIC R&P.

⁶⁸¹ CVR025 of LRIC R&P.

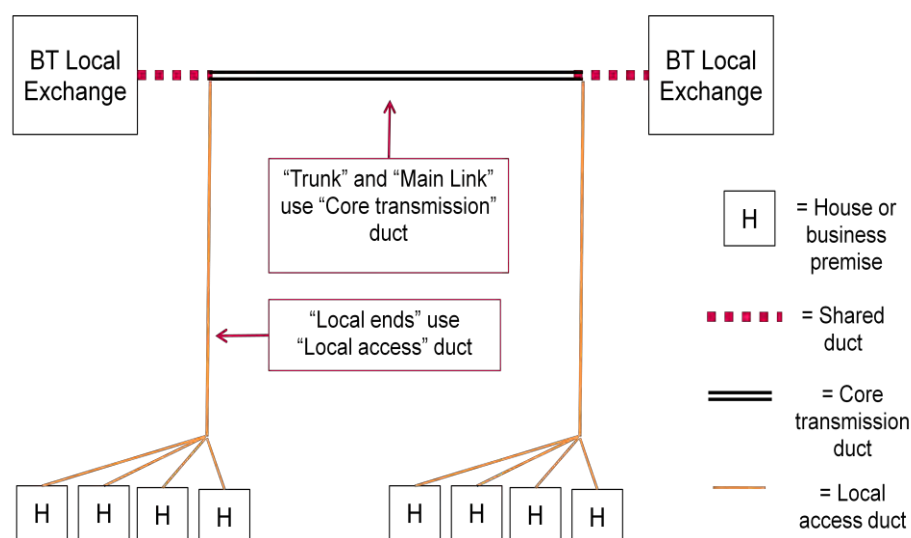
⁶⁸² BT's 22 June 2011 response to our 16 June 2011 section 191 notice, Annex 1, question 3.

⁶⁸³ BT's 22 June 2011 response to our 16 June 2011 section 191 notice, Annex 1, question 3.

⁶⁸⁴ In paragraph 292 of its response to our Provisional Conclusions, BT notes that under its DSAC methodology used for the published DSACs for 20006/07 to 2009/10, "*a core network component would have a very different DLRIC value depending upon whether it was in the .c or .l category even when the volume of the component was the same*" (emphasis original). BT considers this to be an error. However, as we explain above, for a given volume we consider it to be reasonable that core transmission (i.e. ".C") components would have a larger LRIC than local access (i.e. ".L") components as core transmission duct typically has more bores per km than local access duct.

⁶⁸⁵ There are relatively few Core transmission routes, but there are many local access routes.

Figure 12.3 – Simplified schematic of BT's duct network



Source: Ofcom

- 12.131 The cost of each of these services is calculated by estimating the costs of the underlying components. As discussed above, in BT's LRIC model components are either tagged by BT as “.C” (core transmission) or “.L” (local access). A mapping of Ethernet and PPC services to components and whether those components are core transmission or local access components is provided in Table 12.5. Since Ethernet and PPC services are included in the Core increment, as can be seen from Table 12.5, the Core increment contains both local access and core transmission components which comprise these services.

Table 12.5 – Mapping of services to components of PPC and Ethernet circuits

Service	Main component	Core transmission (CT) or Local access (LA)
PPC Circuits⁶⁸⁶		
PPC local end	PPC local end	LA
PPC distribution	PPC distribution	CT
PPC trunk	PPC trunk	CT
Ethernet Circuits		
WES rental	WES Fibre etc ⁶⁸⁷	LA
BES rental	BES Fibre etc ⁶⁸⁸	LA
Main link	Ethernet main link	CT

Source: Ofcom

⁶⁸⁶ There are different PPC bandwidth services and there is usually a single component for each bandwidth. i.e. the PPC 34-45 Mbit/s service consists of the 34-45 Mbit/s component (plus other residual general components).

⁶⁸⁷ WES services with different bandwidths use the same underlying component, which is called *WES Fibre etc*

⁶⁸⁸ BES services with different bandwidths use the same underlying component, which is called *BES Fibre etc*

- 12.132 We note that Table 12.5 does not refer to WES or BES connection services. This is because duct costs⁶⁸⁹ are not allocated to these services and therefore their cost stacks are unaffected by the issues under consideration in this section.

The role of increment definition and the allocation of FCCs

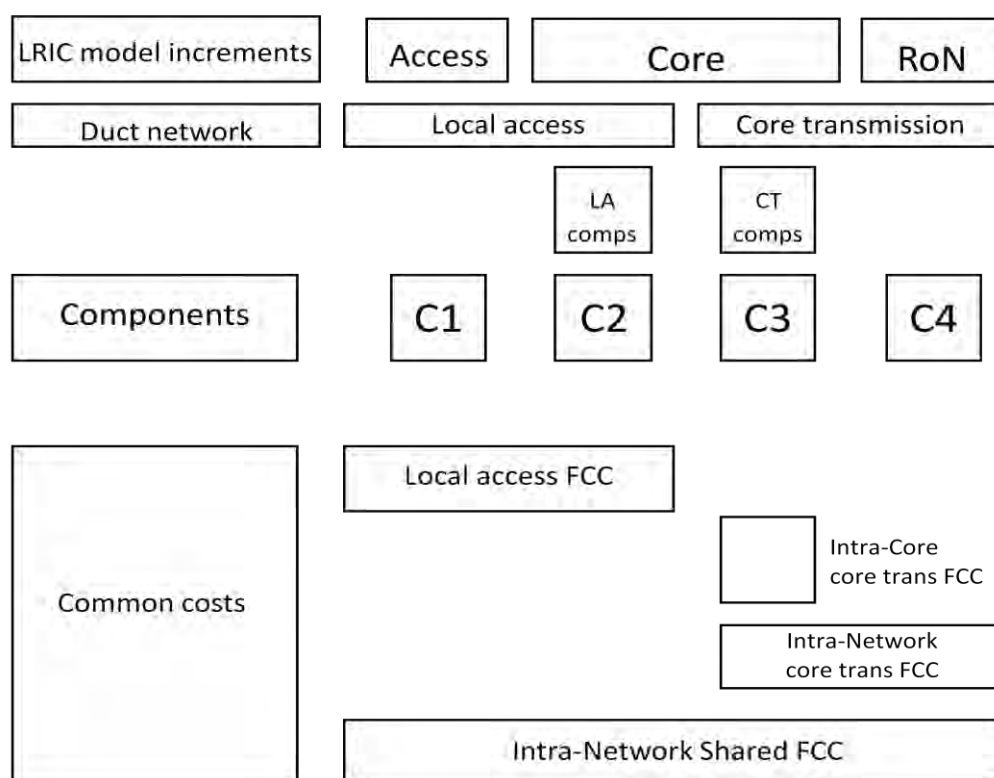
- 12.133 As we explain in paragraph 12.14 above, for the RFS in 1997/98, we understand that BT changed its increment definition such that it included the local ends of private circuits in the Core increment instead of the Access increment. As a result, the Core increment contains components that use both local access and core transmission duct. This change therefore meant that the LRIC model Core increment departed from the geographic layout of the Core transmission network (which, by definition, does not include local access duct), as illustrated in Figure 12.3 above and discussed further below. As we explain in this section, in our view this has important implications for the extent to which BT's DSAC calculations reflect cost causation.
- 12.134 We now discuss the role of increment definition and mapping of components to services in each of the three periods: 2006/07, 2007/08 to 2009/10, and 2010/11. The analysis for the first two of these periods, 2006/07 and 2007/08 to 2009/10, is very similar, but there is an additional complication in 2006/07. For that reason we assess first the derivation of DSACs in 2007/08 to 2009/10.

2007/08 to 2009/10

- 12.135 The stylised diagram at Figure 12.4 shows our understanding of BT's LRIC model and the categories of duct costs.

⁶⁸⁹ Nor any of the other cost categories that are split into .C and .L.

Figure 12.4 – Stylised diagram of BT's LRIC model and duct costs⁶⁹⁰



C1 = Access components

C2 = Local access (local ends) components contained within the Core increment (e.g. WES Fibre)

C3 = Core transmission components contained within the Core increment (e.g. main link and PPC trunk components)

C4 = Core transmission components contained within the RoN increment.

12.136 As can be seen from Figure 12.4 the local access duct FCC spans both the Core and Access LRIC model increments because local ends are included in the Core increment. When deriving the DSACs for the components in the Core increment, which includes both local ends (C2 in Figure 12.4) and core transmission (C3), the local access FCC is then treated as an intra-Network FCC as laid out in the first row of Table 12.6. This means that in BT's implementation of the LRIC model, as we understand it, the local access FCC is allocated over both local access and core transmission components. However, core transmission components do not give rise to local access costs. The local access FCC should not be included in the SAC of the core transmission components, because a stand-alone network providing core transmission would not incur the local access FCC. For a similar reason DSACs for core transmission that followed cost causation would not include any allocation of the local access FCC. This is illustrated in Figure 12.5.

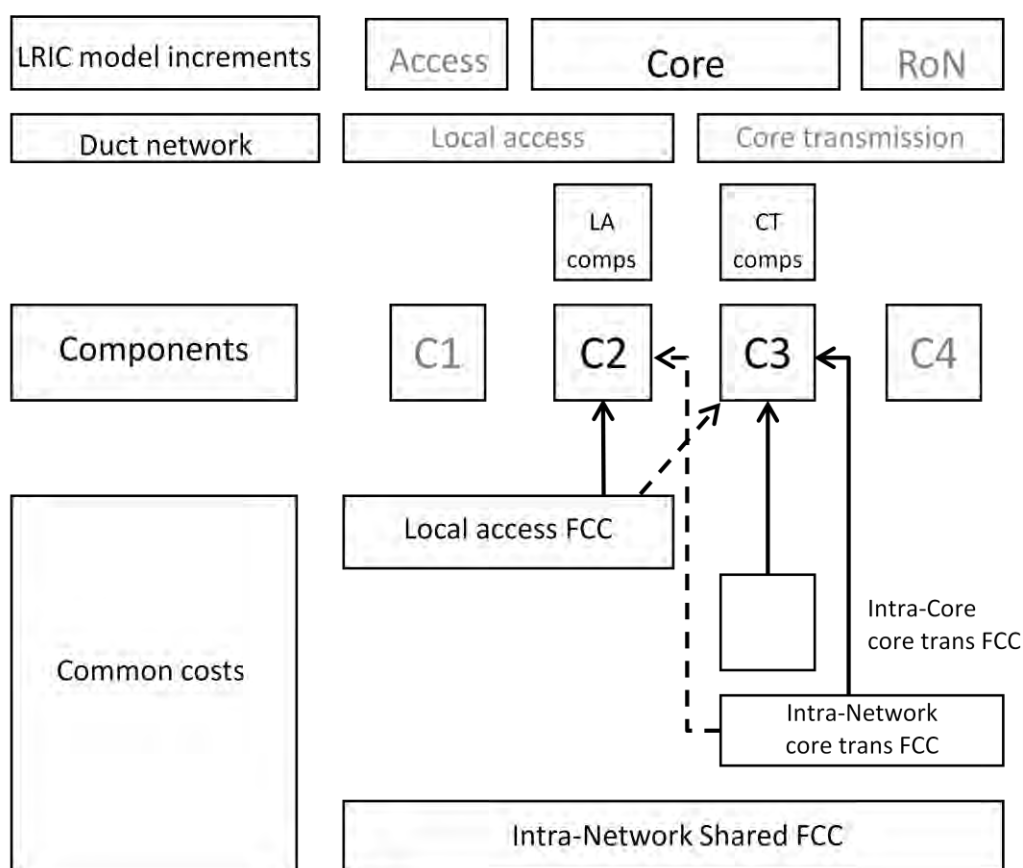
12.137 Core transmission duct FCC is separated into two categories. First, there is the FCC that spans only the core transmission components within the Core increment, i.e. it is only caused by these components. This is the intra-Core FCC. Second, the FCC that spans components in two different increments, Core and RoN. This is included in the intra-Network FCC. Table 12.6 shows the treatment of these FCCs when deriving DSACs for components in the Core increment.

⁶⁹⁰ There is one local access component contained with RoN (Payphones) but this has not been included for the sake of simplicity.

Table 12.6 – Treatment of duct FCCs when calculating Core increment DSACs in BT's original DSAC methodology

FCC	Intra-Core or Intra-Network?	Allocated over which groups of components in the DSACs of local access (C2) and core transmission (C3) components	Cost causation followed?
Local access	Intra-Network	C2 and C3	No – should only be allocated to C2
Core transmission ⁶⁹¹	Intra-Core	C3	Yes
	Intra-Network	C2 and C3	No – should only be allocated to C3
Shared	Intra-Network	C2 and C3	Yes

Figure 12.5 – Stylised diagram of allocation of duct common costs when calculating Core increment DSACs in original methodology



"Intra-Network Shared FCC" allocation not shown to simplify the diagram

Solid lines indicate allocation of FCCs that follows cost causation

Dashed lines indicate allocation of FCCs that does not follow cost causation

12.138 There are two allocations that, as we understand it, do not reflect cost causation:

⁶⁹¹ The total core transmission FCCs are estimated using SV025 and are allocated between intra-Core and intra-Network using SV019. See the LRIC R&P. The total FCCs of the core transmission duct are around [X]% of the total duct costs and are split around [X]% to intra-Core and [X]% to intra-Network. See BT's 22 June 2011 response to our 16 June 2011 section 191 notice, Annex 1, question 3.

- 12.138.1 Some of the local access FCC is allocated to core transmission components. This is because the LRIC model treats the local access FCC as an intra-Network FCC and then allocates it between the local access and the core transmission components. However, the core transmission components do not cause the local access FCC to arise and so none of the costs should be allocated to these components.
- 12.138.2 Some core transmission costs are allocated to local access components. The core transmission FCC is split between intra-Core and intra-Network. The intra-Core FCCs are allocated to core transmission components, which appropriately follows cost causation. But the intra-Network FCCs are allocated to both local access and core transmission components, even though the local access components do not cause the core transmission FCC to arise.
- 12.139 Both of these allocations arise because the LRIC model identifies costs as intra-Network and then allocates them over all the components in the Core increment. If the LRIC model increment definitions were in line with the local access and core transmission definitions, i.e. if (as before 1997/98) the local ends were included in the Access increment and not in the Core increment, then these allocations would not arise.
- 12.140 These concerns about departures from cost causation in the treatment of costs in BT's LRIC model appear to be closely related to the comments made by Oftel in 2001 that the increment definition used by BT in its LRIC model since the 1997/98 RFS is not "*economically justified*". Oftel explained that local access duct should be regarded as part of the incremental cost of the access network (i.e. the Access increment), because it is "*clearly associated with the provision of local lines*" (see paragraph 12.15 above). The concerns expressed by Oftel could have been met by including local ends in the definition of the Access increment, not the Core increment.

2006/07⁶⁹²

- 12.141 The DSAC methodology in 2006/07 as we understand it was almost identical to that in 2007/08 to 2009/10, and as such faced the same issues with cost causation.
- 12.142 The difference is that, prior to 2007/08, the Ethernet main link component (a core transmission component) was combined with local access components, either the BES Fibre etc component or the WES Fibre etc component⁶⁹³. Our understanding is that the LRIC model applied the local access CVR to the combined component. However, main link is a core transmission component for which the core transmission CVR would have been more relevant. The likely consequence of combining main link with local access in a combined component is a LRIC for the combined component that was too low. This is because the LRIC of the core transmission element (i.e. the main link element) should have been calculated using the core transmission CVR which would have led to a higher LRIC.

⁶⁹² Prior to 2006/07 split cost categories were used but we have not analysed the implementation as it is not relevant to these Disputes.

⁶⁹³ Both BES Fibre and WES Fibre are rental components.

- 12.143 As BT has been unable to disaggregate the FAC of the combined component⁶⁹⁴, we have been unable to determine how different the LRICs would have been had the components been separate.
- 12.144 However, the inaccuracies in the LRIC of the combined component are likely to be less important in their impact on the DSACs than the concerns about cost causation described above.

2010/11

- 12.145 In the 2010/11 RFS, BT adopted a revised methodology. As we understand it, BT made two main changes to the way it modelled cost categories with two underlying cost drivers. First, it removed the distinction between “.C” and “.L” components (i.e. it removed split cost categories and simplified the two cost drivers to one cost driver). Second, as a consequence, BT's revised methodology stopped identifying all of the categories of FCC set out above. These are also the changes that BT proposes should be made for earlier years, 2006/07 to 2009/10, when deriving DSACs to assess overcharging in these Disputes.
- 12.146 BT informed us that it made these changes by way of an “offline correction” to the LRIC model: instead of calculating LRICs and DSACs within the LRIC model, these were calculated in an Excel spreadsheet.⁶⁹⁵
- 12.147 The effect of removing the distinction between “.C” and “.L” components and use of a single CVR for both types of component is that the LRIC model in 2010/11 calculates LRICs differently from the model used in earlier years. The change led to an increase in the LRIC of local end (“.L”) components of around [X], and a reduction in the estimate of the LRIC of core transmission (“.C”) components of around [X]. The different pattern of LRICs also led to a different allocation of FCCs between components, since in deriving DSACs the FCCs are allocated in proportion to the LRICs in that cost category.
- 12.148 We first assess the different treatment of FCCs in BT's revised methodology. Then we consider BT's change to remove split cost categories and to use a single CVR for such cost categories.

Treatment of FCCs

- 12.149 With BT's revised methodology the LRIC model, as we understand it, no longer separately identifies the FCCs of local access, core transmission and shared duct. The model just identifies one category of duct FCC. This single category of FCC is allocated to both local access and core transmission components when deriving the DSACs for components in the Core increment. For comparison with the original methodology and to assess cost causation, Table 12.7 shows the same categories of duct FCCs as in Table 12.6, even though they are not separately identified in BT's revised methodology.

⁶⁹⁴ We asked BT for financial information on main link rentals for 2006/07. BT informed us that it did not have separate information specifically for main link rentals relating to 2006/07. Source: BT's 10 May 2011 response to follow up question 18 to the 22 October 2010 section 191 notice. See also paragraphs 13.67 to 13.69.

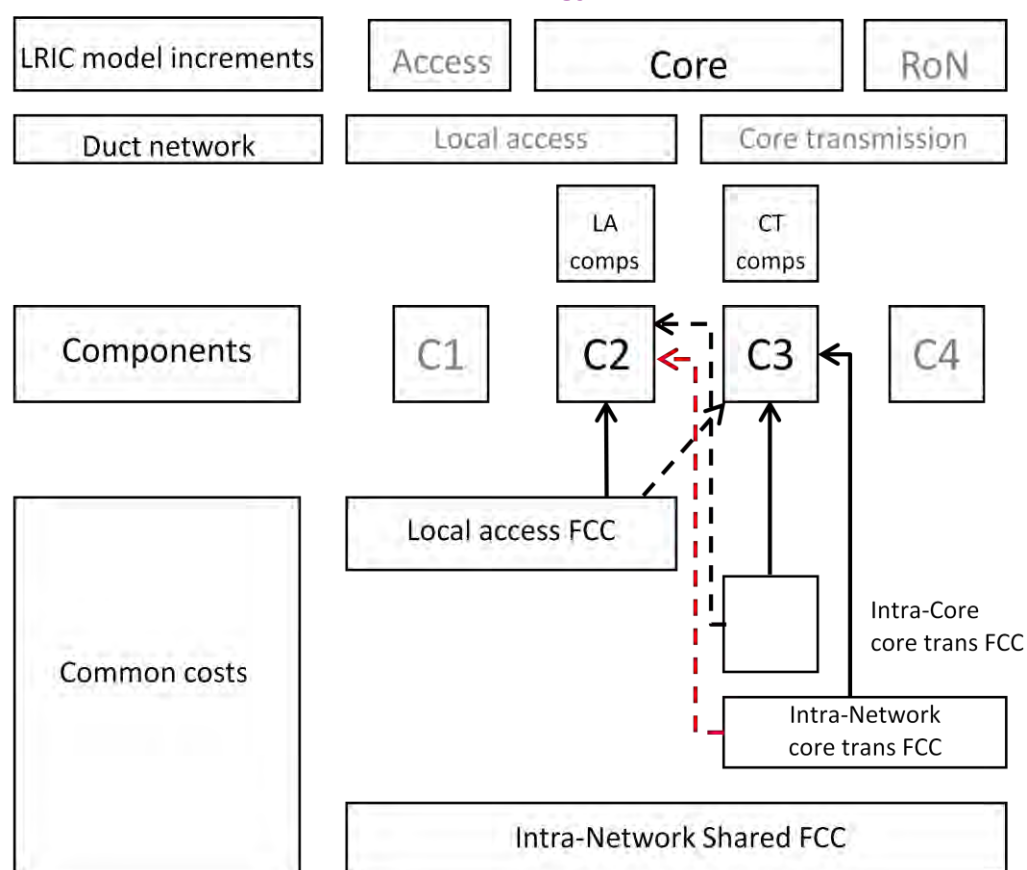
⁶⁹⁵ BT's 20 May 2011 response, paragraph 20.

Table 12.7: Treatment of duct FCCs when calculating Core increment DSACs in revised DSAC methodology

FCC	Intra-Core or Intra-Network?	Allocated over which groups of components in the DSACs of local access (C2) and core transmission (C3) components	Cost causation followed?
Local access	Intra-Network	C2 and C3	No - should only be allocated to C2
Core transmission	Intra-Core	C2 and C3	No - should only be allocated to C3
	Intra-Network	C2 and C3	No - should only be allocated to C3
Shared	Intra-Network	C2 and C3	Yes

Source: Ofcom analysis

Figure 12.6: Stylised diagram of allocation of duct common costs when calculating DSACs in BT's revised DSAC methodology⁶⁹⁶



"Intra-Network Shared FCC" allocation not shown to simplify the diagram

Solid lines indicate allocation of FCCs that follows cost causation

Dashed lines indicate allocation of FCCs that does not follow cost causation

12.150 As can be seen from Figure 12.6, the revised methodology, as we understand it, is still not in line with cost causation. The local access duct FCC, core transmission

⁶⁹⁶ Note that C2 and C3 are still notionally treated as separate components it is just that the same CVR is applied to both components and they are treated equivalently when allocating common costs.

FCC and shared FCC are all treated as intra-Network common costs and allocated to both local access and core transmission components.

- 12.151 Our understanding is that the two departures from cost causation in the original methodology are still present in BT's revised methodology (although the effect on the resulting DSAC figures is different because the LRICs are substantially different in BT's revised methodology). That is, some local access duct FCC is still assigned to core transmission components which do not give rise to such costs; and some intra-Network core transmission FCC is still allocated to local access components although this cost is not causally related to such components.
- 12.152 But in addition there seems to be a third departure from cost causation in BT's revised methodology. The part of the core transmission FCC that is intra-Core is now allocated to local access components as well as core transmission components, even though such costs are causally related only to the core transmission components.
- 12.153 Our understanding is that BT's revised DSAC methodology therefore does not reflect cost causation in the treatment of duct FCCs. BT's argument in favour of its revised methodology is in essence that it displays a more appropriate relationship between DSACs and FACs and, in particular, avoids DSAC below FAC for any service. However, in our view, BT's justification focuses on the symptom instead of the underlying cause, namely the departure from cost causation in the treatment of duct costs. BT's revised methodology does not resolve what, in our view, are the causes of the departures from cost causation in the original methodology. Indeed, as explained above, in some respects it appears to increase the departure from cost causation in the treatment of duct costs. To the extent that the revised methodology appears to show a relationship between DSACs and FACs more in line with expectations, this may simply be the consequence of offsetting departures from cost causation. But it does not provide confidence that the resulting DSAC figures are more appropriate for the purposes of the Disputes than those derived using the original methodology.

Single CVR

- 12.154 As noted above, BT's revised methodology involves replacing split cost categories that involved two CVRs (e.g. for duct costs, one CVR for local access and another CVR for core transmission) with a single CVR. This change has a substantial impact on the DSAC figures for two reasons. First, the revised CVR substantially changes the pattern of LRICs compared to the original methodology. Second, and as a consequence, the pattern of allocation of the FCCs is also substantially altered.
- 12.155 BT's rationale for this change to a single CVR is because it considers that FCCs are not allocated appropriately in the original methodology in split cost categories, because of the different level of granularity as between the derivation of LRICs and the allocation of FCCs. BT also comments that it has been unable to identify the basis for the use of different CVRs between local access and core transmission duct.⁶⁹⁷
- 12.156 We do not find this is a convincing rationale for the change to a single CVR. This is because, as we understand it, the cause of the departure from cost causation in the allocation of FCC in the original methodology is not the existence of split cost

⁶⁹⁷ BT's response to our Provisional Conclusions, paragraph 230.

categories. It is our understanding that the two departures from cost causation in the original methodology shown in Table 12.6 and Figure 12.5 could be avoided whilst maintaining split cost categories since the model identifies the distinct categories of FCCs. Furthermore, as we have explained above, in our view the fundamental source of the departures from cost causation is the definition of the increments and in particular the inclusion of local ends within the Core increment. A move to a single CVR does not address these points.

- 12.157 We also note that separate CVRs for local access and core transmission duct in the original methodology appear to make economic sense – see paragraphs 12.26 and 12.60 to 12.62 above.
- 12.158 However, BT has significant discretion to change the methodology in the LRIC model. For the DSACs using the revised methodology in the 2010/11 RFS, the relevant question is whether we should depart from the published DSAC data taking into account the considerations set out in Section 11. We set out our conclusions on this question at the end of this Section 12.

Summary of whether BT's original or revised DSAC methodologies reflect cost causation

- 12.159 Our understanding is that BT's original DSAC methodology departs significantly from cost causation in the allocation of FCCs when deriving DSACs of local access and core transmission components for important cost categories such as duct. Specifically, in the published RFS in 2006/07 to 2009/10, the allocations of the local access and core transmission duct FCCs include allocations to components that do not cause the FCCs to arise. This leads us to conclude on the evidence available to us that this aspect of BT's original methodology is likely to be obviously inappropriate in that it appears not to follow the principles of cost causation.
- 12.160 We reach the same conclusion for the revised methodology as for the original methodology. The DSACs in the published RFS in 2010/11, as we understand it, suffer from similar types of departures from cost causation as the original methodology. Indeed there is a further type of departure from cost causation in that it appears that part of the core transmission FCC that is intra-Core is now allocated to local access components as well as core transmission components, even though such costs are causally related only to the core transmission components.
- 12.161 In our view the underlying source of these departures from cost causation is the definition of the Core increment that BT has used since it changed the definition for the RFS in 1997/98 to include local ends in the Core increment, rather than the Access increment. As we understand it, this increment definition does not match the underlying geography of the network or the way in which costs arise. We note that Oftel stated in 2001 and Ofcom reiterated in 2005 that this increment definition was not economically justified, in particular because the cost of local access duct should be regarded as part of the incremental cost of the access network.

Whether a DSAC below FAC necessarily indicates that we should depart from the published DSACs

- 12.162 BT argues that DSAC being below FAC strongly suggests "*an error in the modelling*".⁶⁹⁸ We have concluded above that aspects of BT's original DSAC methodology (which in some cases yields a DSAC below FAC) are likely to be

⁶⁹⁸ BT's response to our Provisional Conclusions, paragraph 247.

obviously inappropriate. However, our reason for reaching this conclusion is not because there are instances where DSAC is below FAC, but because our understanding is that the methodology does not reflect cost causation in its treatment of duct costs. Observing DSAC below FAC for a service or group of services *could* be a symptom of a concern about the methodology but in isolation it does not necessarily mean that the methodology is inappropriate. In our view it is necessary to identify the cause of the DSAC falling below FAC before concluding on whether or not the methodology is obviously inappropriate; merely observing DSAC below FAC is not, in our view, sufficient to reach a reliable conclusion.

- 12.163 Since it may be relevant to comparing the respective merits of BT's original and revised DSAC methodologies, for completeness, we explain below why we do not consider that the instances of service DSAC below FAC necessarily indicate inappropriate DSAC modelling.
- 12.164 As set out in paragraph 12.31 above, in our Provisional Conclusions we presented an analysis of the DSAC to FAC ratios for years and services relevant to these Disputes. This analysis, which provided context to our considerations, was based on BT's published data. It showed that BES 100 rental in 2006/07 was the only service and year combination for which we found that DSAC was below FAC. As we set out in Section 13 below, we have concluded that it is appropriate for us to make certain adjustments to BT's RFS data in resolving these Disputes. We first calculate the changes we consider to be appropriate to BT's FAC data and then convert these FAC adjustments to DSAC adjustments. In our Provisional Conclusions our approach to this conversion was to assume that the same absolute adjustment in £ should be made to DSAC as we make to FAC (see paragraphs 13.378 to 13.383). Therefore, our approach did not alter whether DSAC was above or below FAC for individual service and year combinations. However, following comments from the Parties on our Provisional Conclusions, we have changed our approach to converting some of our FAC adjustments into DSAC adjustments. Our revised approach (see paragraphs 13.392 to 13.441) means that for some adjustments the £ change in DSAC is greater than the £ change in FAC. As Table 12.1 demonstrates, based on BT's RFS data prior to our adjustments, the DSAC to FAC ratio for BES 1000 rental in 2006/07 is only marginally above 100% (i.e. 102%) based on BT's published RFS data. Our revised approach to converting FAC adjustments to DSAC adjustments leads to the DSAC for BES 1000 rental in 2006/07 being marginally below FAC (i.e. the DSAC to FAC ratio is 98%) based on our adjusted data.
- 12.165 As set out at paragraph 13.53, we have used the costs for BES 100 rental and BES 1000 rental as proxies for the costs of BES 155 rental and BES 622 rental. As a consequence, we also find that for both BES 155 rental and BES 622 rental the DSACs in 2006/07 are below FAC. Consistent with our treatment of BES 100 rental in 2006/07, we consider the relevance of these findings in our assessment of the relevant charges in Section 14.
- 12.166 BT argues that DSAC and FAC are calculated using a consistent set of models as "*LRIC is actually derived from the FAC model by the application of cost volume relationships ("CVRs") to FAC*".⁶⁹⁹
- 12.167 Our understanding is that BT is referring to the fact that the inputs into the LRIC model for the total costs of each cost category are derived from BT's FAC model (ASPIRE). However, contrary to BT's suggestion, this does not guarantee that a

⁶⁹⁹ BT's response to our Provisional Conclusions, paragraph 251.

consistent approach is taken in the FAC model and the LRIC model to the way that the total cost in a cost category is allocated between different components (and via usage factors, between different services).

- 12.168 To illustrate this, we set out below a simple example of the same total cost in a cost category being used in each of the FAC model and LRIC model but different allocation methods. Consider the case of a CVR with strong economies of scale in the volume of the cost driver, such as that outlined below in Table 12.8.⁷⁰⁰ As described below, this leads to the LRICs and DSACs set out in Table 12.9.⁷⁰¹

Table 12.8: Illustrative CVR with economies of scale

Volumes	% Costs
0%	50%
20%	70%
40%	80%
60%	90%
80%	95%
90%	97.5%
100%	100%

- 12.169 The total cost of this cost category is assumed to be £100m. The LRIC of each component is calculated by starting from the position of 100% of the volume and 100% of the costs and then removing the percentage of the volumes that is associated with that component. Therefore in the example above the LRIC of a component with 10% of the total volumes will be 2.5% of costs, i.e. £2.5m. This is because, at 90% of the volume 97.5% of the costs are still incurred, so the LRIC derived by decrementing (or subtracting) 10% of volumes is 2.5% of costs.⁷⁰² Applying a similar procedure, a component with 80% of the total volume will have a LRIC of 30% of cost, i.e. £30m. We assume for this example that FAC is derived using cost allocation in line with volumes, so that a component with 10% of the volume has FAC of 10% of the cost, i.e. £10m, and the FAC of a component with 80% of the volume is 80% of the cost, i.e. £80m. With these assumptions, the results in the example for FAC, LRIC and DSAC data are shown in Table 12.9.

⁷⁰⁰ The cost category displays economies of scale with respect to the volume of the cost driver in the CVR. This means that, if the cost category is relevant to more than one component (as in the example), it gives rise to economies of scope between those components.

⁷⁰¹ Note that a number of BT's CVRs have strong economies of scale and components with large volumes leading to the kinds of relationships set out in this sub-section.

⁷⁰² Or equivalently, we could start from the cost and volume without the component in question (i.e. 90% of the volume and 97.5% of the cost) and derive the LRIC as the increase in cost caused by incrementing or adding the volume of the component.

Table 12.9 – Example of FAC, LRIC and DSAC

Component	Increment	Volume	FAC	LRIC	DSAC
A	Core	80 units	£80m	£30m	£90m
B	Core	10 units	£10m	£2.5m	£7.5m
C	Access	10 units	£10m	£2.5m	
Fixed common cost (FCC)				£65m	

- 12.170 In the example there are two components in the Core increment, A and B. The DSAC of each of these components is calculated by deriving the FCC relevant to these components (£65m) and then allocating it to A and B in proportion to their respective LRICs. So the allocation of FCC to component A is £60m ($= £65m \times £30m \div (£30m + £2.5m)$). Adding this allocation of the FCC to the LRIC of component A of £30m yields the DSAC of £90m. Similarly, the DSAC of component B is £7.5m, derived as the remainder of the FCC (£5m) added to the LRIC of B of £2.5m.
- 12.171 As can be seen from Table 12.9, whilst component A has a DSAC above FAC, the DSAC of component B is below its FAC. This is because FAC is being allocated on the basis of volumes, rather than on LRIC which is the allocation method used to allocate the FCC in the DSACs. This difference in allocation method matters in the example, because the CVR displays economies of scale. If there were no economies of scale in this cost category, the CVR would be a straight line, i.e. LRIC would be linear in volume, and the difference in allocation method would not affect the results.⁷⁰³ We are not suggesting this means that FAC in this case is an invalid cost measure, but rather that if FAC embodies a different common cost allocation than DSAC it is possible for the resulting DSAC to be below FAC even though both start from the same total cost.
- 12.172 We therefore remain of the view that instances where the typical relationship between DSAC and FAC breaks down do not necessarily imply that the DSAC figures are incorrect or inappropriate. It could reflect that DSAC and FAC are calculated on a different basis using different models.⁷⁰⁴

Does BT's chosen approach provide BT with appropriately bounded pricing flexibility?

Introduction

- 12.173 BT provided a number of comments on the extent to which its published DSACs for the period prior to 2010/11 achieve the policy objective for the use of DSAC (see paragraph 12.85 above). Therefore, we set out our views on BT's comments below.

⁷⁰³ Although the CVR and the volumes here are provided by way of illustration, they are not unrealistic and indeed in 2009/10 the DSAC of the "Fixed assets: Access, Fibre" cost category element of the BES Fibre component had a DSAC to FAC ratio of around 81%. This occurs for two reasons 1) there are economies of scope and 2) there is a component (specifically WES Fibre) which accounts for a large percentage of total volumes. This leads to different components having different LRIC:FAC ratios and hence different DSAC:FAC ratios.

⁷⁰⁴ The issue illustrated in the example can arise in the case of the duct cost categories. This is because the local access components have a much lower LRIC:FAC ratio than core transmission components reflecting the fact that the core transmission duct network is typically multiple bore whereas the local access duct network is typically single bore.

12.174 We explained in paragraphs 12.36 to 12.40 that the policy objective for cost orientation is to strike a balance between two conflicting considerations:

12.174.1 it can be more economically efficient to allow a firm flexibility to decide how it should recover its common costs across a range of services; and

12.174.2 where firms such as BT have SMP, pricing flexibility can be used in an anti-competitive or otherwise unreasonable manner. Use of competition law alone may not be sufficient to prevent this.

12.175 The use of DLRIC and DSAC as pricing floors and ceilings respectively provides BT with an appropriately bounded degree of pricing flexibility over how it recovers common costs across the services that share those common costs.

12.176 As we also explained, the pricing flexibility provided by the use of DSAC arises from the fact that in calculating DSAC, the SAC for a broad increment is distributed over the services within the increment. There are a number of potentially reasonable approaches to the detail of how DSACs are calculated that adhere to this basic principle. BT has discretion over which of the approaches it uses.

12.177 Despite our understanding that BT's chosen DSAC methodologies fail to reflect cost causation in their treatment of duct costs, we can still consider their characteristics in terms of providing bounded pricing flexibility for BT to vary its recovery of common costs between services to reflect any variations in demand conditions for those services.

12.178 In our view the relevant measure of the pricing flexibility afforded by the chosen methodology is the difference between the DLRIC floor and DSAC ceiling. As we explain below, contrary to BT's view, we consider that BT's published DSACs for the period prior to 2010/11 are consistent with the policy objective cost orientation seeks to address, leaving aside our concerns that BT's DSAC methodologies do not reflect cost causation in their treatment of duct costs.

12.179 Before we consider BT's specific arguments, we set out our analysis and conclusions on the extent to which BT was afforded pricing flexibility by the DLRIC floors and DSAC ceilings that BT published in its RFS.

BT's pricing flexibility

12.180 Since they form the floor and ceiling for cost orientated charges, the ratio of DLRIC to DSAC for individual services is more relevant to understanding the extent to which BT's published DSACs provided bounded pricing flexibility than the ratio of DSAC to FAC. In Tables 12.10 to 12.14 below, we therefore present the unit DLRICs and DSACs, along with the DSAC:DLRIC ratio (using figures before Ofcom's adjustments).⁷⁰⁵ A DSAC to DLRIC ratio of 100% implies no flexibility. However, for completeness we also present unit FAC data and FAC:DSAC ratios.

⁷⁰⁵ As summarised in paragraphs 13.442 to 13.447, we make a number of adjustments to BT's FAC and DSAC data for the purposes of resolving these Disputes. The data presented in Tables 12.10 to 12.14 exclude these adjustments (i.e. they are based on the published RFS data provided by BT). Our adjustments alter the DSAC:FAC and DSAC:DLRIC ratios. However, as we have not had to consider the adjustments required to BT's DLRIC data in resolving these disputes, we do not have adjusted DLRIC data to compare against adjusted DSAC and FAC data.

Table 12.10: Unit DLRIC, FACs, and DSACs for 2006/07 per local end (before Ofcom's adjustments)

	DLRIC	FAC	DSAC	DSAC: DLRIC ratio	DSAC: FAC ratio
BES 100 rental	£907	£2,651	£2,536	280%	96%
BES 1000 rental	£958	£2,704	£2,749	287%	102%
BES 100 connection	£760	£809	£1,119	147%	138%
BES 1000 connection	£2,707	£2,883	£3,842	142%	133%
WES 10 rental	£764	£2,271	£2,416	316%	106%
WES 100 rental	£798	£2,307	£2,560	321%	111%
WES 1000 rental	£843	£2,354	£2,750	326%	117%

Source: Ofcom analysis of 2006/07 RFS data published in document entitled "Additional information in relation to BT's Current Cost Financial Statements for 2008"⁷⁰⁶ published alongside the 2007/08 RFS. In 2006/07, costs associated with main link rentals were included within the cost information for BES and WES rental services.

Table 12.11: Unit DLRIC, FACs, and DSACs for 2007/08 per local end (before Ofcom's adjustments)

	DLRIC	FAC	DSAC	DSAC: DLRIC ratio	DSAC: FAC ratio
BES 100 rental	£325	£706	£994	306%	141%
BES 1000 rental	£522	£959	£1,570	301%	164%
BES 100 connection	£749	£870	£1,875	250%	216%
BES 1000 connection	£2,697	£3,137	£6,731	250%	215%
WES 10 rental	£539	£1,345	£1,725	320%	128%
WES 100 rental	£560	£1,366	£1,802	322%	132%
WES 1000 rental	£772	£1,638	£2,456	318%	150%
Main link (per km)	£249	£382	£959	384%	251%

Source: Ofcom analysis of 2007/08 RFS data as restated in 2008/09 RFS.

⁷⁰⁶ <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/AdditionalinformatonApr09.htm>

Table 12.12: Unit DLRIC, FACs, and DSACs for 2008/09 per local end (before Ofcom's adjustments)

	DLRIC	FAC	DSAC	DSAC: DLRIC ratio	DSAC: FAC ratio
BES 100 rental	£587	£1,239	£1,621	276%	131%
BES 1000 rental	£601	£1,256	£1,660	276%	132%
BES 100 connection	£997	£1,008	£1,704	171%	169%
BES 1000 connection	£3,552	£3,590	£6,026	170%	168%
WES 10 rental	£589	£1,369	£1,790	304%	131%
WES 100 rental	£585	£1,365	£1,782	304%	130%
WES 1000 rental	£600	£1,383	£1,822	304%	132%
Main link (per km)	£116	£184	£583	500%	318%

Source: Ofcom analysis of 2008/09 RFS data as published in the 2008/09 RFS.

Table 12.13: Unit DLRIC, FACs, and DSACs for 2009/10 per local end (before Ofcom's adjustments)

	DLRIC	FAC	DSAC	DSAC: DLRIC ratio	DSAC: FAC ratio
BES 100 rental	£678	£1,634	£1,731	255%	106%
BES 1000 rental	£885	£1,935	£2,239	253%	116%
BES 100 connection	n/a	n/a	n/a	n/a	n/a
BES 1000 connection	£12,552	£14,439	£26,861	214%	186%
WES 10 rental	£620	£1,675	£2,239	361%	134%
WES 100 rental	£648	£1,720	£2,319	358%	135%
WES 1000 rental	£906	£2,098	£3,028	334%	144%
Main link (per km)	£205	£319	£963	470%	302%

Source: Ofcom analysis of 2009/10 RFS data as published in the 2009/10 RFS.

n/a = data for this service not available in the 2009/10 RFS.

Table 12.14: Unit DLRIC, FACs, and DSACs for 2010/11 per local end (before Ofcom's adjustments)

	DLRIC	FAC	DSAC	DSAC: DLRIC ratio	DSAC: FAC ratio
BES 100 rental	n/a	n/a	n/a	n/a	n/a
BES 1000 rental	£1,940	£3,632	£6,149	317%	169%
BES 100 connection	n/a	n/a	n/a	n/a	n/a
BES 1000 connection	n/a	n/a	n/a	n/a	n/a
WES 10 rental	£1,301	£2,476	£4,857	373%	196%
WES 100 rental	£1,381	£2,582	£5,027	364%	195%
WES 1000 rental	£2,313	£3,739	£6,750	292%	181%
Main link (per km)	£178	£402	£1,027	577%	256%

Source: Ofcom analysis of 2010/11 RFS data as published in the 2010/11 RFS.
n/a = data for this service not available in the 2010/11 RFS.

- 12.181 As can be seen from Tables 12.10 to 12.14, and as we noted in our Provisional Conclusions, although the pricing flexibility (as measured by the DSAC to DLRIC ratio) is greater for rental services than connection services (as we would expect given the greater use of shared network assets by BES and WES rental services than by BES and WES connection services), in both cases DSAC is significantly higher than DLRIC. For rental services the DSAC is double or more the level of DLRIC, implying a significant degree of pricing flexibility. Indeed even where DSAC is below FAC, BT had a large degree of pricing flexibility as reflected in the ratio of DSAC to DLRIC.
- 12.182 In conclusion, we continue to consider the pricing flexibility implied by the ratio of DLRIC to DSAC to be more relevant to the policy objective of bounded pricing flexibility which cost orientation seeks to address than the DSAC to FAC ratio. In this case, despite there being a limited number of cases of DSAC being below FAC, the DSAC methodology BT used for the published RFS over the period 2006/07 to 2010/11 provided BT with significant pricing flexibility in terms of the DLRIC to DSAC ratio. While some services may have relatively low DSAC:FAC ratios, these are accompanied by higher DSAC:FAC ratios for other services.

BT's published DSACs provide bounded pricing flexibility

- 12.183 For the reasons summarised in paragraph 12.85 above, BT disagrees that the published DSACs for the period prior to 2010/11 "serve the stated purpose of Ofcom's approach to cost orientation".⁷⁰⁷ However, in our view, BT's views are not well founded:
- 12.183.1 We disagree with BT that we have stated that DSAC has to be above FAC to meet Ofcom's policy objectives. The 2001 NCC Guidelines do not state

⁷⁰⁷ BT's response to our Provisional Conclusions, paragraph 229.

that DSAC has to be above FAC, or indeed mention FAC at all. Furthermore, we were clear in the 2009 PPC Determinations that we would expect FAC normally to lie in between DLRIC and DSAC; we did not argue that it was essential for it always to lie between them.⁷⁰⁸ As we set out above, we do not consider that DSAC being below FAC for a service necessarily implies an error in the DSAC calculation. Indeed, we note that in its response BT *“accepts that this [i.e. DSAC above FAC] is not a necessary relationship but it is clearly the relationship which is expected”*.⁷⁰⁹ Further, we did not state in either the NCC Guidelines or the 2009 PPC Determinations that in circumstances where the normal relationship between DSAC and FAC is not observed DSAC would fail to meet our policy objectives. As we have set out above, we consider the relationship between DLRIC and DSAC, i.e. the gap between the floor and the ceiling, to be the more relevant relationship when considering our policy objective.

12.183.2 We disagree with BT that using DSACs which are below FAC is more restrictive than rate of return regulation. First, as we have explained above, DSACs are derived by distributing the SAC of the relevant broad increment (e.g. Core) across the components (and therefore services) within the broad increment. The costs included in the SAC of the broad increment are expected to exceed the FAC for the broad increment, as certain common costs shared between broad increments are included in their entirety in the SAC, but only in part in the FAC. Therefore while the relationship between DSAC and FAC may vary from service to service (as demonstrated in Tables 12.10 to 12.14 above), we would normally expect DSAC to exceed FAC. Hence the use of DSAC as a pricing ceiling for services is not more restrictive than rate of return regulation when considered across the range of relevant services. In this case the rate of return BT could have earned by pricing all of the services in dispute at DSAC would substantially exceed its cost of capital. Second, we do not apply the DSAC test mechanistically, as we set out in Section 9. We also compare revenues to FAC as a cross-check on the outcome of the DSAC test. Therefore, if DSAC is below FAC we can take this into account in our non-mechanistic assessment of BT's charges.

12.183.3 We also disagree with BT that if DSAC is less than FAC then a price in line with, or lower than, FAC would necessarily be considered a breach of its cost orientation obligations. As we have set out above, we do not apply the DSAC test mechanistically. We also compare revenues to FAC as a cross-check on the outcome of the DSAC test. Therefore, if for a service DSAC is below FAC and the charge is close to (or below) FAC, then we can take this into account in our non-mechanistic assessment of BT's charges.

12.183.4 We disagree with BT that there is no economic justification as to why PPC trunk and Ethernet rental services should have different degrees of pricing flexibility. The use of floors and ceilings implies that different services will have different degrees of pricing flexibility. Although in this case BT's choice of DSAC methodology has led to a cost allocation that does not appear to reflect cost causation in its treatment of duct costs, and therefore may have affected the degree of pricing flexibility afforded for Ethernet services relative to PPC services, in principle, we would normally expect different services to have different pricing flexibility due to the extent to

⁷⁰⁸ Annex 11 to the 2009 PPC Determinations, paragraphs A11.26 to A11.28.

⁷⁰⁹ BT's response to our Provisional Conclusions, paragraph 253.

which they share common costs with other services. For example, as demonstrated above, Ethernet connection services have DSAC to DLRIC ratios that are typically lower than rental services reflecting, in part, the fact that connection services have a lower proportion of common costs.

12.183.5 We disagree with BT that DLRIC is irrelevant when considering whether BT's DSACs are appropriate. BT appears to have misunderstood why we considered DLRIC to be relevant to our considerations. When considering the appropriateness of BT's DSACs, in our view, it is relevant to consider whether BT had pricing flexibility across the services that share common costs. This analysis does not involve considering whether any individual charge was too high and therefore does not involve applying DLRICs as part of the test for overcharging for each and every charge (or as a "second order test" as described by BT in its response). Rather, we are assessing whether the set of published DSACs are an appropriate basis upon which to assess charges. It is true that DLRIC has limited relevance when considering whether a charge is too high, but it is relevant in considering whether BT's DSACs are appropriate or not by reference to our policy objective for using DSACs.

12.183.6 BT raises concerns that even if there is a high ratio between DSAC and DLRIC, if both DSAC and DLRIC are below FAC then BT's only flexibility is in relation to the degree to which it under-recovers costs relative to FAC.⁷¹⁰ However, at an aggregate level the sum of the DSACs for the Core components substantially exceeds the sum of the FACs for the Core components, as explained above. Therefore, if DSAC is below FAC for individual components or services, there will be a corresponding DSAC (or DSACs) that will be higher than FAC (potentially substantially higher). Indeed in the case of BT's original DSAC methodology the fact that DSACs of ".L" components are lower than they might be under other methodologies is offset by the fact that the DSAC of ".C" components are higher than under those other methodologies.

12.183.7 Within the limits indicated by DLRIC and DSAC, BT has some ability to price services subject to a cost orientation obligation according to their relative price elasticities. We disagree with BT that in order for it to be able to price services according to relative price elasticities the cost orientation regime of using DSAC and DLRIC would need to be applied to all services that share common costs (such as the duct network). For some regulated services there may indeed be other limitations on pricing, such as the prices of services included in price caps. However, after taking account of these limitations, BT still has a residual degree of flexibility. It is in taking advantage of this residual flexibility that BT has the opportunity to reflect relative price elasticities or other relevant considerations.

Summary of whether the methodologies BT used in the published RFS are obviously inappropriate for the purpose of resolving these Disputes

12.184 For the reasons set out above, our understanding is that neither BT's original DSAC methodology used in its RFS for 2006/07 to 2009/10 nor BT's revised DSAC methodology used in its 2010/11 RFS follow cost causation in their treatment of duct costs. As a consequence it appears to us that the economic rationale for the treatment of duct cost in either methodology is not reasonable. Therefore, based on

⁷¹⁰ BT's response to our Provisional Conclusions, paragraph 276.2.

the evidence available to us, it is likely that both methodologies are obviously inappropriate. We consider below whether this issue is such as to preclude using either methodology to resolve these Disputes

- 12.185 Leaving aside these concerns, we still consider that they provide bounded pricing flexibility for BT to vary its recovery of common costs between services to reflect any variations in demand conditions for those services. However, under a DSAC methodology that appropriately reflects cost causation, the degree of bounded pricing flexibility may differ from that implied by BT's published DSACs, particularly for individual services.

With the available evidence is it reasonably practical to implement the proposed adjustment to the published data in a way that properly addresses the concerns about cost causation?

- 12.186 As set out above, we consider it likely that neither BT's original nor its revised DSAC methodologies follow cost causation in their treatment of duct costs. Since the source of the departure from cost causation in both of BT's methodologies is the inclusion of private circuit local ends in the Core increment, the proposed adjustment would need to properly address this issue.
- 12.187 Considering first BT's proposed adjustment to the DSACs in the 2006/07 to 2009/10 RFS, it appears to be reasonably practical to implement BT's proposed changes and apply its revised methodology as it has provided us with DSAC data for this period calculated using the 2010/11 RFS methodology. However, this adjustment would not properly address the problem caused by the inclusion of local ends in the definition of the Core increment and therefore would not address our concerns in relation to cost causation in the treatment of duct costs.
- 12.188 As regards CWW's proposal to apply BT's original DSAC methodology to adjust the DSACs in the published RFS in 2010/11 (rather than BT's revised methodology), for the same reasons outlined above, we also do not consider this adjustment would properly address our concerns in relation to cost causation.
- 12.189 We have considered whether we could calculate DSACs on the basis of a third approach, developed by Ofcom, which would seek to reflect cost causation and address the issue of the inclusion of private circuit local ends in the Core increment. This would involve a fundamental change to the basis of the LRIC model. There appear to be a number of different approaches that could achieve this. One example is the approach that Oftel and Ofcom required BT to adopt in the context of the 2001 and 2005 network charge controls, which was to revise the increment definition to move local ends into the Access increment and re-run the LRIC model. Even assuming BT⁷¹¹ had the software available to do this for all relevant years which we doubt,⁷¹² as was noted by Ofcom in the context of the 2005 Network Charge Control (see paragraph 12.17 above) this would be a time consuming exercise to undertake for one year's financial data, and more so for five years'.

⁷¹¹ The evidence available to us in this case does not extend to having copies of the entirety of BT's LRIC models for all years relevant to the Disputes. We therefore are unable to adjust and re-run the models ourselves.

⁷¹² [redacted]

- 12.190 Furthermore, a change in the definition of the increments is such a fundamental change to the LRIC model structure that it would raise a number of complex methodological questions (for example, the appropriate treatment of sub-increments within the revised broad Core and Access increments). These would need careful consideration before a revised methodology could be finalised. It might be possible to adopt a simplified modelling approach to revising the increment definitions that did not involve fully revising and re-running the LRIC model, but such an approach is still likely to give rise to its own set of complex methodological questions. The chosen approach could have material implications for the resulting DSAC values.
- 12.191 It is possible that other approaches could be adopted that, rather than directly altering the increment definition, seek indirectly to address the increment definition issue by changing the treatment of FCCs within the DSAC calculation. For example, for selected cost categories, such as duct cost, an attempt could be made to mimic the effects on the DSACs in that cost category of a change in increment definition. However, such approaches would also likely raise a number of significant and complex questions in relation to the appropriate implementation and would risk introducing significant inconsistencies in the DSAC calculations between cost categories.
- 12.192 We therefore do not consider that any of the three options available to us in this case (BT's original pre-2010/11 DSAC methodology, the new DSAC methodology BT introduced for the 2010/11 RFS, or DSAC values calculated by Ofcom) represent a reasonably practical way to properly address the concerns about cost causation that we have identified.

Are the necessary conditions for departing from the published DSACs met in this case?

- 12.193 As set out at paragraph 11.38, for us to make a retrospective adjustment, we consider that it is necessary (but not sufficient) for us to be satisfied that:
- 12.193.1 the adjustment corrects an error in BT's published RFS or corrects a methodology used in the published RFS that is obviously inappropriate for the purpose of resolving the Disputes; and
- 12.193.2 with the available evidence, it is reasonably practical to implement the proposed adjustment to the published data in a way that properly addresses the error or inappropriate methodology.
- 12.194 In other words, if the answer to either of those questions is 'no', the adjustment should not be made.
- 12.195 We summarise below our conclusions on whether those conditions are met.

2006/07 to 2009/10

- 12.196 We are not aware of any mathematical or software errors in the implementation of BT's chosen DSAC methodology for 2006/07 to 2009/10. However, for the reasons we have set out above, we conclude on the evidence available to us that the methodology appears not to reflect cost causation, particularly in the treatment of duct costs, and this, means that the methodology is likely to be obviously inappropriate. This concern about cost causation has the scope to materially alter the DSACs for services across both the Core and Access increments, including some Ethernet services relevant to these Disputes (among other services).

- 12.197 However, we do not consider there to be a reasonably practical way to make adjustments which properly address the concerns about cost causation that we have identified. BT's proposed revisions to the methodology for this period (i.e. the adoption of the 2010/11 RFS DSAC methodology) are based on the same increment definitions that, in our view, result in the failure of the original methodology to reflect cost causation in its treatment of duct costs. As such, our understanding is that BT's revised methodology also fails to reflect cost causation in its treatment of duct costs. While it could in principle be possible to implement our own set of fundamental revisions to the LRIC model and DSAC calculations to reflect cost causation, it would be a very substantial and complex undertaking which we do not consider to be reasonably practical in this case or a proportionate approach for the purposes of resolving these Disputes.
- 12.198 We do not therefore consider that it is appropriate for us to depart from the published DSACs in this case for the period 2006/07 to 2009/10. We therefore consider that the published RFS contain the best available data for the purposes of resolving these Disputes.

2010/11

- 12.199 We are not aware of any mathematical or software errors in the implementation of BT's chosen DSAC methodology for 2010/11, but for the reasons we have set out above, we conclude on the evidence available to us that the failure of the methodology to reflect cost causation, particularly in the treatment of duct costs, means that the methodology is likely to be obviously inappropriate. This concern about cost causation has the scope to materially alter the DSACs for services across both the Core and Access increments, including some of the Ethernet services relevant to these Disputes (among other services).
- 12.200 However, we do not consider there to be a reasonably practical way to properly address the concerns about cost causation that we have identified. CWW suggests that we should adopt the original methodology used by BT to produce the 2006/07 to 2009/10 RFS. However, as we have explained, this approach is based on the same increment definitions that, in our view, result in the failure of the 2010/11 RFS methodology to reflect cost causation. As such, our understanding is that this methodology also fails to reflect cost causation in its treatment of duct costs. While it could in principle be possible to implement our own set of fundamental revisions to the LRIC model and DSAC calculations to reflect cost causation, it would be a very substantial and complex undertaking which we do not consider to be reasonably practical in this case or a proportionate approach for the purposes of resolving these Disputes.
- 12.201 We do not therefore consider that it is appropriate for us to depart from the published DSACs in this case for 2010/11 and we therefore consider that the published RFS contain the best available data for the purposes of resolving these Disputes.

Further relevant considerations

- 12.202 Whilst we have concluded that we should not depart from the RFS in this case because the necessary conditions are not met, for completeness and in light of the Parties' comments, we also assess in the paragraphs below the other relevant considerations we have identified in the framework set out in Section 11:

- 12.202.1 Does the proposed adjustment retrospectively alter the financial data on which we relied in previous regulatory decisions including for services outside the scope of the dispute?
- 12.202.2 Does accepting the proposed adjustment create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future?

Does the proposed adjustment retrospectively alter the financial data on which we relied in previous regulatory decisions including for services outside the scope of the dispute?

- 12.203 As we set out in our Provisional Conclusions, BT's published RFS, and the data underlying them, have formed the basis of BT's pricing decisions and numerous regulatory decisions by Ofcom and other bodies such as the CAT and CC over the Relevant Period. The changes proposed by BT (calculating the DSACs for 2006/07 to 2009/10 on the basis of the methodology in the 2010/11 RFS) and CWW (calculating the DSACs for 2010/11 on the basis of the previous DSAC methodology) to the DSAC methodologies would not just affect the DSAC data for the AISBO market. The changes would result in revisions to BT's DSACs for services in other markets, such as those relating to PPC services. For example:
- 12.203.1 BT's DSAC data was used in the resolution of the PPC Disputes which resulted in BT having to repay certain CPs around £50 million for overcharging on 2Mbit/s trunk services. BT's DSAC figures were used in calculating the extent of overcharging and the size of repayment required. Therefore the decisions made by Ofcom, the CAT and the Court of Appeal in relation to the PPC Disputes were informed by data that would be affected by BT's proposed revisions to the published DSACs. BT did not raise concerns about the use of this data prior to the 2009 PPC Determinations or during its PPC appeal. If we were to accept BT's proposed changes to the published DSACs for the period 2006/07 to 2009/10, we would be resolving these Disputes on the basis of a data set that is inconsistent with that used in the PPC Disputes, despite the two dispute periods overlapping and a number of important common costs being relevant to both disputes (e.g. duct and fibre costs).
- 12.203.2 Ofcom's decision in the 2009 LLCC Statement (which included AISBO services) as to whether starting charge changes were necessary, and what level those revised charges should be set to, used BT's DSAC data for the relevant services. The 2009 LLCC Statement was appealed and the decisions made in the appeal by the CC⁷¹³ and the CAT⁷¹⁴ also used BT's published DSAC data. Therefore, if we were to accept BT's proposals in this case we would be resolving these Disputes using data that is inconsistent with that used in relation to those decisions.
- 12.204 On this basis, changes in BT's published DSACs, are likely to retrospectively change the costs of numerous other services upon which previous regulatory decisions have been made.

⁷¹³ http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/appeals/communications_act/final_determination_excised_version_for_publication.pdf

⁷¹⁴ http://www.catribunal.org.uk/files/1112_Cable_Wireless_Ruling_200910.pdf

- 12.205 The precise impact of BT's and CWW's proposed adjustments on the published DSACs differs, as we explain below.
- 12.206 The outcome of BT's proposed adjustments to the 2006/07 to 2009/10 DSACs is that the DSAC figures against which we would assess whether BT has overcharged for WES and BES services would increase significantly, potentially reducing the extent to which BT may be deemed to have overcharged for those services. Correspondingly, the DSAC figures for other services outside the Disputes would fall significantly. As set out in paragraph 12.32, BT calculated that up to £417 million of additional costs should be spread across the DSACs for Ethernet services and that around £230 million should be removed from the DSACs of PPC services (which are outside of these Disputes) over the period 2006/07 to 2009/10.
- 12.207 Given that CWW's proposed adjustment for 2010/11 is the opposite adjustment to that BT has proposed for 2006/07 to 2009/10, it is reasonable to assume that the impact of such a change would be to reduce the overall level of DSAC for Ethernet services in 2010/11, while increasing the overall level of DSAC for PPC services. However, as we do not have DSAC data for 2010/11 using the methodology BT employed prior to 2010/11, we are unable to quantify the scale of these impacts.
- 12.208 For the reasons explained above, changes to BT's published DSACs are likely to retrospectively change the costs of various other services upon which previous regulatory decisions have been made. As we explain in Section 11, introducing inconsistencies in the financial data upon which we make decisions can impact on BT's ability to recover its costs and will also affect other stakeholders. In our view, this supports our conclusion that we should not depart from BT's published DSACs in resolving these Disputes.

Does accepting the proposed adjustments create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future?

- 12.209 As set out at paragraph 9.17, BT has considerable discretion over the details of how it models DSACs in order to meet its regulatory reporting obligations. Such latitude of interpretation and implementation discretion is not limited to BT's calculation of DSACs; it is a characteristic of numerous aspects of BT's RFS.
- 12.210 As TTG, Sky and CWW note in their responses to the Provisional Conclusions (see paragraphs 11.16 and 11.17 above), there is a considerable information asymmetry between BT and its customers in respect of the detailed information on BT's costs at their disposal. Indeed, such an asymmetry also exists between BT and Ofcom albeit to a lesser extent given our power to require BT to provide detailed information on its costs. Therefore, in exercising its discretion over the detailed implementation of cost measures, such as DSAC, BT is able to assess in detail which of the available implementation approaches best suits its specific purposes at the time. BT's CP customers are not in a position to make such assessments.
- 12.211 Given the discretion afforded to BT, and the information asymmetry, it is important to ensure that BT has strong incentives to produce appropriate and accurate regulatory financial statements. Decisions regarding retrospective amendments to the RFS have a particularly important role to play in preserving such incentives given their role in enabling BT to 'game' its regulatory obligations, as Virgin and CWW note in their responses to the Provisional Conclusions (see paragraphs 11.13 and 12.80 above).

- 12.212 If we were to accept BT's proposed retrospective changes to the DSACs for 2006/07 to 2009/10 in these Disputes, we consider that we would give BT an incentive to choose the DSAC methodology that best suits its purposes at the time of preparing its RFS, knowing that it could alter its methodology retrospectively if it is to its benefit. This would undermine incentives on BT to provide appropriate and accurate information in its RFS.
- 12.213 The risk of such incentive implications is particularly pertinent in this case given the implications of BT's proposed changes to the data that was used in the PPC Disputes. As discussed above, BT's proposed methodology for 2006/07 to 2009/10 would result in an increase in DSACs for Ethernet services (the subject of these Disputes) and a reduction in the DSACs for PPCs services (the subject of the PPC Disputes). The reduction in DSACs for PPC services of around £230 million (see paragraph 12.32) includes a significant reduction in DSAC for BT's 2Mbit/s trunk services, for which BT was found to have overcharged in the PPC Disputes. As we noted above, the repayment for that overcharging was calculated based on BT's published⁷¹⁵ DSAC data. If the DSAC for 2Mbit/s had been lower in that case, as it would likely be under BT's proposed revised methodology, the repayment is likely to have been higher. Therefore, as a number of the Disputing CPs noted in their response to our Provisional Conclusions, accepting BT's proposals in this case would allow it to reduce any repayment in this case by reallocating costs it used to mitigate the repayment in the PPC Disputes. It would therefore benefit from the same costs in both cases. In our view, allowing BT to retrospectively reallocate costs in such a manner risks undermining its incentives to allocate costs accurately in its RFS in the first place.
- 12.214 CWW suggested that we should not use BT's revised methodology for 2010/11 if the methodology was developed after the point at which BT's prices were set (see paragraph 12.80). However, we do not consider it relevant that BT changed its methodology in 2010/11 after setting prices. BT is not required to specify the methodology it uses in advance of a financial year or before setting prices.

Conclusions

Introduction

- 12.215 As set out in Section 11 we consider that the starting point for determining which DSACs to use in this case is BT's published RFS. We also set out our approach to determining whether we should depart from BT's published RFS. We now decide which DSAC data we should use to resolve the Disputes, taking into account the Parties' comments and our analysis set out above.
- 12.216 BT used a different approach to calculating the DSACs published in its RFS between 2006/07 and 2009/10 and in 2010/11. We therefore consider these two periods separately.
- 12.217 We consider three possible approaches to the calculation of DSACs:
- 12.217.1 BT's original methodology used in the published RFS between 2006/07 and 2009/10 (and which CWW argues we should use for 2010/11);
 - 12.217.2 BT's revised methodology used in the published RFS in 2010/11 (and which BT argues we should use for 2006/07 to 2009/10); and

⁷¹⁵ Subject to some accounting adjustments made by Ofcom of the type discussed in Section 13.

12.217.3 another possible approach to calculating DSACs we have identified in outline, which would seek to reflect cost causation.

2006/07 to 2009/10

12.218 In assessing BT's original methodology, we have not identified any errors in implementation. However, as we understand it, the methodology assigned local access duct costs to Ethernet main link services (and core transmission duct costs to local ends), even though these services did not contribute to these costs arising. BT's original DSAC methodology therefore does not appear to reflect cost causation in its treatment of duct costs and for that reason we consider on the evidence available to us that this methodology is likely to be obviously inappropriate.

12.219 Leaving aside these concerns, in our view the significant gap between DLRIC and DSAC across the range of services that share common costs provides BT with bounded pricing flexibility, consistent with the policy objective that cost orientation seeks to address.

12.220 BT has provided revised DSAC data for these years, based on its revised methodology. We have not identified any errors in implementation of BT's revised methodology. However the revised methodology still uses an increment definition where local access components are contained within the Core increment and therefore our understanding is that it too appears not to reflect cost causation in its treatment of duct costs. As such, adopting BT's revised DSAC data for these years would not properly address the problem with the original methodology.

12.221 We have considered whether we could calculate DSACs on the basis of a third approach, developed by Ofcom, which would seek to reflect cost causation. Since the source of our concerns about cost causation is the inclusion of local ends in the Core increment, the approach would need to address this increment definition. This could involve one of a number of different approaches, each of which could materially differ from one another. Implementing a third approach would be a substantial undertaking and we do not consider it would be reasonably practical or proportionate for the purposes of resolving these Disputes. We therefore do not consider that we should replace BT's published DSACs with DSACs calculated using a third approach.

12.222 For these reasons we do not consider that the necessary conditions set out in Section 11 for departing from the published RFS are met in this case. We have therefore decided to use the DSAC data published in BT's RFS between 2006/07 to 2009/10.

12.223 In addition, we note that a number of regulatory decisions have been based on BT's published DSAC data for 2006/07 to 2009/10. Accepting BT's revised data would introduce inconsistency between those decisions and our determinations of these Disputes.

12.224 Furthermore, if we were to accept BT's revised DSACs in these Disputes, we consider that we would give BT an incentive to choose the DSAC methodology that best suits its purposes at the time, knowing that it could alter its methodology retrospectively. We would therefore risk undermining incentives on BT to provide appropriate and accurate information in the RFS.

12.225 For example, compared to its revised methodology, BT's original methodology was to its advantage in the PPC Disputes as it involves higher DSACs of 2Mbit/s trunk

services.⁷¹⁶ The revised methodology, however, is substantially in BT's favour (relative to its original methodology) in these Disputes as it moves costs towards local end components and away from core transmission components. This tends to increase the DSACs of the Ethernet services in dispute, and decrease the costs of PPC services and services not subject to cost orientation.

2010/11

12.226 BT used its revised methodology to calculate DSACs published in its 2010/11 RFS. As set out above, we have not identified any errors in implementation of the revised methodology but our understanding is that it does not reflect cost causation in its treatment of duct costs and for that reason we consider on the evidence available to us that this methodology is likely to be obviously inappropriate.

12.227 The published DSAC data for 2010/11 have not been used to resolve any other disputes.

12.228 CWW argues that we should reject BT's revised methodology in favour of BT's original methodology in 2010/11, particularly if BT changed the methodology after setting prices. However, BT has discretion over the methodology it uses to calculate DSACs and its financial reporting obligations do not require BT to specify its methodology in advance of a financial year or before setting prices.

12.229 Given the importance of the RFS, we do not consider that we should depart from BT's published DSACs in the absence of appropriate alternative data. For the reasons set out above, we do not consider that we should replace the published DSACs with another set of DSACs that also appears to be derived from a methodology which does not reflect cost causation in its treatment of duct costs (i.e. the original methodology), nor do we consider that it is reasonably practical or proportionate in this case to adopt a further set of DSACs calculated using a third approach, developed by Ofcom, which seeks to reflect cost causation.

12.230 We therefore consider that we should use the DSACs published in BT's RFS in 2010/11.

Under- or over-statement in DSACs we are using

12.231 For the reasons set out above, we have concluded that we should base our assessment of BT's charges in dispute on the DSAC data published by BT in its RFS. However, our understanding is that both of the methodologies used in calculating that DSAC data do not reflect cost causation in their treatment of duct costs.

12.232 In its response to our Provisional Conclusions, BT argues that "*...it is wrong for Ofcom to ignore plainly relevant evidence which shows that the figures Ofcom used are most certainly not definitive*".⁷¹⁷ We consider there to be some merit in BT's argument given the specific circumstances of this case. As we have set out in Section 9, we do not apply the DSAC test mechanistically in assessing the appropriateness of BT's charges. For example, we consider whether there are specific circumstances that imply that a charge that has failed the DSAC test is nevertheless cost orientated. We consider it appropriate in this case to take account of the potential for BT's methodologies to have given rise to an over- or under-

⁷¹⁶ The cost orientation of BT's charges for 2 Mbit/s trunk services was disputed in the PPC Disputes.

⁷¹⁷ BT's response to our Provisional Conclusions, paragraph ES17.

statement in DSACs when we assess BT's charges in Section 14, where it seems most relevant. However, in doing so we should also take account of the significant limitations of this analysis, such as uncertainty about the size of the effects.

12.233 We now consider how the DSAC data we have decided to use to assess overcharging compare against the DSACs that would be derived using a methodology in accordance with cost causation, i.e. including local ends in the Access increment instead of the Core increment (in the discussion below we refer to this as the "cost causation approach").

12.234 This involves comparing each of the original and revised methodologies against the cost causation approach, since the DSAC data we have decided to use is from the:

12.234.1 2006/07 to 2009/10 RFS, derived using the original methodology; and

12.234.2 2010/11 RFS, derived using the revised methodology.

12.235 We do not have specific DSAC figures derived using the cost causation approach for the reasons set out in paragraph 12.221 above, but we consider whether there are any clear inferences that can be drawn about the direction of bias. We consider in turn the direction of bias in the core transmission components and local access components.

Core transmission components

12.236 Our understanding is that both the original and revised methodologies depart from cost causation in allocating part of the local access duct FCC to core transmission components. Considered on its own, this suggests that the DSACs of core transmission components are likely to be over-stated in both the original and revised methodologies compared to the cost causation approach.

12.237 It is also our understanding that there is another departure from cost causation which operates in the opposite direction, because some cost that should be allocated to core transmission components, i.e. some of the FCC of core transmission, is allocated instead to local access components. In the original methodology this applies to the intra-Network core transmission FCC (but not the remainder of the FCC of core transmission, which is categorised as intra-Core and allocated only to core transmission components). In the revised methodology this applies to all of the core transmission FCC, which is all treated in the same way in deriving DSACs. Considered on their own, these departures from cost causation in the treatment of duct costs suggest that the DSACs of core transmission components are likely to be under-stated in the original methodology compared to the cost causation approach and even more under-stated in the revised methodology.

12.238 The quantitative effect on the DSACs of core transmission components of the departures from cost causation arising from under-allocation of core transmission FCC is likely to be smaller than the effect arising from over-allocation of local access duct FCC. This is because, whilst local access duct FCC is just over 70% of total duct cost, core transmission duct FCC is much smaller at 12% of total duct cost. Overall, therefore, although robust evidence is lacking, it seems likely that the DSACs of core transmission components are over-stated in both the original and revised methodologies compared to the cost causation approach. But the extent of the over-statement is not clear.

Local ends

- 12.239 In both the original and revised methodologies our understanding is that too little duct cost is allocated to the local access components included in the Core increment, i.e. local ends. But on the other hand, in both methodologies part of the core transmission FCC is allocated to these local access components, whereas none would be in the cost causation approach. Applying similar reasoning to that above (for core transmission components), the first effect may be quantitatively larger than the second effect.
- 12.240 However, in the cost causation approach the local access components would be in the Access increment, not the Core increment. This would be a significant change to the structure of the LRIC model. The effect of such a change on the DSACs of local ends is not straightforward to estimate. First, there is likely to be more than one way in which such an approach could be implemented. Second, the effect on the DSACs of local ends of such a change in increment definition would also depend on how local access costs were allocated between local ends and other local access components such as those for LLU.
- 12.241 As we have set out in paragraph 12.20 above, under the DSAC methodology FCCs are allocated to components using an EPMU methodology. Therefore, if the local end components were included in the Access increment rather than Core, the change in the share of FCCs that they would attract would depend, at least in part, upon the LRICs for the other (i.e. non-local end) components in the Access increment compared to those in the Core increment. If the LRIC for the other components in the Access increment is lower than in the Core increment, the local end components would attract more FCCs under a DSAC methodology if the local end components were in the Access increment rather than Core. The information in relation to duct MCE presented in Table 6.1 (paragraph 282) of BT's response to our Provisional Conclusions suggests that, at least for 2008/09, the LRIC of the other components in Access was £[X] (i.e. £[X] minus £[X]) and the LRIC for the other components in Core was £[X]. Therefore, as regards DSACs in 2006/07 to 2009/10, it appears that under a cost causation approach the local end components are likely to attract a larger proportion of the local access duct FCC in the Access increment than compared to BT's original methodology which included them in the Core increment.
- 12.242 As we noted above, the quantitative effect on the DSACs of the change in treatment in local access duct FCC is likely to dominate the change in treatment of the core transmission duct FCC given the relative size of the two types of FCC. However, the set of changes required to implement the cost causation approach is more complicated than the change discussed above for core transmission components. This makes it harder to predict the extent to which other potentially offsetting effects could arise. Therefore, we consider that an under-statement of local end component costs in BT's original methodology (as compared to the cost causation approach), whilst plausible, is less certain than an over-statement of core transmission component costs. Furthermore, the extent of any over-statement is not clear.
- 12.243 Given that BT's revised DSAC methodology in 2010/11 involves revising both the FCCs and the component LRICs for affected cost categories, as explained above, establishing the likely direction in bias in the local end components under the revised methodology as compared to a cost causation methodology is a more complex exercise than for the original methodology. It is conceivable that local end DSACs calculated under the revised methodology could be either over- or under-stated compared to those calculated under a cost causation approach. Reflecting this we do

not have a reliable inference on the nature of bias for the services related to local ends in 2010/11.

Conclusion on under- or over-statement

12.244 Based on the available evidence, we consider that, compared to the cost causation approach:

12.244.1 DSACs of core transmission components are likely to be over-stated in both the original and revised methodologies, although the extent of the over-statement is not clear;

12.244.2 it seems plausible that DSACs of local access components (i.e. local ends) are under-stated in the original methodology, although this is less certain than the over-statement of core transmission component costs, and the extent of any under-statement is not clear; and

12.244.3 we have not established a reliable inference on whether the revised methodology in 2010/11 leads to either an under- or over-statement of local access components as compared to the cost causation approach.

12.245 In terms of the DSACs of the services in dispute:

12.245.1 connection services are unaffected as they do not relate to duct costs;

12.245.2 for rental services the bias may result in the DSACs under a cost causation approach being higher for local ends than under BT's original approach (i.e. the published DSACs for 2006/07 to 2009/10). The direction of bias for 2010/11 is however unclear as we do not have a reliable inference for this year; and

12.245.3 for Ethernet main link services the bias in core transmission components is likely to result in the DSACs under a cost causation approach being lower than under either of BT's published approaches.

12.246 We take account of these inferences when we assess BT's charges in Section 14, where it seems most relevant. However, in doing so we also take account of the significant limitations of this analysis, such as uncertainty about the size of the effects.

Section 13

The revenues and costs of the services in dispute

Introduction

- 13.1 In Section 10 we concluded that BT has failed to demonstrate to our satisfaction that its relevant charges were cost orientated during the Relevant Period. We therefore need to undertake our own assessment of BT's charges.
- 13.2 In this Section we explain what data we have used to carry out our assessment of BT's charges, as follows:
- 13.2.1 Paragraph 13.6 sets out our conclusions on the services and years in dispute, which we discussed in Section 7 above.
 - 13.2.2 Paragraphs 13.7 to 13.69 discuss the base data we have used in our assessment of BT's charges, in particular the data we have used to assess BT's charges for services that it does not report individually in its RFS.
 - 13.2.3 Paragraphs 13.70 to 13.441 explain the adjustments we have concluded it is appropriate to make to BT's base data.
 - 13.2.4 Finally, paragraphs 13.442 to 13.447 summarise the adjusted revenue and cost data we use in Section 14 to assess whether BT has overcharged for the services in dispute.
- 13.3 In our Provisional Conclusions, we proposed to make a number of adjustments to BT's published data in order to correct for volume errors and ensure revenues and costs were appropriately matched.
- 13.4 In Section 11 above we set out the framework we have used to determine whether it is necessary and appropriate for us to make adjustments to BT's data in these Disputes. As discussed at paragraph 11.40, whether it is appropriate to make an adjustment will depend on the specific circumstances of the case and require us to exercise our regulatory judgment as to how to balance competing considerations.
- 13.5 We have made the adjustments on the basis of the information available to us. As noted in Section 3, we have sought information from the Parties as we consider appropriate for the purpose of resolving the Disputes and the Parties have had sufficient opportunity to make representations to us about the information we should use, following publication of our Provisional Conclusions and at other stages in the dispute resolution process. In some cases, which we identify below, Parties did not provide sufficient information to support their arguments. In those cases we have made our decision on the basis of the best information available to us.

The services and years in dispute

- 13.6 Table 13.1 summarises the Ethernet services that are in dispute between BT and Sky, TTG, Virgin, CWW and Verizon in the years 2005/06 to 2010/11. Not every service is disputed in each year and not every party is disputing each service.

Table 13.1 – Ethernet services and the financial years they are in dispute

	05/06	06/07	07/08	08/09	09/10*	10/11
BES 100 rental	X	X	X	X	X	X
BES 1000 rental*	X	X	X	X	X	X
BES 155 rental		X	X	X	X	X
BES 622 rental		X	X	X	X	X
BES 2500 rental				X		
BES 10000 rental				X		
BES 100 connection	X	X	X	X	X	
BES 1000 connection	X	X	X	X	X	
WES 10 rental		X	X	X	X	X
WES 100 rental		X	X	X	X	X
WES 1000 rental**		X	X	X	X	X
WES 155 rental		X	X	X	X	X
WES 622 rental		X	X	X	X	X
WES 10000 rental			X	X		
Main link rental		X	X	X	X	

* Including BES 1000 ER rental.

** Including WES 1000 ER rental.

Source: Annex 1 of the Joint Dispute Submission. Paragraphs 20 and 24 of the Virgin Dispute Submission. CWW response to Q1 of 22 December 2011 section 191 notice. Verizon's response to the 20 March 2012 section 191 notice.

The relevant base data for our comparisons

Introduction

- 13.7 The starting point for our assessment is the data reported in BT's RFS. For the purposes of reporting financial data in its RFS, Ofcom has permitted BT to merge some "low value services" in order to reduce the regulatory reporting burden on BT (see paragraph 5.9 above). However, as noted at paragraph 5.21 above, BT must still be able to provide the data required to show compliance with its cost orientation obligations if needed.
- 13.8 BT's RFS include much of the data we rely on in resolving these Disputes, including revenues, volumes and costs of services which are subject to cost orientation obligations. However the RFS report the costs and revenues of BES and WES services at different levels of aggregation for different years in the Relevant Period, and even where they include more disaggregated data they do not disaggregate data to the level contained in the OPL. For example, while the OPL sets out charges for each variant of BES 1000 rental ('standard', 'daisy chain', 'extended reach' and 'term' rentals), BT's RFS aggregate all variants of BES 1000 rental and reports them under the heading "BES 1000 rentals".
- 13.9 In the 22 October 2010 section 191 notice, we required BT to provide revenue, cost and volume data for each service listed in the OPL and to reconcile this to the information reported in the RFS for the AISBO market. We also considered the information in BT's AFS, which give a breakdown of costs and MCE for each service published in the RFS. BT does not publish these AFS but provides them to Ofcom on a confidential basis.
- 13.10 BT provided price, volume and revenue data for each service listed in the OPL in response to the 22 October 2010 section 191 notice, which reconciles to the volume and price information reported in the RFS for the AISBO market in the period

2006/07 to 2010/11.⁷¹⁸ However, BT was not able to provide cost information at the level of disaggregation required and the unit FAC and DSAC data BT provided was the same as that published in the RFS⁷¹⁹. BT has explained that cost information at the level of OPL does not exist in any system within Openreach.⁷²⁰ As a result, we have been unable to obtain cost information for each individual service listed in the OPL. Instead, the cost information available to us is only disaggregated to the level published in the RFS.

13.11 The aggregation of data in the RFS and BT's inability to provide disaggregated cost data present a number of challenges. In our Provisional Conclusions, we considered the following issues relating to the aggregation of data published in the RFS:

13.11.1 aggregation of data published in the 2005/06 RFS;

13.11.2 aggregation of variants of services in dispute that are reported by bandwidth in the published RFS;

13.11.3 services in dispute that are reported under BES and WES "other bandwidth" rental in 2006/07 to 2010/11 and the use of proxies; and

13.11.4 the aggregation of main link services with BES and WES rental services in 2006/07.

13.12 We consider each of these issues below.

Aggregation of data in 2005/06

13.13 Sky and TTG are disputing BT's charges for BES 100 and BES 1000 rental and connection services in 2005/06.

13.14 In 2005/06 BT reported two aggregated services in its RFS: BES and Wholesale/LAN Extension Services (WES & LES).

⁷¹⁸ BT's response to question 4 of the 22 December 2011 section 191 notice.

⁷¹⁹ Revenues and unit costs for some services are occasionally not reported in the RFS on the basis of immateriality. For example in the 2009/10 RFS no unit cost information was published for BES 100 connection because it fell below the materiality threshold. For such services BT has provided the revenue and unit cost information that would have appeared in the RFS if it had not been omitted on the basis of immateriality.

⁷²⁰ BT's responses to question 2 of the 22 October 2010 section 191 notice, and question 1 of the 22 December 2011 section 191 notice.

Table 13.2: Financial data for 2005/06, £m

	BES	WES & LES	Total
Revenue:			
- internal	0	179	179
- external	6	2	8
- total	6	181	187
FAC			
- internal	0	n/a	n/a
- external	6	n/a	n/a
- total	6	165	171
DSAC			
- internal	0	n/a	n/a
- external	10	n/a	n/a
- total	10	297	307

Source: 2005/06 RFS. n/a = data not available

13.15 The 2005/06 RFS reported BES external sales of £6 million with a total DSAC of £10 million. No further disaggregated data was published. There were no internal sales. Without detailed financial information it is not straightforward to apportion total revenue and DSAC between services.

Our Provisional Conclusions

- 13.16 In our Provisional Conclusions we considered how to disaggregate both the £6 million of external BES revenue and £10 million of external DSAC in order to allow an assessment of the disputed BES 100 and BES 1000 services.
- 13.17 BT provided us with billing data by service and customer for 2005/06.⁷²¹ The 2005/06 billing data suggests that revenue was split between the various BES services as shown in Table 13.3. We applied this to the £6 million of external BES revenue reported in the 2005/06 RFS to obtain an estimate of external revenue in that year for each BES service.

Table 13.3: Ofcom estimate of external BES revenue in 2005/06, £m

	% split suggested by billing data	% split applied to RFS
BES 100 rental	6%	0.4
BES 1000 rental	6%	0.4
BES other rental	40%	2.4
BES 100 connection	12%	0.7
BES 1000 connection	14%	0.8
BES other connection	22%	1.3
		6.0

Source: Ofcom, based on data provided in BT's 18 February 2011 response to the 22 October section 191 notice.

Note: Revenue figures include main link revenue in 2005/06

- 13.18 We then considered how to disaggregate the £10 million of BES DSAC in 2005/06. This was not straightforward as BT was not able to provide us with any disaggregated cost information on services at a more granular level than that

⁷²¹ BT's 18 February 2011 response to the 22 October 2010 section 191 notice.

published in the RFS. We therefore considered ways in which we could estimate how the DSAC could be apportioned to each service.

13.19 We explained that there are a number of ways in which we could apportion the total DSAC between BES services. We considered the following three options to be the most reasonable as they were based on observable data:

13.19.1 Assume that 2005/06 DSACs were split in proportion to revenue as set out in Table 13.3.

13.19.2 Assume that 2005/06 DSACs were split in proportion to the 2006/07 DSACs (which were published at a more granular level in the RFS for that year).

13.19.3 Assume that the 2005/06 DSACs were split in proportion to the average DSAC split between the services over the three year period from 2006/07 to 2008/09.⁷²²

13.20 We set out in Table 13.4 the DSACs estimated for each BES service on the basis of the three options highlighted.

Table 13.4: Ofcom estimate of BES DSACs using different methods of apportionment, 2005/06, £m

	Ofcom revenue estimate	DSAC using revenue split	DSAC using 06/07 DSAC split	DSAC using average DSAC split 06/07 - 08/09
BES 100 rental	0.4	0.6	3.1	2.4
BES 1000 rental	0.4	0.6	1.4	2.1
BES other rental	2.4	4.0	0.6	1.1
BES 100 connection	0.7	1.2	1.8	0.9
BES 1000 connection	0.8	1.4	2.8	2.6
BES other connection	1.3	2.2	0.2	0.8
	6.0	10.0	10.0	10.0

Source: Ofcom, based on data reported in the RFS 2006/07 – 2008/09 and supplied in BT's 18 February response to the 22 October section 191 notice.

13.21 The three options provided a range of different estimated DSACs for the individual BES services. On the basis that the estimated DSACs were considerably above estimated revenue for the BES 100 and BES 1000 services in dispute under each of the three scenarios, we did not consider that it was necessary to conclude as to which of the three options was the most reasonable. This was because the outcome of the DSAC test will be the same for the BES 100 and BES 1000 services in dispute regardless of whether we use the published, aggregated data or replace it with one of our disaggregated estimates⁷²³.

Our analysis

13.22 We did not receive any comments on our analysis of the 2005/06 data. We consider that it would be inappropriate to use the aggregated data published in the 2005/06

⁷²² We did not include 2009/10 in the average because revenues for BES 100 connection and BES other rental services were too small to report in the RFS in this year.

⁷²³ We note that our revenue estimate for BES other rentals and connections exceeds DSAC in two of the scenarios. However, services reported under BES other rentals and connections (e.g. BES 155) are not in dispute in 2005/06 so we have not needed to consider this further.

RFS to resolve the Disputes because our assessment of cost orientation is carried out as far as possible based on an assessment of each individual charge (see paragraph 8.80) and that it is reasonably practical to estimate disaggregated data, based on observable data. However, as noted above we have considered three methods of apportioning total DSAC between BES services. For the reasons set out at paragraph 13.21 we do not need to decide which method is most appropriate. Our analysis of the published 2005/06 RFS data therefore remains as set out in our Provisional Conclusions.

Services in dispute that are reported by bandwidth in 2006/07 to 2010/11

Our Provisional Conclusions

- 13.23 In our Provisional Conclusions we explained that although BT's RFS contained more disaggregated information in 2006/07 to 2009/10 than in 2005/06, we were unable to robustly disaggregate the cost data for services reported by bandwidth in the RFS to obtain cost data for each individual service listed in the OPL. For example, BES 1000 rental in the RFS includes cost data relating to all variants of BES 1000 rental (standard, extended reach, daisy chain and term rental). We did not consider that this would materially affect our ability to determine whether BT had overcharged for services reported by bandwidth. Therefore we did not seek to disaggregate the data any further and our Provisional Conclusions on overcharging for services reported by bandwidth in the RFS were based on the revenues and costs reported in the RFS, subject to certain adjustments.
- 13.24 We did however note that the aggregation of different service variants could distort the outcome of the DSAC test. We said this distortion was more likely to occur when the aggregated revenues are slightly above or below DSAC or where services with materially different underlying costs or unit prices have been aggregated together. We considered that there was a higher risk of distortion for BES 100 rentals in 2009/10 and BES 1000 connections in 2007/08⁷²⁴ because the difference between revenue and DSAC in those cases was small.

Views of the Parties

- 13.25 CWW agrees that although there is a potential for the DSAC test to be distorted where the aggregate revenues were close to the aggregate DSAC, it was not a particularly significant concern and only occurred "*in a minority of instances*".⁷²⁵
- 13.26 CWW considers there is another potential distortion which is that different customers could buy different variants which "*could lead to distortions in the repayments to specific customers*" (as a result of distortions in the relative overcharge), and said that it considered that this was something that Ofcom should check, although it did not elaborate on how this should be done.⁷²⁶
- 13.27 None of the other Parties comment on this issue.

⁷²⁴ Paragraph 13.11 of the Initial Draft Determinations refers to BES 1000 connections in 2008/09. It should have said in 2007/08.

⁷²⁵ CWW's response to our Provisional Conclusions, paragraph 118.

⁷²⁶ CWW's response to our Provisional Conclusions, paragraph 120.

Our analysis

- 13.28 Where service variants are reported together by bandwidth we have decided to base our assessment of overcharging on the revenues and costs published in the RFS, subject to the adjustments that are discussed below. While this approach risks distorting the outcome of the DSAC test, BT has not been able to provide more disaggregated cost data. This risk is greatest when revenues are close to DSAC, but none of the Parties argued that this was likely to materially affect our assessment.
- 13.29 CWW also considered that repayments could be distorted if different CPs bought different service variants. We agree that this is a possible outcome. A finding of overcharging based on aggregated data could mask, for example, a large overcharge for one variant where prices for other variants are below DSAC. However, all purchasers would receive repayments based on the aggregate overcharge.⁷²⁷ Because we are unable to disaggregate the cost data to the level of bandwidth variants, we are unable to determine which variant (in this example) represents the “large overcharge” and which variant has actually been priced below DSAC.
- 13.30 As CWW suggests, different CPs have different buying patterns. For BES 100 rental in 2009/10 for example, some CPs buy the standard variant exclusively while others mostly buy the Daisy Chain variant. Any distortion in the overcharge assessment at the aggregate level will therefore be reflected in the repayments. However, since we are unable to disaggregate the DSAC by individual service variant we cannot remove this possible distortion.
- 13.31 In this Section, where we refer to financial data in respect of BES 1000 rental, this includes financial data in respect of BES 1000 ER rental (a variant of BES 1000). Where we refer to financial data in respect of WES 1000 rental, this includes financial data in respect of WES 1000 ER rental (a variant of WES 1000).

Services in dispute that are reported under BES and WES “other bandwidth” rental in 2006/07 to 2010/11 and the use of proxies

Our Provisional Conclusions

- 13.32 The RFS amalgamates some rental bandwidths into categories called BES and WES “other bandwidth” rental. For example, the BES “other bandwidth” rental category in the RFS can include services such as BES 10, BES 155, BES 622 and Cablelink⁷²⁸ rentals (the mix of services can change from year to year).
- 13.33 We provisionally concluded that the amalgamation of a number of different BES and WES rental bandwidths distorted the reported average prices and the unit costs. Due to this distortion, we did not consider it appropriate to resolve the Disputes by reference to the reported unit prices and costs of BES and WES “other bandwidth” rental services because the aggregation of different bandwidths could distort the results of the DSAC test. This impacted the following BES and WES rental services in the CWW Dispute Period: BES 155, BES 622, BES 2500, BES 10000, WES 155, WES 622 and WES 10000. It also affected BES 100 rental in 2010/11 since in this year BES 100 rental was included within BES “other bandwidth” rental.

⁷²⁷ Conversely, a finding of no overcharge based on aggregated data could mask, for example, a small overcharge for one variant that is outweighed by revenue for other variants being below DSAC.

⁷²⁸ Cablelink allows a CP to connect its equipment within an exchange building, or to connect its equipment to a pre-existing fibre entering the exchange. For a fuller definition see the 2012 BCMR consultation, paragraphs 13.20 to 13.21.

13.34 For services in dispute that were reported within BES and WES "other bandwidth" rental we therefore proposed to use proxies for revenue and cost rather than the reported data as set out in the following paragraphs.

13.35 We proposed to use proxies for the following volume and revenue data:

13.35.1 For BES 155, BES 622, WES 155 and WES 622 we proposed to use the volume and revenue data provided by BT as well as prices from the OPL.

13.35.2 BT did not provide revenue data for BES 2500, BES 10000 or WES 10000 for the years in dispute, although it did provide volume data. We therefore proposed to use pricing data from the OPL to assess whether there was any overcharging for these services.

13.36 We proposed to use proxies for unit FAC and unit DSAC as follows:

13.36.1 For BES 155 and WES 155 we proposed to use, where available, the unit cost data of the nearest bandwidth, i.e. BES 100 and WES 100 rentals respectively.

13.36.2 For BES 622 and WES 622 we said that if cost increases with bandwidth then using cost data for the nearest bandwidth (BES 1000 and WES 1000) may overstate costs and understate overcharging. We said that it would not be appropriate for BT to benefit from its failure to provide us with sufficiently disaggregated data to consider whether it has complied with its regulatory obligations. We therefore proposed to use an average of the BES 100/BES 1000 and WES 100/WES 1000 unit cost data.

13.36.3 For BES 100 rental in 2010/11 we set out four options for developing a cost proxy, as set out in Table 13.5 below. We said that we preferred Option 2 and invited stakeholders to comment on the options or suggest other ways to derive the cost data.

Table 13.5: Possible cost proxies for BES100 rental in 2010/11

Option	Description
1	Use the 2009/10 unit FAC and DSAC
2	Use the average unit FAC and DSAC over the period in dispute for which data is available (i.e. 2006/07 to 2009/10)
3	Use the 2009/10 total FAC and DSAC and divide by 2010/11 volumes to give a unit FAC and DSAC
4	Use the ratio of 2009/10 BES 100 and BES 1000 FAC and DSAC to calculate the 2010/11 BES 100 unit FAC and DSAC from the 2010/11 BES 1000 unit FAC and DSAC.

13.36.4 For BES 2500, BES 10000 and WES 10000 rentals we proposed to use BES 1000 and WES 1000 unit cost data as proxies since these were the highest bandwidth services for which we had cost data and therefore the best available information. We said that higher bandwidth services might be more expensive to provide than lower bandwidth services because of differences in the equipment needed and that if stakeholders were able to provide any additional relevant cost information we would take this into account in our final determinations.

- 13.37 Where we use as proxies cost data to which we proposed to make adjustments, we said that we would use the adjusted data as the proxy.

Views of the Parties

- 13.38 CWW agrees with our proposal to use proxies for services reported under BES and WES "other bandwidth" rental in the RFS. CWW considers that in the years 2006/07 to 2009/10 this approach was likely to lead to an accurate result for rental services because the costs *"are dominated by fibre, which should be the same irrespective of bandwidth, and exclude electronics, which is the most likely cost component where costs are likely to vary from one bandwidth to another"*.⁷²⁹
- 13.39 CWW says that in 2010/11 *"BT changed the allocation of electronic equipment costs from connection to rental which could give rise to more significant differences in cost between the different bandwidth services"*. However, CWW thinks that any distortion from using the proposed proxies in 2010/11 was likely to be insignificant because, first, Ofcom had *"removed equipment costs from the rental services where they have been recovered through connection charges levied previously"* and second, *"new connections for 'other bandwidth' services in 2010/11 were low"* meaning that they would have attracted a minimal allocation of electronics cost.⁷³⁰
- 13.40 In relation to the cost proxy options we proposed for BES 100 rental in 2010/11 CWW says that, given BT had changed the allocation of electronics costs from connection to rental, it preferred Option 4 to Option 2. This was because Option 4 made use of the prior year ratio between BES 100 and BES 1000 rental. CWW also suggests that Ofcom look into the breakdown of cost into specific components and consider the ratio of each component.⁷³¹
- 13.41 BT says it was possible to derive a more accurate proxy for the costs of other bandwidths than that used by Ofcom by allowing for the fact that *"while many costs (such as fibre) are bandwidth independent, electronic costs do vary with bandwidth (suppliers charge more for higher speed electronics)"*⁷³². For rental services in 2010/11 (which include an allocation of electronics cost) BT took the 100Mbit/s and 1000Mbit/s services for which it had costs, identified the proportion of those costs that were made up of electronics and then upgraded the electronics costs to reflect the higher (or lower) speeds of the "other bandwidth" services.⁷³³ BT notes in the spreadsheet it provided underlying the figures in its response to our Provisional Conclusions (the "14 May 2012 spreadsheet")⁷³⁴ that its approach was only relevant to rental services in 2010/11 because in this year electronics components were allocated to rental services rather than connections.⁷³⁵
- 13.42 None of the other Parties comment on this issue.

⁷²⁹ CWW's response to our Provisional Conclusions, paragraph 122.

⁷³⁰ CWW's response to our Provisional Conclusions, paragraph 123.

⁷³¹ CWW's response to our Provisional Conclusions, paragraph 126.

⁷³² BT's response to our Provisional Conclusions, paragraph 158.

⁷³³ BT's response to our Provisional Conclusions, paragraph 159.

⁷³⁴ Sheet "Electronics-WES-other-adj".

⁷³⁵ BT notes that its approach would also be relevant to the period 2006/07 to 2009/10 if rental and connection services were aggregated. However, as explained in Section 8, we have not combined rentals and connections for the purposes of assessing overcharging.

Our analysis

- 13.43 We received no comments on our proposals in relation to the volume and pricing data to use as proxies. We have therefore decided to use the volume and revenue data provided by BT as well as prices from the OPL, as set out in paragraph 13.35.
- 13.44 Below we consider the comments we received on our proposals for using proxies for cost under the following headings:
- 13.44.1 BES 100 rental in 2010/11;
- 13.44.2 Other bandwidth rental services in 2006/07 to 2009/10; and
- 13.44.3 Other bandwidth rental services in 2010/11.

BES 100 rental in 2010/11

- 13.45 CWW thought that it would be better to develop a proxy for the unit costs of BES 100 rental in 2010/11 by using Option 4 because BT had changed the way it allocated electronics costs in 2010/11.
- 13.46 In the CWW Provisional Determination we said that Option 4 would be appropriate if there was a stable relationship between BES 100 and BES 1000 unit costs, which did not appear to be the case. To illustrate this we said that the ratio of BES 100 rental DSACs to BES 1000 rental DSACs varied between 0.65:1 and 0.97:1 in the earlier years of the CWW Dispute Period.
- 13.47 We have considered further the reasons why the ratio of BES 100 unit costs to BES 1000 unit costs has varied over time using CWW's suggestion of looking at the component cost breakdown. The fluctuations in the ratio are due to differences in how 21CN cost components were allocated in each year and the inclusion of the provisioning cost component against BES rentals in 2008/09. Table 13.6 below shows that the ratio of BES 100 unit FAC to BES 1000 unit FAC is much more stable after stripping out the 21CN and provisioning cost components⁷³⁶. The stability of the ratio indicates that our concerns about using Option 4 no longer hold and we consider it would be appropriate to proxy the unit cost of BES 100 rental in 2010/11 using Option 4.

Table 13.6: Ratio of BES 100 to BES 1000 rental unit FAC (excluding 21CN and provisioning cost components)

Component	2006/07	2007/08	2008/09	2009/10
BES fibre, etc	1.00	1.00	1.00	0.98
Sales product management	0.39	0.44	0.45	0.38
Service centres assurance	-	-	1.00	1.00
Total	0.98	0.95	1.00	0.97

Source: Derived from the following. 2006/07: Section 6.3.2 of the document called "Additional information in relation to BT's Current Cost Financial Statements for 2008". 2007/08: Derived from appendix 1.2.2 of the 2008/09 RFS. 2008/09: derived from appendix 1.2.1 of the 2008/09 RFS. 2009/10: Derived from Appendix 1.2.1 of the 2009/10 RFS.

⁷³⁶ Later in this Section we make an adjustment to remove most of the 21CN costs that have been allocated to BES rental services in this period. This removes much of the difference between BES 100 and BES 1000 unit FAC. We also note that provisioning costs were only allocated to BES rentals in 2008/09.

- 13.48 A further reason for preferring Option 4 to Option 2 is that a consequence of using Option 2 in the CWW Provisional Determination was that the resulting estimate of unit DSAC for BES 100 rental in 2010/11 was 32% of the unit DSAC for BES 1000 rental.⁷³⁷ This is significantly less than the historical ratio set out in paragraph 13.46. This is because BT revised its DSAC methodology in 2010/11 with the effect that DSACs for Ethernet services were significantly higher in 2010/11 than in 2009/10 (BES 1000 rental unit DSAC for example increased by 175% in the published RFS). Our use of Option 2 did not reflect this since it estimated the 2010/11 unit DSAC for BES 100 rental using unit DSACs in 2006/07 to 2009/10 which were prepared using the original methodology.
- 13.49 We therefore agree with CWW that Option 4 would give a better estimate of BES 100 rental unit DSAC in 2010/11, though this is because it would better reflect the fact that BT revised its DSAC methodology in 2010/11 rather than because it allocated electronics costs to rental services in 2010/11 as suggested by CWW.
- 13.50 In a change from the CWW Provisional Determination we have therefore decided to derive a proxy for the unit DSAC of BES 100 rental in 2010/11 using Option 4 because it will take account of the fact that BT revised its DSAC methodology in 2010/11. Table 13.7 sets out the proxy we have used for BES 100 rental using Option 4.

Table 13.7: Unit FAC and DSAC proxy for BES 100 rental in 2010/11 (£ per end)

	Unit FAC	Unit DSAC
2009/10 data (adjusted)		
BES 100 rental	1,460.81	1,541.72
BES 1000 rental	1,546.73	1,704.58
Ratio BES 100/BES 1000	94%	90%
2010/11 data (adjusted)		
BES 1000 rental	2,511.38	4,743.39
Apply 2009/10 ratio	94%	90%
BES 100 rental proxy	2,371.87	4,290.20

Note: The source of the FAC and DSAC data for BES 100 and BES 1000 in 2009/10 and BES 1000 in 2010/11 is the adjusted data from Table 13.39.

- 13.51 Since the BES 1000 unit costs include an element of electronics cost, our proxy for BES 100 rental in Table 13.7 also includes an element of electronics cost. Our estimate of the amount of electronics cost that is included in our BES 100 proxy is set out in Table 13.8.

⁷³⁷ The figure of 32% is calculated by dividing the 2010/11 BES 100 rental unit DSAC of £1578 by the BES 100 unit DSAC of £4860. Figures taken from Table 5.12 in the CWW Provisional Determination.

Table 13.8: Estimate of the amount of electronics cost included in our proxy for BES 100 rental

		2006/07	2007/08	2008/09	2009/10	2010/11 (rentals)
Volume unit		Per circuit	Per circuit	Per end	Per end	Per end
FAC						
BES 100 connection electronics	£	1,562	1,712	979	n/a	n/a
BES 1000 connection electronics	£	5,670	6,216	3,554	11,744	882
Ratio BES 100/BES 1000	%	28%	28%	28%	n/a	n/a
Average 2006/07 to 2008/09	%					28%
Estimate of BES 100 electronic costs in 2010/11	£					243
Proportion of BES 1000 electronics cost removed in 2010/11	%					81%
Estimate of BES 100 electronic costs in 2010/11 after prior years removed	£					46
DSAC						
DSAC:FAC ratio for BES electronics component						1.29
Estimate of BES 100 electronics costs in 2010/11						59

Source: FAC data was taken from the RFS published in each year. The DSAC:FAC ratio was derived from the spreadsheet provided by BT on 27 January 2012 in response to Q3 of the 20 January 2012 section 191 notice. n/a = data not available.

13.52 In the period 2006/07 to 2009/10 electronics costs were allocated to connections. The unit cost allocated to BES 100 connections was 28% of the unit cost allocated to BES 1000 – a ratio that was stable in each year. In 2010/11 electronics costs were allocated to rentals and the unit cost allocated to BES 1000 was £882.⁷³⁸ We have assumed that the electronics unit cost allocated to BES 100 rental in 2010/11 would have been 28% of £882, i.e. £243. In paragraphs 13.141 to 13.146 we make an adjustment to remove the proportion of 2010/11 electronics costs that relates to equipment purchased prior to 2010/11. For BES 1000 rental we remove 81% of 2010/11 unit FAC. We have therefore assumed that the same adjustment would have seen 81% of BES 100 electronics cost removed in 2010/11, leaving an estimated BES 100 electronics cost of £46 for 2010/11. We also know that the DSAC:FAC ratio for the BES electronics component was 1.29 in 2010/11.⁷³⁹ We have applied this ratio to our FAC estimate of £46 to derive a DSAC estimate of £59. Our proxy estimates therefore allow for the fact that electronics costs were allocated to rentals in 2010/11 and that electronics costs are likely to vary by bandwidth.

“Other bandwidth” rental services in 2006/07 to 2009/10

13.53 BT and CWW agree that electronics unit costs are most likely to vary by bandwidth, while fibre unit costs are likely to be bandwidth independent.⁷⁴⁰ In the period 2006/07 to 2009/10 BES and WES rental services did not attract any electronics cost – the

⁷³⁸ 2010/11 RFS, page 108.

⁷³⁹ Derived from spreadsheet provided by BT on 27 January 2012 in response to Q3 of the 20 January 2012 section 191 notice.

⁷⁴⁰ BT's response to our Provisional Conclusions, paragraph 158; CWW's response to our Provisional Conclusions, paragraph 122.

majority of the cost of rental services was associated with fibre.⁷⁴¹ On this basis, for the period 2006/07 to 2009/10 we have decided to use the cost proxies as set out in our Provisional Conclusions (see paragraphs 13.35 and 13.36 above).

“Other bandwidth” rental services in 2010/11

- 13.54 In 2010/11 BT allocated electronics costs to BES and WES rental services whereas previously these costs had been allocated to connections. Respondents agree with Ofcom that electronics costs could vary with bandwidth which means that the proxies we use in 2010/11 would need to reflect this where possible.
- 13.55 The “other bandwidth” rental services in dispute in 2010/11 are BES 155, BES 622, WES 155 and WES 622.
- 13.56 As set out in paragraphs 13.141 to 13.146, we have made an adjustment to remove electronics costs from BES and WES rentals in 2010/11 if the costs are associated with transmission equipment purchased prior to 2010/11. This means that rental services in 2010/11 should only include costs associated with transmission equipment purchased in 2010/11.
- 13.57 In 2010/11 there were no new connections for BES 155, BES 622 and WES 622 services but there were 14 new local end connections for WES 155 services⁷⁴².
- 13.58 We would not expect any electronics costs to have been allocated to BES 155, BES 622 and WES 622 rentals in 2010/11 because there were no new connections in this year. Therefore for these services we have decided to use the proxies as set out in our Provisional Conclusions but with the electronics costs included in the proxy completely removed. This is shown in Table 13.9 below for FAC and DSAC:

Table 13.9: FAC and DSAC proxies for BES 155, BES 622 and WES 622 rentals

	BES 155 rental	BES 622 rental	WES 622 rental
Proxy from Provisional Conclusions	BES 100	Average of BES 100 and BES 1000	Average of WES 100 and WES 1000
FAC			
Proxy unit FAC	£2,372	£2,442	£2,295
Remove electronics costs	(£46)	(£100)	(£59)
Revised proxy unit FAC	£2,326	£2,342	£2,235
DSAC			
Proxy unit DSAC	£4,290	£4,517	£4,829
Remove electronics costs	(£59)	(£128)	(£76)
Revised proxy unit cost	£4,231	£4,389	£4,753

Source: Proxy unit FAC and DSAC is taken from Table 13.39 for the relevant proxy. Electronics costs are derived from Table 13.8 and BT's response dated 3 February 2012 (Q5).

- 13.59 For WES 155 rentals, we would have expected some electronics costs to have been allocated to the service in 2010/11 since there were new connections made during the year. Using WES 100 rental unit costs as a proxy, our estimated unit FAC for WES 155 rental in 2010/11 is £2,136 and our estimated unit DSAC is £4,510⁷⁴³. BT's

⁷⁴¹ For example in 2009/10 BT's RFS shows that fibre represented between 78% and 94% of the total costs of BES and WES rental services, depending on the bandwidth. Costs of support functions largely made up the remainder. See Appendix 1.2.1 of the 2009/10 RFS.

⁷⁴² BT response dated 12 January 2012 to Q4b of the 22 December 2011 section 191 notice.

⁷⁴³ See Table 13.39 later in this section.

estimate of the unit DSAC is £[X] higher than ours.⁷⁴⁴ The figure of £[X] is BT's estimate of the electronics costs that would have been allocated to WES 155 rentals in 2010/11 and is derived by applying a [X]% uplift to the electronics costs allocated to WES 100 rental in 2010/11 (i.e. BT considers that the electronics cost associated with WES 155 is [X]% higher than WES 100). To support its figure of [X]% BT provided a list of manufacturers' prices for equipment of different bandwidths.⁷⁴⁵ BT's figure of £[X] does not take into account our adjustment to transmission costs in 2010/11, which, for WES 100 rental, removes 90% of the electronics cost allocated to the service in 2010/11. However, it has provided evidence which suggests that WES 155 equipment was [X]% more expensive than WES 100 equipment in 2010/11 so we have made a minor change to our WES 155 rental proxy to reflect this. This results in a £10 increase in the unit FAC to £2,146 and a £13 increase in the unit DSAC to £4,523.

The aggregation of main link services with BES and WES rental services in 2006/07

Our Provisional Conclusions

- 13.60 Sky and TTG are disputing main link rental charges associated with BES rental services, but in 2006/07 BT did not disaggregate financial information for main link in the RFS. Instead revenues and costs associated with main link were included within the revenue and cost information for BES and WES rental services. BT was unable to provide us with any separate information on main link rentals in 2006/07.
- 13.61 We explained that if main link revenues were below DSAC in 2006/07 then aggregating the main link and rental charges could suppress the extent of overcharging on BES rental services. However, if main link revenues were above DSAC, and BES rental revenues were also above DSAC, then aggregation of main link and rental charges would make no difference to the overall level of overcharging.
- 13.62 We considered a number of approaches to splitting out the volumes, revenues and costs associated with main link in 2006/07, including the method used in the First RGL Report⁷⁴⁶, and considered that while it was likely that main link revenues exceeded DSAC in 2006/07, we could not find a robust way of disaggregating the data.
- 13.63 If the indications from our analysis are correct and the revenue for both main link and BES rentals exceeded DSAC in 2006/07, the estimated overcharge based on disaggregated data would equal the total estimated overcharge using aggregated data. We therefore proposed to base our assessment of overcharging in 2006/07 on aggregated data from the restated RFS in 2006/07 (subject to the adjustments discussed later in this section). To the extent that the aggregated data for the BES rental services in dispute contains an embedded overcharge on main link, this will be captured within the data.

⁷⁴⁴ 14 May 2012 spreadsheet, sheet "Electronics-WES-other-adj" cell K34.

⁷⁴⁵ BT's 3 September 2012 submission, table under bullet 10.

⁷⁴⁶ RGL assumed that BES and WES services used the same average kilometre length of main link in 2006/07 as they did in 2007/08; that main link prices in 2006/07 were equal to those prevailing in 2007/08; and that the proportion of total DSAC (main link plus BES/WES rental) associated with Main Link in 2006/07 was equal to average proportions in 2007/08 and 2008/09.

Views of the Parties

- 13.64 BT supports Ofcom's proposed approach to main link rentals⁷⁴⁷.
- 13.65 In the Second RGL Report, RGL agrees that, since its own analysis indicated that revenues for main link and BES rentals exceeded DSAC, assessing overcharging on an aggregated basis is, in this case, reasonable.⁷⁴⁸
- 13.66 CWW considers that *"BT does not appear to have overcharged for all services and where it has sold main link with services where in aggregate it has not overcharged, there will be no repayment associated with the main link element. We do not believe BT should benefit from its failure to provide sufficient information and allowing it sends the wrong signals to BT"*⁷⁴⁹. Having said this, CWW considers our approach in this instance was proportionate and that any distortion was likely to be small. Unless further evidence came to light that suggested the issue was material, CWW supports our proposed approach.⁷⁵⁰

Our analysis

- 13.67 Respondents supported our approach of assessing overcharging in 2006/07 using aggregated data and we have decided to adopt this approach.
- 13.68 Our analysis in our Provisional Conclusions of possible approaches to disaggregating main link in 2006/07 focused on the relationship between main link and BES rentals since Sky and TTG, who were disputing main link charges, were only doing so in relation to the BES rental services that they were also disputing. However, assessing overcharging using aggregated data in 2006/07 means that any overcharging on main link in this year would be captured where the aggregated revenue for BES or WES rentals exceeded their respective DSACs. As can be seen in Table 13.38, this is the case for the BES 100, BES 1000, WES 100 and WES 1000 rental services in dispute.
- 13.69 CWW had concerns that any overcharging on main link in 2006/07 would be masked where the combination of main link and rental did not demonstrate overcharging, and as a result BT would benefit from not providing sufficient information. As can be seen in Table 13.38, external revenue does not exceed DSAC for WES 10 rental in 2006/07 which means that any overcharge on main link associated with WES 10 rental would not be captured by our aggregate analysis.⁷⁵¹ While it is possible that purchasers of WES 10 rental in 2006/07 may have faced charges above DSAC for main link that are not captured by our aggregate assessment, we have not considered this further because Sky and TTG were only disputing main link charges associated with BES rentals and not WES rentals. Where charges for main link associated with BES rental services have been disputed we consider that our aggregate analysis will capture any overcharging and so we do not consider that there is a material risk in this case that BT will benefit from not providing disaggregated data.

⁷⁴⁷ BT's response to our Provisional Conclusions, paragraph 125.5.

⁷⁴⁸ Second RGL Report, paragraphs 3.05.1 and 3.05.2.

⁷⁴⁹ CWW's response to our Provisional Conclusions, paragraph 128.

⁷⁵⁰ CWW's response to our Provisional Conclusions, paragraph 129.

⁷⁵¹ Paragraph 13.14 of the Initial Draft Determinations implied that our analysis suggested revenue exceeded DSAC for all BES and WES rentals in dispute, but this is not the case for WES 10 rental.

General approach to adjusting the revenue and cost data published in BT's RFS

13.70 For service variants that are reported together by bandwidth we concluded in paragraph 13.28 that we would assess overcharging by reference to the revenues and costs published in the RFS, subject to a number of adjustments.

13.71 Table 13.10 sets out the revenue, FAC and DSAC data published in the RFS for the services in dispute that are reported within specific bandwidth categories in the RFS.

Table 13.10: Total revenue and cost data for services reported in specific bandwidth categories in the RFS for the period 2006/07 to 2010/11, £m

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental					
Revenue	12.1	12.8	16.3	8.3	n/a*
FAC	7.2	3.9	7.5	8.6	n/a*
DSAC	6.9	5.5	9.9	9.1	n/a*
BES 1000 rental					
Revenue	13.1	26.6	29.9	17.2	17.6
FAC	3.1	3.4	8.4	7.9	17.8
DSAC	3.2	5.5	11.1	9.2	30.2
BES 100 connection					
Revenue	10.2	4.8	1.5	0.0	NiD
FAC	3.0	1.5	0.7	0.0	NiD
DSAC	4.1	3.3	1.1	0.4	NiD
BES 1000 connection					
Revenue	8.7	7.5	8.1	2.4	NiD
FAC	4.8	4.3	5.6	17.2	NiD
DSAC	6.4	9.1	9.4	32.0	NiD
WES 10 rental					
Revenue	79.0	62.2	100.7	113.5	88.4
FAC	122.8	73.0	86.1	93.7	133.4
DSAC	130.6	93.6	112.6	125.3	261.8
WES 100 rental					
Revenue	91.6	79.5	86.2	85.6	98.8
FAC	46.9	37.0	43.6	64.0	117.6
DSAC	52.0	48.8	56.8	86.3	228.9
WES 1000 rental					
Revenue	43.0	26.5	31.7	32.4	39.7
FAC	6.4	4.7	5.6	11.8	25.9
DSAC	7.5	7.1	7.4	17.1	46.7
Main link rental					
Revenue	n/a	108.5	137.8	124.9	NiD
FAC	n/a	77.8	49.1	100.3	NiD
DSAC	n/a	195.3	156.0	302.6	NiD

Source: BT's responses to question 2 of the 22 October 2010 section 191 notice and question 1 of the 22 December 2011 section 191 notice. n/a = not available. NiD = not in dispute.

*BES 100 rental was included within BES "other bandwidth" rental in 2010/11.

13.72 Before discussing individual adjustments to the RFS data in Table 13.10 we first set out the types of adjustment we proposed to make and consider the Parties' comments on these. More general comments by the Parties about the approach we should take to adjusting the RFS are set out in paragraphs 13.75 to 13.83.

Our Provisional Conclusions

13.73 In our Provisional Conclusions, in order to ensure that the data we were using could be relied upon and was appropriate for determining the Disputes, we proposed to make adjustments to BT's data:

13.73.1 to correct for what we considered to be straightforward volume and revenue errors and associated issues in the RFS data; and

13.73.2 to replicate a series of cost adjustments that were identified in the 2009 LLCC Statement⁷⁵², to the extent that they are applicable to these historic Disputes, in order to ensure that revenues are compared against the appropriate costs. The 2009 LLCC Statement identified some areas where this mismatching of costs and revenues had occurred and recommended some adjustments to BT's RFS to enable a better comparison between revenues and costs to be made. In our Provisional Conclusions we sought, where appropriate, to ensure consistency with these adjustments.

13.74 We proposed to model all corrections associated with volume errors as individual standalone changes to the base data. The adjustments in line with the 2009 LLCC were based on the original RFS data or on data provided by BT but were modified to take account of the volume corrections, where relevant.

Views of the Parties

13.75 BT says that it:

*"accepts, for the purposes of these disputes, that where the material in the RFS has been superseded by more accurate figures, it would be inappropriate simply to use the DSAC figures published in the RFS, over the relevant period, to assess cost orientation and BT's compliance with HH3.1. However, where the figures in the RFS are not to be used, then Ofcom must use all the most accurate information and must make the adjustments that have the effect of increasing the published DSAC as well as those that have the effect of decreasing the published DSAC (and other) figures".*⁷⁵³

13.76 BT accepts a number of the adjustments we proposed to make but did not accept others.⁷⁵⁴ We consider BT's views on each of the adjustments below.

13.77 BT also says that it has carried out additional detailed analysis of the published DSACs for the years 2006/07 to 2010/11 and has identified a number of further adjustments that it says correct for errors in the published DSACs.⁷⁵⁵ BT's proposed adjustments relate to BES fibre costs, provisioning costs and ISDN2 monitoring costs and generally involve reallocating costs from different services or markets into BES and WES services.

⁷⁵² The adjustments are explained in detail in Section 5 (paragraphs 5.42 to 5.76) and Annex 6 of the 2009 LLCC Statement.

⁷⁵³ BT's response to our Provisional Conclusions, paragraph 124.

⁷⁵⁴ BT's response to our Provisional Conclusions, paragraphs 125 to 126.

⁷⁵⁵ BT's response to our Provisional Conclusions, paragraph 141.

- 13.78 CWW, TTG and Virgin support our general proposals to correct for errors and make adjustments to ensure revenues are appropriately matched to costs⁷⁵⁶, but make specific comments on some of our individual proposed adjustments and on BT's arguments that additional adjustments are necessary. We consider the comments received on each correction and adjustment in turn below.
- 13.79 Some of the Disputing CPs note, however, that some of the data we relied on in reaching our provisional views was redacted from our Provisional Conclusions on the grounds of confidentiality, reducing their ability to comment on certain aspects of our proposals.
- 13.80 TTG notes in relation to our corrections for volume errors that the underlying data was not made available to TTG or RGL for further analysis. Given this, TTG says it is unable to confirm whether the adjustments could be considered correct or reasonable and comments that *"it is possible that BT has only disclosed certain errors and that more errors make [sic] exist that are against BT's interests"*.⁷⁵⁷
- 13.81 CWW also comments on the redactions, noting in relation to our corrections for volume errors that: *"It is not possible for us to challenge the accuracy of the amendments and we are reliant upon Ofcom having sought reasonable proof from BT"*. It later comments: *"Clearly our ability to comment constructively on these adjustments is entirely compromised by the lack of transparency of the changes."*⁷⁵⁸
- 13.82 Virgin comments that it is *"not able to validate the application of these corrections and adjustments since BT does not publish the underlying LRIC or FAC Cost Accounting models used to generate the RFS"*.⁷⁵⁹
- 13.83 RGL notes that *"information relating to the corrections was largely redacted"* and therefore *"RGL cannot comment on the extent to which these corrections are reasonable due to a lack of data"*.⁷⁶⁰

Our analysis

- 13.84 We adopt the framework set out in Section 11 for considering whether to depart from the volume, revenue and FAC data published in BT's RFS in resolving these Disputes.
- 13.85 We have decided to model all corrections associated with volume errors as individual standalone changes to the RFS data. None of the Parties commented on this proposal in our Provisional Conclusions.
- 13.86 Costs allocated to individual services often depend on the volumes of those services. Volume errors could impact the amount of costs allocated to a service in two ways. First, where the total cost of a cost component has been apportioned to services on the basis of volumes, a volume error will change the amount of the total component cost allocated to each service. When making the FAC adjustments described in paragraphs 13.118 to 13.375 we have taken this impact into account where we have

⁷⁵⁶ CWW's response to our Provisional Conclusions, paragraph 93; Virgin's response to our Provisional Conclusions, paragraph 8.1; TTG's response to our Provisional Conclusions, paragraph 5.10.

⁷⁵⁷ TTG's response to our Provisional Conclusions, paragraphs 5.11 and 5.12.

⁷⁵⁸ CWW's response to our Provisional Conclusions, paragraphs 96 and 99.

⁷⁵⁹ Virgin's response to our Provisional Conclusions, paragraph 8.1.2.

⁷⁶⁰ First RGL Report, paragraph 3.07.

the information available so that the total cost removed from or added to Ethernet services is in proportion to the corrected volumes.

- 13.87 Second, the total component cost itself could be affected by a volume error if BT's allocation system apportions costs to that component on the basis of volumes. Estimating the size of this effect is more difficult since it requires information on all the components and services across BT's business that attract an allocation of that cost. Due to this difficulty we have not taken into account this effect in our analysis.
- 13.88 Where no information is available (for example where we do not know whether costs were allocated to services on the basis of volumes or not) we have modelled the adjustment on a standalone basis and not made any additional adjustment to take into account volume errors.
- 13.89 In order to calculate the ROCE for each service in Section 14 we need to know how FAC is split between CCA costs (i.e. opex) and capital costs (i.e. MCE multiplied by the cost of capital). The RFS does not provide this split so our analysis is based on the FAC provided by BT in response to section 191 notices which do provide this breakdown.⁷⁶¹ We also need to know whether our FAC adjustments represent adjustments to CCA costs, adjustments to capital costs or both. Where the information provided by BT does not separate FAC between these effects, we have assumed that the CCA cost impact and the capital cost impact is in proportion to the FAC split of the service before any adjustment. Where we make a FAC adjustment to a service where a volume correction has also been made, we assume that the CCA cost impact and the capital cost impact is in proportion to the CCA cost and capital cost of the service after the volume correction.
- 13.90 In order to assess whether BT has overcharged its external customers the DSAC test is applied to external revenues and external DSAC only. In order to calculate external costs (FAC and DSAC) we have multiplied the total cost by the proportion of total volumes that are external volumes. This is because the unit cost published in the RFS is the same for both internal and external services in each year of the Disputes. Note that BT only reported external BES services in the RFS during the Relevant Period so the reported costs are already 'external only'.
- 13.91 Some of the data we relied on in reaching our provisional views were redacted from our Provisional Conclusions on the basis that they were confidential to one of the Parties, in most cases BT. We acknowledge that the Disputing CPs therefore did not have visibility of all of the data that we used for making individual adjustments. However, we consider that the issues were set out in sufficient detail in our Provisional Conclusions for the Parties to make informed responses.
- 13.92 In the following paragraphs we will consider the comments received on each of our proposed corrections and adjustments in turn. We also consider the additional adjustments put forward by BT in its response. We will then consider how our FAC adjustments translate into DSAC adjustments.

⁷⁶¹ For 2006/07 to 2009/10 this information was provided in BT's response dated 15 November 2010 to Q2 of the 22 October 2010 section 191 notice. For 2010/11 this information was provided in BT's response dated 27 January 2012 to Q1 of the 24 January 2012 section 191 notice.

Corrections to the data provided by BT associated with volume and revenue errors

Our Provisional Conclusions

13.93 In our Provisional Conclusions we considered four corrections associated with volume and revenue errors:

13.93.1 errors in the 2006/07 and 2007/08 unit FACs;⁷⁶²

13.93.2 volume errors relating to WES services in 2006/07;

13.93.3 issues associated with volume errors for BES 1000 rental and BES 1000 connection in 2008/09; and

13.93.4 a revenue error associated with main link in 2008/09.⁷⁶³

Views of the Parties

13.94 BT says that Ofcom's adjustments in respect of these volume errors were correct for the purposes of the Disputes.⁷⁶⁴

13.95 RGL notes that "*these figures serve to highlight that, for some services, the adjustments were significant*".⁷⁶⁵

13.96 TTG agrees that it was "*appropriate to correct these arithmetic errors*" but considers that it is "*worrying that BT's previously published RFS included such basic errors*".⁷⁶⁶

13.97 CWW notes that Ofcom accepted the revised data that BT had provided to correct for the errors listed at paragraph 13.93 above. CWW says it is not possible for it to challenge the accuracy of the amendments and was "*reliant on Ofcom having sought reasonable proof from BT for the changes*".⁷⁶⁷

Our analysis

13.98 The four proposed corrections were based on information provided by BT in response to questions of clarification from Ofcom relating to BT's responses to section 191 notices. We consider that, through our investigations involving section 191 notices and further detailed questions, we have sought the 'reasonable proof' referred to by CWW. We consider that BT's responses indicated that there were errors in the published RFS which should be corrected for the purposes of resolving the Disputes, and that it was practical to correct them.

13.99 There was general agreement from respondents that these corrections of errors should be made. We have therefore decided to make these corrections as set out in our Provisional Conclusions. We summarise each correction below, explaining how these errors came to light and why we suggest making the adjustments. In order to

⁷⁶² We consider the impact on DSAC of the corrections to FAC in paragraphs 13.402 to 13.408.

⁷⁶³ Identified by BT in its response to question 15 of the 22 December 2011 section 191 notice.

⁷⁶⁴ BT's response to our Provisional Conclusions, paragraph 125.

⁷⁶⁵ Second RGL Report, paragraph 3.07.

⁷⁶⁶ TTG's response to our Provisional Conclusions, paragraph 5.10.

⁷⁶⁷ CWW's response to our Provisional Conclusions, paragraphs 95 to 96.

clearly set out the effect of these error corrections we have separated them into those that impact volumes/revenues and those that impact volumes/FAC.

13.100 The error corrections that impact volumes and revenues are:

13.100.1 correction of volume errors relating to WES services in 2006/07;

13.100.2 removal of volumes and revenues associated with EBD rental and connection; and

13.100.3 correction of a revenue error associated with main link in 2008/09.

13.101 The error corrections that impact volumes and FAC are:

13.101.1 correction of volume errors in the 2006/07 and 2007/08 unit FACs; and

13.101.2 correcting the costs of BES rentals and connections in 2008/09 associated with the inclusion of EBD volumes in BES 1000 rental and connection.

13.102 We have considered whether these corrections would significantly alter the financial data on which we relied in previous regulatory decisions. We do not consider it likely that any inconsistencies in the financial data that might be introduced as a result of these corrections would be significant enough to outweigh the considerations set out above since their impact is mostly confined to the Ethernet market. The impact of these corrections is to decrease the difference between external revenue and external DSAC for the services in dispute by around £3.7m. We recognise that correcting volume and revenue errors could affect BT's incentives to prepare accurate RFS (especially where the correction of those errors works in BT's favour). However we consider that in this instance it is more important to ensure that the revenues and costs we are using to assess overcharging are as accurate as reasonably practicable. We do not consider that making these corrections will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.

13.103 In our Provisional Conclusions we discussed the adjustment to remove costs associated with EBD rental and connection in this section. We now consider this adjustment later, at paragraphs 13.308 and 13.311, as it is a matching adjustment rather than a correction of a volume error.

Error corrections that impact volumes and revenue

Volume errors relating to WES services in 2006/07

13.104 BT informed us that the restated 2006/07 RFS contained some errors relating to WES services. It explained that the "*published revenue figures for WES services included BNS⁷⁶⁸ volumes and revenues and also incorrectly classified 973 internal WES circuits as external. In addition, 154 WES 10 circuits had incorrectly been classified as WES 100 circuits⁷⁶⁹*". Of the services in dispute, only WES 1000 rental is affected, as illustrated in Table 13.11.

⁷⁶⁸ Backhaul Network Services

⁷⁶⁹ BT response of 11 February 2011 to follow up question 12b to the 22 October 2010 section 191 notice.

Table 13.11: WES 1000 rental volume and revenue corrections in 2006/07

	WES 1000 rental		
	Per RFS	BT adjusted	Change
Internal volume, circuits	1,108	1,328	220
External volume, circuits	259	39	(220)
Total volume, circuits	1,367	1,367	0
Internal revenue, £m	35	42	7
External revenue, £m	8	1	(7)
Total revenue, £m	43	43	0

Source: BT email dated 27 June 2011 in response to follow up question 25 to the 22 October 2010 section 191 notice.

13.105 BT's revised data was consistent with the billing data provided in relation to WES 1000 rental where the amount of revenue associated with external customers was in the region of £1m⁷⁷⁰.

13.106 We asked BT whether these volume and revenue corrections would have had an impact on reported costs. BT replied that, as the adjustments were volume driven, it is likely that costs would have been affected in a similar proportion to revenues.⁷⁷¹

13.107 For WES 1000 rental there is a reallocation of volumes between internal and external services. While total costs would therefore not be affected (because total volumes are unchanged), the split of costs between internal and external services would change since this split is based on the relative proportion of external and internal volumes. When estimating external costs for our assessment of overcharging for WES 1000 rental we have used the adjusted internal/external volume split.

Removal of volumes and revenues associated with EBD rental and connection

13.108 BT informed us that in 2008/09 the reported BES 1000 rental service included volume and revenue data relating to the EBD rental service. BT explained that the 6,695 local ends reported under BES 1000 rentals in the RFS included 2,723 EBD rental circuits and of the £30m of external revenue £2m related to EBD rental.⁷⁷² We have removed these EBD rental volumes and revenues from the BES 1000 rental dataset.

13.109 BT also informed us that the reported BES 1000 connection service included volume and revenue data relating to EBD and Backhaul Transport Link ("BTL") connection services.⁷⁷³ In addition BT said "*the majority of the EBD and BTL connection*

⁷⁷⁰ Billing data relating to 2006/07 was provided by BT on 13 January 2011.

⁷⁷¹ BT response to follow up question 12c to the 22 October 2010 section 191 notice.

⁷⁷² BT response dated 14 July 2011 to follow up question 26 to the 22 October 2010 section 191 notice. BT's response dated 12 September 2011 to follow up question 29 to the 22 October 2010 section 191 notice also informed us that there were actually 147 EBD rental volumes in 2008/09, not the 2,723 included in BES 1000 rental. We note that BT's EBD rental revenue estimate of £2m is rounded to the nearest £million but it is consistent with the charges associated with EBD rental in 2008/09 and a volume base of 147.

⁷⁷³ BT also informed us that in 2006/07 to 2008/09 WES 2 rental was reported within the WES 10 rental product. WES 2 rental is an internal only service. This means that all external WES 10 rental revenues relate to WES 10 and none relate to WES 2. Since FAC costs are allocated between external and internal services on the basis of relative external and internal volumes we estimate that WES 10 external costs would be unchanged by the exclusion of the WES 2 service. We have therefore not made any adjustment for the presence of WES 2 rental in the WES 10 rental data.

*volumes...were double counted in 2008/09*⁷⁷⁴. This meant that of the 1,555 local ends reported under BES 1000 connections in the RFS, only 558 related to BES 1000 connection. Similarly, of the reported £8m of revenue, only £3m related to BES 1000 connection⁷⁷⁵.

13.110 Table 13.12 shows the correct volume and revenue data associated with BES 1000 rental and connection that we have used in our analysis.

Table 13.12: Removal of volumes and revenues associated with EBD and BTL from BES 1000 services in 2008/09

	External volumes (local ends)			External revenues £m		
	RFS	Corrected	Change	RFS	Corrected	Change
BES 1000 rental	6,695	3,972	(2,723)	30	28	(2)
BES 1000 connection	1,555	558	(997)	8	3	(5)

Source: BT response dated 12 September 2011 to follow up question 29 to the 22 October 2010 section 191 notice and e-mail dated 14 July 2011 from Michael Rickard (BT)

Correcting for a revenue error associated with main link in 2008/09

13.111 In 2008/09 the BES 100 rental unit price was reported as £2,687 in the RFS.

However, none of the BES 100 rental service variants listed in the OPL were charged at more than £2,500 in 2008/09. When we asked BT to explain why the price reported in the RFS was higher than the prices listed in the OPL, BT informed us that in 2008/09 external main link revenue was not properly split out from BES rental services, leading to errors in the revenue reported. As a result of this error, BES 100 rental revenue was overstated by £2.4m in the RFS while BES 1000, BES "other bandwidth" and external main link rental revenues were understated by £0.3m, £0.5m and £1.6m respectively.⁷⁷⁶ Correcting for this error means that the average price of BES 100 rental in 2008/09 is £2,293 and is comparable to the prices listed in the OPL. We have used the correct revenue data in our analysis as shown in Table 13.13.

Table 13.13: Correction of revenue error associated with main link in 2008/09

	External revenues £m		
	RFS	Corrected	Change
BES 100 rental	16.3	13.9	(2.4)
BES 1000 rental	29.9	30.2	0.3
Main link rental	137.8	139.4	1.6

Source: BT response dated 18 January 2012 to Q15 of the 22 December 2011 section 191 notice.

⁷⁷⁴ BT response dated 19 July 2011 to follow up question 28 to the 22 October 2010 section 191 notice.

⁷⁷⁵ BT response dated 19 July 2011 to follow up question 28 to the 22 October 2010 section 191 notice. We note that BT's estimates of the EBD and BTL revenues to remove are rounded to the nearest £million but the resulting estimate of BES 1000 connection revenue is consistent with the charges associated with BES 1000 connection in 2008/09 and a volume base of 558.

⁷⁷⁶ BT response dated 18 January 2012 to question 15 of the 22 December 2011 section 191 notice.

Error corrections that impact volumes and FAC

Volume errors in the 2006/07 and 2007/08 unit FACs

13.112 Table 13.14 shows the total FAC reported in the RFS in 2006/07 and 2007/08 for BES and WES services reported by bandwidth compared to the FAC presented by BT in its response to the 22 October 2010 section 191 notice. For some services, in particular BES connection services in 2006/07, the total FAC reported in the RFS differs from the FAC BT provided to us as part of this response.

Table 13.14: Comparison of FAC reported in RFS to FAC provided by BT in response to 22 October 2010 section 191 notice, 2006/07 and 2007/08

	2006/07			2007/08		
	FAC per RFS £m	FAC per s191 £m	Difference (s191 vs RFS) %	FAC per RFS £m	FAC per s191 £m	Difference (s191 vs RFS) %
BES 100 rental	7.2	7.1	(2%)	3.9	3.8	(4%)
BES 1000 rental	3.1	3.2	3%	3.4	3.3	(2%)
BES 100 connection	3.0	1.8	(41%)	1.5	1.5	(0%)
BES 1000 connection	4.8	2.6	(45%)	4.3	4.3	(0%)
WES 10 rental	122.8	122.8	(0%)	73.0	73.0	(0%)
WES 100 rental	46.9	46.9	(0%)	37.0	37.0	0%
WES 1000 rental	6.4	6.4	(0%)	4.7	4.8	1%
Main link rental	-	-	-	77.8	76.9	(1%)

Source: 2006/07 RFS data is taken from BT's document entitled Additional information in relation to BT's Current Cost Financial Statements for 2008. 2007/08 data is taken from the 2008/09 RFS since it was restated. Total FAC is calculated by multiplying the unit FAC in the RFS by the volumes in the RFS. The columns headed "FAC per s191" use data supplied by BT in response to question 2 of the 22 October 2010 section 191 notice.

13.113 When we asked BT why the data provided in its response to the 22 October 2010 section 191 notice differed from the RFS, it said that the restated 2006/07 RFS included incorrect unit FACs due to an inconsistency between the volumes used to derive component unit costs and the volumes used to distribute component costs to services.⁷⁷⁷ This means that when multiplying the unit FAC data from the RFS by volumes in the RFS, the total calculated FAC is not correct. BT said that the total FAC numbers included in its response were correct. We have been able to recreate the error for BES connections (which is the error with the largest impact) using the 23 June 2011 spreadsheets and are satisfied that the total FAC data provided by BT in its section 191 response is correct, rather than the total FAC derived from the unit cost data published in the RFS. We have therefore used the data in BT's response to the 22 October 2010 section 191 notice in our analysis.

13.114 Similarly, the unit FAC data in 2007/08 does not reconcile exactly to the total FAC data provided by BT in its response to the 22 October 2010 section 191 notice, although the differences are small. BT explained that this was because the unit FACs in 2007/08 (as restated in the 2008/09 RFS) did not include the effects of restating the 21CN and Sales, General and Administration ("SG&A") components. For our

⁷⁷⁷ BT's response of 28 March 2011 to follow up question 16 to the 22 October 2010 section 191 notice.

analysis, we have therefore used the total FAC data provided by BT in its section 191 response which BT said includes the effects of restating these components⁷⁷⁸.

Correcting the costs of BES rentals and connections in 2008/09 associated with the inclusion of EBD volumes in BES 1000 rental and connection

13.115 The volumes used to estimate the unit FAC and DSAC data in the RFS for BES 1000 rental were incorrect because they included 2,723 circuits relating to EBD⁷⁷⁹. BT informed us that had the EBD volumes not been included in BES 1000 then this would have impacted the unit FAC and DSAC for all BES rental services (since total costs would have been allocated across a different volume base). BT provided us with revised FAC for BES rental services as part of its response to question 29 of our follow up questions to the 22 October 2010 section 191 notice as set out in Table 13.15 below. BT said that its *"revised calculation takes the underlying total cost of the key components for fibre and electronics, and allocates them over a smaller volumetric base"*.⁷⁸⁰ We have reflected these figures in our analysis.

Table 13.15: Corrections to the FAC of BES 100 and BES 1000 rental to account for inclusion of EBD rental, 2008/09

	FAC £m		
	RFS	Corrected	Change
BES 100 rental	7.5	8.7	1.2
BES 1000 rental	8.6	6.0	-2.6

Source: Derived from BT response dated 12 September 2011 to follow up question 29 to the 22 October 2010 section 191 notice.

13.116 The volumes used to estimate that unit FAC and DSAC of BES 1000 connection were also incorrect because they included volumes relating to EBD and BTL. BT informed us that, had these volumes not been included within BES 1000 connection, this would have an impact on the unit FAC and DSAC for all BES connection services (since total costs would have been allocated across a different volume base). We obtained from BT revised FAC data for BES connection services as part of its response to question 29 of our follow up questions to the 22 October 2010 section 191 notice as set out in Table 13.16. We have reflected these figures in our analysis.

Table 13.16: Corrections to BES 100 and BES 1000 connection to account for volume errors, 2008/09

	FAC £m		
	RFS	Corrected	Change
BES100 connection	0.7	1.0	0.4
BES1000 connection	5.6	3.2	-2.4

Source: Derived from BT response dated 12 September 2011 to Q29 of our follow up question to the 22 October 2010 section 191 notice.

⁷⁷⁸ BT's response of 28 March 2011 to follow up question 16 to the 22 October 2010 section 191 notice.

⁷⁷⁹ BT's response dated 12 September 2011 to follow up question 29 to the 22 October 2010 section 191 notice also informed us that this in itself was an error since there were actually 147 EBD circuits in 2008/09 and not 2,723.

⁷⁸⁰ BT's response dated 12 September 2011 to follow up question 29 to the 22 October 2010 section 191 notice.

Corrected revenue and FAC data

13.117 Table 13.17 shows the impact on the FAC of each service of the volume corrections made. Table 13.18 sets out the total revenue and FAC for all the services in dispute reported within specific bandwidth categories, after making the corrections discussed at paragraphs 13.112 to 13.116 above to the published RFS data. This table represents the revenues and FAC we would have expected to see published in the RFS in these years had there not been any volume or revenue errors. It therefore represents the starting point for the adjustments we consider in the following section.

Table 13.17: Impact on FAC in £m of volume corrections made, 2006/07 to 2010/11

	06/07 and 07/08 unit FACs	EBD volume error	Total
BES 100 rental	(0.2)	1.2	1.0
BES 1000 rental	0.0	(2.6)	(2.6)
BES 100 connection	(1.2)	0.4	(0.9)
BES 1000 connection	(2.2)	(2.4)	(4.6)
WES 10 rental	(0.0)		(0.0)
WES 100 rental	0.0		0.0
WES 1000 rental	0.0		0.0
Main link rental	(0.9)		(0.9)
Total	(4.5)	(3.4)	(7.9)

Source: Ofcom

Table 13.18: Corrected revenue and FAC data for services reported in specific bandwidth categories in the RFS in the period 2006/07 to 2010/11, £m

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental					
Revenue	12.1	12.8	13.9	8.3	n/a*
FAC	7.1	3.8	8.7	8.6	n/a*
BES 1000 rental					
Revenue	13.1	26.6	28.2	17.2	17.6
FAC	3.2	3.3	6.0	7.9	17.8
BES 100 connection					
Revenue	10.2	4.8	1.5	0.0	NiD
FAC	1.8	1.5	1.0	0.2	NiD
BES 1000 connection					
Revenue	8.7	7.5	3.1	2.4	NiD
FAC	2.6	4.3	3.2	17.2	NiD
WES 10 rental					
Revenue	79.0	62.2	100.7	113.5	88.4
FAC	122.8	73.0	85.4	93.6	133.4
WES 100 rental					
Revenue	91.6	79.5	86.2	85.6	98.8
FAC	46.9	37.0	43.6	63.9	117.6
WES 1000 rental					
Revenue	43.0	26.5	31.7	32.4	39.7
FAC	6.4	4.8	5.9	11.8	25.9
Main link rental					
Revenue	n/a	108.5	139.4	124.9	NiD
FAC	n/a	76.9	49.1	100.3	NiD

Source: Ofcom, based on data provided by BT. FAC in this table has been calculated using the CCA and MCE figures provided by BT in its responses dated 15 November 2010 to Q2 of the 22 October 2010 section 191 notice and 27 January 2012 to Q1 of the 24 January 2012 section 191 notice. This is so that ROCE information can be calculated in Section 14 below.

NiD = Not in dispute, n/a= data not available

*BES 100 rental was included within BES "other bandwidth" rental in 2010/11

Adjustments to ensure that revenues are compared against appropriate costs

13.118 In paragraph 13.73.2 we said that the 2009 LLCC Statement identified some areas where mismatching of costs and revenues had occurred and recommended adjustments to BT's RFS to enable a better comparison between revenues and costs to be made. In our Provisional Conclusions we sought, where appropriate, to ensure consistency with these adjustments. This is the same approach as that adopted by RGL in the First RGL Report, although we noted in our Provisional Conclusions that our adjustments were based on information that was not available to RGL.

13.119 We therefore considered the following adjustments, derived from the 2009 LLCC Statement, in order to ensure that when carrying out our assessment of overcharging we compared revenues for the disputed services with the appropriate costs:

13.119.1 transmission equipment costs;

13.119.2 21CN costs;

13.119.3 excess construction charges;

13.119.4 payment terms;

13.119.5 RAV adjustment; and

13.119.6 treatment of holding gains/losses and current cost normalisation.

13.120 In our Provisional Conclusions we also considered an adjustment relating to the removal of EBD costs from the cost base of BES rental and connection services in 2008/09 and 2009/10. In our Provisional Conclusions we included this within our assessment of volume corrections, but this is actually a matching adjustment unrelated to volume errors so we have considered it in this section in these Determinations.

13.121 For each adjustment we set out our proposals, summarise the responses received and conclude on the adjustment to be made.

Transmission equipment costs

Our Provisional Conclusions

13.122 We proposed to make two adjustments in relation to transmission equipment costs, one for the period 2006/07 to 2009/10 and another for 2010/11.

Adjustment relating to 2006/07 to 2009/10

13.123 Between 2006/07 and 2009/10, transmission equipment costs were recovered through upfront circuit connection charges but, for accounting purposes, the assets were capitalised and depreciated over the life of the underlying equipment.⁷⁸¹ This meant there was a timing mismatch between the revenues associated with transmission equipment (which were recognised in upfront connection charges) and the costs of transmission equipment (which were spread over the life of the equipment).

13.124 In order to compare prices of connection services with the underlying costs of provision, we proposed to remove the depreciation and capital costs associated with transmission equipment and replace them with an estimate of the cost of expensing the equipment in the Profit and Loss account ("P&L") in the year of purchase so that both revenues and costs were recognised 'up front'. The figures for depreciation and MCE by service were provided by BT.

13.125 We estimated the cost of expensing the equipment in the P&L each year by apportioning BT's annual additions from the asset register to services on the same basis as the depreciation and MCE were apportioned in the RFS.⁷⁸²

Adjustment relating to 2010/11

13.126 In 2010/11 BT changed its allocation methodology so that the depreciation and capital costs associated with transmission equipment were allocated to BES and WES rentals rather than connections. This led to a large increase in the FAC of rental services and a corresponding decrease in FAC for connection services.

13.127 This re-allocation in 2010/11 meant that there was no longer a mismatch between revenues and costs, since the revenues associated with the equipment were spread

⁷⁸¹ 2009 LLCC Statement, paragraph 5.51.

⁷⁸² As provided in BT's response of 28 March 2011 to follow up question 13 to the 22 October 2010 section 191 notice.

over the life of the equipment via rental charges and the cost of the equipment was spread over the lifetime of the asset via depreciation and capital costs. This means that it was not necessary in 2010/11 to make an adjustment to remove the depreciation and capital costs associated with transmission equipment and replace them with an estimate of the cost of expensing the equipment in the year of purchase as we had done in 2006/07 to 2009/10.

- 13.128 However, as explained in our Provisional Conclusions, some of the depreciation and capital costs associated with transmission equipment that was allocated to rentals in 2010/11 had already been recovered from up-front connection charges in previous years. As a result there was a risk that these costs would be recovered twice – once through connection charges and again from rental charges. We therefore made an adjustment to remove from rentals the depreciation and MCE associated with transmission equipment that was acquired before 2010/11 because these costs had already been recovered from connection charges.

Development cost adjustment in 2010/11

- 13.129 In the CWW Provisional Determination we proposed a similar adjustment to development costs in 2010/11. However BT subsequently provided us with further information⁷⁸³ which indicated that the adjustment was unnecessary because, while some costs associated with transmission equipment that have been allocated to WES and BES rentals in 2010/11 have already been recovered from connection charges in previous years, this is not the case for development costs. In the Verizon Provisional Conclusions we therefore proposed not to make the adjustment to development costs in 2010/11, and we issued an update to the CWW Provisional Determination saying that we proposed to take the new information into account in resolving the CWW Dispute.

Views of the Parties

- 13.130 BT does not comment on the transmission equipment adjustment for 2006/07 to 2009/10. However, it argues that in making the 2010/11 adjustment Ofcom “*failed to allow for the capital expenditure on transmission equipment costs in 2010/11 even though these costs have (rightly) been included in previous years*”⁷⁸⁴. BT has provided a table showing the impact on BES and WES rental DSAC of including the capital expenditure on transmission equipment in 2010/11.⁷⁸⁵ BT has calculated the impact on DSAC by assuming that the depreciation and capital costs associated with transmission equipment bought in 2010/11 should be converted into a capital expenditure figure and the total expensed to the P&L against rental services, up-front during the year of purchase.⁷⁸⁶
- 13.131 TTG agrees that it is appropriate to make the transmission equipment adjustment, although it notes that the lack of data available to it makes it impossible to comment on whether our approach is reasonable.⁷⁸⁷

⁷⁸³ BT responses of 7 March 2012 to our questions dated 27 February 2012, seeking clarification of BT's response to question 13 of the 22 December 2011 section 191 notice and question 33 of the section 135 notice dated 4 July 2011 (sent in the context of the 2012 LLCC Consultation).

⁷⁸⁴ BT's response to our Provisional Conclusions, paragraph 127.

⁷⁸⁵ Table 4.1 of BT's response to our Provisional Conclusions.

⁷⁸⁶ Interpreted from Table 4.1 of BT's response to our Provisional Conclusions.

⁷⁸⁷ TTG's response to our Provisional Conclusions, paragraph 5.17.

13.132 RGL accepts that, contrary to its initial view, it is appropriate to allocate the adjustment in transmission equipment costs to connections rather than rentals “*since it appears that in the FAC methodology equipment costs are allocated to connections*”.⁷⁸⁸

13.133 Verizon comments that the level of disclosure of the provisional decision that the development cost adjustment made in the CWW Provisional Determination was no longer necessary is inadequate to allow it to assess Ofcom's decision.⁷⁸⁹

Our analysis

13.134 Transmission equipment costs are incurred when a new circuit is provided. BT decides how to recover these costs. For example, it could decide to recover all the costs of transmission equipment incurred in the year via an upfront connection charge or it could decide to spread the cost over a number of years and recover the cost from annual rental charges. As explained in Section 11, our starting point for resolving these Disputes is the data published in the RFS but we will consider departing from that data if BT has used a methodology in preparing the RFS that is obviously inappropriate for resolving the Disputes.

13.135 In 2006/07 to 2009/10 BT allocated transmission equipment costs to connections and in 2010/11 it changed its allocation policy so that transmission equipment costs were allocated to rentals. We do not consider that it is obviously inappropriate for the costs of transmission equipment to be allocated to rentals rather than connections. However we do expect BT's accounting treatment of the costs to be consistent with its policy, that is, if costs are recovered from up front connection charges then those costs should be recognised upfront while if costs are recovered from rental charges those costs should be spread over a number of years.

13.136 We do not consider that these adjustments relating to transmission equipment would significantly alter the financial data on which we relied in previous regulatory decisions. On the contrary, they would be consistent with the approach we took in the 2009 LLCC Statement.

13.137 We do not consider that making these adjustments will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.

13.138 We explain our conclusions in relation to transmission equipment costs below. We respond to comments about the data available to the Disputing CPs at paragraph 13.91 above.

Adjustment relating to 2006/07 to 2009/10

13.139 We did not receive any comments in relation to the adjustment we proposed to make in 2006/07 to 2009/10. We have concluded that BT's methodology was obviously inappropriate in these years because there was a timing mismatch between the revenues associated with transmission equipment (which were recognised in upfront connection charges) and the costs of transmission equipment (which were spread over the life of the equipment). We have therefore decided to make the adjustment in 2006/07 to 2009/10 as set out in our Provisional Conclusions in order to compare prices of connection services with the underlying costs of provision.

⁷⁸⁸ Second RGL Report, paragraph 4.04.2.

⁷⁸⁹ Verizon's response to the Verizon Provisional Conclusions, page 2.

13.140 We have taken into account the fact that the 2008/09 volume errors described in paragraphs 13.115 and 13.116 are likely to have affected the amount of cost allocated to individual BES connection services. We have done this by apportioning BT's estimates of the total amount of transmission equipment costs (depreciation, MCE and capital expenditure) to services based on the corrected volumes⁷⁹⁰. It is likely that the 2008/09 volume error will also have impacted the total amount of transmission equipment that was allocated to BES connection services⁷⁹¹. As explained at paragraph 13.86, we have not taken into account these secondary volume effects. However, we note that even in the extreme case of not making any adjustment to transmission equipment costs in 2008/09 our conclusions on overcharging for BES 100 and BES 1000 connection in 2008/09 would not be affected since revenue would continue to be below DSAC.

Adjustment relating to 2010/11

13.141 In 2010/11, after making our adjustment to remove the depreciation and capital costs associated with equipment bought in prior years, it is only the depreciation and capital costs associated with transmission equipment actually bought in 2010/11 that is allocated to rentals. BT would like to see these costs converted into capital expenditure and expensed into the P&L for rental services. BT argues that this would be consistent with our adjustment in 2006/07 to 2009/10. We disagree with BT's suggested treatment.

13.142 In 2006/07 to 2009/10 the recognition of transmission equipment costs (capitalised and spread over the life of the asset) did not match the recognition of revenue (which was recognised through up-front connection charges). There was therefore a matching issue which we considered was obviously inappropriate for the purposes of resolving the Disputes and we made an adjustment to convert the capitalised transmission costs into an in-year expense. This is explained in paragraphs 13.139 and 13.140.

13.143 In 2010/11 BT allocated transmission equipment costs to rentals rather than connections. We do not consider that BT's allocation of transmission equipment costs to rentals in 2010/11 is obviously inappropriate as long as the accounting treatment is consistent with the way revenue is recognised.

13.144 In 2010/11 the accounting treatment of transmission equipment costs (capitalised and spread over the life of the asset) is consistent with the treatment of revenues (spread over a number of years through ongoing rental charges). Since the accounting treatment of transmission equipment in 2010/11 is consistent with the recognition of revenue, it is not necessary in 2010/11 to make an adjustment to remove the depreciation and capital costs associated with transmission equipment and replace them with an estimate of the cost of expensing the equipment in the year of purchase as we have done in 2006/07 to 2009/10.

13.145 However, some of the depreciation and capital costs associated with transmission equipment relates to equipment purchased in prior years, the full cost of which was recovered from connection charges in prior years. Therefore, without adjustment, the

⁷⁹⁰ The corrected volumes have also been weighted by usage factors because the "BES electronics etc" cost component in which transmission equipment costs sit is allocated to BES connection services on the basis of factored volumes (i.e. volumes multiplied by usage factors).

⁷⁹¹ The main cost component of BES connections is "BES Electronics etc". In turn this component draws most of its costs from the plant group called "SHDS electronics". This plant group is allocated to components on the basis of volumes (weighted by electronics costs) so if there has been a volume error the total amount of cost allocated to "BES Electronics etc" will be affected.

costs of transmission equipment bought in prior years will be counted twice in our assessment – once when assessing connection charges in prior years and once when assessing rental charges in 2010/11. We consider that this would be obviously inappropriate for the purposes of resolving the Disputes. We have therefore made an adjustment to remove from rental costs in 2010/11 the depreciation and capital costs associated with equipment bought in prior years, as explained in paragraphs 13.126 to 13.128.

13.146 If we were to expense the total cost of transmission equipment bought in 2010/11 to the P&L then we do not consider that it would make sense to allocate such costs against rental services, as BT argues, since this would create a mismatch between the accounting treatment of revenues and costs. Instead, if such a conversion was made, we consider that the costs would be better matched against up-front connection revenues in 2010/11. This approach would mean that overcharging for rental and connection charges would be assessed on the same basis over the period of the Disputes (i.e. connection charges would be considered against the capital expenditure associated with transmission equipment in each year). We do not consider that BT's allocation of transmission equipment costs to rentals in 2010/11 is obviously inappropriate, but we do consider it obviously inappropriate to double count the costs of transmission equipment in our assessment. We have therefore only made an adjustment to correct the double counting of costs in 2010/11.

Development cost adjustment in 2010/11

13.147 In relation to Verizon's comment, as we explained in the Verizon Provisional Conclusions, we made an adjustment in the CWW Provisional Determination for 2010/11 development costs because BT's response to a section 191 notice⁷⁹² implied that development costs had been included in the transmission equipment adjustment made in 2006/07 to 2009/10, i.e. development costs incurred in-year were recovered from up-front connection charges. BT provided further information that indicated that development costs were not included in the 2006/07 to 2009/10 transmission equipment adjustment, i.e. connection charges were only recovering the depreciation and ROCE associated with development costs and not the in-year capital costs, as was the case for transmission equipment. Therefore it was not appropriate to make an adjustment for 2010/11 development costs and we proposed to remove the adjustment. We remain of this view and we have not included an adjustment associated with development costs in 2010/11.

21CN costs

Our Provisional Conclusions

13.148 During the Relevant Period, the capital and operating costs incurred by BT in relation to its next generation ("21CN") network were attributed to legacy services, including a proportion being attributed to Ethernet services. However, in the Relevant Period, BT did not use its 21CN network to deliver BES or WES services, so we proposed to make two adjustments in relation to 21CN costs:

13.148.1 an adjustment to remove costs directly attributable to 21CN; and

13.148.2 a further adjustment to remove certain indirect 21CN costs.

⁷⁹² BT response dated 18 January 2012 to question 12 of the 22 December 2011 section 191 notice.

13.149 The proposed adjustments reflected the approach we had taken in relation to 21CN costs in the 2009 LLCC Statement. BT had argued in the context of the 2009 LLCC Statement that the indirect costs would have been incurred even in the absence of 21CN, and that services such as Ethernet should therefore make a contribution to their recovery. Ofcom accepted this argument in developing its leased line charge control proposals and we asked BT to provide us with an analysis for 2007/08 of its 21CN costs which identified which costs were truly specific to 21CN (e.g. equipment and software). On the basis of this, in the 2009 LLCC Statement, we therefore eliminated 22% of P&L costs and 93% of MCE costs to reflect our objective of only removing avoidable 21CN costs.

13.150 The 2009 LLCC Statement was appealed by CWW resulting in a CC determination on 30 June 2010 (the "CC determination").⁷⁹³

13.151 In respect of the 21CN adjustment made in the 2009 LLCC Statement, the CC said that *"a reduction in MCE as a result of the [direct] 21CN adjustment should have been followed by an adjustment to the overheads that were allocated on the basis of MCE"*⁷⁹⁴. The CC determined that the adjustment for 21CN should have been £3.5m for the TISBO basket of services in 2007/08.⁷⁹⁵

Removal of costs directly attributable to 21CN

13.152 For the purpose of resolving these Disputes, we asked BT to provide an analysis of the proportion of total 21CN costs that were truly specific to 21CN in each year 2006/07 to 2010/11. The resulting percentages, which we proposed to use to remove costs directly attributable to 21CN, are shown in Table 13.19:

Table 13.19: Estimate of the proportion of total 21CN costs that are direct (specific) 21CN costs in the period 2006/07 to 2010/11

	2006/07	2007/08	2008/09	2009/10	2010/11
P&L	22%	22%	[✂]	[✂]	[✂]
MCE	93%	93%	[✂]	[✂]	[✂]

Source: 2006/07 to 2009/10: BT email dated 12 July 2011 in response to follow up question 21b to the 22 October 2010 section 191 notice. 2010/11: BT response to question 19 of the 22 December 2011 section 191 notice.

13.153 When BT provided the proportions in Table 13.18, BT said that *"if Ofcom take out 21CN costs as per the leased lines charge control adjustment they would need to additionally consider the counterfactual position in relation to likely increases in Ethernet costs that BT would likely have incurred during the period under investigation if BT had not had such 21CN plans in place"*⁷⁹⁶. In our Provisional Conclusions we disagreed with BT, saying that the objective of the adjustment was not to reflect a scenario where BT's 21CN does not exist, it was to adjust for an incorrect allocation of 21CN costs. The direct costs of BT's 21CN should be recovered via the services which use it and since the Ethernet services in dispute had not used BT's 21CN, this adjustment removed those costs directly attributable to 21CN.

⁷⁹³ Determination of the CC in *Cable & Wireless UK v Office of Communications*, Case 1112/3/3/09, dated 30 June 2010: http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/appeals/communications_act/final_determination_excised_version_for_publication

⁷⁹⁴ CC Determination, paragraph 4.130.

⁷⁹⁵ CC Determination, paragraph 6.52.

⁷⁹⁶ BT response of 22 November 2010 to question 13 of the 22 October 2010 section 191 notice.

Further adjustment to remove certain indirect 21CN costs

13.154 We considered that the CC's reasoning outlined at paragraphs 13.150 and 13.151 above in relation to the TISBO market also applied to the Ethernet services in dispute, since we were making an adjustment to 21CN costs which reduced the MCE allocated to the services in dispute.

13.155 BT provided us with an estimate of the 21CN overhead costs within the AISBO market that had been allocated on the basis of MCE⁷⁹⁷ in the period 2006/07 to 2010/11. The further 21CN adjustment eliminates the majority of these 21CN overhead costs, based on the proportion of MCE removed as being directly incurred as a result of the 21CN (see Table 13.19 above) (i.e. since the majority of 21CN MCE is removed as being avoidable, the majority of overheads that are allocated to 21CN on the basis of MCE will also be removed).

Views of the Parties

13.156 Both TTG⁷⁹⁸ and RGL⁷⁹⁹ agree that we should make the 21CN adjustment along the lines we proposed.

13.157 BT thinks that our proposed approach to 21CN costs was incorrect. It considers that.⁸⁰⁰

13.157.1 BES and WES are similar to 21CN services: *"the 21CN and BES and WES services are closely related services meeting the same customer need (to transmit large volumes of data at high speed) so that the 21CN costs should be regarded as part of the forward-looking costs of providing customers with high speed data services"*;

13.157.2 early 21CN investment will not be assessed in cost orientation: *"the DSAC methodology is such that if the costs incurred to build and develop the 21CN are excluded from the assessment of the services in operation in the year in which the expenditure was incurred then those costs will never be taken into account in any assessment of cost orientation"*; and

13.157.3 excluding 21CN costs is inconsistent with the 2009 LLCC Statement: *"the exclusion of 21CN costs would be inconsistent with the approach taken by Ofcom (for very good reasons) in the 2009 LLCC"*.

13.158 BT considers that the 21CN and BES and WES services are *"closely related"* because.⁸⁰¹

13.158.1 21CN services meet the same customer need as WES and BES services, and the *"eventual beneficiaries of the 21CN costs attributed to Ethernet will be the CPs who have purchased Ethernet services"*;

13.158.2 WES and BES and 21CN services are in the same regulatory market;

⁷⁹⁷ BT response of 18 January 2012 to question 19e of the 22 December section 191 notice.

⁷⁹⁸ TTG's response to our Provisional Conclusions, paragraphs 5.17 to 5.18.

⁷⁹⁹ Second RGL Report, paragraph 4.04.2.

⁸⁰⁰ BT's response to our Provisional Conclusions, paragraph 131.

⁸⁰¹ BT's response to our Provisional Conclusions, paragraph 133.

- 13.158.3 in 2009 Ofcom allowed BT a “migration credit” when customers migrated from WES or BES to 21CN services; and
- 13.158.4 in the 2012 LLCC Consultation, Ofcom proposes to use the costs of EAD and EBD (which are replacement products for BES and WES services) to set the proposed next charge control for AISBO services and thus the prices of WES and BES services.
- 13.159 BT therefore argues that the 21CN costs should be seen as investment underpinning the future development of the Ethernet services and should form part of the forward looking costs of those services.⁸⁰²
- 13.160 BT also considers that Ofcom ought to recognise the overlap in timing for investments in the 21CN platform and continued WES and BES service provision. BT says that *“the DSAC methodology is such that if the costs incurred to build and develop the 21CN are excluded from the assessment of the services in operation in the year in which the expenditure was incurred then those costs will never be taken into account in any assessment of cost orientation”*.⁸⁰³ BT argues that in undertaking an assessment of cost orientation on a year by year basis, the early 21CN investment will be *“deemed irrelevant at the time they are incurred and then ‘timed out’ in any later review”*. BT therefore argues that excluding 21CN costs *“does not give BT the right incentives to take risks and invest in new technologies and is contrary to Ofcom’s policy at the time those investment decisions were made”*.⁸⁰⁴
- 13.161 BT does not elaborate on why it considers that our approach to excluding 21CN costs is inconsistent with the 2009 LLCC Statement.
- 13.162 The Disputing CPs agree that 21CN costs should be excluded.
- 13.163 Sky considers that it was:
- “entirely inappropriate for BT’s 21CN costs to be included in the calculation of BES and WES costs because these services do not use BT’s 21CN and as such should not contribute to those costs. To argue that 21CN supports the future successor Ethernet products to BES and WES is beside the point. Under Ofcom’s anchor product pricing approach, BT has been given pricing freedom for these successor products in order to recover these development costs. However, price regulation remains in place for BES and WES and does not allow for the recovery of 21CN costs”*.⁸⁰⁵
- 13.164 TTG lists a number of reasons why it disagrees with BT:⁸⁰⁶
- 13.164.1 21CN costs *“are not the forward looking costs of BES and WES services, they are the costs of providing different products: EAD and EBD”*.
- 13.164.2 *“If BT is concerned about appropriate sunk development costs not being recoverable in future then the answer is to ensure recovery of these costs in EAD/EBD rather than try and recover them from a different service”*.

⁸⁰² BT’s response to our Provisional Conclusions, paragraph 134.

⁸⁰³ BT’s response to our Provisional Conclusions, paragraph 131.2.

⁸⁰⁴ BT’s response to our Provisional Conclusions, paragraph 135.

⁸⁰⁵ Sky’s comments on BT’s response, paragraph 31h.

⁸⁰⁶ TTG’s comments on BT’s response, paragraph 6.5.

13.164.3 *“Cross-subsidising future products costs from current products is likely to result in a range of distortions between different customers and competitors and thus economic inefficiency”.*

13.164.4 If (as TTG considers BT may be suggesting) an MEA⁸⁰⁷ approach were used *“then WES/BES-like services would be costed using new technology throughout – thus 21CN equipment/development costs would be included but legacy costs would be excluded – you cannot, as BT suggest, count costs twice. Further, MEA costs would only be used if they were lower than legacy technology costs thus using legacy technology costs (as Ofcom has) represent the highest possible cost”.*

13.165 CWW says that excluding 21CN costs is *“entirely consistent with the identical adjustment made for the LLCC 2009. This is therefore a decision which cannot or should not be remade”*⁸⁰⁸.

Our analysis

13.166 During the Relevant Period, costs associated with 21CN were allocated in the RFS to Ethernet services that were not delivered using BT's 21CN network. These costs comprised of incremental costs directly associated with 21CN and a share of overheads (or indirect costs).

13.167 We consider that it was obviously inappropriate for BT to allocate costs directly associated with 21CN to Ethernet services that are not delivered using the 21CN network.

13.168 In the same period a share of overheads was allocated to 21CN. If overheads were allocated to 21CN on a basis that took account of the level of direct costs then we consider that it was obviously inappropriate for BT to allocate these overheads to Ethernet services that are not delivered using 21CN for the same reason that it was inappropriate to allocate direct 21CN costs to such services (i.e. if we remove the direct costs associated with 21CN then any overheads that have been allocated to 21CN on the basis of the level of direct costs should also be removed).

13.169 For the remaining overheads, we do not consider that it was obviously inappropriate to allocate these costs to Ethernet services during the Relevant Period. This is because during the Relevant Period there were relatively few Ethernet services available that used BT's 21CN. Table 13.20 shows the proportion of Ethernet rental volumes (EAD, EBD, BES and WES) represented by EAD and EBD (which use BT's 21CN).

Table 13.20: EAD/EBD rental volumes as a proportion of total Ethernet rental volumes (EAD/EBD/BES/WES), 2008/09 – 2010/11

	2008/09	2009/10	2010/11
EAD/EBD rental volumes as % of total	0.1%	0.8%	8%

Source: Ofcom based on data provided by BT

13.170 Given that relatively few Ethernet services used BT's 21CN during the Relevant Period we do not consider it was obviously inappropriate that overheads whose allocation basis did not take into account the level of direct 21CN costs were

⁸⁰⁷ Modern Equivalent Asset.

⁸⁰⁸ CWW comments on BT's response, paragraph 12.

allocated to the BES and WES services in dispute, since if they were not allocated to existing services it is not obvious where they should instead have been allocated.

13.171 Although the mechanics of the 21CN adjustment are similar to those used in the 2009 LLCC Statement, the rationale for the adjustment is different. For the purposes of the Disputes we are removing direct 21CN costs from the cost base of BES and WES rentals because these services were not delivered using BT's 21CN network. The 2009 LLCC Statement removed direct 21CN costs because it was modelling future costs on a 'technology neutral' basis using the costs of legacy services to model the costs of both legacy and 21CN services. The direct costs of 21CN services were therefore not relevant. We expand on this in paragraphs 13.184 to 13.189 below when responding to BT's comments.

13.172 In conclusion, we have decided to make an adjustment in line with our Provisional Conclusions to remove from the services in dispute any costs that are directly associated with 21CN. We have also removed any overheads associated with 21CN that were allocated on the basis of the incremental 21CN costs. We consider that these adjustments are reasonably practical to make because BT was able to provide the information needed to make the adjustments.

13.173 We do not consider that the 21CN adjustment would significantly alter the financial data on which we relied in previous regulatory decisions (although making the adjustment would be consistent with the approach we took in the 2009 LLCC Statement, the rationale for making the adjustment is different as explained above). Based on our understanding of the 21CN adjustment and affected costs, we do not consider it likely that any inconsistencies in the financial data that might be introduced as a result of this adjustment would be significant enough to outweigh the competing considerations set out above.

13.174 We do not consider that making the 21CN adjustment will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.

13.175 When making the adjustment to remove 21CN costs from the cost base of Ethernet services we have not made any additional adjustment to the figures provided by BT to account for the fact that there were volume errors in some years of the Relevant Period. This is because it is not clear that 21CN costs are allocated to services on the basis of volumes so that changes to Ethernet volumes would not necessarily have an impact on the amount of 21CN costs allocated to Ethernet services⁸⁰⁹.

13.176 In the following paragraphs we respond to the points raised by BT.

Issue of similarity of EAD/EBD to WES/BES

13.177 If 21CN investment in the AISBO market provides benefits to BT's customers, it is the users of the 21CN network who should bear those costs, not the users of the existing (legacy) network. If the users of the legacy network were to bear some of the 21CN costs, then an investment in a more efficient technology would cause the costs of the old technology to rise. Users of the 21CN and legacy platforms will not necessarily be

⁸⁰⁹ For example in 2008/09 the 21CN cost component "access cards (other services)" was allocated to BES/WES rentals and 34Mbit/s local end PPC services. This can be seen from Appendix 1.2.1 of the 2008/09 RFS. 34Mbit/s local end services attracted more than 70% of the 21CN component cost but represented less than 5% of the volumes of services attracting any cost. This suggests that 21CN costs were being allocated to services on a basis other than volumes.

the same group of CPs or they may not consume the services in the same proportions.⁸¹⁰ BT should therefore recover the costs of the legacy platform from the services and CPs that use that platform and the costs of the 21CN platform from the services and CPs that use the 21CN platform.

13.178 BT is correct that we considered EAD and EBD to be within the same market as BES and WES services in the 2009 LLCC Statement⁸¹¹. However, the fact that these services are in the same market and are substitutes does not mean they are the same services. EAD and EBD are distinct services from the BES and WES services in dispute with distinct costs.

13.179 In the 2009 LLCC Statement, as BT notes, we allowed BT a "migration credit" when calculating the rate at which average prices in the AISBO market should decline. We did this to take account of the fact that there were price savings in migrating from WES and BES to EAD/EBD that the charge control would not take into account. If we had ignored those savings, this would have reduced BT's incentives to invest in new lower cost technologies.⁸¹² This was a pragmatic solution to a complex problem that was specific to the LLCC. The fact that we did this in the 2009 LLCC Statement does not invalidate our decision to exclude 21CN costs for the purposes of resolving these Disputes.

13.180 As BT notes, in the 2012 LLCC Consultation we proposed to base the costs of Ethernet services on the costs of next generation EBD/EAD services.⁸¹³ However, our proposals for forward-looking policy decisions in 2012 were made after the Relevant Period in these Disputes and as such are not relevant when assessing cost orientation between 2006/07 and 2010/11.

13.181 We therefore conclude that although EBD/EAD may be substitutes for BES/WES, the costs of EAD/EBD should be borne by those who purchase EAD/EBD, not by those who purchase BES/WES.

Exclusion of early 21CN costs in assessing cost orientation

13.182 Investment in 21CN is designed to deliver new services and such investment should be self-financing, i.e. BT should be able to recover the costs of such investment from the services that will use the new network and should not recover costs from legacy services, even when the 21CN network is designed to replace those services.

13.183 Early investment in 21CN is likely to take place before any new services are launched, and in the early years of selling these services, the networks may not be fully utilised. Therefore in the early years, a service may make an accounting loss which is then recouped in later years. In the early life cycle of products, accounting costs may not reflect underlying economic costs. BT is therefore correct that under a mechanical assessment of cost orientation (applying only the DSAC test), early costs associated with 21CN would be "timed out". However, if such an accounting distortion exists, we could in principle take this into account in our non-mechanistic

⁸¹⁰ For example some CPs may rely less on the 21CN network if they have themselves invested in backhaul networks.

⁸¹¹ Although any services above 1Gbit/s were considered to be a separate market after the 2008 BCMR.

⁸¹² In a standard charge control, if services migrate from the old platform to the new platform there is no change in the average price of a group of services because "prior year" weights are used. However, the migration benefits customers (as it reduces the price of a service) and this needs to be reflected in the charge control.

⁸¹³ 2012 LLCC Consultation, paragraphs 6.69 to 6.109.

assessment of the cost orientation of 21CN services. But 21CN investment is simply not relevant to the costs of providing BES and WES services so we do not take it into account in our assessment of these Disputes.

Issues of consistency with the 2009 LLCC Statement

- 13.184 BT does not explain in its response to our Provisional Conclusions why it considers that excluding 21CN costs is inconsistent with the LLCC 2009 Statement. We have considered below the rationale for making the 21CN adjustment in these Disputes and the 2009 LLCC Statement.
- 13.185 The rationale for making a 21CN adjustment in these Disputes is that 21CN costs have been allocated to BES and WES rental services which are not provided using BT's 21CN network. We consider that the inclusion of such costs is obviously inappropriate for the purposes of resolving the Disputes.
- 13.186 The rationale for making a 21CN adjustment in the 2009 LLCC Statement was that it was consistent with the "technology neutral"⁸¹⁴ approach to that charge control⁸¹⁵. This technology neutral approach meant modelling the costs of legacy and new (21CN) services based on the legacy platform, even if the services were going to be carried on the new platform. This provides BT with an incentive to invest in the new platform where it is efficient to do so as BT gets to keep the cost savings associated with the new platform, at least until the start of the next charge control period. As the costs in the model were based on the old platform, the incremental 21CN costs that BT incurs were excluded (since 21CN services were modelled as if they were legacy services). As well as excluding 21CN costs we checked that the hypothetical ongoing network was not heavily depreciated during the charge control period⁸¹⁶. If it had been, we would have made an allowance for additional capex that BT would have incurred "but for" the 21CN investment. However, we concluded that we did not need to make a "but for" adjustment to capex because there was no evidence that the assets used to deliver Ethernet services were highly depreciated.
- 13.187 The rationale for making the 21CN adjustment in these Disputes is therefore different to that in the 2009 LLCC Statement, although the mechanics of the adjustment are similar. This means that the 21CN adjustment we are making here does not necessarily need to be the same as that made in the 2009 LLCC Statement since they are resolving different issues.
- 13.188 BT has previously submitted that we should "*consider the counterfactual position in relation to likely increases in Ethernet costs that BT would likely have incurred during the period under investigation if BT had not had such 21CN plans in place*"⁸¹⁷. BT may be suggesting that we should make an allowance for the additional investment BT would have made had it not invested in the 21CN platform, as per the approach we adopted in the 2009 LLCC Statement⁸¹⁸. However, as we explained in our Provisional Conclusions, the objective of the 21CN adjustment in resolving these

⁸¹⁴ In more recent charge controls, such as the WBA charge control, we have referred to an "anchor pricing" approach, see:

<http://stakeholders.ofcom.org.uk/binaries/consultations/823069/statement/statement.pdf>

⁸¹⁵ 2009 LLCC Statement, paragraphs 3.64 to 3.112 explain the 'technology neutral' approach that we took in that charge control.

⁸¹⁶ If it were then the accounting costs might understate the underlying economic costs.

⁸¹⁷ BT response to question 13 of the 22 October 2010 section 191 notice.

⁸¹⁸ We note that BT makes this point in paragraph 169 of its response to our draft determinations dated 20 April 2012 in relation to the PPC Disputes.

Disputes is not to reflect a scenario where BT's 21CN does not exist, it is to adjust for what we consider an inappropriate allocation of costs.

13.189 That said, it is possible that, due to the 21CN investment, the accounting costs of providing BES and WES services are distorted because we are looking at the costs when BES and WES volumes are low and/or the legacy network is highly depreciated. If this were the case, accounting costs would not truly reflect the underlying economic costs and we could take this into account in our non-mechanistic assessment of BT's charges. However, as set out at paragraph 13.186, when this was considered in the 2009 LLCC Statement we concluded that there was no evidence that the assets used to deliver Ethernet services were highly depreciated. In addition, volumes of BES and WES rentals during the Relevant Period mostly increased over time as Figure 14.4 shows. Therefore even if we considered that our adjustment should be the same as the approach in the 2009 LLCC Statement, this would not lead us to make an adjustment for the additional investment BT would have made had it not invested in the 21CN platform, and as such an adjustment was not made in the 2009 LLCC Statement.

Excess construction charges

Our Provisional Conclusions

13.190 BT told us that the costs associated with excess construction charges ("ECCs"), an ancillary service, were included within the base data of Ethernet rental services in the period 2006/07 to 2009/10.⁸¹⁹

13.191 Since ECCs are outside the scope of the Disputes, we considered that these costs needed to be excluded. BT provided us with an estimate of the costs associated with ECCs and we removed these costs from the relevant Ethernet rental services.

13.192 In relation to the 2010/11 RFS BT told us that the "*costs associated with ECCs are not shown within the service cost information in the 2010/11 RFS. This is a difference compared with previous years*".⁸²⁰ BT said that "*in 2010/11, BT estimated the ECC depreciation embedded with the AISBO services and attributed this separately to a new component - AISBO excess construction*".⁸²¹ The estimate of depreciation associated with ECCs was £4m⁸²² and BT had excluded this estimate from the depreciation included within AISBO services.

13.193 Given that a proportion of the depreciation embedded within AISBO services was actually associated with ECCs, it would appear to follow that a proportion of MCE embedded within AISBO services would also be associated with ECCs. Our proposed approach therefore assumed that in 2010/11 a proportion of the MCE for each AISBO service was associated with ECCs. We estimated the proportion of MCE that is associated with ECCs by assuming that the ratios of ECC MCE/AISBO market MCE and ECC depreciation/AISBO market depreciation were the same. We apportioned the resultant estimate of MCE between services on the basis of volumes.

⁸¹⁹ BT response dated 13 December 2010 to question 11 of the 22 October 2010 section 191 notice.

⁸²⁰ BT response dated 27 January 2012 to Q4 of the 24 January 2012 section 191 notice.

⁸²¹ This cost component can be seen on page 99 and 108 of the 2010/11 RFS.

⁸²² See "equipment depreciation" on page 53 of the 2010/11 RFS.

Views of the Parties

13.194 BT accepts this adjustment.⁸²³ However in BT's 3 September 2012 submission it said *"Ofcom's model makes an adjustment to exclude depreciation costs in 2009/10, relating to [ECCs]. However, the costs in the [RFS] are already adjusted to exclude the depreciation relating to ECCs, via a credit of £3.3m. BT therefore proposes that Ofcom's cost reduction should be reduced to this extent"*⁸²⁴.

13.195 RGL comments that allocating the cost adjustment to rentals rather than connections was reasonable because ECCs were associated with the digging of new duct and duct costs are recovered from rental charges.⁸²⁵ RGL says that allocating the cost to rentals *pro rata* to volumes rather than operating costs was reasonable, although there was not a particularly strong rationale for preferring either approach. TTG also thinks that allocating the adjustment *pro rata* to volumes was not unreasonable.⁸²⁶

Our analysis

13.196 Those respondents who commented agreed that the adjustment to remove costs associated with ECCs from the cost base of rental services was appropriate. We therefore remain of the view that inclusion of ECC costs would be obviously inappropriate. In addition, we have the information we require to make the adjustment and it is therefore practical for us to do so.

13.197 In the period 2006/07 to 2008/09 we note that no information on the costs associated with ECCs was published in the RFS, while in 2009/10 and 2010/11 only limited information on costs was published.

13.198 For the period 2006/07 to 2009/10 BT said that *"cost information [on ECCs] does not exist in our systems"* but it provided an estimate of the *"total operating costs"* associated with ECCs in these years⁸²⁷. We assume that the 'operating cost' estimates BT provided correspond to the amount of FAC cost that was included within the cost base of rental services (i.e. as well as operating costs they also include a return on the MCE associated with ECCs). Our adjustment takes BT's estimates of the total amount of ECC cost to be removed from rental services and allocates this to individual rental services on the basis of corrected volumes⁸²⁸.

13.199 It is unclear from the information provided what BT means by its comment that Ofcom should reduce its adjustment by £3.3m in 2009/10 to account for ECC depreciation already removed from Ethernet services. Our adjustment is based on data provided by BT in response to a section 191 notice⁸²⁹ that required BT to provide an estimate of ECC costs that had been included in each AISBO service in the period 2006/07 to 2009/10. In that response BT said that *"the total operating costs [of ECC] in each year have been derived by taking the ECC revenues and applying a margin assumption"*. BT also said that *"the estimated margin to matched costs, on ECC for 2009/10, is 50%"*. This 50% margin appears to have been

⁸²³ BT's response to our Provisional Conclusions, paragraph 125.2.

⁸²⁴ BT's 3 September 2012 submission, page 9.

⁸²⁵ First RGL report, paragraph 4.04.02, last bullet.

⁸²⁶ TTG's response to our Provisional Conclusions, paragraph 5.19.

⁸²⁷ BT's response to question 13 of the 22 October 2010 section 191 notice.

⁸²⁸ This is consistent with BT's allocation. In its response to question 13 of the 22 October 2010 section 191 notice BT says that *"the total annual cost has been spread across the relevant services based on rental volumes from regulatory accounts"*.

⁸²⁹ BT response dated 13 December 2010 to question 11 of the 22 October 2010 section 191 notice.

calculated using the matched costs figure of £15m from the 2009/10 RFS⁸³⁰. The £3.3m of depreciation that BT refers to does not appear to have been included in its initial estimate of the costs of ECC that have been included within Ethernet services since it is a separate line item in the 2009/10 RFS.

13.200 Given that it is unclear what BT means by its comment and the fact that the £3.3m of depreciation it refers to was not part of its response to the section 191 notice, we do not consider that any additional adjustment is required to the 2009/10 estimate that BT provided in its response to the 22 October 2010 section 191 notice.

13.201 In 2010/11 BT told us that £4m of depreciation associated with ECCs had been removed from the cost base of rental services and that this was a different treatment compared to previous years. We consider that if a proportion of total depreciation is associated with ECCs then it would follow that a proportion of total MCE would also be associated with ECCs and this would need to be removed from the MCE of rental services⁸³¹. We have therefore estimated the MCE associated with ECCs as we proposed in our Provisional Conclusions and allocated this to individual services on the basis of corrected volumes. The reason for using corrected volumes is that this will reflect the fact that the amount of ECC cost included in each service is likely to be influenced by the volumes of those services⁸³². We exclude the resulting allocation of MCE from the affected rental services. We recognise that the resulting adjustment differs from that made in 2006/07 to 2009/10 (in 2010/11 we make an adjustment to remove MCE of ECCs while in 2006/07 to 2009/10 we make an adjustment to remove FAC of ECCs). However we consider that this is a reasonable approach given the data on ECCs that BT published in its 2010/11 RFS.

13.202 We do not consider that the ECC adjustment would significantly alter the financial data on which we relied in previous regulatory decisions. On the contrary, it would be consistent with the approach we took in the 2009 LLCC Statement. Based on our understanding of the ECC adjustment and affected costs, we do not consider it likely that any inconsistencies in the financial data that might be introduced as a result of this adjustment would be significant enough to outweigh the competing considerations set out above.

13.203 We do not consider that making the ECC adjustment will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.

Payment terms

Our Provisional Conclusions

13.204 In its RFS BT estimates its working capital related to 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 in 2007/08, 2008/09 and 2009/10 BT used 43 days in its reporting. In 2010/11 BT used a figure of 33 days.

⁸³⁰ 2009/10 RFS, page 52. Total matched costs for ECC are equal to £15m.

⁸³¹ We assume that there are no other operating costs associated with ECCs (other than depreciation) that need to be removed from the cost base of Ethernet rental services in 2010/11.

⁸³² The main cost components of BES and WES rental services ("BES fibre, etc" and "WES fibre, etc") are allocated to BES/WES rental services on the basis of volumes. Volume errors are therefore likely to affect the amount of cost allocated to each service.

13.205 We proposed to replace the estimates based on 59 days, 43 days and 33 days with estimates that reflected the contractual payment terms offered to customers and BT's billing cycle, namely 46 days for the disputed connection services and 16 days for rental services. This was consistent with the approach we took in the 2009 PPC Determinations and the 2009 LLCC Statement.

Views of the Parties

13.206 BT says that:

*"Ofcom's adjustment is perverse and unfair to BT. Essentially CPs are being rewarded twice for having been delinquent in their payments – they benefitted by paying their bills late and now Ofcom proposes that they benefit again by assessing compliance with condition HH3.1 on the basis that they should be regarded as having settled their bills on time. The right and fair approach would be to base the assessment on the number of days credit actually taken".*⁸³³

13.207 In its response, BT has amended the adjustment made by Ofcom by adding 22 days to the assumed debtor days calculation for rentals and connections in each year 2006/07 to 2010/11 (so that the debtors days for rentals increases from 16 days to 38 days and the debtors days for connections increases from 46 days to 68 days).⁸³⁴ The figure of 22 days comes from an analysis of debtor days that BT provided on 6 February 2012 in response to Q6 of the 24 January 2012 section 191 notice.

13.208 However, in its 3 September 2012 submission BT has revised its estimate of 22 days down to four days. BT said that the figure of four days was the correct figure to use because *"in calculating the average late payment days, it would be more appropriate to calculate the weighted average of all invoices of the relevant services rather than to use a month end DSO [days sales outstanding] report"*. BT went on to say that *"given the reduced impact...Ofcom need not consider BT's proposed correction to this adjustment further"*.⁸³⁵

13.209 Sky argues that BT is entitled to levy interest against late payments under its Ethernet contracts and to the extent that the contractual interest rate reflects its economic loss there is no need to make the adjustment proposed by BT.⁸³⁶ TTG says that if BT's adjustment is made then this interest income should also be taken into account (which it says is contractually 4% above the base lending rate) otherwise CPs will pay twice for late payment – once through late payment charges and secondly through higher BES/WES prices.⁸³⁷ CWW also notes that CPs incur daily interest charges for late payment.⁸³⁸

Our analysis

13.210 The costs of Ethernet services include the cost to BT of financing the payment terms it offers in its Ethernet contracts. We said in the 2009 LLCC Statement that the notional debtors that BT includes in the RFS are the same across all services and do

⁸³³ BT's response to our Provisional Conclusions, paragraph 138.

⁸³⁴ 14 May 2012 spreadsheet, sheet "Adjust Payment Days".

⁸³⁵ BT's 3 September 2012 submission, page 8, point 13. BT subjects this to the caveat that *"should a subsequent appeal be necessary, BT reserves the right to request this adjustment to be applied in any subsequent reassessment"*.

⁸³⁶ Sky's comments on BT's response, paragraph 31(g).

⁸³⁷ TTG's comments on BT's response, paragraph 6.7.

⁸³⁸ CWW's comments on BT's response, paragraph 13.

not reflect the terms actually offered on individual services.⁸³⁹ Therefore, the reason for making the payment terms adjustment is to better match BT's working capital requirements for Ethernet services with the credit terms contractually offered to Ethernet customers, which otherwise would be obviously inappropriate.

13.211 In response to BT's argument that we should take account of the actual number of days' credit taken by CPs rather than the contractual terms, we accept that, if a CP pays its bills late, BT is likely to incur some form of additional financing costs that are not covered by the main service charges. However, the Ethernet contracts allow BT to levy interest on late payments to recover the additional financing costs incurred. We therefore disagree with BT's argument that basing our assessment of overcharging on contractual payment terms means that CPs are being rewarded twice, since if CPs pay their bills late there is a contractual mechanism available to BT to recover any additional financing costs incurred.

13.212 We also note that in its 3 September 2012 submission BT said that Ofcom need not consider BT's proposed correction to this adjustment further.⁸⁴⁰

13.213 Taking these points into account, we remain of the view that it is appropriate to make the payment terms adjustment, consistent with the 2009 PPC Determinations and 2009 LLCC Statement, reflecting the contractual payment terms in the cost base of Ethernet services.

13.214 We consider that it is practical for us to make this adjustment. We have applied this adjustment by taking the difference between the debtors days assumed by BT in its RFS each year and the debtors days implied by the contractual arrangements for BES and WES services and multiplying the result by the corrected revenue figures from Table 13.17 divided by 365 days. This approach means that changes to costs resulting from volume and revenue errors are automatically factored into the calculation since it applies the debtor days assumptions to the corrected revenue.

13.215 We have considered whether this adjustment would significantly alter the financial data on which we relied in previous regulatory decisions. On the contrary, it would be consistent with the approach we took in the 2009 LLCC Statement. Based on our understanding of the adjustment and affected costs, we do not consider it likely that any inconsistencies in the financial data that might be introduced as a result of this adjustment would be significant enough to outweigh the competing considerations set out above.

13.216 We do not consider that making this adjustment will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.

RAV adjustment

Our Provisional Conclusions

13.217 Since 2005 Ofcom has determined charges for copper access products using Openreach's Regulated Asset Value ("RAV"), which is different from the asset value disclosed in the RFS. The difference relates to Openreach's Copper and Duct assets.

⁸³⁹ Table A6.5, adjustment 4.

⁸⁴⁰ BT's 3 September 2012 submission, page 8.

- 13.218 Under the RAV approach, assets which were purchased before 1997 are valued on an HCA basis indexed by inflation. This provides a lower valuation than the RFS where the same assets are valued on a CCA basis. The reduction to bring the RFS figure into line with the RAV figure is referred to here as “the RAV adjustment”.
- 13.219 We provisionally concluded that it was not appropriate to take account of the RAV adjustment for the purposes of assessing whether BT has been overcharging for the services in dispute. We noted that this was consistent with our approach in the 2009 LLCC Statement and the 2009 PPC Determinations where we did not take account of the RAV adjustment.⁸⁴¹

Views of the Parties

- 13.220 RGL considers that our justification for not applying the RAV adjustment in the 2009 LLCC Statement (and by implication in our assessment of these Disputes) was “predominantly that the AI services (which run exclusively on fibre) used relatively low levels of pre 1997 copper and duct”. RGL argues that this is flawed as “it is unreasonable to assume that AI services use no pre-1997 duct assets at all. Clearly without applying the RAV adjustment to account for the assets used by AI services, Ofcom risks allowing over-recovery of costs”⁸⁴².
- 13.221 TTG says that “[i]n the case of BES we agree with Ofcom that BES services are likely to make little use of access duct. To the extent that BES does use access duct there remains an argument for a limited RAV adjustment.[...] However, the RAV adjustment is relevant to WES services since these services use access duct”. TTG adds that “the majority of the network investment after 1997 (and so p[o]st-97 assets) will be for maintaining and upgrading the existing duct routes. It is not the case that post-97 investment (and assets) are made in a different set of ducts that only WES services use [...]. Thus we consider that it is appropriate to fully apply the RAV adjustment (or at least 75% of it). We note that if the RAV adjustment on WES/BES services is less than 100% then this ‘under-adjustment’ must be offset with a greater adjustment on other services”⁸⁴³.
- 13.222 TTG also argues that Ofcom’s proposal to make a RAV adjustment for AI services in the 2012 LLCC Consultation means it should apply the RAV adjustment to the Ethernet services in dispute in the Relevant Period:

“In the [Initial Draft Determinations] (para 12.100) Ofcom proposed not to make any RAV adjustment on the basis that Ethernet services make less use of pre-1997 duct. However, in the current leased line charge consultation, Ofcom has completely reversed this position (para 6.133) by conceding that Ethernet fibre uses duct some [of] which predates 1997. Ofcom therefore proposes there to apply a RAV adjustment to the Ethernet basket of services for the purpose of setting the leased charge control.... Given Ofcom’s position in relation to the leased line charge control, we trust that it will now similarly reverse its position taken in the [Initial Draft Determinations] and also apply the same RAV adjustment here. We cannot see any reason as to how Ofcom could justify taking a different position in the final determination in the Ethernet dispute”⁸⁴⁴.

⁸⁴¹ 2009 LLCC Statement, paragraph 5.60; 2009 PPC Determinations, paragraphs 6.117 to 6.123.

⁸⁴² Second RGL Report, paragraph 4.05.4.

⁸⁴³ TTG’s response to our Provisional Conclusions, paragraph 5.31.

⁸⁴⁴ Email dated 30 August 2012 from Rickard Granberg (TTG) to Paul Dean (Ofcom).

13.223 BT agrees that the RAV adjustment should not be applied. It says that the RAV adjustment would be different from the other adjustments made by Ofcom: *"The adjustments made by Ofcom and proposed by BT correct errors in the reported RFS and/or align the costs with those used by Ofcom in its modelling for the purposes of the 2009 LLCC. The intention is to produce a corrected set of costs that is consistent with the basis on which past regulatory decisions were made and which would have guided BT's pricing decisions"*⁸⁴⁵. BT says that *"the inclusion of the RAV adjustment would have a quite different effect in that it would significantly change the basis on which Ethernet costs are calculated"*. BT argues that it should have been able to rely on the fact that as the RAV adjustment was not made in the 2009 LLCC Statement, it would not be made when assessing cost orientation:

*"There is no way in which BT, when setting Ethernet charges could have predicted that the basis on which costs would be calculated, for the purposes of assessing cost orientation, would be different to or in the future change by the inclusion of the RAV adjustment. It would therefore be unfair and illogical to assess cost orientation on the basis that the RAV adjustment should have been included"*⁸⁴⁶.

13.224 BT argues that even if Ofcom reconsiders its approach to RAV, it should not do so retrospectively, not least because the decision not to apply a RAV adjustment was not appealed following the 2009 LLCC Statement and it would be unfair to BT to change now. It considers that RGL misrepresents Ofcom's reasons for not applying the RAV adjustment, which, in BT's view, included *"the desire to promote infrastructure competition"*, and the RAV adjustment *"might have discouraged such competition"*.⁸⁴⁷

Our analysis

13.225 BT's RFS are prepared on a CCA basis, and do not include the RAV adjustment. In line with the framework set out in Section 11, in deciding whether or not to make the RAV adjustment for the purposes of assessing cost orientation, we need to consider whether BT's approach to calculating its DSACs in its accounts included an error or used an obviously inappropriate methodology.

13.226 In order to determine whether BT's approach (i.e. not making the RAV adjustment) was obviously inappropriate, we have considered Ofcom's policy on the RAV at the time that BT set its prices. It would not be reasonable for Ofcom's policy on the RAV adjustment to be applied retrospectively when we assess whether BT was compliant with Condition HH3.1, as we must determine whether BT complied with its cost orientation obligations as it could have understood them at the time.

13.227 The RAV adjustment was first discussed in the consultation document *Valuing Copper Access* ("the Copper Consultation") in December 2004⁸⁴⁸, and was introduced to prevent over-recovery of costs where Ofcom/Ofel had previously set prices for wholesale services such as LLU, WLR and PPCs⁸⁴⁹. The final *Valuing Copper Access* statement ("the Copper Statement") was made in August 2005.⁸⁵⁰

⁸⁴⁵ BT's comments on the Disputing CPs' responses, paragraph 107.

⁸⁴⁶ BT's comments on the Disputing CPs' responses, paragraph 108.

⁸⁴⁷ BT's comments on the Disputing CPs' responses, paragraph 109 to 110.

⁸⁴⁸ *Valuing Copper Access*,

<http://stakeholders.ofcom.org.uk/binaries/consultations/copper/summary/copper.pdf>

⁸⁴⁹ The Copper Consultation, paragraph 4.9.

⁸⁵⁰ <http://stakeholders.ofcom.org.uk/consultations/copper/value2/statement/>

- 13.228 The timing of other regulatory documents is also important. There are two key market reviews that relate to the Ethernet services in dispute: the 2004 LLMR Statement and the 2008 BCMR Statement. The 2004 LLMR Statement (and the associated PPC charge control document⁸⁵¹) pre-dates the Copper Statement, whereas the 2008 BCMR Statement and associated 2009 LLCC Statement were made after the Copper Statement.
- 13.229 The RAV adjustment was discussed in relation to the AISBO market for the first time in the 2009 LLCC Statement. BT could not have reasonably expected that Ofcom would make a RAV adjustment when considering BT's compliance with Condition HH3.1 prior to the 2009 LLCC Statement. Until publication of the 2009 LLCC Statement in July 2009 it was not obviously inappropriate for BT to use a CCA methodology rather than a RAV methodology to prepare the DSACs for the disputed services published in the RFS.
- 13.230 In the 2009 LLCC Statement we considered whether it was appropriate to make a RAV adjustment for the purposes of setting the charge control on low bandwidth AISBO services. We concluded that we would not make a RAV adjustment⁸⁵².
- 13.231 The reasons for not applying a RAV adjustment to the AISBO market for the purposes of setting the charge control were set out in paragraph 5.60 of the 2009 LLCC Statement. One of the reasons was that "*Ethernet services make less use of pre-97 duct [than other services]*". RGL and TTG appear to consider that our decision not to apply the RAV adjustment in the 2009 LLCC Statement was incorrect because they disagree that Ethernet services make less use of pre-1997 duct. However the decision not to apply the RAV in the 2009 LLCC Statement was not appealed.
- 13.232 We therefore consider that it was not obviously inappropriate for BT to use a CCA methodology rather than a RAV methodology to prepare the DSACs for the disputed services published in the RFS. Furthermore BT could not have reasonably expected that Ofcom would make a RAV adjustment when considering BT's compliance with Condition HH3.1 in that period. We have therefore concluded that we should assess overcharging for the services in dispute by reference to the DSACs published in the RFS.

The 2012 LLCC Consultation

- 13.233 TTG notes that in the 2012 LLCC Consultation Ofcom has proposed to apply a RAV adjustment to AISBO services for the purposes of setting a charge control and one of the reasons for this proposal is that "*there is no evidence to suggest that Ethernet services do not use pre-97 duct*"⁸⁵³. TTG is correct to say that this represents a change from one of the arguments given in the 2009 LLCC Statement for not making a RAV adjustment. However, the 2009 LLCC Statement sets out a number of other reasons why Ofcom decided not to make a RAV adjustment⁸⁵⁴ and the decision was not appealed.
- 13.234 We do not agree with TTG that our proposal in the 2012 LLCC Consultation should affect how we consider cost orientation in prior periods. Leaving aside the fact that we have not yet reached a final decision on the RAV adjustment in the 2012 LLCC Consultation, it would not be appropriate to apply this forward looking policy proposal

⁸⁵¹ http://stakeholders.ofcom.org.uk/consultations/ppc_charge_control/

⁸⁵² 2009 LLCC Statement, paragraph 5.62.

⁸⁵³ 2012 LLCC Consultation, paragraph 6.130.

⁸⁵⁴ 2009 LLCC Statement, paragraph 5.60.

to our retrospective assessment of BT's compliance with its cost orientation obligation. As we note in paragraph 13.226, we must determine whether BT complied with its cost orientation obligations as it could have understood them at the time.

13.235 In conclusion, during the Relevant Period, Ofcom never applied the RAV adjustment to the AISBO market when making regulatory decisions. Therefore, the methodology BT adopted in the RFS is not obviously inappropriate and there was no reason for BT to expect that cost orientation would be assessed on a RAV adjusted basis, rather than a CCA basis. We have therefore concluded that we should assess overcharging for the services in dispute by reference to the DSACs published in the RFS which have been prepared using a CCA methodology rather than a RAV methodology.

Treatment of holding gains and losses/current cost normalisation

13.236 BT's RFS are reported using CCA rather than HCA. CCA differs from HCA because assets are valued by reference to their current replacement cost rather than the price originally paid for them.

13.237 If the replacement cost of an asset increases during the year this will give rise to a holding gain in the RFS, while a decrease in the replacement cost of an asset will lead to a holding loss. As well as being reflected in the balance sheet, these holding gains and losses are also reflected in the P&L account. A holding gain in a given period would decrease costs for that period, while a holding loss would increase costs.

13.238 Changes in the estimated replacement cost of an asset can be caused by a variety of things such as changes to commodity prices (e.g. copper), technical obsolescence and changes to valuation methods.

13.239 In our Provisional Conclusions we set out our general approach to holding gains and losses for the purposes of resolving the Disputes and also considered views from the parties in relation to BT's revaluation of duct assets in 2009/10 and its treatment of the resulting holding gain. We consider each of these issues in turn below.

General approach to holding gains and losses

Our Provisional Conclusions

13.240 We proposed to resolve the Disputes using the actual holding gains and losses reported by BT in its RFS in each year of the Disputes 2006/07 to 2010/11. This proposal was consistent with the approach taken in the 2009 PPC Determinations.

13.241 In the 2009 LLCC Statement Ofcom made an adjustment to the AISBO basket to smooth the holding gains and losses for inclusion in the base year and we considered whether a similar adjustment was required to resolve the Disputes. We made this adjustment in the 2009 LLCC Statement to forecast the changes to asset values that might arise from the CCA treatment of assets over the period of the charge control (which we referred to as current cost normalisation). A forecast value was included in the charge control because historic CCA holding gains and losses are unlikely to provide a robust forecast for future years.⁸⁵⁵ In the 2009 PPC Determinations we considered whether a similar adjustment was appropriate but concluded that, since we were considering historic charges rather than the forward looking charges considered in the 2009 LLCC Statement, such an adjustment was

⁸⁵⁵ See Table A6.5 of the 2009 LLCC Statement, entry #2.

not relevant.⁸⁵⁶ In our Provisional Conclusions we said that we considered that the same reasoning applied to these Disputes.

13.242 In the 2009 PPC Determinations we also discussed the treatment of holding gains and losses more generally and decided to use the “*actual holding gains and losses reported by BT in its regulatory financial statements*”. We considered replacing these actual holding gains and losses with the holding gains and losses forecast by BT at the time that it set its prices but concluded “*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*”.⁸⁵⁷ We proposed to follow the same approach and use the actual holding gains and losses reported by BT in its RFS in each year 2006/07 to 2010/11, except for the 2009/10 holding gain associated with duct which we considered separately.

Views of the Parties

13.243 BT agrees with our approach to holding gains.⁸⁵⁸

13.244 Virgin says that “*a consistent approach to that used in the PPC Judgment should be applied to holding gains/losses in this dispute*” and that the treatment of holding gains/losses should be based upon the actual holding gains and losses as reported by BT in its RFS.⁸⁵⁹

13.245 CWW, TTG and RGL make specific comments in relation to BT's revaluation of duct in 2009/10 and the treatment of the associated holding gain, which we consider below.

Our analysis

13.246 Responses to our Provisional Conclusions primarily focused on BT's revaluation of duct in 2009/10 and the treatment of the associated holding gain. For years other than 2009/10 we have therefore adopted our proposal to base our assessment of overcharging on the holding gains and losses reported in the RFS and included within unit costs. As noted above, this is consistent with the approach we took to resolve the 2009 PPC Determinations.

BT's estimate of the replacement cost of duct in 2009/10

Our Provisional Conclusions

13.247 In 2009/10 BT revised its estimate of how much it would cost to replace its duct network, leading to an increase in its valuation in the RFS⁸⁶⁰. This increase occurred as a result of BT revising one of the input assumptions forming part of the asset valuation rather than, for example, a significant increase in the cost of labour or materials associated with building duct.

13.248 In our Initial Draft Determinations, we considered our consultation on the charge control review for LLU and WLR services dated 31 March 2011 (the “LLU and WLR

⁸⁵⁶ 2009 PPC Determinations, paragraph 6.113.

⁸⁵⁷ 2009 PPC Determinations, paragraphs 6.114 and 6.115.

⁸⁵⁸ BT's response to our Provisional Conclusions, paragraph 125.3.

⁸⁵⁹ Virgin's response to our Provisional Conclusions, paragraph 8.1.1.

⁸⁶⁰ Page 18 of BT's 2009/10 RFS says that its revised management estimate results in a holding gain, net of backlog depreciation, on BT's duct assets of £1,880m.

2011 Consultation")⁸⁶¹. The LLU and WLR 2011 Consultation considered BT's estimate of the replacement cost of duct for the purposes of setting those charge controls. In the Verizon Provisional Conclusions, we noted that on 7 March 2012 (i.e. after publication of the Initial Draft Determinations) we had published a Statement on our charge control review for LLU and WLR services (the "LLU and WLR Statement")⁸⁶².

13.249 We noted that, as proposed in the LLU and WLR 2011 Consultation, in the LLU and WLR Statement we concluded that the RAV methodology remains appropriate for setting the LLU and WLR charge controls.⁸⁶³ Any pre-August 1997 duct is therefore valued on an indexed HCA basis and any post-August 1997 duct is valued on a CCA replacement cost basis. For the purposes of setting prices in the LLU and WLR Charge Control Statement we replaced BT's estimate of the replacement cost of duct associated with post-1997 assets with an estimate of how much it would cost to replace post-1997 duct assets based on the amount actually spent on duct plus an allowance for price inflation.⁸⁶⁴ We did this because we considered that BT's CCA estimate of post-August 1997 duct was not robust⁸⁶⁵, although we made clear that we were not specifically challenging the valuation of total duct assets included in the audited RFS (which include both pre-1997 and post-1997 duct assets and does not present figures on a RAV basis).⁸⁶⁶

13.250 We did not consider that an adjustment to BT's RFS duct valuation is required in order to resolve the Disputes, because in the LLU and WLR 2011 Consultation and LLU and WLR Statement we were not challenging BT's estimate of the replacement cost of the entire duct network (i.e. as reported in the audited RFS), but rather BT's estimate of the replacement cost of duct assets BT had acquired since 1997, which is required as part of the RAV methodology for setting forward looking charge controls. We did not consider that it would be appropriate to make a RAV adjustment for the purpose of assessing whether BT has overcharged for the services in dispute and therefore did not propose to adjust BT's estimate of the replacement cost of duct in 2009/10 as it appears in the RFS.⁸⁶⁷

Views of the Parties

13.251 CWW thinks that the revaluation of duct in 2009/10 was inappropriate for the following reasons:

⁸⁶¹ Charge control review for LLU and WLR services:

<http://stakeholders.ofcom.org.uk/binaries/consultations/wlr-cc-2011/summary/wlr-cc-2011.pdf>

⁸⁶² <http://stakeholders.ofcom.org.uk/binaries/consultations/wlr-cc-2011/statement/statementMarch12.pdf>. The "LLU and WLR Statement Annexes" are available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/wlr-cc-2011/statement/annexesMarch12.pdf>.

⁸⁶³ See A1.2 of the LLU and WLR Statement Annexes.

⁸⁶⁴ Our estimate was based on an RPI indexation of BT duct expenditure since 1997.

⁸⁶⁵ See A1.128 of the LLU and WLR Statement Annexes and also paragraph 3.58 of LLU and WLR 2011 Consultation.

⁸⁶⁶ LLU and WLR 2011 Consultation, paragraph 3.81.

⁸⁶⁷ The LLU and WLR Statement does not explicitly discuss the CCA valuation of duct as used in the RFS, but this is discussed in Annex 5 of the LLU and WLR 2011 Consultation, which is available at <http://stakeholders.ofcom.org.uk/binaries/consultations/wlr-cc-2011/annexes/wlr-cc-annexes.pdf>, see A5.18 to A5.20 and A5.76 to A5.85 in particular.

*"Ofcom clearly had major concerns over BT's revaluation; the decision to make a material adjustment to the post 1997 duct value in the WLR/LLU charge control reinforces these concerns"*⁸⁶⁸.

*"[A]lthough Ofcom made it clear that it was not specifically challenging the full CCA valuation [of duct] in the WLR/LLU decision it is apparent that this was because its objective in that project only required it to consider the valuation of post 1997 duct assets"*⁸⁶⁹.

*"[O]ne of the main reasons Ofcom did not apply the [RAV] adjustment for Ethernet services [in the 2009 LLCC Statement] was that it considered most of the duct and fibre used by Ethernet services was likely to have been deployed since 1997. However, it is precisely BT's valuation for this period that Ofcom found was not reliable within the LLU/WLR charge control decision"*⁸⁷⁰.

13.252 CWW notes that although Ofcom observed that the likely impact of the revaluation was small for the four months relevant to the Initial Disputes⁸⁷¹, the CWW Dispute covers a longer time period meaning the impact would be more material.⁸⁷²

13.253 CWW adds that Ofcom *"should reconsider the extent to which it allows BT's revaluation of duct for the purpose of resolving these disputes"*, noting that Ofcom would need to consider the issue of BT's revaluation of duct in any case for the 2012 LLCC⁸⁷³ and suggesting that there was *"merit in employing a consistent approach"*.⁸⁷⁴ CWW suggests that we should apply an adjustment consistent with the one made for the LLU and WLR Statement either by:

13.253.1 deriving an adjustment for the entire duct network over all time periods; or

13.253.2 making a decision specific for Ethernet services which applies the same adjustment made for the LLU/WLR charge control, i.e. for post-1997 assets only, given that Ethernet is primarily delivered over post-1997 assets.

Our analysis

13.254 Estimating the cost of replacing a national duct network is a complex task, requiring an assessment of the quantity of different types of duct to be replaced and the price that would be paid to replace each type of duct.

13.255 BT estimates the replacement cost of duct by carrying out a calculation of price of replacing duct multiplied by quantity of duct. Since 2007/08 BT has also applied a discount to its valuation to reflect the reduction in price that might be gained from a total rebuild of the duct network over a short period of time. For the purposes of the RFS, all duct assets under 40 years old are included on a CCA replacement cost basis. This differs from the RAV approach that Ofcom usually takes in charge

⁸⁶⁸ CWW's response to our Provisional Conclusions, paragraph 105a; RGL makes a similar point in paragraph 4.06.14 of the Second RGL Report.

⁸⁶⁹ CWW's response to our Provisional Conclusions, paragraph 105b.

⁸⁷⁰ CWW's response to our Provisional Conclusions, paragraph 105c.

⁸⁷¹ In the Initial Draft Determinations, we estimated that an adjustment to reduce BT's duct valuation (e.g. by removing the effect of the increase from the MCE) was unlikely to increase the difference between revenue and DSAC by more than £0.1m.

⁸⁷² CWW's response to our Provisional Conclusions, paragraph 105d.

⁸⁷³ i.e. in the final statement which will follow the 2012 LLCC Consultation.

⁸⁷⁴ CWW's response to our Provisional Conclusions, paragraph 106.

controls, which values pre-1997 assets on a HCA basis and post-1997 assets on a CCA basis⁸⁷⁵.

13.256 We consider CWW's arguments on why we should reject BT's 2009/10 valuation of duct in the following paragraphs.

13.257 First, CWW considers that our decision to replace BT's CCA estimate of post-1997 duct assets in the LLU and WLR Statement suggests that we had "*major concerns*" with the revaluation of duct. As set out at paragraphs 13.248 to 13.250 above, we disagree with CWW. In the LLU and WLR Statement, we were not challenging BT's estimate of the replacement cost of the total duct network, but rather BT's estimate of the split of this total cost between the replacement cost of duct assets BT had acquired since 1997 (which is required as part of the RAV methodology used for setting forward looking charge controls) and the assets it had acquired before 1997.

13.258 CWW also suggests that Ofcom did not challenge BT's revaluation in the LLU and WLR Statement because the project only required it to consider the valuation of post-1997 duct assets. CWW is right that the focus of the LLU and WLR Statement was BT's CCA estimate of post-1997 duct assets (since this is what is relevant for the RAV methodology), but it is incorrect to say that Ofcom did not consider BT's aggregate valuation. In relation to BT's total duct valuation in 2009/10 we said in the LLU and WLR 2011 Consultation that⁸⁷⁶:

13.258.1 BT's quantity estimates came from an electronic geographic database (called PIPeR⁸⁷⁷) and we had no reason to believe that this did not provide a reasonable basis for identifying the assets in use;

13.258.2 BT's price estimates were derived from 2009/10 contractual rates and we had no reason to believe that these did not represent a sensible starting point for the price calculation;

13.258.3 it was hard to form a view on whether the discount rate appeared reasonable, but we considered it was within a plausible range;

13.258.4 we noted that the aggregate valuation was subject to a large number of internal assumptions by BT; and

13.258.5 we noted that stakeholders considered that BT's methodology was opaque and inconsistent and there could be incentives for BT to game the charge control process.

13.259 We therefore considered that we did not have reason to question whether the major component parts of BT's aggregate duct valuation (i.e. quantity, price and discount) were reasonable, although we noted that BT's methodology was subject to a number of assumptions and stakeholders had identified several issues with it. While there might be scope in future for the transparency and consistency of BT's duct valuation methodology to be improved, we do not consider that this means the aggregate valuation itself is necessarily unreasonable or requires adjustment given that the major component parts of the duct valuation appear reasonable. We therefore disagree with CWW's suggestion that an adjustment is required to the entire duct network over all time periods.

⁸⁷⁵ For example the LLU and WLR Statement adopted a RAV approach and the 2012 LLCC Consultation proposes a RAV approach.

⁸⁷⁶ LLU and WLR 2011 Consultation Annexes, paragraphs A1 and A5.

⁸⁷⁷ This stands for Physical Inventory for Planning and e-Records.

13.260 CWW argued that one reason that Ofcom did not apply the RAV adjustment for Ethernet services in the 2009 LLCC Statement was because it considered that most of the duct and fibre used by Ethernet services was likely to have been deployed since 1997 and it was BT's valuation for this period that Ofcom found was not reliable in the LLU and WLR Statement⁸⁷⁸. CWW suggests applying the same adjustment made for the LLU and WLR Statement to post-1997 assets only, given that Ethernet is primarily delivered over post-1997 assets.

13.261 The reasons for not applying a RAV adjustment to the AISBO market for the purposes of setting the charge control were set out in paragraph 5.60 of the 2009 LLCC Statement. One of the reasons given there was that "*Ethernet services make less use of pre-97 duct [than other services]*" but other reasons were also given such as the need to encourage investment by CPs in new fibre services. We conclude in paragraph 13.235 that it is not appropriate to make a RAV adjustment for the purposes of resolving the Disputes.

13.262 Since the 2009 LLCC Statement Ofcom's understanding of the duct assets used by Ethernet services has developed. In the recently issued 2012 LLCC Consultation we said that "*there is no evidence to suggest that Ethernet services do not use pre-1997 duct. Although Ethernet services did not exist pre-1997, the services utilise existing as well as new duct network*"⁸⁷⁹. This means that our current understanding is that Ethernet services do not exclusively use post-1997 duct. Given that Ethernet services use a mix of pre- and post-1997 duct we disagree with CWW that it would be appropriate to replace the CCA valuation of duct associated with Ethernet services with a valuation based on the post-1997 CCA valuation used for the RAV.

13.263 Finally, CWW suggested there was merit in adopting an approach to the valuation of duct consistent with the 2012 LLCC Consultation. We have proposed to make the RAV adjustment in the 2012 LLCC. However, we do not agree with CWW that our proposal in the 2012 LLCC Consultation should affect how we consider cost orientation in prior periods. Even leaving aside the fact that we have not yet reached a final decision on the RAV adjustment following the 2012 LLCC Consultation, it would not be appropriate to apply this forward looking policy proposal to our retrospective assessment of BT's compliance with its cost orientation obligation. As we note in paragraph 9.150, we must determine whether BT complied with its cost orientation obligations as it could have understood them at the time.

13.264 In conclusion we do not consider that BT's methodology was obviously inappropriate, such that an adjustment is required to BT's estimate of the replacement cost of duct in 2009/10 for the reasons given above.

BT's treatment of the holding gain associated with the revaluation of duct in 2009/10

Our Provisional Conclusions

13.265 BT's RFS usually include holding gains and losses within the reported market-level costs and also the unit costs for each service. However, BT's 2009/10 RFS excluded the large holding gain relating to duct from the unit cost information (although the market level returns are presented with and without the duct holding gain). The 2009/10 RFS set out that "*whilst this large holding gain has been recognised in 2009/10 it does not represent a genuine periodic change in the valuation of the duct*

⁸⁷⁸ CWW's response to our Provisional Conclusions, paragraph 105c.

⁸⁷⁹ 2012 LLCC Consultation, paragraph 6.130.

assets. BT believes that it results in an artificial upwards distortion of returns in the year.⁸⁸⁰

13.266 We considered whether BT's exclusion of the associated holding gain from the unit cost information in 2009/10 was appropriate and we explained that the 2009/10 duct holding gain (as reported at a market level in the RFS) resulted from a change in accounting estimate rather than, for example, an in-year change in the cost of labour or materials associated with building duct. We said that this change in accounting estimate was an attempt to reflect in the 2009/10 RFS a change in the environment for building duct and the consequent replacement cost, which may have arisen at any point prior to the publication of the 2009/10 RFS. Therefore the gain through holding the asset may not actually all have arisen during 2009/10 but could have occurred during any year or over a number of years in the past (including years prior to the Relevant Period). As a result, we considered there was merit in BT's assertion in the 2009/10 RFS that the combination of the nature and size of the holding gain would result in an artificial upwards distortion of returns in 2009/10 if it was reflected in the unit costs. Since we had not identified that BT's exclusion of the holding gain was either an error or obviously inappropriate, we did not propose to change BT's reported treatment of the holding gain associated with duct in 2009/10.

Views of the Parties

13.267 TTG, CWW and RGL generally agree that reflecting the holding gain in 2009/10 alone might not be desirable⁸⁸¹, but they do not think it was reasonable to entirely omit the holding gain from the assessment of overcharging for the following reasons:

13.267.1 *"If the holding gain is ignored, BT will over recover its costs as a result of the revaluation"* and will therefore benefit from the exclusion of the holding gain.⁸⁸²

13.267.2 Excluding the holding gain leads to a lack of consistency between the P&L and balance sheet *"with the increased future capital cost being considered for the purposes of estimating unit costs and the associated holding gain being disregarded"*. RGL also commented that *"holding gains and losses, by definition, are a product of the CCA accounting methodology so it is unclear as to why this particular holding gain should be treated differently"*.⁸⁸³

13.268 TTG and RGL suggest three methods for correcting this inconsistent treatment:⁸⁸⁴

"First the revaluation can be ignored meaning that there will be no holding gain and no increase in future capital costs which will [avoid] any potential inconsistencies".

⁸⁸⁰ 2009/10 Current Cost Financial Statements, page 18. Details of the duct holding gain are on pages 17 and 18 of the 2009/10 RFS:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2010/CurrentCostFinancialStatements2010.pdf>.

⁸⁸¹ TTG's response to our Provisional Conclusions, paragraph 5.26; Second RGL Report paragraph 4.06.10; CWW's response to our Provisional Conclusions, paragraph 111.

⁸⁸² TTG's response to our Provisional Conclusions, paragraph 5.24. See also the Second RGL Report (paragraph 4.06.6) and CWW's response to our Provisional Conclusions (paragraph 112).

⁸⁸³ Second RGL Report, paragraphs 4.06.6 and 4.06.8.

⁸⁸⁴ TTG's response to our Provisional Conclusions, paragraph 5.27. See also Second RGL Report, paragraphs 4.06.12 to 4.06.15.

“Second, the revaluation could be included but the holding gain spread forward”. However this “would risk negating the effect of the revaluation completely. If the new approach is a better representation of replacement cost of a future looking basis, applying the holding gain in this way would remove the benefit of having a more accurate valuation methodology”.

“Third, the revaluation could be included but the holding gain spread backward to the years before 09/10. This will reflect the gradual change in the environment for laying duct and this ‘smoothing’ effect on costs will reflect the actuality of the theory behind the accounting change”.

13.269 BT agrees with Ofcom’s proposed treatment of the revaluation of duct and associated holding gain in 2009/10.⁸⁸⁵ In response to the options for dealing with the 2009/10 holding gain put forward by TTG and RGL, BT argues:⁸⁸⁶

13.269.1 in response to TTG and RGL’s suggestion that the revaluation⁸⁸⁷ could be ignored, we understand BT to be arguing that to do so *“would, in effect, introduce an element of historic cost accounting (HCA), because changes in value over time would not be fully taken into account. This would not be appropriate. The use of current cost accounting, rather than HCA (or elements of it) for regulatory purposes is well established.”*

13.269.2 *“The effect of spreading the gain forward would also introduce an element of HCA as the supplementary depreciation and return on capital employed in future years would be offset by the share of the holding gain attributed to that year.”*

13.269.3 *“This approach [spreading holding gains backward] would mean that the costs used to assess cost orientation would be lower than the costs of which BT was aware when it set the prices and it would clearly be unreasonable to suppose that BT could say have forecast in 2006 what holding gain would arise in 2010.”*

13.270 CWW suggests that the decision is not *“a binary one”* and *“it may be appropriate to exclude some of the holding gain where Ofcom is satisfied that it occurred prior to the dispute period and it would not have changed any assessment of cost orientation at the time”*.⁸⁸⁸

Our analysis

13.271 In the paragraphs below we set out some background on how BT estimates the replacement cost of duct each year and the changes that have occurred during the Relevant Period. We then set out our assessment of whether BT’s treatment of the 2009/10 holding gain associated with duct was obviously inappropriate and respond to the specific comments from BT and CPs.

⁸⁸⁵ BT’s comments on the Disputing CPs’ responses, paragraph 102.

⁸⁸⁶ BT’s comments on the Disputing CPs’ responses, paragraphs 94 to 96.

⁸⁸⁷ BT talks about the holding gain, but we understand BT to be referring to the revaluation.

⁸⁸⁸ CWW’s response to our Provisional Conclusions, paragraph 113.

Background

- 13.272 As discussed in the LLU and WLR Statement, BT's inputs to its methodology for valuing duct have changed over the Relevant Period, and this has led to significant changes in the estimated replacement cost of duct.
- 13.273 For example, in 2007/08 BT introduced a new asset recording system called PIPeR to replace the previous system. A consequence of introducing PIPeR was that the measured quantity of duct in BT's system increased (due to better information rather than the quantity of duct actually increasing in 2007/08). In the same year, 2007/08, BT introduced the concept of a national discount rate, assuming a level of 45% based on senior management judgment. As a result the overall duct valuation did not change significantly since the increase in the quantity of duct was offset by the introduction of the national discount rate.⁸⁸⁹
- 13.274 In 2009/10 the replacement cost of duct increased significantly resulting in a holding gain, net of backlog depreciation, of £1,880m⁸⁹⁰. In part this reflected changes in two of the assumptions made by BT in its estimate of the value of its duct in 2009/10:
- 13.274.1 An 8% reduction in the price of duct (following a move to a new supplier for civil engineering services).⁸⁹¹
- 13.274.2 A reduction in the national discount that might be achieved (based on the reduced prices) if BT's duct network was rebuilt over a short period of time from 45% to 14.5%⁸⁹².
- 13.275 BT's 2009/10 *Detailed Valuation Methodology* ("DVM") says that "*the total replacement cost of the duct is calculated from the materials cost of the duct itself (or its nearest modern equivalent), based on current contract prices, and the cost of installation*". In relation to the cost of duct, the DVM says:
- "Contract costs were discounted to represent the impact of the benefits that might be gained from a total platform replacement over a short period of time, including economies of scale, revisions in working practices and the effects of competitive tendering. The degree of discount applied is necessarily a matter of judgement and for 2008/09 was set at 45% which was supported by the views of a number of senior managers within BT. During 2009/10, a long term contract was awarded to a sole national provider of civil engineering services, which brought with it a significant discount. In addition, it allowed a more rigorous approach to estimating the discount factor to be adopted, working with the supplier and based on an analysis of their cost structure. It was concluded that the available discount was 14.5% and this value was used for the valuation of the assets for 2009/10".*⁸⁹³
- 13.276 BT's 2009/10 RFS says that part of the difference between the 45% discount rate assumed in 2007/08 and 2008/09 and the 14.5% assumed in 2009/10 is "*accounted for by the reduction in prices negotiated during the tender for the new contract*".⁸⁹⁴

⁸⁸⁹ LLU and WLR Statement, paragraph A1.96.

⁸⁹⁰ 2009/10 RFS, page 18. The holding gain applicable to the AISBO market is £132m, which can be derived by taking the difference between the 'Return' figures (page 51 of the 2009/10 RFS).

⁸⁹¹ LLU and WLR 2011 Consultation, Annexes. Paragraph A5.93.

⁸⁹² 2009/10 RFS, page 18.

⁸⁹³ 2009/10 DVM, page 12.

⁸⁹⁴ 2009/10 RFS, page 18.

13.277 The increase in the replacement cost of duct in 2009/10 was driven by the reduction in the size of the national discount factor from 45% to 14.5%. The estimate of 14.5% was obtained from BT's new national supplier of civil engineering services. While part of the reduction in the national discount factor appears to reflect the decrease in contract prices associated with BT moving to a new civil engineering contractor, our understanding is that the reduction in the national discount factor also reflected an improvement in information about relevant prices, not a real change in the underlying cost of replacing duct in 2009/10. Indeed, BT's RFS says that the 2009/10 valuation of duct "*does not represent a genuine periodic change in the valuation of the duct assets*".⁸⁹⁵

13.278 Changes in BT's estimate of the replacement cost of duct over the Relevant Period have been driven by changes in accounting estimates (e.g. changes in the quantity of duct following a new system and changes to the size of the assumed discount rate), which largely reflect the availability of new information.⁸⁹⁶ We think it is important to distinguish between holding gains/losses that arise due to contemporaneous events, such as changes to commodity prices (which for the purposes of these Determinations we term 'genuine holding gains'), and those that arise due to changes in accounting estimates that reflect new or better information and which could be viewed as correcting or improving upon previous estimates (which we term 'valuation adjustments').

Is BT's treatment of the 2009/10 holding gain on duct obviously inappropriate?

13.279 The increase in BT's estimate of the replacement cost of duct recorded in 2009/10 was largely due to a reduction in BT's estimate of the national discount factor from 45% to 14.5%. We do not consider that this change in methodology reflects a genuine change in the value of duct in 2009/10. Rather we accept BT's statement in the RFS that the 2009/10 valuation of duct "*does not represent a genuine periodic change in the valuation of duct assets*" (see paragraph 13.277).

13.280 Such valuation adjustments are distinct from genuine holding gains, which arise each year from changes in the costs of labour or materials that are used to build duct. In 2009/10 BT excludes the entire 'holding gain' (net of backlog depreciation) from the P&L. Therefore BT does not distinguish between P&L effects associated with valuation adjustments and P&L effects associated with genuine holding gains in that year.

13.281 There are two issues which need to be considered in relation to BT's treatment of the 2009/10 holding gain on duct. First, to the extent that the 'holding gain' represents a valuation adjustment, we consider whether it was inappropriate to exclude it from the 2009/10 P&L. If it was not inappropriate, we consider whether mechanisms exist to address the resulting inconsistency between the P&L and balance sheet in a way that appropriately reflects the valuation adjustment.

13.282 Second, we consider whether excluding the 'holding gain' from the 2009/10 P&L may have also excluded material "genuine" holding gains or losses, whether this represents an obviously inappropriate methodology and, if so, whether it is reasonably practical to address.

⁸⁹⁵ 2009/10 RFS, page 18.

⁸⁹⁶ The same observation was made in the LLU and WLR Statement, paragraph A1.98: "*It is clear that the reasons for the changes to the absolute duct valuation were changes to methodology and accounting practices. Such changes are not related to any underlying change in the asset yet have a direct impact on the valuation*".

Is it obviously inappropriate for BT to exclude the valuation adjustment from the 2009/10 P&L?

13.283 To the extent that the 2009/10 'holding gain' represents a valuation adjustment we agree with BT that it is not obviously inappropriate to exclude it from the 2009/10 P&L because it does not represent a genuine holding gain in the year and, given the large size of the valuation adjustment in this year, costs and returns for the year would be distorted if it were included. TTG, CWW and RGL also agree that it is not appropriate to reflect the entire holding gain in the 2009/10 P&L.

13.284 However, excluding the valuation adjustment from the 2009/10 P&L results in an inconsistency between the balance sheet and P&L. We agree with respondents that consistency between the balance sheet and P&L in BT's RFS is desirable. It is also important that the P&L costs reported in the RFS provide meaningful information. For valuation adjustments (which may relate to changes in asset values over several years) it is not necessarily the case that consistency between the balance sheet and P&L will lead to meaningful cost information if that valuation adjustment is reflected in a single year. In such circumstances, it may be appropriate to reflect the valuation adjustment in the RFS across the periods to which it relates, but only if it is reasonably practical to do in a way that addresses the issue. TTG and RGL suggest that one way to deal with the inconsistency between the balance sheet and P&L in 2009/10 would be to ignore the revaluation in 2009/10. Given our conclusion (paragraph 13.264) that we do not consider it necessary to adjust BT's 2009/10 duct revaluation, we do not agree.

13.285 We now consider three potential mechanisms for addressing the inconsistency between the P&L and balance sheet. For each mechanism, we consider whether it appropriately reflects the valuation adjustment and if it represents a reasonably practical approach to addressing the inconsistency between the P&L and balance sheet.

Table 13.21: Potential mechanisms for addressing the inconsistency between the P&L and balance sheet associated with the 2009/10 valuation adjustment

Mechanism 1	Spread the valuation adjustment forwards into future P&Ls (proposed by TTG and RGL)
Mechanism 2	Spread the valuation adjustment backwards into past P&Ls (proposed by TTG and RGL)
Mechanism 3	Rebuild the balance sheet and P&L in previous years

13.286 We agree with BT that Mechanism 1 could *"introduce an element of HCA as the supplementary depreciation and return on capital employed in future years would be offset by the share of the holding gain attributed to that year"* (see paragraph 13.269.1 above). TTG and RGL also seem to recognise this risk since they say that *"if the new approach is a better representation of replacement cost on a future looking basis, applying the holding gain in this way would remove the benefit of having a more accurate valuation methodology"* (see paragraph 13.268 above). We therefore consider this mechanism would not appropriately reflect the valuation adjustment.

13.287 Mechanism 2 treats the valuation adjustment as a series of "genuine" holding gains that have arisen since an unspecified date in the past. Using this approach, prior year P&Ls would be adjusted but asset values in the related balance sheets would remain

unchanged. We do not consider this would appropriately reflect the valuation adjustment since it would reduce costs in prior years (via the inclusion of an additional holding gain in the P&L) without reflecting the higher asset valuation (and increased depreciation) in those years. The effect of this approach is therefore to replace one form of inconsistency with another. Further, we do not consider that this mechanism would be reasonably practical since it would require knowledge of the years in which the "genuine" holding gains arose. For these reasons we do not consider it would be appropriate to adopt Mechanism 2.

13.288 Mechanism 3 is similar to Mechanism 2, but would also entail rebuilding the balance sheet in each of the affected years in order to reflect the replacement cost of duct in those years, estimated on a basis consistent with BT's 2009/10 valuation. We consider that, in theory, Mechanism 3 could appropriately reflect the valuation adjustment since the balance sheet and P&L in prior years would better reflect the replacement cost of duct in those years. However, also similar to Mechanism 2, we do not consider that Mechanism 3 is reasonably practical because it would require knowledge of the underlying "genuine" holding gains in each year.

13.289 Therefore, while we consider it to be desirable for the balance sheet to be consistent with the P&L we do not consider it to be reasonably practical to restate the balance sheet in a way that appropriately reflects the valuation adjustment.

Is it obviously inappropriate for BT to exclude genuine holding gains or losses from the 2009/10 P&L?

13.290 Excluding the entire holding gain from the P&L in 2009/10 means that any genuine holding gains (or losses) that may have arisen in that year are also excluded from BT's 2009/10 RFS. If such gains or losses were material we would consider their exclusion from the P&L in BT's published RFS in 2009/10 to represent an obviously inappropriate methodology.

13.291 We now consider whether there are practical solutions available to us to adjust for the fact that BT's exclusion of the entire holding gain in 2009/10 means that any genuine holding gains arising on duct in 2009/10 would also have been excluded. For the purposes of setting some price controls, Ofcom has in the past assumed that an estimate of the genuine holding gains arising during the year could be achieved by assuming that the cost of replacing duct increases by RPI each year⁸⁹⁷. Such an assumption would have the advantage of reflecting the fact that there may have been some genuine holding gains arising on duct during 2009/10 which should be reflected in the P&L. However, RPI was very volatile in 2009/10⁸⁹⁸ caused in part by the reduction in VAT from 17.5% to 15% on 1 December 2008 and the subsequent reversion to 17.5% on 1 January 2010. Given the volatility in RPI during 2009/10 we do not consider that RPI would be a good proxy for the genuine holding gains that may have arisen on duct in 2009/10.

13.292 We have therefore considered what other options are available to us. We recognised in our statement "*A new pricing framework for Openreach*"⁸⁹⁹ that some factors affecting RPI during 2009/10 did not have a direct impact on BT's costs⁹⁰⁰ and we assumed for modelling purposes that holding gains in 2009/10 would be equivalent to

⁸⁹⁷ For example the 2012 LLCC Consultation says "To forecast the value of duct, we assume that the nominal changes in the price of duct in the future will equal RPI". See paragraph A5.139.

⁸⁹⁸ Annual RPI was negative for the first half of 2009/10, before increasing to 4.4% by the year end.

⁸⁹⁹ *A new pricing framework for Openreach*, 22 May 2009.

<http://stakeholders.ofcom.org.uk/consultations/openreachframework/statement/>.

⁹⁰⁰ *A new pricing framework for Openreach*, paragraph 7.27.

a 0.5% increase in asset values.⁹⁰¹ Given that this estimate is close to zero, it is not obvious that the genuine holding gains arising on duct in 2009/10 would have been significantly different from zero, and therefore the impact on our assessment of overcharging would not be material.

13.293 We consider that it is not reasonably practical to robustly estimate the genuine holding gains arising on duct in 2009/10. However, in any event, we do not consider that the resulting estimate would have a material impact on our assessment⁹⁰². Therefore we have decided not to adjust the RFS to include an estimate of the genuine holding gains on duct in 2009/10.

Does the potential for over-recovery of costs justify an alternative approach?

13.294 As set out above, we have concluded that it would not be appropriate to adjust the RFS to include either the effect of on costs of the valuation adjustment or an estimate of any genuine holding gains in 2009/10, or to attempt to restate prior year asset values on a basis consistent with the 2009/10 valuation.

13.295 However, in light of concerns expressed by CWW, TTG and RGL that the exclusion of the entire 2009/10 holding gain from the unit cost data means BT will over-recover its costs, we have considered whether the proposed approach would result in over-recovery. We have first considered recovery of costs during the Relevant Period. The possibility of over-recovery in periods outside of the Relevant Period would not necessarily cause us to change our assessment of whether prices were cost orientated during the Relevant Period. However, for completeness, in light of parties' comments we have also considered the scope for over-recovery of costs in the longer term.

13.296 In respect of the Relevant Period, it is not possible to tell whether depreciation costs (net of holding gains) would have been higher or lower had BT estimated its asset values throughout the period on a basis that was consistent with its 2009/10 valuation. This is because we do not know how and when the reported valuations started to diverge from the valuation that the 2009/10 methodology would have delivered.

13.297 For the reasons given above, it seems likely that during the Relevant Period, the reported asset value was, on average, lower than the valuation that might have been derived on a basis that was consistent with BT's 2009/10 valuation. Therefore it also seems likely that the reported annual depreciation costs (before holding gains) would also have been lower than they otherwise would have been.

13.298 However, to estimate the net effect on costs during the period (and whether they would have been higher or lower than reported) it would be necessary to estimate the timing of the holding gains on a basis that was consistent with the derivation of the 2009/10 valuation. As explained above, we do not consider that this is practicable.

13.299 Over the lifetime of an asset, if asset values are increased while the underlying holding gains are not included in the P&L, the total depreciation charge, net of holding gains, will exceed the original cost of the asset. Depending on how prices are set, this creates the possibility of over-recovery over the lifetime of the asset.

⁹⁰¹ A new pricing framework for Openreach, paragraph A6.110.

⁹⁰² We note that if we were to include an estimate of the genuine holding gains arising on duct in 2009/10 equal to a 0.5% increase in the replacement cost of assets then the total increase in 2009/10 repayments would be approximately £60k.

13.300 In this case, it is not clear how BT's earlier valuations of its duct assets would have affected previous prices, which services would have been affected, and, if so, by how much. This would depend on how costs were allocated and how and when prices were set.

13.301 Therefore, we do not consider that the potential for over-recovery of costs is sufficiently clear to justify a move away from the conclusion set out in paragraph 13.296 above.

EBD rental and connection costs

Our Provisional Conclusions

13.302 Costs associated with EBD rentals were not separately estimated in the 2008/09 or 2009/10 RFS. This means that costs associated with EBD rentals were included within other services in these years, including the Ethernet services in dispute. BT provided an estimate of EBD rental FAC in 2008/09 and 2009/10 based on the methodology it employed in the 2010/11 RFS.⁹⁰³ These estimates of EBD rental FAC were £[REDACTED] in 2008/09 and £[REDACTED] in 2009/10. BT informed us that 70% of these FAC costs would have been reported within Ethernet main link in 2008/09 and 2009/10, with the remainder affecting PPC main link. Consequently we removed 70% of these EBD FAC estimates from main link rentals in 2008/09 and 2009/10⁹⁰⁴.

13.303 Similarly, costs associated with EBD connections were not separately estimated in the 2008/09 or 2009/10 RFS. This means that costs associated with EBD connections were included within other services in these years, including the Ethernet services in dispute. BT provided an estimate of EBD connection FAC costs in 2008/09 and 2009/10 based on the methodology employed in the 2010/11 RFS.⁹⁰⁵ These estimates were £[REDACTED] in 2008/09 and £[REDACTED] in 2009/10. BT informed us that in 2009/10 these EBD connection costs would have been included within the costs of other BES and WES connection services and we have assumed that this would also have been the case in 2008/09.

13.304 BT's estimate of EBD connection FAC represents a small proportion of total BES and WES connection FAC in 2008/09 and 2009/10 ([REDACTED]% in 2008/09 and [REDACTED]% in 2009/10). Consequently, we made an adjustment to remove [REDACTED]% of FAC costs from the BES connection services in dispute in 2008/09 and [REDACTED]% in 2009/10.

Views of the Parties

13.305 BT accepts that Ofcom made correct adjustments in relation to this adjustment.⁹⁰⁶

13.306 RGL says that it could not verify that BT's estimate of the EBD connection FAC was small as a proportion of total BES and WES connection FAC in 2008/09 or 2009/10 as the adjustments were redacted in the Provisional Conclusions.⁹⁰⁷

13.307 None of the other Parties commented on this adjustment.

⁹⁰³ BT's response to follow up question 29 to the 22 October 2010 section 191 notice. EBD rentals costs were separately identified for the first time in the 2010/11 RFS.

⁹⁰⁴ BT did not provide an explanation of why 70% of EBD rental FAC costs would have been reported within main link in 2008/09 and 2009/10. However we note that our conclusions on overcharging would not have changed even if we removed 100% of the EBD rental FAC from main link.

⁹⁰⁵ BT's response to follow up question 29 to the 22 October 2010 section 191 notice.

⁹⁰⁶ BT's response to our Provisional Conclusions, paragraph 125.3.

⁹⁰⁷ The Second RGL Report, paragraph 3.04.9.

Our analysis

- 13.308 No respondents disagreed with this adjustment and we remain of the view that it would be obviously inappropriate to include EBD rental and connection costs in the cost base of the Ethernet services in dispute because they are outside the scope of the dispute and are associated with separate EBD rental and connection charges. We consider that we have sufficient data to make the adjustment and it is therefore practical for us to do so.
- 13.309 We have considered whether this adjustment would significantly alter the financial data on which we relied in previous regulatory decisions. Based on our understanding of the adjustment and affected costs, we do not consider it likely that any inconsistencies in the financial data that might be introduced as a result of this adjustment would be significant enough to outweigh the competing considerations set out above.
- 13.310 We do not consider that making this adjustment will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.
- 13.311 We have therefore decided to make the adjustment as set out in our Provisional Conclusions. We note RGL's comment and confirm our view that BT's estimate of the EBD connection FAC was small as a proportion of total BES and WES connection FAC in 2008/09 and 2009/10. However, though the adjustment is small in absolute terms, it is an important adjustment to make because the difference between revenue and DSAC for BES 100 connection is relatively small. We have made two small changes to how the EBD connection FAC is allocated to BES and WES connection services so that it is consistent with the transmission equipment cost adjustment. First, we have split BT's total estimate of EBD connection costs in 2008/09 and 2009/10 between BES and WES connections on the same basis as electronics costs in these years⁹⁰⁸. We then assume that EBD connection costs were allocated to services on the basis of corrected volumes⁹⁰⁹. These changes do not make a significant difference to the size of the adjustment.

Additional adjustments proposed by BT

- 13.312 In its response to our Provisional Conclusions, BT says that it has "*carried out additional detailed analysis of the published DSACs for the years 2006/07 to 2010/11 and has identified a number of further adjustments that need to be made to correct for errors in the published DSACs*".⁹¹⁰ These adjustments relate to:

13.312.1 BES fibre costs;

13.312.2 Provisioning costs; and

⁹⁰⁸ The main cost component of BES and WES connections is "BES electronics etc" and "WES electronics etc" respectively. We assume that if EBD connection costs were included in BES and WES connections they would have been included within these cost components. Since costs are allocated into these cost components on the basis of volumes, the ratio of EBD connection costs between BES and WES connections would be the same as for electronics costs.

⁹⁰⁹ As with the transmission equipment adjustment, the corrected volumes have also been weighted by usage factors because the "BES electronics etc" and "WES electronics etc" costs components in which we assume EBD costs would have been included are allocated to connection services on the basis of factored volumes (i.e. volumes multiplied by usage factors).

⁹¹⁰ BT's response to our Provisional Conclusions, paragraph 141.

13.312.3 ISDN2 monitoring line costs.

13.313 The Disputing CPs made some general comments on BT's proposed adjustments in their comments on BT's response. TTG argues that *"BT has no incentive to look for errors that were against [it] or disclose such errors if it found them. Thus including these type of errors would create an intolerable inequity and asymmetry where BT could find errors in its favour but other CPs did not have the ability to find errors that work in their favour (since they do not have access to the model)"*.⁹¹¹ TTG also considers that *"whereas the volume errors Ofcom included were mathematical/software errors BT's adjustments are corrections for previous 'misapplication' of BT's own selected allocation methodologies"*.⁹¹² TTG adds that *"the level of justification and explanation is wholly inadequate. For instance, the method and assumptions used to calculate the cost and allocate costs have not been articulated and the evidence and justification not provided"*.⁹¹³

13.314 Sky argues that there are several reasons why it would be inappropriate for Ofcom to accept BT's proposals. It argues *"only BT has access to its cost models in order to identify further errors or methodological changes. As a result, there is an inherent asymmetry and bias in relying solely on BT's analysis as it will have an incentive to only put forward cost changes that work in its favour and against the purchasing parties"*.⁹¹⁴ Sky also argues that *"the effect of accepting some of BT's adjustments would be to move certain costs into AISBO services from elsewhere or between different services within the AISBO market. However, previous regulatory decisions – such as cost orientation assessments and the setting of charge controls – have been predicated on the basis of the previous cost allocations. Were one minded to accept the adjustments put forward by BT then one would need to revisit these previous decisions in light of the adjusted data. In Sky's view this is impractical"*.⁹¹⁵ Sky adds that *"In some cases, the 'errors' cited by BT occurred over six years ago but have only now come to light (despite the fact that operators like Sky made clear their concerns over prices relative to BT's costs in late 2007)"*.⁹¹⁶

13.315 CWW argues that *"it is noteworthy that BT has not proposed any corrections to data that would favour CPs and we propose in the event that Ofcom considers making additional corrections (which we oppose) that Ofcom requests formally the provision of BT's discovery data including findings that go against BT"*. It adds that *"BT has not claimed that the costs it has identified are not being recovered, leaving us to conclude that they have already been attributed to other service categories. BT's proposal therefore constitutes a double recovery of these costs as no mechanism for reducing the charges for the services which currently include these costs is proposed"*.⁹¹⁷ CWW considers that *"it is appropriate for Ofcom to treat BT's proposals for the recovery of these costs in the same manner as BT's DSAC methodology change proposals. Both proposals concern the redistribution of costs already recovered by other services in a manner which would leave BT in a state of over recovery. CWW concludes that BT cannot be permitted to recast cost data for parts*

⁹¹¹ TTG's comments on BT's response, paragraph 6.11.

⁹¹² TTG's comments on BT's response, paragraph 6.12.

⁹¹³ TTG's comments on BT's response, paragraph 6.15.

⁹¹⁴ Sky's comments on BT's response, paragraph 31a.

⁹¹⁵ Sky's comments on BT's response, paragraph 31b.

⁹¹⁶ Sky's comments on BT's response, paragraph 31c.

⁹¹⁷ CWW's comments on BT's response, paragraphs 14 and 15. TTG makes a similar point in paragraphs 6.13 and 6.14 of TTG's comments on BT's response.

of the RFS, and in particular BT cannot be permitted to recast the RFS when it suits BT.⁹¹⁸

13.316 We take into account TTG, Sky and CWW's comments when we consider below each of the proposed adjustments in accordance with our framework set out in Section 11.

13.317 The following section sets out BT's proposals, the Disputing CPs' comments on those proposals, and our conclusions in relation to each of these proposed adjustments. It should be noted that the Disputing CPs' comments relate to BT's proposals as set out in its response to our Provisional Conclusions only and not any further submissions received from BT (e.g. BT's comments on the Disputing CPs' responses and its 3 September 2012 submission).

BES Fibre costs

BT's proposal

13.318 BT says that it discovered an error in the calculation of BES fibre costs for the years 2006/07 to 2008/09 inclusive. It said that *"[t]he problem was that the people inputting the number of fibres used for BES services had failed to appreciate that each BES circuit has two ends and that each end uses two fibres. The consequence was that not enough fibre costs were allocated to BES in the RFS"*.⁹¹⁹ BT adds that when fibre costs were allocated to BES services in 2006/07 to 2008/09, it was assumed that there were two fibres but only one end whereas in 2009/10 and 2010/11 the cost allocation model assumed two fibres and two ends.⁹²⁰

13.319 BT has included a table in its response, reproduced in Table 13.22 below, showing the HCA unit cost of fibre included within the published RFS numbers for 2006/07 to 2010/11.

Table 13.22: Historical cost accounting (HCA) unit cost of fibre within published RFS numbers

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental	[X]	[X]	[X]	[X]	[X]
BES 1000 rental	[X]	[X]	[X]	[X]	[X]

Source: BT's response to our Provisional Conclusions, Table 4.4. For 2006/07 BT said the element of fibre cost related to main link has been excluded.

13.320 BT argues that there was no reason why fibre costs should vary significantly between years, except for the volume input error. BT suggests using the unit costs in 2009/10 and 2010/11 as proxies for the period 2006/07 to 2008/09, which would increase the FAC of BES rental services in these years.

13.321 BT adds that *"the error in under attributing cost to BES services caused a corresponding overstatement of the costs of other services (including WES services) to which local fibre costs are attributed. However, BES services formed a very small*

⁹¹⁸ CWW's comments on BT's response, paragraph 16.

⁹¹⁹ BT's response to our Provisional Conclusions, paragraph 142.

⁹²⁰ BT presentation to Ofcom, 29 May 2012, slide 8.

part (≤[X]%) of the total fibre costs in each year concerned so that the consequential changes to the costs attributed to other services are not material".⁹²¹

13.322 BT's 3 September 2012 submission provides the results of its "*modelling exercise assessing the impact of access fibre cost adjustments across all services which receive an attribution of BT's fibre plant group costs*". It says that the modelling work.⁹²²

13.322.1 "*applies an appropriate fibre usage factor to the total fibre volumes;*

13.322.2 "*corrects for Cable Link volumes previously incorrectly attributed to BES services [...];*

13.322.3 "*appropriately attributes fibre cost to all BES services, internal and external [...]; and*

13.322.4 "*demonstrates the impact of BES related adjustments to the attribution of BT's fibre plant group cost is primarily limited to BES services...*".

13.323 In relation to the Cablelink correction BT says that "*this adjustment has not previously been discussed with Ofcom, however the adjustment decreases the costs of the disputed services and therefore given that BT is proposing other adjustments that increase the costs BT considers it appropriate to make this adjustment also*". BT says the same comment applies to the fibre correction associated with BES internal services.⁹²³

Views of the Disputing CPs

13.324 CWW says that "*BT states that BES circuits contain two ends. In our view BES circuits use less fibre than a WES circuit. While of course a BES circuit has two local ends in terms of transmission equipment, a BES circuit only has one fibre connection between a BT exchange and a 3rd party location. Therefore if there has been any error by BT it is not that there is too little fibre costs included in the 2006/07 and 2008/09 but rather there is too much costs included in other years*".⁹²⁴

13.325 CWW also argues that "*[i]t is clear from BT's response that these costs are being recovered across other services, however BT dismisses corresponding offsetting reductions in other service costs as insignificant*". CWW says that it considered that the published RFS data should stand and that this would be consistent with the PPC Judgment.⁹²⁵

13.326 None of the other Parties commented on this adjustment.

Our analysis

13.327 BT identified three possible errors associated with the allocation of fibre costs and we have considered each in turn.

⁹²¹ BT's response to our Provisional Conclusions, paragraph 149.

⁹²² BT's 3 September 2012 submission, page 3.

⁹²³ BT's 3 September 2012 submission, footnotes 2 and 3.

⁹²⁴ CWW's comments on BT's response, paragraph 17.

⁹²⁵ CWW's comments on BT's response, paragraph 17.

Incorrect BES fibre usage factor

13.328 The main components of BES and WES rental services are the “BES fibre etc” component (“BES fibre component”) and the “WES fibre etc” component (“WES fibre component”) respectively. [REDACTED].⁹²⁶

13.329 Using this basis of allocation, we would expect that the unit costs of the BES and WES fibre cost components would be very similar. This is because both BES and WES typically have two ends and two fibres.⁹²⁷ This is exactly what we see in 2009/10 and 2010/11 as set out in Table 13.23. Table 13.23 shows the amount of fibre costs included within the BES fibre component and WES fibre component on a unit cost basis in each year from 2006/07 to 2010/11. In 2009/10 and 2010/11 the unit costs are very similar – we would expect slight differences because, in terms of its RFS reporting, not every BES and WES variant has two ends⁹²⁸.

Table 13.23: Fibre cost included within BES fibre component and WES fibre component ,per local end 2006/07 to 2010/11

	2006/07	2007/08	2008/09	2009/10	2010/11
BES fibre	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
WES fibre	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Ratio (BES/WES)	50%	50%	89%	98%	94%

Source: Ofcom, derived from the spreadsheets provided by BT on 23 June 2011 (for 2006/07 to 2009/10) and 27 January 2012 (for 2010/11)

13.330 However, in 2006/07 and 2007/08 the amount of fibre cost included in BES services is 50% of the amount included within WES services. An allocation of fibre costs that saw BES services receive half as much fibre as WES circuits would be consistent with a methodology that took into account the fact that BES circuits have one local end that terminates outside of a local exchange, while WES circuits have two local ends that terminate outside of a local exchange (this is illustrated in Figures 6.1 and 6.2). Therefore an allocation of fibre costs based on this methodology would lead to twice as much fibre being allocated to WES services than allocated to BES services.

13.331 A spreadsheet provided by BT in response to the 22 October 2010 section 191 notice indicates that it intended that BES rentals should receive half as much fibre costs as WES rentals in 2006/07. The spreadsheet says that this is because there are “2 access ends per WES, 1 per BES so BES is half of WES”⁹²⁹.

13.332 BT has not provided any evidence that it intended to allocate fibre costs based on the number of “ends” in 2006/07 and 2007/08. Based on the information available to us, we consider that the difference in the amount of fibre cost allocated to BES services

⁹²⁶ BT presentation to Ofcom, 29 May 2012, slide 8.

⁹²⁷ BES and WES services are point-to-point services so the ends are the two points. For WES this can be customer to customer or customer to CP site while for BES this can be BT site to BT site or BT site to CP site. In addition, the ends are where the equipment is located. BES and WES services usually have two ends, although there are some variants of BES and WES which have fewer than two ends.

⁹²⁸ For example the WES Local Access variant only has one local end.

⁹²⁹ Spreadsheet called “WES-BES analysis Ofcom.xls” provided in response dated 15 November 2010 to question 15 of the 22 October 2010 section 191 notice, sheet “Summary cost stacks”, cell B34. This spreadsheet was originally provided to Ofcom in June 2007 in response to the LLMR information request.

during the Relevant Period is likely to be the result of a change in allocation methodology from one based on the number of local ends that terminate outside of a local exchange to one based on "ends". As a result we do not consider that this represents a mathematical or input error.

13.333 The differences in the amount of fibre cost allocated to BES rental services during the Relevant Period reflect BT's choices about fibre allocation. It appears that BT allocates fibre costs to services based on a methodology that reflects how BT considers fibre is used by those services, and there are many such methodologies that it could adopt. Any methodology will be a simplification since the amount of fibre actually used by BES and WES services (as well as other fibre-based services) could vary significantly by circuit.

13.334 For example, given that BES and WES services are both point-to-point fibre services, allocating fibre on the same unit cost basis to both BES and WES is not necessarily unreasonable. Similarly, it may be possible to identify systematic differences between BES and WES services that mean BES would be expected to typically have a lower fibre unit cost. The evidence available to us does not suggest that one allocation method is appropriate while the other is obviously inappropriate since they both reflect BT's choices about the allocation of fibre costs at the time.

13.335 We have therefore concluded that the BES fibre usage adjustment proposed by BT does not correct a methodology used in the RFS that is obviously inappropriate for the purpose of resolving the Disputes. We therefore reject the adjustment.

Fibre error associated with Cablelink volumes

13.336 In 2007/08 and 2008/09 Cablelink volumes were included within BES "other bandwidth" rentals in the RFS. BT says this was incorrect, although it does not explain how it intended to report Cablelink in these years.

13.337 The consequence of including Cablelink volumes within BES other bandwidth rentals is that they attract an implied allocation of fibre cost⁹³⁰. Based on information provided by BT we have understood its argument to be that it was inappropriate for Cablelink to attract an element of fibre cost which is why it proposes a correction.

13.338 Cablelink is a fibre product that allows CPs to make connections in and around a local exchange⁹³¹. The consequence of BT's proposed correction would be that Cablelink would not attract an allocation of fibre cost. It is not obvious that Cablelink should not attract an allocation of fibre cost given that it is a fibre product and BT has not explained this further in its submission.

13.339 Therefore on the basis that BT has not explained why it is inappropriate for Cablelink to receive an allocation of fibre cost, we do not consider that the adjustment corrects an error in the RFS or corrects for an obviously inappropriate methodology. We therefore reject the adjustment.

⁹³⁰ As explained at paragraph 13.328 fibre costs are allocated to services based on volumes. Where Cablelink volumes were included within BES "other bandwidth" rentals then an allocation of fibre will effectively be made to Cablelink services.

⁹³¹ Openreach fact sheet on Cablelink:

<http://www.openreach.co.uk/orpg/home/products/ethernet-services/cablelink/cablelink/downloads/ether-net-cablelink-factsheet.pdf>

Fibre error associated with internal BES services

13.340 The spreadsheet provided by BT in its 3 September 2012 submission⁹³² indicates that internal BES services⁹³³ did not attract an allocation of fibre costs for most of the Relevant Period⁹³⁴. BT does not elaborate in its submission on why this was the case.

13.341 Internal BES services are similar to external BES services so it is reasonable to expect that internal BES services should receive an allocation of fibre cost. We consider that it is obviously inappropriate for fibre cost to be allocated to the external BES services but not to internal BES services.

13.342 In its 3 September 2012 submission BT provides a spreadsheet⁹³⁵ which adjusts for the three fibre errors discussed above in each year from 2006/07 to 2010/11 (i.e. BES fibre usage error, Cablelink error and internal BES error). However, the 3 September 2012 spreadsheet does not show the individual effect of each adjustment. In 2009/10 and 2010/11 the only adjustment made is to allocate fibre costs to internal BES services. In these years it shows approximately £[£] of costs being allocated to internal BES services each year, with the amount of fibre cost allocated to other services (such as other AISBO and PPC services) reducing as a result⁹³⁶. For 2007/08 and 2008/09 BT's figures include the impacts of the other fibre adjustments. However, the absolute amount of fibre allocated to internal BES services in these years is similar to the amount allocated in 2009/10 and 2010/11. On this basis we consider that we have sufficient data to make an adjustment to remove from BES and WES rentals the fibre costs that should have been allocated to internal BES services and it is therefore practical for us to do so.

13.343 We have considered whether this adjustment would significantly alter the financial data on which we relied in previous regulatory decisions. Based on our understanding of the adjustment and affected costs, we do not consider it likely that any inconsistencies in the financial data that might be introduced as a result of this adjustment would be significant enough to outweigh the competing considerations set out above.

13.344 We do not consider that making this adjustment will create inappropriate incentives for BT to produce appropriate and accurate regulatory financial statements in the future.

13.345 We have therefore decided to make an adjustment. We have done this by taking BT's estimate of the absolute amount of fibre cost that should have been allocated to internal BES services in 2007/08 to 2010/11 and allocating this total across all services that attracted an allocation of fibre cost in the RFS. This allocation was made pro rata to the original fibre cost allocation as included in the RFS. This results

⁹³² Spreadsheet called "First file – 120903 letter.xlsx" ("3 September 2012 spreadsheet").

⁹³³ Internal BES services refer to services that BT purchases itself as opposed to external BES services which are bought by external customers. Only external BES services were reported in the RFS during the Relevant Period.

⁹³⁴ They received a small amount of fibre cost in 2007/08.

⁹³⁵ Spreadsheet called "First file - 120903 letter.xls"; 3 September 2012 spreadsheet.

⁹³⁶ In 2010/11 the 3 September 2012 spreadsheet shows the amount of fibre cost allocated to other services has decreased but for WES services it shows an increase in the amount of fibre cost. This is at odds with BT's 3 September 2012 submission which says "*the adjustment decreases the costs of the disputed services*". In making our adjustment we have assumed that when allocating fibre costs to internal BES services the amount of fibre allocated to other services (including external BES services and WES services) would decrease.

in a reduction in the costs of the BES and WES rental services in dispute. In making this adjustment we have not taken into account volume errors associated with BES and WES rentals because it was not obvious how these might have affected the amount of fibre cost allocated to BES and WES services. However, we do not consider this has a material impact on the size of this adjustment.

Provisioning costs

BT's proposal

13.346 BT claims it has identified a number of errors in its reporting of provisioning costs⁹³⁷, as follows:

13.346.1 Provisioning costs were excluded from BES/WES connections in 2006/07 and 2007/08⁹³⁸. Instead, provisioning costs were only allocated to copper based products⁹³⁹;

13.346.2 Provisioning costs were incorrectly included in rentals in 2008/09 (instead of connections) and at a lower than appropriate cost allocation⁹⁴⁰ because Ethernet specific provisioning costs were spread over all services⁹⁴¹; and

13.346.3 Provisioning costs were correctly included in connection costs for the first time in 2009/10 but at too high a cost⁹⁴² as WES/BES connection services included all Ethernet provisioning costs, i.e. EAD and EBD did not receive an allocation of the cost.⁹⁴³

13.347 BT says that provisioning costs in 2010/11 were correctly applied to all relevant AISBO services (WES, BES, EAD and EBD connections) so it suggests using the unit cost of provisioning in this year (£[X] per connection) as a proxy for the period 2006/07 to 2009/10⁹⁴⁴. In its 3 September 2012 submission BT says it has "*recreated the provisioning cost attributions across all Ethernet products for years 2008/09 thru 2010/11*" but "*the information that would be needed to reconstruct the service provisioning costs for 2006/07 and 2007/08 is not available*".⁹⁴⁵

13.348 BT says that this reconstruction results in an estimate of the unit cost (per end) of provisioning in 2008/09, 2009/10 and 2010/11 of £[X], £[X] and £[X] respectively for each BES/WES connection.⁹⁴⁶ This is change from its response to our Provisional Conclusions where it suggested using a unit cost of £[X] each year. BT says that "*given the value of this correction BT would be content for Ofcom to use the previously provided numbers to determine the disputes. However, should a subsequent appeal be necessary, BT reserves the right to request this adjustment be applied in any subsequent re-assessment*".⁹⁴⁷

⁹³⁷ Provisioning costs relate to the processing and planning of new orders for services.

⁹³⁸ BT's response to our Provisional Conclusions, paragraph 150.

⁹³⁹ Presentation to Ofcom on 29 May 2012, slide 13.

⁹⁴⁰ BT's response to our Provisional Conclusions, paragraph 150.

⁹⁴¹ Presentation to Ofcom on 29 May 2012, slide 13.

⁹⁴² BT's response to our Provisional Conclusions, paragraph 150.

⁹⁴³ Presentation to Ofcom on 29 May 2012, slide 13.

⁹⁴⁴ BT's response to our Provisional Conclusions, paragraph 151 and Presentation to Ofcom on 29 May 2012, slide 13.

⁹⁴⁵ 3 September 2012 submission, page 5.

⁹⁴⁶ 3 September 2012 submission, page 6.

⁹⁴⁷ 3 September 2012 submission, page 6.

Views of the Disputing CPs

13.349 CWW says that *"BT has not claimed that the costs it has identified are not being recovered, leaving us to conclude that they have already been attributed to other service categories"*.⁹⁴⁸ CWW considers that the published RFS should stand.

13.350 TTG makes a similar point saying *"some of the products from which the allocation has happened may have been charge controlled in which case the costs used to set charges were inappropriately high"*.⁹⁴⁹

Our analysis

13.351 BT makes two general points in relation to provisioning costs. First, in 2006/07 and 2007/08 BT says it was wrong not to allocate any provisioning costs to Ethernet connection services. Second, while provisioning costs were allocated to Ethernet services in 2008/09 and 2009/10, BT claims there were errors in the way provisioning costs were allocated to those services. We have considered these points separately.

Provisioning costs in 2006/07 and 2007/08

13.352 In 2006/07 and 2007/08 BT did not allocate any of the provisioning cost component called "Service Centres – provision" to Ethernet services. This can be seen in the RFS since the provisioning cost component does not appear within the breakdown of FAC in the AISBO market for 2006/07 and 2007/08.⁹⁵⁰ From 2008/09, the provisioning cost component was allocated to the AISBO market.⁹⁵¹

13.353 BT claims that this was an error. This does not appear to have been a mathematical, input or software error given that the attribution methodology in these years was not to allocate any of the provisioning cost component to Ethernet services: BT's 2007/08 Detailed Attribution Methods (DAM) document shows that none of the key allocation destinations for the provisioning cost component was to Ethernet products.⁹⁵² BT's treatment of provisioning costs therefore appears to be consistent with its allocation methodology at that time.

13.354 We therefore consider whether it was inappropriate for BT to adopt a methodology which does not allocate the provisioning cost component to Ethernet services in 2006/07 and 2007/08 such that it may justify departing from the RFS data.

13.355 In its 3 September 2012 submission BT said that the provisioning costs component ("CL501") which was used in 2006/07 and 2007/08 *"captured service provision costs across copper services"*. If the provisioning cost component only included provisioning costs related to copper services then we do not consider that it was obviously inappropriate not to allocate that component to Ethernet services (which are fibre based and not copper based).

13.356 In its 3 September 2012 submission BT also said that from 2009/10 there was a separate provisioning component that specifically captured provisioning costs associated with Ethernet services ("CL573"). Additional provisioning components were also introduced for NGA services ("CL574"). The introduction of these additional

⁹⁴⁸ CWW's comments on BT's response, paragraph 18.

⁹⁴⁹ TTG's comments on BT's response, paragraph 6.13.

⁹⁵⁰ See section 6.3.2 of the 2006/07 and 2007/08 RFS.

⁹⁵¹ For example, see Appendix 1.2.1 of the 2008/09 RFS.

⁹⁵² See page 468 and 469 of the 2007/08 DAM.

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2008/DAM2008.pdf>

provisioning cost components coincided with a £57m increase in the total amount of provisioning costs reported in the RFS, as shown in Table 13.24.

Table 13.24: Total provisioning costs reported in the RFS

	2006/07	2007/08	2008/09	2009/10	2010/11
Total provisioning £m	43	46	43	100	98

Source: RFS

13.357 If the provisioning cost component in 2006/07 and 2007/08 captured the provisioning costs of Ethernet services as well as copper services, we would not have expected the total amount of provisioning cost to have increased so significantly when a component was created to capture specific Ethernet provisioning costs. Based on the information available to us we consider it is possible that the provisioning cost component in 2006/07 and 2007/08 did not capture provisioning costs associated with Ethernet services. But the evidence available to us does not allow us to reach a clear conclusion on this point.

13.358 Therefore we do not consider that BT has provided us with sufficient evidence explaining how provisioning costs associated with Ethernet services were captured in 2006/07 and 2007/08 to enable us to determine whether the RFS treatment was obviously inappropriate for the purposes of resolving the Disputes. We therefore reject the adjustment on the basis that we are not in a position to conclude it corrects for an error in the RFS or a methodology that is obviously inappropriate.

Provisioning costs in 2008/09

13.359 In 2008/09 BT allocated provisioning costs to Ethernet services but it claims there were errors in the way the allocation worked. According to the 2008/09 RFS, approximately £8.9m of provisioning costs were allocated to BES and WES rental services in this year⁹⁵³. BT said that this was incorrect for two reasons. First, it says that provisioning costs should have been allocated to connections rather than rentals and second, the amount of provisioning costs allocated to BES and WES services was too low because Ethernet specific provisioning costs were spread over all services and not just Ethernet services.⁹⁵⁴

13.360 In its 3 September 2012 submission BT said that *“the 2008/09 service provisioning costs were reconstructed by identifying the direct costs of the Ethernet service provision and assurance teams, and separating out the service provision team costs based on a headcount survey from that year. This cost was then uplifted to incorporate overheads based on the average overhead uplift from 2009/10 and 2010/11 ... This cost was apportioned to the Ethernet services based on connection volumes. This generates a unit cost of £[X] for 2008/09 compared to the £77 published in the RFS”*.⁹⁵⁵ Applying a unit cost figure of £[X] to BES and WES connections in 2008/09 would mean allocating total provisioning costs of £[X] to BES and WES connection services compared to the £8.9m that was originally allocated to BES and WES rental services.

⁹⁵³ Appendix 1.2.1 of the 2008/09 RFS shows the amount of provisioning costs per unit allocated to BES and WES rental services. This can be multiplied by the volumes of BES and WES rentals to give the total allocation of provisioning costs.

⁹⁵⁴ BT presentation dated 29 May 2012, Slide 13.

⁹⁵⁵ BT's 3 September 2012 submission, pages 5 to 6.

13.361 We observe from BT's DAM that the provisioning cost component was typically allocated to connections and transfers rather than rental services in 2008/09.⁹⁵⁶ However, we do not consider that this necessarily means it was inappropriate to allocate provisioning costs to rentals rather than connections in this year. BT decides how its costs are allocated each year, and occasionally it does change its allocation methodology so that costs that were previously allocated to rentals are subsequently allocated to connections and vice versa.⁹⁵⁷ While the DAM lists the services that the provisioning cost component was allocated to in 2008/09, it does not say that the provisioning cost component would only be allocated to connection services, and BT has not provided any evidence that it was incorrect to allocate provisioning costs to rentals in 2008/09 and not connections. On this basis we have decided not to make an adjustment to switch the allocation of provisioning costs in 2008/09 away from rentals and into connections.

13.362 BT also argued that the amount of provisioning cost allocated to BES and WES services in 2008/09 was too low because Ethernet-specific provisioning costs were allocated across all services, not just Ethernet services. BT's estimate of the impact of allocating Ethernet specific provisioning costs to Ethernet services only indicated that around £[£] of additional costs should have been allocated to the AISBO market, with an equivalent reduction in costs for a number of other markets, in particular the market for "wholesale residential analogue exchange line services" ("WLR"). As with the provisioning cost component in 2006/07 and 2007/08, BT has not demonstrated that Ethernet specific provisioning costs were captured by the provisioning cost component (CL501) in 2008/09. As a result we have not been able to determine whether the amount of provisioning costs allocated to BES and WES services was subject to a mathematical, input or software error or whether the methodology of allocating the provisioning cost component to services was obviously inappropriate. Therefore we reject the proposed adjustment.

13.363 We note that even if we had found that the evidence suggested that the methodology for allocating the provisioning cost component in 2008/09 was obviously inappropriate or the allocation was in error, we would need to take into account the fact that BT allocated a large part of the cost to WLR products which were subject to regulatory decisions, such as the setting of charge controls.

Provisioning costs in 2009/10

13.364 According to the 2009/10 RFS, approximately £32m of provisioning costs were allocated to BES and WES connection services in this year⁹⁵⁸. BT said that the amount of provisioning costs allocated to BES and WES connection services was too high because other Ethernet connection services such as EAD and EBD connections did not receive any allocation of provisioning costs.

13.365 In the 2009/10 RFS there are a number of services, including EAD and EBD services, for which no unit cost information was reported. For these services, the RFS says "*costs associated with these services are immaterial and included within*

⁹⁵⁶ Section 7.6 of the 2008/09 DAM shows the services to which the provisioning cost component was allocated. Note that Section 7.6 of the DAM lists "*at least 90% of the wholesale service destinations to which the component cost is attributed*". It therefore does not necessarily list all services that attract an allocation of provisioning costs.

⁹⁵⁷ In paragraph 13.126 we explained that BT had changed its methodology in 2010/11 to allocate transmission equipment costs to rentals when they had previously been allocated to connections.

⁹⁵⁸ Appendix 1.2.1 of the 2009/10 RFS shows the amount of provisioning costs per unit allocated to BES and WES connection services. This can be multiplied by the volumes of BES and WES connections to give the total allocation of provisioning costs.

*the above reported AISBO services and hence not disclosed separately*⁹⁵⁹. We have already taken account of the fact that in 2009/10 BES connection services included an element of costs (not just provisioning costs) related to EBD connections⁹⁶⁰. Although the impact of this correction on BES connections was very small in absolute terms, it was an important adjustment to make because the difference between revenue and DSAC for BES 100 connection is relatively small in 2008/09 and 2009/10.

13.366 We have not taken account of the fact that in 2009/10 BES connection services may have included an element of costs related to EAD connections and we did not ask BT to quantify this effect. The RFS describes these costs as immaterial so we do not consider that this is likely to significantly impact our assessment of overcharging for the BES connection services that are in dispute in 2009/10. Using the unit FAC associated with EAD connections from 2010/11 and applying this to EAD connection volumes in 2009/10 we are satisfied that the amount of FAC included in BES connection services in 2009/10 that could relate to EAD connections is likely to be small and would not affect our conclusion on overcharging for BES connection services in this year.

13.367 We also note that if we were to make an adjustment in 2009/10 to reduce the costs of the BES 100 and BES 1000 connection services in dispute using the data provided by BT (i.e. assuming a unit costs of provisioning in 2009/10 of £[~~3~~]) as set out in paragraph 13.347)⁹⁶¹, our conclusion on overcharging would not be affected because revenue would continue to be below DSAC⁹⁶².

13.368 We have therefore decided not to make any further adjustment to BES connection services in 2009/10 in relation to provisioning costs because we have partly taken the impact into account via our adjustment to remove costs associated with EBD connections from BES connection services⁹⁶³ and any further adjustment is unlikely to impact our conclusion on overcharging for BES connection services in 2009/10.

ISDN2

BT's proposal

13.369 BT says that “[a]s the result of an oversight” the cost of ISDN2 lines used to monitor certain WES and BES services for faults is not reflected in the cost base of the relevant WES and BES services in the RFS. BT argues that the costs of these ISDN2 lines should be added to the costs of BES and WES services.⁹⁶⁴

13.370 BT estimated in its 14 May 2012 spreadsheet the impact on BES and WES services of including the costs associated with an ISDN2 monitoring line.⁹⁶⁵ BT estimates that the impact in the period 2006/07 to 2010/11 is approximately £[~~3~~] per end for each

⁹⁵⁹ 2009/10 RFS, page 55, footnote (u).

⁹⁶⁰ See paragraph 13.311.

⁹⁶¹ The 14 May 2012 spreadsheet indicates that the impact on BES 100 connection of its proposed adjustment to provisioning costs in 2009/10 would be a reduction in FAC of £[~~3~~] and for a BES 1000 connection a reduction of £[~~3~~] ([~~3~~]).

⁹⁶² Table 13.38 later in this section shows that in 2009/10 DSAC was £0.3m higher than revenue for BES 100 connection and £28.4m higher than revenue for BES 1000 connection. If we made an adjustment in 2009/10 for provisioning costs using BT's data, DSAC would continue to be above revenue for both services.

⁹⁶³ See paragraphs 13.308 and 13.311.

⁹⁶⁴ BT's response to our Provisional Conclusions, paragraph 155.

⁹⁶⁵ Spreadsheet called “sum_repay_Apr2012response_Ofcom.xlsx” sheet “ISDN2”.

BES and WES rental and between £[X]-[X] per end for each BES and WES connection. [X]

Views of the Disputing CPs

13.371 CWW notes that BT has not claimed that the ISDN2 costs have not been recovered, which CWW thinks suggests these costs were already attributed to other services. CWW considers that the published RFS data should stand and Ofcom should not make an adjustment for ISDN2 costs.⁹⁶⁶

13.372 None of the other Parties commented on this adjustment.

Our analysis

13.373 CPs have an option to buy WES and BES services that are monitored for faults by BT and such managed services incur an additional charge. These managed services require an ISDN2 line to monitor the circuit for faults⁹⁶⁷.

13.374 BT says that "*as the result of an oversight*" the costs of ISDN2 lines were not added to the costs of BES and WES services. BT has not provided any explanation or evidence as to the precise nature of the alleged oversight. We are therefore unable to conclude whether the exclusion of ISDN2 costs from the cost base of BES and WES services represents a mathematical, input or software error.

13.375 In any event, from the information provided by BT we are unable to tell whether ISDN2 monitoring costs have been excluded from the cost base of BES and WES services. However, even if the costs of ISDN2 monitoring circuits have been excluded, we consider that the required adjustment would be immaterial. The impact of BT's adjustment on the annual FAC of the services in dispute does not exceed [X]% in any year and the average impact on FAC is only [X]%⁹⁶⁸. On this basis we do not consider BT's exclusion of ISDN2 costs from the cost base of BES and WES services would have significantly distorted the cost base of BES and WES services and we consider it would not be appropriate to make an adjustment to the costs of BES and WES services in dispute on the basis of materiality.

Results and impact of the cost adjustments

13.376 We have made six adjustments to the corrected RFS data associated with transmission equipment costs, 21CN costs, ECC costs, payment terms, EBD costs and BES internal fibre costs. The adjustments to FAC are set out in Tables 13.25 and 13.26.

⁹⁶⁶ CWW's comments on BT's response, paragraph 19.

⁹⁶⁷ BT's supplier information notes ("SIN"), SIN 431 to 448 and 459 to 463, at www.btwebworld.com/sinet, as referred to in footnote 113 of BT's response to our Provisional Conclusions.

⁹⁶⁸ Calculated by dividing the impact per service from BT's 14 May 2012 spreadsheet by the FAC data provided by BT on 15 November 2010 (in relation to 2006/07 to 2009/10) and 12 January 2012 (in relation to 2010/11).

Table 13.25: Percentage impact of the adjustments on the corrected FAC for each disputed service which is reported in a specific bandwidth category in the RFS in the period 2006/07 to 2009/10

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental	(11%)	(24%)	(12%)	(10%)	-
BES 1000 rental	(14%)	(32%)	(17%)	(20%)	(31%)
BES 100 connection	11%	(25%)	34%	(5%)	NiD
BES 1000 connection	13%	(25%)	34%	(7%)	NiD
WES 10 rental	(9%)	(12%)	(13%)	(9%)	(15%)
WES 100 rental	(11%)	(12%)	(13%)	(10%)	(17%)
WES 1000 rental	(17%)	(19%)	(16%)	(19%)	(34%)
Main link rental	-	(22%)	(16%)	(35%)	NiD

Source: Ofcom, based on information provided by BT

NiD: Not in Dispute

Table 13.26: Impact of the adjustments in £m on the corrected FAC for each disputed service which is reported in a specific bandwidth category in the RFS in the period 2006/07 to 2009/10

	2006/07	2007/08	2008/09	2009/10	2010/11	Total
BES 100 rental	(0.8)	(0.9)	(1.1)	(0.9)	-	(3.6)
BES 1000 rental	(0.4)	(1.0)	(1.0)	(1.6)	(5.5)	(9.6)
BES 100 connection	0.2	(0.4)	0.3	(0.0)	NiD	0.2
BES 1000 connection	0.3	(1.1)	1.1	(1.2)	NiD	(0.8)
WES 10 rental	(11.2)	(8.4)	(10.8)	(8.7)	(20.2)	(59.3)
WES 100 rental	(5.0)	(4.6)	(5.8)	(6.6)	(20.3)	(42.3)
WES 1000 rental	(1.1)	(0.9)	(0.9)	(2.2)	(8.9)	(14.1)
Main link rental	-	(16.6)	(7.6)	(34.9)	NiD	(59.1)
Total	(18.0)	(33.9)	(25.7)	(56.1)	(54.9)	(188.7)

Source: Ofcom, based on information provided by BT

NiD: Not in Dispute

13.377 The total reduction in FAC for the services and years in dispute in Table 13.26 is £188.7m. Table 13.27 below shows how this figure is accounted for by each adjustment to FAC for each service in dispute.

Table 13.27: Impact of the adjustments on total FAC, 2006/07 to 2010/11

	21CN	ECCs	Tx equip	Payment terms	BES internal fibre	Remove EBD costs	Total
BES 100 rental	[X]	[X]	[X]	[X]	[X]	[X]	(3.6)
BES 1000 rental	[X]	[X]	[X]	[X]	[X]	[X]	(9.6)
BES 100 connection	[X]	[X]	[X]	[X]	[X]	[X]	0.2
BES 1000 connection	[X]	[X]	[X]	[X]	[X]	[X]	(0.8)
WES 10 rental	[X]	[X]	[X]	[X]	[X]	[X]	(59.3)
WES 100 rental	[X]	[X]	[X]	[X]	[X]	[X]	(42.3)
WES 1000 rental	[X]	[X]	[X]	[X]	[X]	[X]	(14.1)
Main link rental	[X]	[X]	[X]	[X]	[X]	[X]	(59.1)
Total	(72.4)	(48.9)	(40.5)	(13.6)	(6.7)	(6.6)	(188.7)

Source: Ofcom based on data provided by BT.

Note: The table does not reflect any adjustments made to services that are not in dispute (e.g. main link in 2010/11)

Applying FAC adjustments to BT's DSACs

Our Provisional Conclusions

13.378 In our Provisional Conclusions we explained that, before assessing whether BT has overcharged the Disputing CPs for the services in dispute, we need to identify how our adjustments to BT's FAC data translate into adjustments to BT's DSAC data.

13.379 We noted that the issue was discussed in some detail in the 2009 PPC Determinations⁹⁶⁹ and that in simple terms DSACs consist of two elements:

13.379.1 the LRIC for a service; and

13.379.2 an allocation of common costs.

13.380 DSACs are calculated using BT's LRIC model. We explained in the 2009 PPC Determinations that while, in theory, BT could produce revised DSAC estimates by re-running its LRIC model using the Ofcom adjusted data, such an exercise would be complicated and involve a significant amount of work.

13.381 Instead we considered other options for making broad-based adjustments which appeared reasonable and proportionate. We explained that it appeared reasonable to consider that the range within which an appropriate DSAC adjustment is likely to fall was bounded by no adjustment at one end, and by the same percentage adjustment as was applied to the FAC at the other end.⁹⁷⁰

13.382 We concluded in the 2009 PPC Determinations that it was appropriate to adjust DSAC in line with the absolute adjustment made to FAC for the following key reasons:⁹⁷¹

13.382.1 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;

⁹⁶⁹ 2009 PPC Determinations, paragraphs 6.131 to 6.179.

⁹⁷⁰ 2009 PPC Determinations, paragraph 6.142.

⁹⁷¹ 2009 PPC Determinations, paragraph 6.173.

13.382.2 our approach fell well within the bounds of the reasonable range of adjustments that we had identified; and

13.382.3 none of the Parties had provided compelling evidence to cause us to change the approach we had proposed.

13.383 We proposed to adopt the same approach as in the 2009 PPC Determinations and adjusted DSAC in line with the absolute adjustment made to FAC. We noted that this approach differed from the pro-rata approach adopted by RGL in the First RGL Report, in which it adjusted DSAC data in the RFS pro rata to the adjusted FAC costs.⁹⁷²

Views of the parties

13.384 CWW considers it would be proportionate to ask BT to re-run its LRIC model taking into account Ofcom's FAC adjustments in view of the amounts at stake, the time that has already elapsed during the investigation into these Disputes and the need for accuracy as far as is reasonably achievable.⁹⁷³

13.385 Assuming that the LRIC model is not re-run, TTG, Sky, RGL and CWW argue that the appropriate range for the DSAC adjustment is between a minimum of the absolute adjustment to FAC and a maximum of the proportional adjustment to FAC⁹⁷⁴. TTG and RGL say that this is a material decision because a proportionate adjustment to DSAC would result in an additional £7m of overcharge compared to an absolute adjustment approach and would also mean main link revenues exceeding DSAC in 2008/09.

13.386 TTG and CWW both suggest that Ofcom could use an approach to adjusting DSAC that is 50% of the absolute adjustment to FAC and 50% of the proportionate adjustment to FAC.⁹⁷⁵

13.387 RGL considers that Ofcom should carry out further analysis to determinate the appropriate mix of adjustment to use.⁹⁷⁶ BT agrees with RGL's comments that the appropriate range for the DSAC adjustments lies between an absolute and proportional adjustment. BT also agrees with RGL that *"the mix differs for each adjustment"*.⁹⁷⁷

13.388 BT has also provided a number of DSAC:FAC ratios that it considers appropriate to apply to the FAC adjustments in order to determine the impact on DSAC.⁹⁷⁸ It states that its DSAC:FAC ratios are estimates based on a combination of:

13.388.1 re-running the LRIC model in 2008/09 and/or 2009/10;

13.388.2 LRIC model run proxies: *"Ratios calculated using output in which a new LRIC model has been completed. The output (the DSAC/FAC ratio of the adjustment) is compared against the original service DSAC/FAC ratio to*

⁹⁷² First RGL Report, page 28.

⁹⁷³ CWW's response to our Provisional Conclusions, paragraph 134.

⁹⁷⁴ Sky's comments on BT's response, paragraph 31f; TTG's comments on BT's response, paragraph 5.33; CWW's comments on BT's response, paragraph 135; Second RGL Report, Section 5.03.

⁹⁷⁵ TTG's response to our Provisional Conclusions, paragraph 5.33; CWW's response to our Provisional Conclusions, paragraph 135.

⁹⁷⁶ Second RGL Report, paragraph 5.04.1.

⁹⁷⁷ BT's comments on the Disputing CPs' responses, paragraphs 103 to 104.

⁹⁷⁸ BT's 3 September 2012 submission, Annex 1.

*give a percentage (Adjustment % of Original). This percentage is then applied to the DSAC/FAC ratios for the specific services in years in which the model run has not been completed*⁹⁷⁹;

13.388.3 "offline" analysis: *"Ratios calculated using the raw output of the original LRIC model in each year"*⁹⁸⁰; and

13.388.4 component proxies: *"DSAC/FAC ratios of components are used where the adjustment impacts a particular component. The same DSAC/FAC ratio in an alternative year is then applied to account for the relative cost change relating to a given FAC adjustment"*⁹⁸¹ (e.g. 21CN adjustment in certain years).

Our analysis

Re-running LRIC model

13.389 CWW argues that it would be proportionate to ask BT to re-run its LRIC model taking into account Ofcom's FAC adjustments. We do not consider that requiring BT to re-run the LRIC model is practical or proportionate. This is for the following reasons:

13.389.1 The LRIC model would need to be run for the whole of BT and not just for the Ethernet services in dispute. This reflects the fact that the LRIC model uses cost components rather than services as the basis for modelling and uses the concept of increments to calculate DSAC data (see paragraphs 12.8 and 12.9).

13.389.2 Ofcom's FAC adjustments have been applied to Ethernet services only, but in order to re-run the LRIC model accurately the cost adjustments would need to be translated into cost component and cost category adjustments before considering the ripple through effects (e.g. if the FAC cost of component X decreases, does the FAC cost of component Y increase correspondingly?). This would involve a significant amount of work on the FAC of components and services that are outside the scope of these Disputes.

13.389.3 The LRIC model would need to be re-run for each year of the Disputes and BT may no longer have the data or the parameter information needed to re-estimate DSACs over the entire period.

13.389.4 In order to ask BT to re-run the LRIC model, we would need to set out the changes we require. It would not have been possible to ask BT to re-run the LRIC model at the start of the dispute resolution process, before we had had the opportunity to explore the underlying problems with the LRIC model (see paragraphs 12.159 to 12.161 above) and assess what (if any) adjustments were necessary.

13.390 We recognise that BT has submitted some DSAC:FAC ratios based partly on limited re-runs of the LRIC model in 2008/09 and 2009/10 (depending on the adjustment concerned). BT does not explain how it re-ran the LRIC model in these years but we make the following observations on its approach:

⁹⁷⁹ BT's 3 September 2012 submission. Page 2.

⁹⁸⁰ BT's 3 September 2012 submission. Page 2.

⁹⁸¹ BT's 3 September 2012 submission. Page 2.

- 13.390.1 BT has only re-run the LRIC model for two years out of the five that are in dispute.
- 13.390.2 BT has not explained how it has put the adjustments through its LRIC model re-runs. In particular, it is not clear whether BT has simply applied the adjustments to Ethernet services, or taken into account the impact on other services as well. For example, the 21CN adjustment removes costs from BES and WES services but we have not considered where such costs would otherwise have been allocated. Similarly, the ECC cost adjustment removes costs from BES and WES services, but implicitly moves those costs into a notional new ECC cost component. BT does not say whether it has taken these types of factors into account when re-running its LRIC models.
- 13.390.3 BT has not explained whether it has also taken into account adjustments made in relation to other disputes (e.g. the PPC Disputes) or other regulatory decisions such as charge controls. Given the way the LRIC model works, these adjustments are also likely to impact the DSAC of Ethernet services.
- 13.390.4 BT has assumed that the outputs from LRIC models that have been re-run are applicable to other years. Given that LRIC relationships differ from year to year, it is difficult to assess whether this approach would provide more accurate results than a broad-based approach such as the one we proposed in our Provisional Conclusions.
- 13.391 In conclusion, for the reasons set out above we do not consider it practical or proportionate to require BT to re-run its LRIC model for each year of the Disputes.⁹⁸² Where BT has provided data on DSAC:FAC ratios which it states are derived from a re-run of the LRIC model in certain years, we have considered for each adjustment whether the data provides a reasonable approximation for the likely impact on DSAC. This assessment is set out below.

Applying FAC adjustments to DSAC

- 13.392 All respondents thought that an appropriate range for the DSAC adjustment would be between the absolute and proportional adjustments to FAC (although the mix may differ for each adjustment). An absolute adjustment means applying the same absolute change in FAC to DSAC (e.g. FAC falls by £100 so DSAC falls by £100). A proportional adjustment means applying the same proportional change in FAC to DSAC (e.g. FAC falls by 10% so DSAC falls by 10%). BT submitted its own views on the appropriate DSAC:FAC ratios to use which, as set out above, were partly based on re-running the LRIC model in certain years.
- 13.393 Given the way BT's LRIC model works, the exact impact on DSAC of an adjustment to FAC will depend on a number of factors. For example, if the service level FAC changes then the change in DSAC for that service will depend on⁹⁸³:
- 13.393.1 the cost categories and cost components to which the FAC adjustment relates;

⁹⁸² We note that in the 2009 PPC Determinations we said that "*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*" (paragraph 6.137).

⁹⁸³ The 2009 PPC Determinations also discusses some of these points in paragraphs 6.159 to 6.164.

- 13.393.2 the slope of the CVRs associated with the affected cost categories which will determine the change in LRIC;
 - 13.393.3 the fact that changes in LRIC will change the amount of FCC that are spread across components to derive DSACs in each increment; and
 - 13.393.4 the fact that the change in DSAC will depend on how the LRIC of the cost component has changed in relation to the LRICs of other cost components (which may have also been affected by the same FAC adjustment).
- 13.394 The combination of these factors will differ for each adjustment which means that the impact on DSAC of a change in FAC can vary widely. For example, in theory the impact on DSAC from a reduction in FAC could range from a more than proportional decrease in DSAC at one end to an *increase* in DSAC at the other⁹⁸⁴. These extremes may only exist if specific conditions are met (and which are not met in these Disputes), but they demonstrate that the range of possible impacts on DSAC is wide. Deciding what assumption to make does not necessarily involve a straightforward choice between an absolute and proportional impact on DSAC.
- 13.395 In light of the comments received in response to the Provisional Conclusions, we have considered further the nature of the LRIC model and the characteristics of the FAC adjustments we have made.
- 13.396 We consider that our FAC adjustments fall into one of three categories.
- 13.396.1 Category 1: FAC adjustments where specific cost categories can be identified.
 - 13.396.2 Category 2: FAC adjustments where specific cost categories cannot be identified but the adjustment involves a reallocation of FAC between services in the same increment.
 - 13.396.3 Category 3: FAC adjustments where the available information is not sufficient to be able to predict the impact on DSAC.
- 13.397 For Category 1 FAC adjustments we consider it would be appropriate to use the DSAC:FAC ratio for the cost categories affected (or a weighted average of the DSAC:FAC ratio where more than one cost category is identified). This is because where costs associated with the same cost categories are being moved between cost components in the same increment, there is no impact on common costs and so the DSAC:FAC ratio for the cost category would be unchanged.
- 13.398 For Category 2 FAC adjustments we consider that the impact on DSAC will be larger than the absolute impact on FAC but it is difficult to say how much larger it will be without information on the cost categories affected. For such adjustments we consider that the suggestion made by TTG and CWW is a reasonable solution, i.e. to take the average of the impact on DSAC when applying the absolute adjustment to FAC and when applying the proportional adjustment to FAC (a "50/50 approach").
- 13.399 For Category 3 FAC adjustments there is not enough information available to predict the impact on DSAC. This is often the case for adjustments which may affect multiple

⁹⁸⁴ An increase in DSAC could occur if costs were being shifted between cost components in different increments and CVRs had shallow slopes. See also the 2009 PPC Determinations, paragraph 6.163.

increments in the LRIC model. For FAC adjustments in this category we will consider what information we have available and the submissions we have received.

13.400 In the following paragraphs we take each FAC adjustment in turn, say which category we think it falls into, consider the DSAC:FAC ratios presented by BT for that adjustment (if any) and conclude on how we will translate that FAC adjustment into a DSAC adjustment. Where FAC has been corrected due to volume errors, any proportional change is calculated with reference to FAC published in the RFS. For other FAC adjustments, any proportional change is calculated with reference to the FAC after volume corrections have been made.

13.401 Table 13.28 compares the total adjustment to DSAC using Ofcom's approach (as explained in the following paragraphs) to a simple absolute, proportional and 50/50 approach (i.e. if each FAC adjustment is translated to DSAC using this method). The table also shows the impact on the total DSAC test (see Table 14.23) for the services in dispute compared to using an absolute approach (as proposed in the Provisional Conclusions).

Table 13.28 Comparison of impact on DSAC using different approaches, £m

Total FAC adjustments associated with volume errors	(7.9)	
Total other FAC adjustments	(188.7)	
Total FAC adjustment	(196.6)	
	DSAC adjustment	Impact on total DSAC test relative to absolute approach
- Ofcom's approach as set out in Table 13.36	(271.9)	+5%
- Absolute approach	(196.6)	-
- 50/50 approach	(290.1)	+3%
- proportional approach	(383.7)	+10%

Source: Table 13.17, Table 13.27 and Ofcom

Correcting the 2006/07 and 2007/08 unit FACs and DSACs

13.402 In our Provisional Conclusions we adopted BT's suggestion of applying the uncorrected DSAC:FAC ratio to the corrected FAC costs in order to derive revised DSACs⁹⁸⁵. This was equivalent to adjusting DSAC in line with the proportional change in FAC.

13.403 We consider that this adjustment falls into Category 1. This is because the error occurred when calculating unit costs, not when calculating total costs. The ratio of total component DSAC to total component FAC for the affected services should not therefore be affected. BT did not provide any DSAC:FAC ratios for this correction in its 3 September 2012 submission. We have therefore decided to make this DSAC adjustment as we proposed in our Provisional Conclusions.

⁹⁸⁵ BT's response of 28 March 2011 to follow up question 16 to the 22 October 2010 section 191 notice.

Correcting the costs of BES rentals and connections in 2008/09 associated with the inclusion of EBD volumes in BES 1000 rental and connection

13.404 As noted in paragraph 13.402, in our Provisional Conclusions we adopted BT's suggestion of applying the uncorrected DSAC:FAC ratio to the corrected FAC costs in order to derive revised DSACs.

13.405 We consider that this adjustment falls into Category 3. This is because this FAC adjustment reflects the fact that EBD volumes were included in BES rentals and also the volume of EBD was significantly overstated (2,723 EBD circuits were included rather than the actual number of 147). It is not clear whether the impact of the EBD volume error on FAC allocations was confined to Ethernet services or whether other services would also have been affected. Since many costs are allocated to components based on volumes, correcting the EBD volume error may result in component FACs in other increments in the LRIC model being affected. Consequently, the effect on DSAC is difficult to predict.

13.406 In its 3 September 2012 submission, BT provided some DSAC:FAC ratios which it says are applicable to this error correction. BT says these DSAC:FAC ratios were derived from a re-run of its LRIC model in 2008/09⁹⁸⁶.

13.407 BT did not provide details of how it had reflected this FAC adjustment in its LRIC model, although we note that the DSAC:FAC ratios it provided are similar to the ones we used in our Provisional Conclusions.

Table 13.29: DSAC: FAC ratios in 2008/09 for services affected by the EBD volume error.

	BES 100 rental	BES 1000 rental	BES 100 connection	BES 1000 connection
DSAC:FAC ratio used in Provisional Conclusions	1.31	1.30	1.66	1.67
DSAC:FAC ratio per BT's 3 September 2012 submission	1.17	1.17	1.55	1.55

13.408 We have decided to make this DSAC adjustment as we proposed in our Provisional Conclusions. This is because BT has not provided a complete explanation of how it applied this FAC adjustment to its LRIC model in 2008/09. We have also taken into account that the two approaches set out in Table 13.29 do not lead to significantly different results for the DSAC test in 2008/09. For the services in dispute the difference in the excess of revenue over DSAC is around £150k (or 0.3% of the total excess of revenue over DSAC in 2008/09).

Transmission equipment cost adjustment

13.409 We consider that this adjustment falls into Category 1. This is because BT's DAM sets out which cost categories correspond to transmission equipment⁹⁸⁷ and the cost categories associated with transmission equipment that are relevant to BES and WES services are converted into DSACs using CVR "CV130"⁹⁸⁸. This is a straight line CVR which intercepts close to the origin⁹⁸⁹, which indicates there are very few

⁹⁸⁶ BT's 3 September 2012 submission, page 10.

⁹⁸⁷ For example, 2009/10 DAM, page 39.

⁹⁸⁸ Cost categories "Fixed assets, Private Circuits & SMDS, Megastream" (MCE) and "Opex, Non pay, Depreciation, Private Circuits & SMDS, Megastream" (depreciation).

⁹⁸⁹ The intercept is at 2%.

common costs associated with transmission equipment and an absolute adjustment to DSAC would be a reasonable approximation for the impact on DSAC of the transmission equipment cost adjustment.

13.410 In its 3 September 2012 submission, BT says that it has re-run its LRIC model for 2009/10 for the transmission cost adjustment and that the resulting DSAC:FAC ratio was 1.05.⁹⁹⁰ This is consistent with our analysis relating to Category 1 adjustments above, that the adjustment to DSAC would be similar to the absolute change in FAC (a DSAC:FAC ratio equal to 1 would mean an absolute adjustment was appropriate, so a ratio of 1.05 is similar to an absolute adjustment). BT says that the ratio of 1.05 *“has been used as a proxy for the earlier years”* but as shown in Table 13.30, the DSAC:FAC ratios it provided for the period 2006/07 to 2008/09 are not equal to 1.05.

Table 13.30: DSAC:FAC ratios provided by BT applicable to the transmission equipment cost adjustment

	2006/07	2007/08	2008/09	2009/10
BES 100 connection	1.19	1.10	0.86	1.05
BES 1000 connection	1.36	1.21	0.95	1.05

Source: BT's 3 September 2012 submission page 10

13.411 Given that transmission equipment costs have used the same CVR in each year, and the nature of the CVR has not changed, we do not understand why BT's DSAC:FAC proxy ratios in 2006/07 to 2008/09 are different from 2009/10 and BT did not provide any further information in its submission. We have therefore decided to apply BT's DSAC:FAC ratio from 2009/10 of 1.05 to each year of the Disputes because BT says is derived from a re-run of its LRIC model, the result is consistent with the CVR associated with transmission equipment costs and we are not confident that BT's ratios for other years reflect the impact on DSAC that would follow a change in FAC relating to transmission equipment. We note that using a ratio of 1.05 is similar to making an absolute adjustment to DSAC in each year.

13.412 BT did not provide any estimates for the DSAC:FAC ratio applicable to 2010/11. We have therefore applied the DSAC:FAC ratio of 1.05 to 2010/11 as well.

21CN adjustment

13.413 BT's treatment of 21CN costs within its regulatory financial system has changed over time. In 2006/07 21CN costs were captured within a specific 21CN plant group and allocated to a range of cost components spanning several increments, including the Core and Access increments⁹⁹¹. From 2007/08 onwards, 21CN costs were allocated from 21CN plant groups to specific 21CN cost components and then allocated from 21CN cost components to services.

13.414 We have considered the period from 2007/08 onwards first, where separate 21CN components were recognised in BT's accounting system, before considering 2006/07.

⁹⁹⁰ BT's 3 September 2012 submission, page 10.

⁹⁹¹ The 2006/07 DAM shows that the 21CN plant group called "PG851A" was allocated to a range of components. See pages 1036 and 1037 of the 2006/07 DAM:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2007/DAM2007.pdf>.

2007/08 onwards

13.415 Our adjustment to remove direct 21CN costs is based on an analysis by BT of the cost sectors that it considers reflect the direct costs of 21CN⁹⁹². These cost sectors can be mapped onto cost categories in the LRIC model and in turn the CVRs associated with those cost categories. Therefore we consider that the 21CN adjustment from 2007/08 onwards falls into Category 1.

13.416 In its 3 September 2012 submission, BT provided its estimates of the DSAC:FAC ratios which should be applied to the 21CN FAC adjustment. Its estimates of the applicable DSAC:FAC ratios for 2007/08 to 2009/10 for the services in dispute are shown in Table 13.31.

Table 13.31: DSAC:FAC ratios provided by BT applicable to the 21CN adjustment

	2007/08	2008/09	2009/10
BES 100 rental	1.85	2.13	1.64
BES 1000 rental	1.85	2.13	1.64
WES 10 rental	1.85	2.13	1.64
WES 100 rental	1.85	2.13	1.64
WES 1000 rental	1.85	2.13	1.64
Main link rental	1.65	1.70	1.78

Source: BT's 3 September 2012 submission, Table 3

13.417 BT said that these estimates cover “the direct 21CN costs adjustments only and [not] the 21CN overheads adjustment”. We note that BT's DSAC:FAC ratio estimates for BES and WES rentals are very similar to the DSAC:FAC ratios for the 21CN component “Access cards (other services)” (the only 21CN cost component used by BES and WES services) and its estimates for main link are similar to the 21CN component “MSAN metro connectivity link” (the main 21CN cost component used by main link rentals⁹⁹³), which according to the LRIC model outputs BT provided to us are as follows:

Table 13.32: DSAC:FAC ratios for the 21CN cost components “access cards (other services)” and “MSAN Metro connectivity link”

	2007/08	2008/09	2009/10
Access cards (other services) (relevant to BES/WES rentals)	2.08	2.22	1.69
MSAN Metro connectivity link (relevant to Main link)	2.04	1.82	1.84

Source: Derived from 23 June 2011 spreadsheets.

13.418 Although BT did not explain how it calculated the DSAC:FAC ratios we would expect the DSAC:FAC ratio for the 21CN adjustment to be comparable to that of the 21CN components affected. This is because our adjustment to remove the direct costs

⁹⁹² BT responses dated 22 November 2010 to Q13 of the 22 October 2010 section 191 notice, 12 July 2011 to follow up question 21 to the 22 October 2010 section 191 notice and 12 January 2012 to Q19a of the 22 December 2011 section 191 notice.

⁹⁹³ In 2009/10 main link attracted one 21CN cost component, which was “MSAN Metro connectivity link”. In 2008/09 it also attracted a small amount of the 21CN cost component “MSAN Metro connectivity link (non-dense)”. However the inclusion of this component would not change the 2008/09 DSAC/FAC ratio in Table 13.31. In 2007/08 main link also attracted the 21CN component “Core/Metro connectivity”. This has a DSAC/FAC ratio of 1.77 in 2007/08. Therefore the blended DSAC/FAC ratio for 21CN components allocated to main link in 2007/08 will be less than the 2.04 presented in the table, but not significantly so.

associated with 21CN represents the majority of the FAC allocated to the 21CN component.

13.419 For the period 2007/08 to 2009/10 we have decided to adjust DSAC for the direct 21CN costs adjustment in line with the ratios provided by BT in its 3 September 2012 submission because they are comparable to the DSAC:FAC ratios associated with the 21CN components allocated to the services in dispute.

13.420 We have also applied these ratios to the 21CN overheads adjustment since that adjustment forms a relatively small proportion of the total 21CN adjustment (c.3%) which we do not consider would materially distort the results.

13.421 BT did not provide any estimates of the DSAC:FAC ratio for 2010/11 in its 3 September 2012 submission. However, since its estimates in 2006/07 to 2009/10 were comparable to the DSAC:FAC ratios for the total 21CN components allocated to BES, WES and main link services in these years, we have used the 2010/11 DSAC:FAC ratios for these 21CN components. For BES and WES services the relevant 21CN component is "access cards (other services)" and for main link it is "MSAN-metro connectivity link". The 2010/11 DSAC:FAC ratios we have used are in Table 13.33.

Table 13.33 2010/11 DSAC:FAC ratios used for translating FAC adjustment into DSAC

	2010/11	Used for
Access cards (other services)	1.60	BES/WES rentals
MSAN-metro connectivity link	1.53	Main link

Source: Derived from 23 June 2011 spreadsheets.

2006/07

13.422 Because 21CN costs were allocated from plant group to cost components in several increments in 2006/07, estimating the impact on DSAC of the 21CN adjustment in this year is not as straightforward as in 2007/08 onwards since it is difficult to identify the cost categories in the LRIC model that have been affected. We therefore consider that in 2006/07 the 21CN adjustment falls into Category 3.

13.423 In its 3 September 2012 submission, BT was unable to calculate an appropriate DSAC:FAC ratio for 2006/07 so instead assumed that the DSAC:FAC ratio for 2006/07 was the same as that for 2007/08.

13.424 Since the way 21CN costs were captured in 2006/07 makes it difficult to estimate the impact on DSAC, we consider that BT's assumption is a reasonable approach, taking account of the evidence available to us. We have therefore applied the 2007/08 DSAC:FAC ratios to 2006/07, as set out in Table 13.31.

ECC adjustment

13.425 The ECC adjustment reallocates costs between Ethernet services. In terms of the LRIC model, the adjustment effectively removes costs associated with ECCs from BES and WES cost components and puts these costs into a new nominal "ECCs cost component" within the same 'Core' increment. The ECC adjustment uses estimates from BT of the amount of ECC costs that have been included within BES and WES component costs, but the estimates do not map onto any specific cost categories. We therefore consider that the ECC adjustment falls into Category 2 because we do not know which cost categories the FAC adjustment relates to.

13.426 For Category 2 adjustments we think it is reasonable to take a 50/50 approach to adjusting the DSAC. However, we have first considered the DSAC:FAC ratios submitted by BT.

13.427 In its 3 September 2012 submission BT said it had re-run the LRIC model in 2008/09 and 2009/10 for the ECC adjustment in order to determine appropriate DSAC:FAC ratios. It said that *"the ratios determined in the 2008/09 run have been used as a proxy for both 2006/07 and 2007/08"*.⁹⁹⁴ The ratios provided by BT are set out in Table 13.34 for the services in dispute.

Table 13.34: DSAC:FAC ratios provided by BT applicable to the ECC cost adjustment for the services in dispute

	2006/07	2007/08	2008/09	2009/10
BES 100 rental	0.71	1.03	0.96	0.55
BES 1000 rental	0.71	1.19	0.96	0.55
WES 10 rental	1.11	1.34	1.37	1.74
WES 100 rental	1.17	1.38	1.37	1.74
WES 1000 rental	1.21	1.56	1.37	1.74

Source: BT's 3 September 2012 submission, Table 4

13.428 We have two concerns regarding the DSAC:FAC ratios provided by BT:

13.428.1 First, BT has not explained how it has translated this adjustment into its LRIC model. Our ECC adjustment was based on data provided by BT in response to a section 191 notice⁹⁹⁵. BT is clear in its response that the data it provided in relation to ECC costs was an estimate because *"cost information does not exist in our systems"*.⁹⁹⁶ Since cost information on ECCs does not exist in BT's systems for the Relevant Period, it is not possible to translate the cost estimates onto cost component/cost category combinations in BT's LRIC model, because ECC costs are not readily identifiable. However, BT must have translated the adjustments onto cost components and cost category combinations in order to derive the DSAC:FAC ratios in its submission. BT has not explained how it has done that. In addition, in order to re-run the LRIC model accurately, BT would have needed to include an additional cost component for ECCs, and we consider that the DSAC:FAC ratios presented by BT indicate that it has not done this, which we explain below.

13.428.2 Second, the DSAC:FAC ratios do not appear credible, in particular because the DSAC:FAC ratios for BES rentals are less than 1. In 2009/10 for example, the DSAC:FAC ratio for BES rentals is 0.55 which means that if we remove £100 of FAC from BES rentals, DSAC would reduce by £55 (i.e. an amount less than an absolute change in FAC). Given the way the LRIC model works, a DSAC:FAC ratio of less than 1 is not possible where an adjustment removes FAC from one cost component/cost category combination and puts it into another cost component/cost category combination in the same increment, which is what our ECC adjustment is doing. When such an adjustment is made, the original DSAC:FAC ratio for that cost component/cost category combination will be unchanged.

⁹⁹⁴ BT's 3 September 2012 submission, page 11.

⁹⁹⁵ BT response dated 22 November 2010 to question 11 of the 22 October 2010 section 191 notice. BT's response was updated in an email dated 13 December 2010 from [redacted] (BT) to [redacted] (Ofcom).

⁹⁹⁶ BT response dated 22 November 2010 to question 11 of the 22 October 2010 section 191 notice.

Therefore the minimum DSAC:FAC ratio would be equal to 1 (this assumes that all the affected cost categories are translated into DSAC using a straight line CVR through the origin). BT's DSAC:FAC ratios of less than 1 would be consistent with running the LRIC model without including an additional cost component for ECCs.

13.429 We have therefore decided to reject BT's DSAC:FAC ratios for the ECC adjustment and to adopt a 50/50 approach to adjusting DSACs consistent with a Category 2 adjustment.

Payment terms adjustment

13.430 We consider that the payment terms adjustment falls into Category 1. This is because, while we are unable to match our FAC adjustment to the exact "debtors" cost categories in BT's LRIC model, each of the "debtors" cost categories is associated with a straight line CVR passing through the origin⁹⁹⁷. Cost categories that have a straight line CVR passing through the origin are associated with DSAC:FAC ratios equal to 1 (which means that an adjustment to FAC will have the same absolute impact on DSAC). This means that whichever "debtors" cost category our FAC adjustment is associated with, the impact on DSAC would equal the absolute change in FAC.

13.431 BT concurs with this view, saying that the payment terms adjustment "*only affects one specific LRIC cost category for which the CVR has a straight line through the origin. Given this any change in FAC will result in an equal change in the DSAC*".⁹⁹⁸

13.432 For the payment terms adjustment we have therefore decided to adjust DSAC in line with the absolute change in FAC.

Adjustment to remove EBD costs

13.433 Costs were not allocated to EBD rental and connection services in 2008/09 and 2009/10 but were included within certain Ethernet services. This adjustment removed an estimate of EBD costs from these Ethernet services. Because the EBD cost removed was an estimate it is not possible to translate the FAC adjustment onto specific cost categories in BT's LRIC model.

13.434 In the Provisional Conclusions we assumed that the impact on DSAC for these services would be equal to the absolute change in FAC. However, since the adjustment is essentially moving costs from one cost category/cost component combination into another within the same Core increment, we consider that this adjustment falls into Category 2 and as such a 50/50 approach would be more appropriate.

13.435 BT says that the DSAC:FAC ratios it provided in its 3 September 2012 submission are also applicable to this correction (as well as the EBD volumes correction discussed at paragraphs 13.115 and 13.116 above)⁹⁹⁹ although we note that BT only provided DSAC:FAC ratios for 2008/09 and none for 2009/10.

13.436 As set out in paragraph 13.407, BT has not provided a complete explanation of how it applied this FAC adjustment to its LRIC model in 2008/09 in order to derive

⁹⁹⁷ Specifically CVRs CV216 and CV241.

⁹⁹⁸ BT's 3 September 2012 submission, page 12.

⁹⁹⁹ BT's 3 September 2012 submission, page 10, Table 1.

DSAC:FAC ratios. We have therefore adopted a 50/50 approach to adjusting DSAC for this adjustment. However we note that our conclusion on overcharging will not be affected by this decision since revenue for the affected services (BES 100 connection, BES 1000 connection and main link rental) would be below DSAC in 2008/09 and 2009/10 however we translated our FAC adjustment into DSAC.

BES internal fibre

13.437 Since this adjustment is essentially moving fibre costs between services in the same Core increment, we consider that this adjustment falls into Category 2 and as such a 50/50 approach would be appropriate.

13.438 In its 3 September 2012 submission BT provided some DSAC:FAC ratios which it said would be applicable to the FAC adjustments associated with fibre that it proposed (discussed in paragraphs 13.327 to 13.345).¹⁰⁰⁰ BT has not provided complete information on how it calculated these DSAC:FAC ratios but we assume that they have been calculated on the basis that all BT's FAC adjustments relating to fibre were made and not only the adjustment relating to BES internal fibre. This means that we are unable to assess whether the DSAC:FAC ratios presented by BT are applicable to the BES internal fibre adjustment. However, we note that in some years BT's proposed DSAC:FAC ratios are less than 1. As with the DSAC:FAC ratios BT provided in relation to the ECC adjustment, we would not expect a DSAC:FAC ratio of less than 1 where the adjustment is shifting costs between cost component/cost category combinations in the same increment (which we understand the BES internal fibre adjustment is doing).

13.439 We have therefore decided to reject BT's DSAC:FAC ratios for the ECC and to adopt a 50/50 approach to adjusting DSACs consistent with a Category 2 adjustment.

Summary

13.440 Table 13.35 summarises how we have translated each FAC adjustment into a DSAC adjustment.

Table 13.35 How FAC adjustments have been translated into DSAC

FAC adjustment	Method of adjusting DSAC
FAC adjustments relating to volume errors	
06/07 and 07/08 unit FAC error	Proportional
EBD volume error	Proportional
Other FAC adjustments	
Transmission equipment	DSAC:FAC ratio of 1.05
21CN	DSAC:FAC ratios submitted by BT
ECC	50/50 approach
Payment terms	Absolute (DSAC:FAC ratio =1)
Removal of EBD costs	50/50 approach
BES internal fibre	50/50 approach

Source: Ofcom

13.441 Table 13.36 shows the impact on DSAC after translating each FAC adjustment using the approach summarised in Table 13.35.

¹⁰⁰⁰ BT's 3 September 2012 submission, page 12, Table 6.

Table 13.36 Impact on DSAC of adjustments made, 2006/07 to 2010/11

FAC adjustments associated with volume errors			Other FAC adjustments						
06/07 and 07/08 unit FACs	EBD volume error		21CN	ECCs	Tx equip	Payment terms	BES internal fibre	Remove EBD costs	Total
BES 100 rental	(0.3)	1.6	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(3.2)
BES 1000 rental	(0.0)	(3.4)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(15.8)
BE 100 connection	(1.7)	0.6	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(1.0)
BES 1000 connection	(2.9)	(4.1)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(7.9)
WES 10 rental	(0.1)		[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(71.5)
WES 100 rental	0.0		[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(50.6)
WES 1000 rental	0.1		[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(17.9)
Main link rental	(2.3)		[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	(104.1)
Total	(7.1)	(5.2)	(125.5)	(56.3)	(42.5)	(13.6)	(8.4)	(13.2)	(271.9)

Source: Ofcom

Summary of revenue and cost data

13.442 We now set out a summary of the revenue and cost data we will use to assess whether BT has overcharged for the services in dispute.

13.443 Table 13.37 sets out the corrected and adjusted external revenue and external FAC and DSAC for the disputed services which are reported within specific bandwidth categories in the RFS in the period 2006/07 to 2010/11 on a £m basis. The table shows the difference between external revenues and external DSAC. A positive number indicates that external revenues were greater than DSAC.

Table 13.37 Corrected and adjusted external revenue, FAC and DSAC data for each disputed service which is reported within a specific bandwidth category in the RFS in the period 2006/07 to 2010/11, £m

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental					
External revenue	12.1	12.8	13.9	8.3	n/a
External FAC	6.3	2.9	7.7	7.7	n/a
External DSAC	5.8	4.2	10.1	8.1	n/a
External revenue less external DSAC	6.3	8.6	3.8	0.2	n/a
BES 1000 rental					
External revenue	13.1	26.6	28.2	17.2	17.6
External FAC	2.8	2.3	5.0	6.4	12.3
External DSAC	2.7	3.9	6.5	7.0	23.3
External revenue less external DSAC	10.4	22.7	21.8	10.2	(5.7)
BES 100 connection					
External revenue	10.2	4.8	1.5	0.0	NiD
External FAC	2.0	1.1	1.4	0.2	NiD
External DSAC	2.7	2.9	2.1	0.4	NiD
External revenue less external DSAC	7.5	1.9	(0.5)	(0.3)	NiD
BES 1000 connection					
External revenue	8.7	7.5	3.1	2.4	NiD
External FAC	3.0	3.2	4.2	16.0	NiD
External DSAC	3.9	8.0	6.4	30.8	NiD
External revenue less external DSAC	4.8	(0.5)	(3.3)	(28.4)	NiD
WES 10 rental					
External revenue	2.2	10.2	29.0	38.9	34.4
External FAC	3.1	10.5	16.9	29.5	44.2
External DSAC	3.3	13.5	22.5	40.0	93.3
External revenue less external DSAC	(1.0)	(3.4)	6.5	(1.0)	(58.9)
WES 100 rental					
External revenue	4.2	13.5	20.8	27.8	34.5
External FAC	1.9	5.5	9.3	18.8	34.5
External DSAC	2.1	7.3	12.2	25.7	72.7
External revenue less external DSAC	2.1	6.2	8.5	2.1	(38.2)
WES 1000 rental					
External revenue	1.2	3.1	6.4	8.4	12.8
External FAC	0.2	0.5	1.0	2.6	5.7
External DSAC	0.2	0.7	1.3	3.7	12.0
External revenue less external DSAC	1.0	2.4	5.1	4.7	0.8
Main link rental					
External revenue	n/a	40.4	64.8	60.9	NiD
External FAC	n/a	22.4	19.1	32.1	NiD
External DSAC	n/a	61.9	66.0	117.9	NiD
External revenue less external DSAC	n/a	(21.4)	(1.2)	(57.1)	NiD

Source: Ofcom, based on information provided by BT
n/a = data not available, NiD = Not in dispute

13.444 Table 13.38 shows the corrected and adjusted external revenue, external FAC and external DSAC for the disputed services which are reported within specific bandwidth categories in the RFS in the period 2006/07 to 2010/11 on a unit (per local end) basis (per km for main link). The table shows the difference between external revenues and external DSAC. A positive number indicates that external revenues were greater than DSAC. As explained in our Provisional Conclusions, the average revenue per end reported below may be materially different from the charge listed in the OPL. This is because a number of different service variants are listed under each heading and in 2006/07 average revenues for rental services included main link charges.

Table 13.38 Corrected and adjusted external revenue, FAC and DSAC data for each disputed service which is reported within a specific bandwidth category in the RFS in the period 2006/07 to 2010/11, £ per end (£ per km for main link)

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental					
Unit charge	4,459	2,302	2,293	1,583	n/a
Unit FAC	2,328	520	1,260	1,461	n/a
Unit DSAC	2,131	749	1,669	1,542	n/a
Unit charge less unit DSAC	2,328	1,553	625	41	n/a
BES 1000 rental					
Unit charge	11,430	7,586	7,110	4,199	3,576
Unit FAC	2,405	645	1,249	1,547	2,511
Unit DSAC	2,355	1,105	1,634	1,705	4,743
Unit charge less unit DSAC	9,075	6,481	5,476	2,494	(1,168)
BES 100 connection					
Unit charge	2,750	2,741	2,370	975	NiD
Unit FAC	530	652	2,101	5,684	NiD
Unit DSAC	715	1,642	3,168	11,180	NiD
Unit charge less unit DSAC	2,035	1,099	(798)	(10,205)	NiD
BES 1000 connection					
Unit charge	5,200	5,525	5,528	2,014	NiD
Unit FAC	1,798	2,346	7,601	13,438	NiD
Unit DSAC	2,338	5,895	11,508	25,800	NiD
Unit charge less unit DSAC	2,862	(370)	(5,980)	(23,787)	NiD
WES 10 rental					
Unit charge	1,462	1,146	2,040	2,006	1,632
Unit FAC	2,064	1,189	1,186	1,518	2,100
Unit DSAC	2,147	1,526	1,581	2,059	4,431
Unit charge less unit DSAC	(685)	(380)	459	(53)	(2,799)
WES 100 rental					
Unit charge	4,508	2,936	2,656	2,273	2,141
Unit FAC	2,059	1,197	1,188	1,540	2,136
Unit DSAC	2,247	1,589	1,565	2,104	4,510
Unit charge less unit DSAC	2,261	1,347	1,092	169	(2,369)
WES 1000 rental					
Unit charge	15,736	9,238	7,569	5,555	5,500
Unit FAC	1,956	1,342	1,221	1,696	2,453
Unit DSAC	2,283	2,037	1,544	2,460	5,148
Unit charge less unit DSAC	13,453	7,201	6,025	3,094	352

	2006/07	2007/08	2008/09	2009/10	2010/11
Main link rental					
Unit charge	n/a	533	526	394	NiD
Unit FAC	n/a	296	155	208	NiD
Unit DSAC	n/a	816	537	763	NiD
Unit charge less unit DSAC	n/a	(283)	(10)	(369)	NiD

Source: Ofcom, based on information provided by BT

n/a = data not available, NiD = Not in dispute

Note: Unit DSACs, average revenue and prices are given per end throughout the Relevant Period. BT's RFS data for BES and WES services was generated per circuit in 2006/07 and 2007/08 and we have halved these results to give results per local end. Some WES circuits only require a single end so these figures may under-state the average charge and the DSAC per end for WES services, but the results per end are presented for comparative purposes only and would not affect the calculation of the extent of overcharging.

13.445 In paragraph 13.53 to 13.59 we said that for services in dispute that are reported within BES and WES "other bandwidth" we will resolve the Disputes using proxies for revenue and cost. We said that we would use pricing and volume data provided by BT as a proxy for revenues and Table 13.9 sets out the cost proxies we have used. Applying these proxies gives rise to the revenue and cost data set out in Table 13.39 and Table 13.40 below. Note that revenues and costs of BES and WES services of more than 1Gbit/s have been pro-rated in 2008/09 to account for the fact that such services were not subject to the cost orientation obligation after 8 December 2008.

13.446 Table 13.39 shows the external revenue and external DSAC for the disputed services which are not reported within specific bandwidth categories in the RFS in the period 2006/07 to 2010/11, and so for which we are using proxies, on a unit (per end) basis. The proxies we have used are after adjustments have been made.

Table 13.39 External revenue, FAC and DSAC data for each service in dispute where we have used proxies in the period 2006/07 to 2010/11, £ per end

	2006/07	2007/08	2008/09	2009/10	2010/11*
BES 100 rental					
Unit charge					1,535
Unit FAC					2,372
Unit DSAC					4,290
Unit charge less unit DSAC					
DSAC					(2,755)
BES 155 rental					
Unit charge	6,690	4,708	4,700	4,700	4,700
Unit FAC	2,328	520	1,260	1,461	2,326
Unit DSAC	2,131	749	1,669	1,542	4,231
Unit charge less unit DSAC					
DSAC	4,559	3,960	3,031	3,158	469
BES 622 rental					
Unit charge	12,055	8,470	8,230	8,230	8,230
Unit FAC	2,367	582	1,255	1,504	2,342
Unit DSAC	2,243	927	1,651	1,623	4,389
Unit charge less unit DSAC					
DSAC	9,813	7,543	6,579	6,607	3,841
BES 2500 rental					
Unit charge	NiD	NiD	10,480	NiD	NiD
Unit FAC	NiD	NiD	1,249	NiD	NiD
Unit DSAC	NiD	NiD	1,634	NiD	NiD
Unit charge less unit DSAC					
DSAC	NiD	NiD	8,846	NiD	NiD

BES 10000 rental

Unit charge	NiD	NiD	12,820	NiD	NiD
Unit FAC	NiD	NiD	1,249	NiD	NiD
Unit DSAC	NiD	NiD	1,634	NiD	NiD
Unit charge less unit DSAC	NiD	NiD	11,186	NiD	NiD

WES 155 rental

Unit charge	6,812	5,215	5,210	5,210	5,210
Unit FAC	2,059	1,197	1,188	1,540	2,146
Unit DSAC	2,247	1,589	1,565	2,104	4,523
Unit charge less unit DSAC	4,565	3,626	3,645	3,106	687

WES 622 rental

Unit charge	13,389	8,732	8,500	8,500	8,500
Unit FAC	2,007	1,269	1,204	1,618	2,235
Unit DSAC	2,265	1,813	1,554	2,282	4,753
Unit charge less unit DSAC	11,124	6,919	6,946	6,218	3,747

WES 10000 rental

Unit charge	NiD	14,194	13,090	NiD	NiD
Unit FAC	NiD	1,342	1,221	NiD	NiD
Unit DSAC	NiD	2,037	1,544	NiD	NiD
Unit charge less unit DSAC	NiD	12,157	11,546	NiD	NiD

Source: Ofcom, based on information provided by BT

*For BES 100 and BES 155 (which used BES 100 as a proxy) in 2010/11, the cost data shown is consistent with Option 4 as set out in paragraph 13.50 above. Also, the proxies reflect the treatment of electronics costs as described in paragraphs 13.152 and 13.157 to 13.160.

NiD = Not in dispute

Note: Unit DSACs, average revenue and prices are given per end throughout the Relevant Period. BT's RFS data was generated per circuit in 2006/07 and 2007/08 and we have halved these results to give results per end. Some WES circuits only require a single end so these figures may under-state the average charge and the DSAC per end for WES services, but the results per end are presented for comparative purposes only and would not affect the calculation of the extent of overcharging.

13.447 Table 13.40 shows the external revenue and external DSAC for the disputed services which are not reported within specific bandwidth categories in the RFS in the period 2006/07 to 2010/11, and so for which we are using proxies, on a £m basis. The DSAC figures are calculated by multiplying the unit data from Table 13.39 (i.e. proxies based on data after adjustments have been made) by volumes.

Table 13.40 External revenue, FAC and DSAC data using proxies for each disputed service which is reported within BES and WES 'other bandwidth' rental in the RFS in the period 2006/07 to 2010/11, £m

	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental					
External revenue					6.4
External FAC					9.9
External DSAC					18.0
External revenue less external DSAC					(11.5)
BES 155 rental					
External revenue	1.1	1.3	0.8	0.1	0.0
External FAC	0.4	0.1	0.2	0.0	0.0
External DSAC	0.4	0.2	0.3	0.0	0.0
External revenue less external DSAC	0.8	1.1	0.5	0.1	0.0
BES 622 rental					
External revenue	2.9	1.7	1.0	0.0	0.0
External FAC	0.6	0.1	0.1	0.0	0.0
External DSAC	0.5	0.2	0.2	0.0	0.0
External revenue less external DSAC	2.4	1.6	0.8	0.0	0.0
BES 2500 rental*					
External revenue	NiD	NiD	0.1	NiD	NiD
External FAC	NiD	NiD	0.0	NiD	NiD
External DSAC	NiD	NiD	0.0	NiD	NiD
External revenue less external DSAC	NiD	NiD	0.1	NiD	NiD
BES 10000 rental*					
External revenue	NiD	NiD	0.1	NiD	NiD
External FAC	NiD	NiD	0.0	NiD	NiD
External DSAC	NiD	NiD	0.0	NiD	NiD
External revenue less external DSAC	NiD	NiD	0.1	NiD	NiD
WES 155 rental					
External revenue	0.9	1.4	1.5	1.5	1.4
External FAC	0.3	0.3	0.4	0.4	0.6
External DSAC	0.3	0.4	0.5	0.6	1.2
External revenue less external DSAC	0.6	0.9	1.1	0.9	0.2
WES 622 rental					
External revenue	0.3	0.4	0.4	0.5	0.5
External FAC	0.04	0.1	0.1	0.1	0.1
External DSAC	0.05	0.1	0.1	0.1	0.3
External revenue less external DSAC	0.2	0.3	0.4	0.3	0.2
WES 10000 rental*					
External revenue	NiD	0.0	0.2	NiD	NiD
External FAC	NiD	0.0	0.0	NiD	NiD
External DSAC	NiD	0.0	0.0	NiD	NiD
External revenue less external DSAC	NiD	0.0	0.2	NiD	NiD

Source: Ofcom, based on information provided by BT

NiD = Not in dispute

*2008/09 data has been pro rated to 8 December 2008.

Section 14

Ofcom's assessment of whether BT's charges were cost orientated

Introduction

- 14.1 In this Section we consider whether BT's charges for the services in dispute were cost orientated and therefore whether BT has overcharged its customers during the Relevant Period.
- 14.2 Having concluded in Section 10 that BT has not demonstrated to our satisfaction that each and every charge in dispute is cost orientated¹⁰⁰¹, we go on to carry out the next two steps of our assessment in relation to each charge, in accordance with the methodology we set out in paragraph 9.244:
- 14.2.1 **Step 2:** compare the relevant Ethernet charges with their respective DSACs to identify any revenues exceeding DSAC (i.e. we carry out the DSAC test referred to at paragraph 9.29; and
- 14.2.2 **Step 3:** before drawing our conclusions on overcharging, we consider:
- the magnitude and duration by which charges exceeded DSAC;
 - whether, and the extent to which charges exceeded FAC; and
 - the rate of return on capital employed.
- 14.3 Where we consider that these assessments indicate that BT's charges were not cost orientated, and that BT has therefore overcharged its external customers, we go on to calculate the level of overcharge.

The DSAC test

- 14.4 The DSAC test is carried out by comparing BT's external revenues against DSAC for the services in dispute, i.e. for each and every charge in dispute (as set out in paragraph 8.80).
- 14.5 However, as discussed in Section 13, BT's RFS for 2005/06 reported DSAC data for WES and BES services on a highly aggregated basis and BT was unable to provide us with disaggregated DSAC data. Therefore, we have had to adopt a different approach to implementing the DSAC test in 2005/06 than in later years, estimating the disaggregated revenues and DSACs for each BES service disputed in 2005/06.
- 14.6 Given that our implementation of the DSAC test differs between 2005/06 and 2006/07 to 2010/11, we consider these two time periods separately below.

¹⁰⁰¹ We then set out when it would be appropriate to depart from the data published in BT's RFS (Section 11), determined which DSAC data we should rely on (Section 12) and set out which adjustments we should make to BT's published data (Section 13).

DSAC test for 2005/06¹⁰⁰²

Our Provisional Conclusions

14.7 As explained in paragraph 13.18, in order to disaggregate revenues we used BT's 2005/06 billing data.¹⁰⁰³ We allocated the aggregated BES revenue from the RFS to individual BES rental and connection services pro rata to the billing data. We noted that there are a number of reasonable approaches that could be used to disaggregate the DSAC costs. We considered three options based on observable data which, as described in paragraphs 13.19 and 13.21, generate a wide range of DSAC estimates. Although it was not clear which of these various methodologies is the most appropriate, they all resulted in revenues below DSAC, summarised in Table 14.1 below. The revenues are presented as a percentage of their DSAC, with 100% reflecting where the average charge is set at its DSAC. All figures are below 100%, indicating that the revenues were below DSAC, and that on average, the charges for these services in 2005/06 were below DSAC.

Table 14.1: Ofcom estimates of revenue as a percentage of DSAC under different apportionment assumptions, 2005/06

	Revenue to DSAC ratio (%)		
	Using revenue split	Using 06/07 DSAC split	Using average DSAC split 06/07 to 08/09
BES 100 rental	60%	12%	15%
BES 1000 rental	60%	26%	17%
BES 100 connection	60%	38%	77%
BES 1000 connection	60%	29%	32%

Source: Figures estimated from Table 13.4.

14.8 On this basis we provisionally concluded that there was no overcharging for services in 2005/06.

Views of the Parties

14.9 We received no specific comments on our analysis of BT's charges in 2005/06.

Final conclusions on the DSAC test for 2005/06

14.10 Given that we received no specific comments or further evidence in relation to our provisional conclusions on the DSAC test for 2005/06, we confirm our provisional conclusions that on the available evidence BT's charges in dispute were each below DSAC in 2005/06. Whilst we recognise there may be circumstances in which charges below DSAC are not compliant with the cost orientation obligations (see paragraph 9.109), the Parties have not put forward specific arguments which cause us to consider that BT's charges below DSAC in 2005/06 may not be cost orientated. Therefore, we conclude that BT did not overcharge the Disputing CPs for the relevant services in 2005/06.

¹⁰⁰² 2005/06 was only relevant to the Initial Disputes and only for BES 100 rentals, BES 1000 rentals, BES 100 connections and BES 1000 connections.

¹⁰⁰³ BT's 18 February 2011 response to the 22 October 2010 section 191 notice.

DSAC test for 2006/07 to 2010/11

Our Provisional Conclusions

14.11 In our Provisional Conclusions, we compared average external revenues with the external unit DSACs for the services in dispute, based on data provided by BT as adjusted by Ofcom.¹⁰⁰⁴ The services and years in dispute vary between the Disputing CPs (see Section 7) and therefore we did not consider every service/year combination in each of the Initial Draft Determinations, the CWW Provisional Determination and the Verizon Provisional Conclusions.

14.12 We provisionally found that for a number of service and year combinations in dispute, external revenues exceeded external DSAC. This is shown in Table 14.2 below.¹⁰⁰⁵ We highlight in grey where we provisionally found the revenue/DSAC ratio to be over 100% (i.e. where revenues exceeded DSAC).

Table 14.2: Average external revenues as a percentage of external DSAC from the Provisional Conclusions

Ethernet service	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental	201%	282%	135%	100%	96%
BES 1000 rental	464%	584%	406%	224%	71%
BES 155 rental	302%	576%	276%	298%	298%
BES 622 rental	515%	801%	476%	477%	249%
BES 2500 rental	NiD	NiD	598%	NiD	NiD
BES 10000 rental	NiD	NiD	732%	NiD	NiD
BES 100 connection	393%	169%	74%	n/a*	NiD
BES 1000 connection	222%	97%	46%	8%	NiD
WES 10 rental	66%	73%	125%	95%	36%
WES 100 rental	194%	179%	165%	105%	47%
WES 1000 rental	637%	421%	474%	210%	99.8%
WES 155 rental	293%	318%	323%	241%	113%
WES 622 rental	558%	456%	530%	354%	168%
WES 10000 rental	NiD	659%	818%	NiD	NiD
Main link rental	n/a**	62%	95%	46%	NiD

Source: Ofcom - based on BT data.

NiD = not in dispute: for service/year combinations not in dispute, we did not reach a provisional conclusion on whether BT's charges were above DSAC.

* we were unable to apply the DSAC test to BES 100 connection in 2009/10 due to a lack of DSAC data (see paragraph 14.17.1). (In Table 5.12 of the CWW Provisional Determination, this was incorrectly shown as "NiD").

** In 2006/07, revenues and costs associated with main link rentals were included within the revenue and cost information for BES and WES rental services (see paragraphs 13.67 to 13.69).

¹⁰⁰⁴ BT's responses to the 22 October 2010 section 191 notice and the 22 December 2011 section 191 notice.

¹⁰⁰⁵ The figures for BES 1000 rental, BES 622 rental, WES 100 rental, WES 155 rental, WES 622 rental, and WES 1000 rental in 2010/11 differ from those presented in the CWW Provisional Determination. Following publication of the CWW Provisional Determination, we received new information from BT in relation to development costs in 2010/11, which indicated that the adjustment for development costs in 2010/11 should not have been made (see paragraph 13.129). In an update note published on our website on 5 April 2012, we set out the impact of not making an adjustment for development costs. See http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01078/.

Views of the Parties

14.13 The Parties made a number of submissions about the DSAC test and the data we use to carry out the DSAC test. Some of these are more general arguments regarding the DSAC test and which DSAC data we should rely on. These comments are considered in previous sections of these Determinations, especially in Sections 9, 12 and 13. Where the Parties have made more specific comments in relation to our assessment of specific charges in certain years, we address these below.

Final conclusions on the DSAC test for 2006/07 to 2010/11

14.14 As discussed in Section 13, we have made a number of adjustments to BT's published RFS data, some of which are different to the adjustments we made in the Provisional Conclusions. We have carried out the DSAC test again for the purpose of resolving these Disputes, based on our revised DSAC figures. The difference in DSAC figures is due to the amendments we have made to the adjustments.

14.15 Table 14.3 sets out the results of the DSAC test.

Table 14.3: Average external revenues as a percentage of external DSAC

Ethernet service	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 rental	209%	307%	137%	103%	36%
BES 1000 rental	485%	687%	435%	246%	75%
BES 155 rental	314%	629%	282%	305%	111%
BES 622 rental	538%	914%	498%	507%	188%
BES 2500 rental	NiD	NiD	641%	NiD	NiD
BES 10000 rental	NiD	NiD	785%	NiD	NiD
BES 100 connection	384%	167%	75%	9%*	NiD
BES 1000 connection	222%	94%	48%	8%	NiD
WES 10 rental	68%	75%	129%	97%	37%
WES 100 rental	201%	185%	170%	108%	47%
WES 1000 rental	689%	453%	490%	226%	107%
WES 155 rental	303%	328%	333%	248%	115%
WES 622 rental	591%	482%	547%	372%	179%
WES 10000 rental	NiD	697%	848%	NiD	NiD
Main link rental	n/a**	65%	98%	52%	NiD

Source: Ofcom – based on BT data.

NiD = not in dispute: for service/year combinations not in dispute, we did not reach a provisional conclusion on whether BT's charges were above DSAC.

* we have now been able to apply the DSAC test to BES 100 connection in 2009/10 using the 2009/10 DSAC data provided by BT in January 2012 (see paragraph 14.17.1).

** In 2006/07, revenues and costs associated with main link rentals were included within the revenue and cost information for BES and WES rental services (see paragraphs 13.67 to 13.69).

14.16 As can be seen from Table 14.3, external revenues exceeded external DSAC for the following services during the Relevant Period:

14.16.1 BES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10;

14.16.2 BES 1000 rental in 2006/07, 2007/08, 2008/09 and 2009/10;

14.16.3 BES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11;

14.16.4 BES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11;

- 14.16.5 BES 2500 rental in 2008/09;
 - 14.16.6 BES 10000 rental in 2008/09;
 - 14.16.7 BES 100 connection in 2006/07 and 2007/08;
 - 14.16.8 BES 1000 connection in 2006/07;
 - 14.16.9 WES 10 rental in 2008/09;
 - 14.16.10 WES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10;
 - 14.16.11 WES 1000 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11;
 - 14.16.12 WES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11;
 - 14.16.13 WES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11; and
 - 14.16.14 WES 10000 rental in 2007/08 and 2008/09.
- 14.17 These findings differ from those in our Provisional Conclusions as follows:
- 14.17.1 in our Provisional Conclusions we were unable to apply the DSAC test to BES 100 connection in 2009/10 due to a lack of DSAC data. Using DSAC data provided by BT in January 2012, we have now been able to apply the DSAC test to BES 100 connection in 2009/10, and conclude that external revenues were below DSAC in this year; and
 - 14.17.2 we provisionally concluded that external revenues were below DSAC for WES 1000 rental in 2010/11. We now conclude that external revenues were above DSAC in this year.
- 14.18 We recognise there may be circumstances in which charges below DSAC are not compliant with the cost orientation obligations (see paragraph 9.109). However, the Parties have not put forward specific arguments which cause us to consider that BT's charges below DSAC for any of the service and year combinations in dispute may not be cost orientated. Therefore, we conclude that BT did not overcharge the Disputing CPs for those service and year combinations where charges are below DSAC.

Ensuring the DSAC test is not implemented in a mechanistic way

- 14.19 As we set out in Section 9, we consider that it is not appropriate to apply the DSAC test in a mechanistic manner. Therefore, for the services and years in which we find revenues exceeded DSAC, we go on to consider what other factors could indicate that these charges were nonetheless cost orientated, and then conclude as to whether overcharging has occurred. The additional factors which we consider relevant in this case are:
- 14.19.1 the magnitude and duration by which charges exceeded DSAC (see paragraphs 9.217 to 9.227);
 - 14.19.2 whether, and the extent to which charges exceeded FAC (see paragraph 9.228); and

- 14.19.3 the rate of return on capital employed (see paragraphs 9.229 to 9.233).
- 14.20 As we noted in paragraph 9.225, any argument that a charge above DSAC does not constitute overcharging needs to be supported by evidence. In our Provisional Conclusions we invited BT to supply us with specific evidence that demonstrates that it could have reasonably expected its charges to be cost orientated where charges exceeded DSAC in fewer than three financial years. We now consider BT's evidence on these issues.
- 14.21 As noted in paragraph 9.202, BT argues that we have failed to take sufficient account of the specific circumstances of the AISBO market over the Relevant Period. In particular, BT argues that we have not sufficiently taken into account the nascent nature of the AISBO market in our assessment. We therefore start by considering the circumstances of the AISBO market and how we should take these into account, before undertaking an assessment of each of the charges which exceeds DSAC.

How do we take account of the specific circumstances of the AISBO market?

Our Provisional Conclusions

- 14.22 Prior to the publication of the Provisional Conclusions BT argued that we should take into account the specific circumstances of the AISBO market. It argued that:
- 14.22.1 it should be able to use market level data in assessing cost orientation;
- 14.22.2 it is "*entitled to earn a higher ROCE given the developing nature of the market*"; and
- 14.22.3 due to a lack of historic data, BT cannot accurately forecast its future costs and therefore "*BT cannot confidently predict whether and how it needs to change its prices*".¹⁰⁰⁶
- 14.23 With respect to the first of these points, we referred to our provisional conclusion that compliance with the cost orientation obligation in the AISBO market should be considered on the basis of each individual charge, rather than on an aggregated basis (as discussed in Section 8).
- 14.24 On the second point, as we have explained in more detail in paragraphs 9.193 and 9.196, we set out that if BT considered that either: 1) a higher WACC than the "rest of BT" WACC is warranted in this case; or 2) "fair bet" type considerations were relevant to Ethernet services, it would need to supply us with specific evidence supporting its argument. We noted that BT had not yet provided this evidence.
- 14.25 On the third point, as we explain in paragraph 9.182 and 9.183 above, we did not rule out the possibility that BT may have experienced difficulties in forecasting costs and revenues for individual services in dispute and that these difficulties may have contributed to it failing the DSAC test. We said that should BT wish us to take the specific circumstances surrounding a charge into account, it needed to provide us with an explanation of the specific reasons why it encountered such difficulties. It should also provide supporting evidence of its original forecasts and the factors that it considered at the time. BT would need to demonstrate that its unit DSACs were lower than it reasonably expected. If, for example, this was a consequence of an error in forecasting volumes, it would need to provide us with details of the volume

¹⁰⁰⁶ BT's 20 May 2011 submission, paragraph 32.

forecasts it used in setting prices, together with an explanation of why it considered these to be reasonable forecasts and why the deviation from forecast led to the failure of the DSAC test. If unit DSACs were lower than expected due to unexpected movements in costs, BT would need to explain why the cost movements could not have been reasonably forecast and provide evidence of its original cost forecast, together with the supporting reasoning for that forecast at the time.

14.26 We stated that we would expect BT to provide at a minimum:

14.26.1 a detailed description of which specific cost category (or categories) contributed to the change in unit costs;

14.26.2 an explanation of the underlying reason for these cost changes;

14.26.3 an explanation of why BT therefore considered the level of the costs to be different to the level it had reasonably expected; and

14.26.4 if the actual unit volumes that occurred were not expected, the volumes that BT used in setting its prices.

14.27 We explained that, while BT's 20 May 2011 submission provided its high level views on forecasting difficulties in the AISBO market over the Relevant Period,¹⁰⁰⁷ it did not provide any specific evidence of the type discussed above.

Views of the Parties

14.28 We set out the Parties' views in relation to:

14.28.1 the use of aggregated data in paragraphs 8.19 to 8.46 above. We note that BT has indicated that it no longer considers that market level aggregation is appropriate; and

14.28.2 the appropriate WACC and approach to ROCE analysis in this case in paragraphs 9.210 to 9.215 above.

14.27 We therefore focus in the paragraphs below on the views of the Parties in respect of BT's claimed difficulties in forecasting unit costs.

BT's views

14.28 BT argues that:

*"Ofcom must note the caution expressed by the CAT in the PPC Judgment, namely that it might be quite difficult for BT prospectively to meet its cost orientation obligation even [if] it had the firmest intention of so doing not least because of the difficulties of cost allocation, the complexities of cost accounting involved and the fact that costs can "fluctuate over time sometimes quickly". If that is true of a mature and stable market, such as Trunk, it is significantly more important and relevant in a market that has been recognised by Ofcom as "nascent", particularly given the other factors involved."*¹⁰⁰⁸

14.29 BT claims that "[t]here was so much uncertainty as to costs and demand that it was very difficult for Openreach to set cost orientated prices. In the event, some charges

¹⁰⁰⁷ e.g. Section 3.5 of BT's 20 May 2011 submission.

¹⁰⁰⁸ BT's response to our Provisional Conclusions, paragraph 77.

*seem to have exceeded DSAC but this could not have been known at the time when prices were set.*¹⁰⁰⁹ It argues that *"it is inappropriate for Ofcom to expect BT to have set prices that conformed to the DSAC rule during 2006-07"*¹⁰¹⁰ and that we should make two changes to our approach:

- 14.29.1 we should not find any overcharging in the financial years 2005/06 and 2006/07; and
 - 14.29.2 we should adopt a *"far more flexible approach to the operation of the DSAC test in later periods as well"*¹⁰¹¹.
- 14.30 BT argues that in considering the nature of the Ethernet market, *"Ofcom simply isolates the question of whether there were specific difficulties in establishing the costs for these services"*.¹⁰¹²
- 14.31 Our highly restrictive approach is evidenced, BT argues, by our refusing to adopt a flexible approach or make any allowances for:¹⁰¹³
- 14.31.1 *"the uncertainty created by the fact that the Ethernet market was a new and evolving market, with more or less constant innovation in terms of products and prices resulting in a significant amount of complexity in terms of pricing structures"*¹⁰¹⁴; and
 - 14.31.2 *"the fact that (as volumes of products sold shows) this was a market which grew quickly and significantly, and was not subject to any particular inhibitions on demand."*¹⁰¹⁵
- 14.32 It argues¹⁰¹⁶ that it was taking its pricing decisions in the context of:
- 14.32.1 the nascent nature of the market;
 - 14.32.2 the absence of a settled track record of cost-volume relationships;
 - 14.32.3 the absence of likely volumes and costs upon which pricing decisions could be taken;
 - 14.32.4 a significant and unanticipated explosion in demand; and
 - 14.32.5 other regulatory pressures placed upon BT.
- 14.33 BT argues that:¹⁰¹⁷

¹⁰⁰⁹ BT's response to our Provisional Conclusions, paragraph 341.

¹⁰¹⁰ BT's response to our Provisional Conclusions, paragraph 341.

¹⁰¹¹ BT's response to our Provisional Conclusions, paragraph 342.

¹⁰¹² BT's response to our Provisional Conclusions, paragraph 336.

¹⁰¹³ We note that the quotations in paragraphs 14.31.1 and 14.31.2 refer to two of five points made by BT in paragraph 335.4.1 to 335.4.5 of its response to our Provisional Conclusions. However the issues that BT raises in the remaining three points are addressed with elsewhere in this document (i.e. in relation to the appropriate cost of capital in this case (Section 9) and in relation to whether BT has satisfactorily demonstrated that its relevant charges were cost orientated (Section 10)).

¹⁰¹⁴ BT's response to our Provisional Conclusions, paragraph 335.4.1.

¹⁰¹⁵ BT's response to our Provisional Conclusions, paragraph 335.4.5.

¹⁰¹⁶ BT's response to our Provisional Conclusions, paragraph 76.

¹⁰¹⁷ BT's response to our Provisional Conclusions, paragraph 338.2.

“major changes made not just the forecasting, but also the control and management of costs, challenging; indeed Openreach coped throughout the period with the strong and unforeseen growth in demand:

[...] “Openreach had to completely overhaul its organisation to meet demand growing much faster than predicted”¹⁰¹⁸;

[...] “new product variants were often partial or whole substitutes for existing products in the portfolio”¹⁰¹⁹, making forecasting the portfolio mix and the attendant costs of the portfolio difficult; and

[...] “Openreach invested in systems to manage the delivery of WES and BES products due to growth in demand”.

14.34 BT argues that the wholesale AISBO market was a nascent market and that Ofcom had considered this to be the case at the time of the 2004 LLMR Statement. It therefore disagrees with the suggestion that it should have had a good understanding of the costs of the wholesale Ethernet services given that they had been supplied as retail services. BT claims that there was *“simply no adequate historic track record on which BT could base a clear assessment of the cost orientation obligation”*. It also argues that granular service level data was not available to it *“because of the very nature of the nascent market”*. BT sets out that while BT's retail business had provided some Short Haul Data Services and other services prior to the provision of wholesale services, these were limited in nature and BT had not been required to specifically report on these in any RFS.¹⁰²⁰

14.35 Openreach required forecasts from its customers (i.e. the CPs) that were intended to help predict demand and plan service provision. BT's difficulties in accurately forecasting costs, BT argues, were not helped by the difficulties the CPs experienced in providing these forecasts. BT argues that where they were provided, CPs' estimates of volumes were *“patchy and unreliable”*¹⁰²¹. BT further argues that the *“huge and unanticipated take-up in demand”* resulted in Openreach experiencing a *“service crisis”* which resulted in Openreach having to pay out *“significant amounts”* in service level guarantees.¹⁰²²

14.36 BT argues that despite *“BT's best efforts with its forecasts”*, outturn volumes significantly exceeded forecasts over the period, and *“certainly up to December 2008”*¹⁰²³. To illustrate its arguments BT refers to one *“example”* from the summer of 2006. The example relates to a BT Pricing Paper ([§]) that was considering price changes to all WES products. BT states that it showed projected volumes for all the WES products for 2006/07 to 2009/10.¹⁰²⁴

¹⁰¹⁸ [§]

¹⁰¹⁹ [§]

¹⁰²⁰ BT's response to our Provisional Conclusions, paragraphs 57 to 62.

¹⁰²¹ BT's response to our Provisional Conclusions, paragraph 64.

¹⁰²² BT's response to our Provisional Conclusions, paragraph 68.

¹⁰²³ BT's response to our Provisional Conclusions, paragraph 65.

¹⁰²⁴ [§]

14.37 BT presents the projected external volumes for rentals from the pricing paper and compares them with the actual external volumes for WES rentals in its response to Provisional Conclusions¹⁰²⁵. As Table 14.4 shows, BT forecast that by 2009/10 there would be around [REDACTED] external WES circuits, whereas the actual outturn was around 17,000. The data also shows that in 2006/07 BT overestimated WES rental volumes by around [REDACTED] circuits or just over [REDACTED]%.

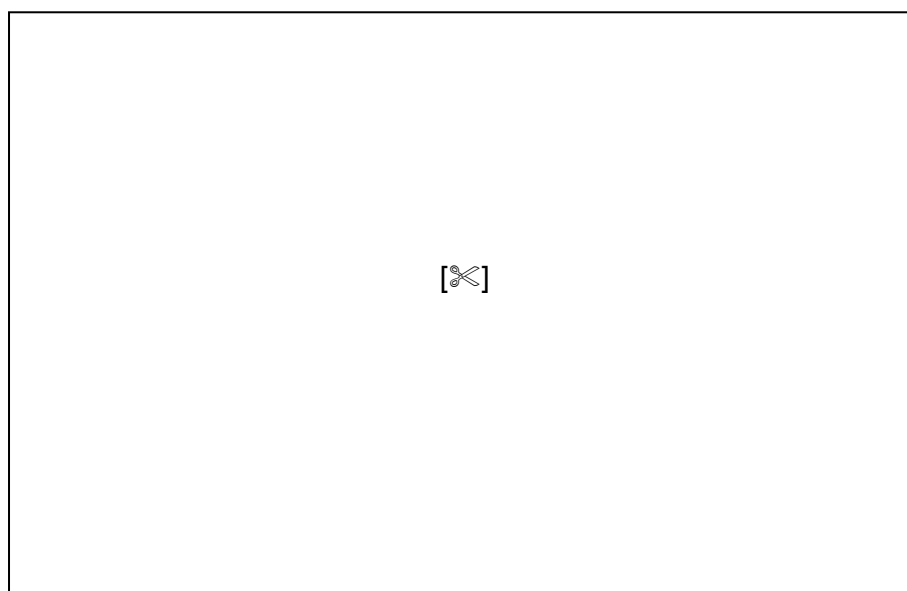
Table 14.4 – Actual and BT's projected external WES circuit volumes (summer 2006)

	06/07	07/08	08/09	09/10
Actual	1,259	6,906	11,440	16,575
Projected	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: Table 3.1, BT's response to our Provisional Conclusions

14.38 BT also provided charts demonstrating both the divergence between actual and projected volumes for external WES circuits as a whole (as shown in Table 14.4), but also separately for WES 10 and WES 100 external volumes. We reproduce these charts below.

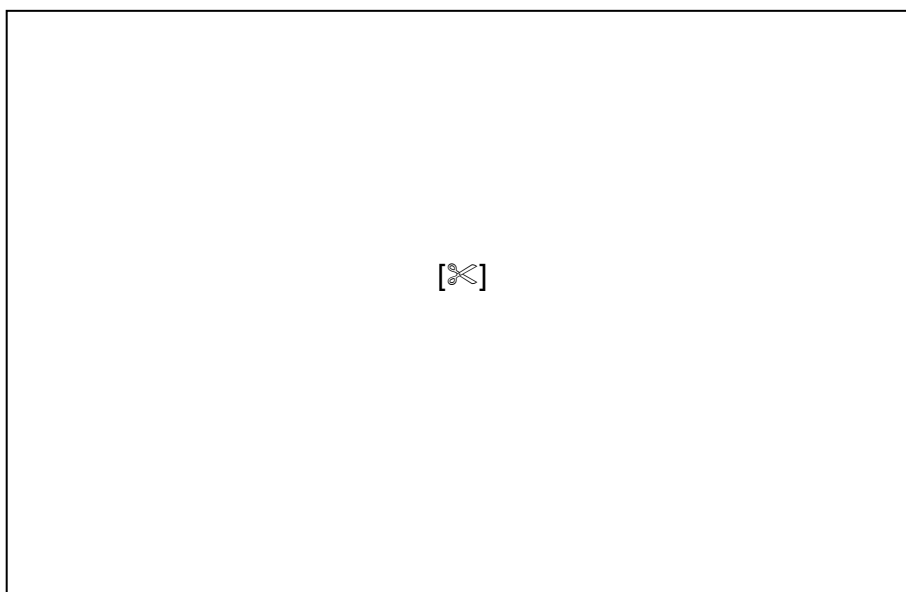
Figure 14.1 – Actual and BT's forecast external WES circuit volumes (summer 2006)



Source: Figure 3.1, BT's response to our Provisional Conclusions

¹⁰²⁵ BT's response to our Provisional Conclusions, paragraphs 66 and 67.

Figure 14.2 – Actual and BT's forecast external WES 10 circuit volumes (summer 2006)



Source: Figure 3.2, BT's response to our Provisional Conclusions

Figure 14.3 – Actual and BT's forecast external WES 100 circuit volumes (summer 2006)



Source: Figure 3.2, BT's response to our Provisional Conclusions

- 14.39 BT argues that the difficulties it faced with *ex ante* compliance “do not absolve BT from complying with Condition HH3.1, but rather that they provide a context that demonstrates that Ofcom’s proposed approach is mechanistic and harsh. At the very least, these factors mean that Ofcom should accept either that BT was not in breach of Condition HH3.1, or that it would be unfair or unreasonable to direct BT to repay any charges over DSAC for the period 2005-2007”.¹⁰²⁶

¹⁰²⁶ BT’s comments on the Disputing CPs’ responses, paragraph 112.

Views of the Disputing CPs

- 14.40 Sky does not consider that we should provide BT with “*leniency when assessing the cost orientation ceiling*”.¹⁰²⁷ It notes that “*BT argues that the Ethernet market was highly volatile and unpredictable but, Sky’s experience as a large purchaser of AISBO services does not accord with this portrayal*”.¹⁰²⁸
- 14.41 TTG argues that “*BT’s cost unpredictability arguments are a vacuous excuse without any real world foundation. There was no particular difficulty in predicting costs since contrary to BT’s unevidenced and false claims, unit costs were not highly sensitive to demand and the cost components were well understood*”.¹⁰²⁹
- 14.42 CWW argues that “*BT did not take its cost orientation obligations seriously. BT’s staff...failed to implement compliance measures within product pricing processes...BT’s conduct at the time over price setting in the Ethernet market was not that of a regulated incumbent with a genuine desire to set pricing in a fair and compliant way.*”¹⁰³⁰
- 14.43 The Disputing CPs challenge BT’s arguments about difficulties it faced when setting its relevant charges. They argue along four main lines:
- 14.43.1 **Lack of evidence:** both Sky and TTG note that BT has not provided evidence in support of its arguments about forecasting difficulties. TTG refers to BT’s arguments as “*wholly unevidenced*”.¹⁰³¹
- 14.43.2 **It was possible to forecast costs:** Sky and TTG argue that, as retail versions of BES and WES had existed for many years, BT must have had a good understanding of its costs. They also argue that it was reasonably easy for BT to predict costs as in the short term demand was easy to forecast, and costs were common to many services.¹⁰³²
- 14.43.3 **BT had more data available than the annual RFS:** Virgin, Sky and TTG argue that BT must have been able to estimate volumes and costs based on interim data, rather than only knowing costs after the RFS have been published.¹⁰³³ TTG argues that BT could have used either monthly management accounts or quarterly statutory accounts to obtain reasonable estimates of FAC. It also considers that forecasting costs one year ahead was not particularly difficult because:
- a) “*the product/market is well developed;*
 - b) *BES demand is particularly easy to predict;*
 - c) *there is little market share volatility;*

¹⁰²⁷ Sky’s response to our Provisional Conclusions, paragraph 65.

¹⁰²⁸ Sky’s comments on BT’s response, paragraph 6.

¹⁰²⁹ TTG’s comments on BT’s response, paragraph 5.13.

¹⁰³⁰ CWW’s comments on BT’s response, paragraphs 5 and 6.

¹⁰³¹ TTG’s response to our Provisional Conclusions, paragraph 3.130; Sky’s response to our Provisional Conclusions, paragraph 64.

¹⁰³² TTG’s response to our Provisional Conclusions, paragraph 3.140; Sky’s response to our Provisional Conclusions, paragraph 67.

¹⁰³³ Virgin’s response to our Provisional Conclusions, paragraph 6.2; Sky’s response to our Provisional Conclusions, paragraph 78; and TTG’s response to our Provisional Conclusions, paragraph 3.142.

d) *many costs are variable to demand; and*

e) *the nature of common costs sharing reduces risk*".¹⁰³⁴

14.43.4 **Lack of data does not exempt BT from its obligations:** CWW, Sky and TTG argue that, even if data were not available, BT was still under an obligation to comply with its SMP Conditions.¹⁰³⁵

14.44 TTG argues that "*setting prices based on projected costs is something every business has to do and so forms part of normal commercial and financial practice*". It considers BT's claims that there was so much uncertainty as to costs and demand that it was very difficult for Openreach to set cost orientated prices to be "*in short, bunkum*". It considers that:¹⁰³⁶

14.44.1 unit costs were not particularly sensitive to demand as the fibre and duct costs are shared between multiple services and therefore increased WES and BES volumes lead to a greater share of FCC; and

14.44.2 the underlying components of BES and WES services (duct, fibre, Ethernet equipment, general support & management and system build) were well understood by BT.

14.45 TTG also considers that BT should have responded to charges being above, or potentially above, DSAC by reducing its charges in a timely manner. It provides the example of BES 1000 rentals where BT prices in 2006/07 exceeded DSAC by over £6,000 per local end, but BT only reduced prices by £2,000 per local end and not until June 2007.¹⁰³⁷

14.46 TTG also argues that if BT had difficulty in estimating costs then it should have taken a cautious approach and priced below the estimated ceiling.¹⁰³⁸ In any event, it considers that BT has not advanced any evidence that it made errors in forecasting costs.¹⁰³⁹

14.47 Virgin argues that BT would have had a good understanding of its costs:

"Clear evidence of this link between retail and wholesale products can be seen by the manner in which CPs were allowed to migrate their retail LES products to wholesale WES products. The cost of migration (£37 as detailed above for a LES10/WES 10 migration) amounted to an administrative cost to adjust the account. We understand that no technical work was required for the migration, nor were any other costs incurred, meaning that the cost of provision for a migrated WES circuit would be well known to BT. To suggest that "BT was acting without the benefit of experience" and "There was so much uncertainty as to costs" is simply not accurate."¹⁰⁴⁰

14.48 CWW and Sky argue that it was not difficult for BT to predict WES and BES volumes. WES services were initially migrated from LES services and it was clear at the time

¹⁰³⁴ TTG's response to our Provisional Conclusions, paragraphs 3.124 and 3.125.

¹⁰³⁵ CWW's response to our Provisional Conclusions, paragraph 36; Sky's response to our Provisional Conclusions, paragraphs 79 to 80; TTG's comments on BT's response, paragraph 5.10.

¹⁰³⁶ TTG's comments on BT's response, paragraphs 5.1 to 5.7.

¹⁰³⁷ TTG's response to our Provisional Conclusions, paragraph 3.127.

¹⁰³⁸ TTG's response to our Provisional Conclusions, paragraphs 3.128 and 3.130.

¹⁰³⁹ TTG's response to our Provisional Conclusions, paragraph 5.8.

¹⁰⁴⁰ Virgin's comments on BT's response, paragraph 4.3.

that Ethernet services would take over from PPCs as the main form of business connectivity services.¹⁰⁴¹ They also argue that BES demand would have been more predictable than BT suggests as it was driven by Local Loop Unbundling.¹⁰⁴²

- 14.49 Both Sky¹⁰⁴³ and CWW¹⁰⁴⁴ point out that CPs were required to provide quarterly forecasts of uptake of BES and WES services, and as such BT should have had good visibility of demand.

Our analysis

- 14.50 We set out our conclusions in relation to:

14.50.1 the use of aggregated data in Section 8. As we explain in paragraph 8.80, we remain of the view that cost orientation in the AISBO market should be assessed on the basis of each individual charge, rather than on an aggregated basis; and

14.50.2 the appropriate WACC and approach to ROCE analysis in this case in Section 9 above. As we explain in paragraph 9.236, we do not consider that BT has established that there are systematic risks which would indicate that a higher cost of capital is appropriate when considering BT's ROCE in the AISBO market. As we also set out in paragraph 9.240 BT has not provided us with any compelling evidence in relation to 'fair bet' considerations being relevant in the AISBO market.

- 14.51 We therefore focus in the discussion below on our conclusions in respect of BT's claimed difficulties in forecasting costs due to the nature of the market and in particular when setting its prices for 2006/07.

- 14.52 Firms in any industry are routinely required to forecast volumes, revenues and costs and so need to ensure that their management has the necessary information upon which to base decisions. The accuracy of such forecasts will depend upon a number of factors, which are likely to vary between markets and products. In very few markets will firms be able to forecast demand with complete accuracy. This is particularly likely to be the case where the market or product is new (and therefore there is limited or no historic data upon which to base forecasts) and/or is experiencing considerable change on either the demand or supply side.

- 14.53 We accept that the wholesale AISBO market was nascent in the early part of the Relevant Period. This was noted in the 2004 LLMR Statement when we imposed Condition HH3.1 on BT (see paragraph 9.182). Although the wholesale products BT sold during the Relevant Period were based on services that had previously been sold as retail circuits (as the Disputing CPs note), and therefore were not entirely unknown to BT prior to the introduction of WES and BES services, it is clear that there was considerable growth in demand for WES and BES circuits in the early years of the Relevant Period, as demonstrated in Figure 14.4 below.

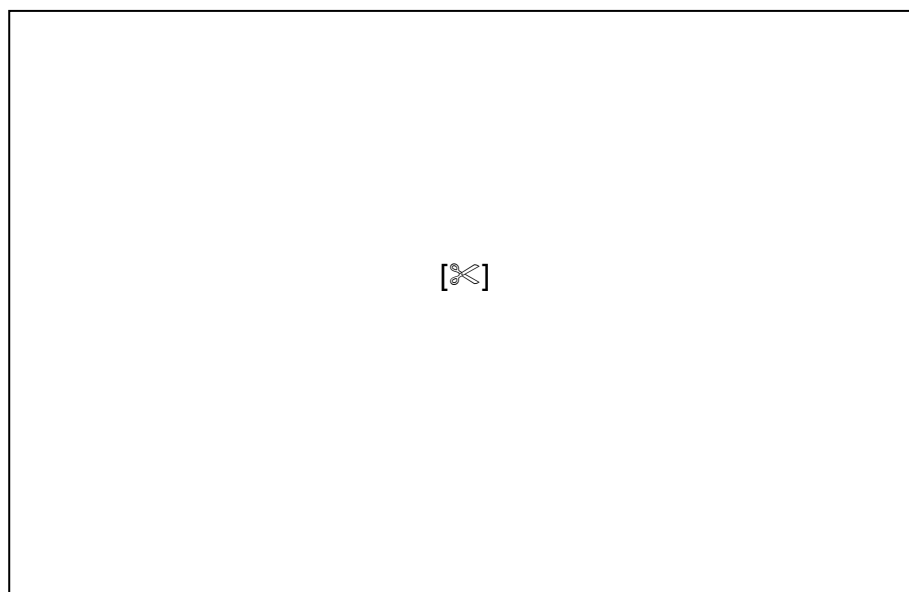
¹⁰⁴¹ CWW's response to our Provisional Conclusions, paragraph 31 and Sky's response to our Provisional Conclusions, paragraphs 67 to 68.

¹⁰⁴² CWW's response to our Provisional Conclusions, paragraph 32; Sky's response to our Provisional Conclusions, paragraphs 70 to 72; and Sky's comments on BT's response, paragraphs 32 to 33.

¹⁰⁴³ Sky's comments on BT's response, paragraph 32.

¹⁰⁴⁴ CWW's response to our Provisional Conclusions, paragraph 34.

Figure 14.4 – Growth in WES and BES circuit volumes, 2005/06 to 2010/11



Note: includes WES 10, WES 100, WES 1000, BES 100 and BES 1000 rentals.

Source: Ofcom analysis of BT data. 2005/06 volumes are only indicative, and are estimated using BT's 2005/06 billing data and prices for standard variants of these services from the OPL.¹⁰⁴⁵

- 14.54 This considerable growth in demand is likely to have been associated with supply side changes in how BT provided the services¹⁰⁴⁶. Therefore, uncertainty is likely to have existed to some extent in both the demand and supply side of the AISBO market. We consider this is likely to be particularly marked for WES services, given that the vast majority of growth in total Ethernet volumes over the period was in WES circuit volumes, with BES circuit volumes stable from 2007/08 after a period of initial growth.¹⁰⁴⁷
- 14.55 We therefore accept that BT may well have experienced some difficulties in forecasting relevant information for its wholesale Ethernet products, particularly during the earlier years of the Relevant Period. It is likely that BT faces some degree of forecasting risk in many of the markets upon which there is a cost orientation obligation. For the purpose of resolving these Disputes we need to consider whether, during the Relevant Period, the level of uncertainty and forecasting error was such that, despite its best endeavours, BT was unable to set a relevant charge below DSAC.
- 14.56 Condition HH3.1 was imposed on BT in the 2004 LLMR Statement following a detailed review of the AISBO market. In imposing the Condition we took into account the nascent nature of the market and confirmed that it covered all services in the market including any new services introduced by BT.¹⁰⁴⁸ As noted at paragraph

¹⁰⁴⁵ Billing data provided in BT's 18 February 2011 response to the 22 October 2010 section 191 notice.

¹⁰⁴⁶ We note BT's comments summarised at paragraph 14.33 above.

¹⁰⁴⁷ We note that on the basis of our indicative estimates of 2005/06 volumes, the rate of growth in BES circuit volumes between 2005/06 and 2006/07 appears to have been higher than that for WES circuit volumes.

¹⁰⁴⁸ 2004 LLMR Statement, paragraphs 7.57 to 7.63.

9.182, the nature of the market, and any associated lack of data or difficulty in forecasting unit costs, does not relieve BT from its obligations under Condition HH3.1. If, at the time of setting charges, BT felt that it could not do so in a manner that was compliant with its obligations, it should have raised compliance difficulties with Ofcom in advance of setting its charges. As noted at paragraph 9.182.3, Ofcom can direct that a charge need not be set on a forward-looking LRIC basis.

- 14.57 Although BT did not take such action when setting charges, where BT faced genuine specific difficulties in complying with its obligations, despite its best endeavours, then we can take this into account in our assessment of its charges. As we set out in paragraphs 9.226 and 9.227, any arguments that a charge above DSAC does not constitute overcharging need to be supported by evidence and BT is normally best placed to provide that evidence, since it has a better understanding of its pricing decisions and the information available to it at the time of making those decisions. We set out in the Provisional Conclusions the evidence we would expect BT to provide should it wish us to take the specific circumstances surrounding a charge into account (see paragraph 9.183).
- 14.58 As set out in paragraph 14.30 above, BT argues that in considering the nature of the market we have isolated the question of whether BT had specific difficulties in establishing the costs of the services in dispute. We disagree with BT. Although BT's ability to forecast costs is an important consideration in our non-mechanistic approach to applying the DSAC test, we also recognise that the relevance of the nature of the market extends beyond issues of cost forecasting (see, for example, our discussion of the appropriate approach to considering rates of return on capital and BT's WACC in paragraphs 9.186 to 9.198 above). Furthermore, we have considered the arguments and evidence that BT has provided in this case, including those that extend beyond its difficulties in forecasting costs.
- 14.59 We also note that in the PPC Judgment, the CAT commented that "*whilst no doubt a regulated firm can keep a month-by-month track of its costs and its prices, at the end of the day the conclusive figures (as published in the regulatory financial statements) will be retrospective ones*".¹⁰⁴⁹ Bearing this in mind, we accept the potential relevance of the lag between when prices are notified and changed and when finalised regulatory financial information becomes available. We consider the implications of this in our assessment of individual charges.
- 14.60 Given BT's argument that we should not find any overcharging in the financial year 2006/07¹⁰⁵⁰, we consider in the paragraphs below the extent to which BT has provided the evidence necessary to support its argument. BT also argues that we should adopt a "*far more flexible approach to the operations of the DSAC test in later periods as well*"¹⁰⁵¹. As we have set out in Section 9, we do not apply the DSAC test mechanistically. Therefore, where in the context of individual charges BT has provided specific, evidence-based arguments as to the factors we should take into account in applying the DSAC test, we consider them below in our assessment of the specific relevant charge.
- 14.61 In the Provisional Conclusions we not only set out the evidence that we would require from BT to support an argument that its charges above DSAC were nevertheless

¹⁰⁴⁹ PPC Judgment, paragraph 299.

¹⁰⁵⁰ We note that BT also argues that we should not find overcharging in 2005/06 for similar reasons. However, we have concluded above that there was no overcharging in 2005/06. We therefore do not consider 2005/06 further below.

¹⁰⁵¹ BT's response to our Provisional Conclusions, paragraph 342.

cost orientated, we also set out that the context to any such argument was that a number of BT's disputed charges significantly exceeded DSAC in 2006/07. As we demonstrate in Table 14.5 below, on the basis of our revised financial data, it remains the case that BT's charges in 2006/07 generally exceeded DSAC by a very significant margin. Where charges were above DSAC, they were between 2 and 7 times DSAC. They similarly generally exceeded FAC by a very significant amount. On this basis BT would need to establish that the market conditions it faced justify a very significant forecasting error for this year.

Table 14.5 – External revenue as a % of DSAC and FAC in 2006/07, Ofcom adjusted data

Service	Provisional Conclusion of overcharging	Revenue as % of DSAC	Revenue as % of FAC
BES 100 Rental	Yes	209%	191%
BES 1000 Rental	Yes	485%	475%
BES 155 Rental	Yes	314%	287%
BES 622 Rental	Yes	538%	509%
BES 100 Connection	Yes	384%	519%
BES 1000 Connection	Yes	222%	289%
WES 10 Rental	No	68%	71%
WES 100 Rental	Yes	201%	219%
WES 1000 Rental	Yes	689%	805%
WES 155 Rental	Yes	303%	331%
WES 622 Rental	Yes	591%	667%

Source: Ofcom analysis of BT data

- 14.62 Other than its example of volume forecasts from the summer of 2006 ([38]), BT's response provides no detailed evidence to support its claims in relation to the challenges it faced in setting cost orientated charges for 2006/07 as a result of the nature of the AISBO market at the time. As we have set out in paragraphs 14.40 to 14.49, BT's view is contested by the Disputing CPs.
- 14.63 The forecasts BT presents from the summer of 2006 ([38]) are potentially relevant evidence as they seem to be contemporaneous forecasts made by BT to support pricing decisions. However, they are not sufficient to support BT's argument that we should not find overcharging in relation to all its relevant charges for 2006/07:
- 14.63.1 BT states that the forecasts were made in the "summer" of 2006, therefore part way through the financial year 2006/07. It is not clear that these forecasts were used to support 2006/07 pricing decisions, and they were certainly not used to support those relating to the first half of the 2006/07 year.
- 14.63.2 The forecasts BT presents do not appear to support a high degree of uncertainty at the time of forecasting for 2006/07 – forecast volumes were not substantially out of line with outturn for the year. BT's response as noted above refers in a number of places to outturn volumes exceeding forecast over the period, yet the outturn volumes were less than the forecast volumes for 2006/07 presented by BT (although we note that

actual volumes exceeded forecast volumes for later years – we discuss the relevance of this below).¹⁰⁵²

- 14.63.3 The forecasts relate to WES services only – no forecasts are presented for BES services, which represent [X] of the total revenues in excess of DSAC for 2006/07 for the services relevant to these Disputes.
- 14.63.4 The forecasts relate to volumes only – importantly, BT's discussion of the pricing paper in its response provides no forecasts of costs, specifically DSACs, for the period. It also provides no explanation of why the deviation from the volume forecast led to the failure of the DSAC test. It has not established that any volume uncertainty manifested itself into uncertainty over unit costs.
- 14.64 While not strictly relevant to the consideration of BT's charges in 2006/07 (i.e. the focus of this sub-section), we note that the comparison of forecast versus outturn volumes for the period 2007/08 to 2009/10 BT presents based on [X] suggests that BT may have experienced difficulties in 2006 forecasting forward to these later years. However, BT has not presented arguments or evidence to demonstrate that the forecasts were reasonable given the information it had at the time. Nor does BT's response demonstrate that it used these forecasts in setting prices for those later years. Furthermore BT has failed to explain why it needed to rely on a forecast derived in summer 2006 for the years 2007/08 to 2009/10 instead of, for example, updating its volume forecasts taking account of the latest information available at the start of each of these years.
- 14.65 In our view, BT has failed to provide in its response the evidence we explained in the Provisional Conclusions would be required to support its arguments in relation to 2006/07. For example, BT has not:
- 14.65.1 demonstrated that its unit DSACs were lower than it reasonably expected when setting charges for 2006/07;
- 14.65.2 provided us with details of the volume forecasts it used in setting charges for 2006/07, together with an explanation of why it considered these to be reasonable forecasts and why the deviation from forecast led to the failure of the DSAC test; and/or
- 14.65.3 explained (where relevant) why any cost movements that contributed to the failure of the DSAC test could not have been reasonably forecast and provided evidence of its original cost forecast, together with the supporting reasoning for that forecast at the time.
- 14.66 As we note in Section 10, during our resolution of these Disputes BT has supplied us with a number of its internal pricing papers. We have set out our views on these pricing papers at paragraphs 10.209 to 10.210; we conclude that although BT's pricing papers show that BT was aware of its obligation to ensure that its charges were cost orientated, they do not reveal that BT took appropriate and sufficient steps to ensure that this obligation was met. [X]

¹⁰⁵² We note that in footnote 72 of its response BT sets out in respect of 2006/07 that "*BT obviously was more likely to get the projected figures for this year more in line with actual volumes since BT was already part through this year*".

¹⁰⁵³ [X]

- 14.67 Indeed, BT's response does not provide contemporaneous evidence of the DSAC forecasts upon which it set any of its charges in dispute for any year in the Relevant Period. We have not seen evidence that suggests BT considered DSAC evidence in any meaningful way when setting the charges in dispute over the Relevant Period. It therefore has not demonstrated that its unit DSACs were lower than it could have reasonably expected when setting its charges in dispute for any year in the Relevant Period or that any such deviations accounted for the failure of the DSAC test.
- 14.68 In conclusion, we do not consider that BT has provided evidence to demonstrate that all its charges in 2006/07 were cost orientated despite a number of them (substantially) exceeding DSAC. In the paragraphs below we consider whether there is evidence to suggest that BT's charges for each individual service in dispute that exceed DSAC nevertheless do not constitute overcharging.

Assessment of each charge

- 14.69 We now undertake an assessment of each of the charges which exceeds DSAC, taking into account the views of the Parties and in particular the following factors:
- 14.69.1 the relationship between revenue and FAC;
 - 14.69.2 ROCE; and
 - 14.69.3 the magnitude and duration by which revenues exceeded DSAC.
- 14.70 Unless explicitly stated otherwise, the data reported within this section relates to the level of aggregation reported in the RFS and refers to external customers only. We include pricing data for services outside the scope of the Disputes where it is relevant context to the general path of pricing BT took with each of its services. All the data reported includes Ofcom's adjustments as described in Section 13. For each of the services listed in BT's RFS (which include a number of different service variants)¹⁰⁵⁴ we set out the following information:
- 14.70.1 external volumes;
 - 14.70.2 average external revenue;
 - 14.70.3 unit DSAC and unit FAC;¹⁰⁵⁵
 - 14.70.4 revenue as a percentage of DSAC;

¹⁰⁵³ [X].

¹⁰⁵⁴ See paragraphs 13.8 and 13.28 to 13.30 for a discussion of this issue.

¹⁰⁵⁵ For rental and connection services, volumes are presented in terms of the number of local ends, and unit DSACs, average revenues and prices are presented on a per local end basis throughout the Relevant Period. BT's RFS data was generated on a per circuit basis in 2006/07 and 2007/08. We have converted this data to a per local end basis by assuming that each circuit has two local ends. The number of ends per circuit can vary depending on the product (for example, some circuits only require a single end so these figures may under-state the average revenue and the DSAC per end for such services). However, the results per local end are presented for comparative purposes only and do not affect the calculation of the extent of overcharging.

- 14.70.5 revenue as a percentage of FAC;
- 14.70.6 ROCE¹⁰⁵⁶; and
- 14.70.7 the price listed in the OPL for the standard variant of the service, which generally makes up the majority of revenue in the service as listed in the RFS.¹⁰⁵⁷
- 14.71 We refer to this financial and pricing data in a number of different tables in this section. In each table, we highlight in grey where: the revenue/DSAC ratio is over 100% (i.e. where revenues are greater than DSAC); the revenue/FAC ratio is over 100% (i.e. where revenues are greater than FAC); and where the ROCE is greater than the "rest of BT" WACC (which was between 9.7% and 11.4% during the Relevant Period¹⁰⁵⁸).
- 14.72 In relation to BT's revenues, we note that BT's reported and adjusted average revenues were in some circumstances different from the charges listed in the OPL. There are a number of areas where this is particularly relevant:
- 14.72.1 BT reported its average revenue in 2006/07 and 2007/08 on a per circuit rather than per local end basis (see also the footnote to paragraph 14.70.3).
- 14.72.2 In 2006/07, revenues and costs associated with main link rental are included within the revenues and costs associated with BES and WES rental services.¹⁰⁵⁹
- 14.72.3 BT reported average revenues in its RFS for a number of different service variants under each service heading (see paragraph 13.8). For example, under BES 100 services, data was reported in aggregate for 'daisy chain' and 'standard' variants which had different prices in the OPL.
- 14.73 Where there is a divergence between average revenues and the charges listed in the OPL, we rely on the average revenue for our assessment of overcharging as this is what CPs actually paid on average.

BES 100 rental

Our Provisional Conclusions

- 14.74 We provisionally concluded that BT overcharged for BES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:

- 14.74.1 revenues exceeded DSAC in each year;

¹⁰⁵⁶ Note for BES 100 rental in 2010/11, and BES 155 rental, BES 622 rental, BES 2500 rental, BES 10000 rental, WES 155 rental, WES 622 rental and WES 10000 rental throughout the Relevant Period, we do not have ROCE information.

¹⁰⁵⁷ For example, in the BES 100 rental category, the standard one year minimum variant attracted the most revenue within the RFS category.

¹⁰⁵⁸ The WACC referred to is the Rest of BT WACC which was 11.4% in 2006/07, 2007/08 and 2008/09; 11% in 2009/10; and 9.7% in 2010/11.

¹⁰⁵⁹ As explained in paragraph 13.61, if main link revenues were below DSAC, aggregation of main link and rental charges could suppress the extent of overcharging on rental services. However, if main link revenues were above DSAC and other rental revenues were also above DSAC, then aggregation of main link and rental charges would make no difference to the overall level of overcharging.

- 14.74.2 revenues substantially exceeded FAC in the first three years, and were also above FAC in 2009/10;¹⁰⁶⁰
- 14.74.3 ROCE was substantially above WACC in the first three years, and was also above the WACC in 2009/10; and
- 14.74.4 BT's 2009/10 price reductions were insufficient to reduce charges below DSAC.
- 14.75 We noted that in 2009/10, the case was less clear cut as revenues were only marginally higher than DSAC.¹⁰⁶¹ Although BT reduced its charges in February 2009, these reductions were not substantial enough to reduce charges to below the level of DSAC in either 2008/09 or 2009/10. We considered that this, and the pattern of overcharging in previous years, suggested that a small degree of overcharging took place in 2009/10.
- 14.76 We pointed out that BT would have known in 2009/10 that rental charges had been above DSAC in 2006/07, 2007/08 and (from July 2009 onwards) 2008/09. We explained that if BT were able to provide specific evidence to demonstrate that it reasonably expected the unit DSAC in 2009/10 to be high enough that the charges would not exceed DSAC, this could lead us to conclude there was no overcharging in 2009/10.
- 14.77 We also recognised that if a higher WACC were used and this was reflected in a higher DSAC, this could also alter the conclusion on overcharging for 2009/10. However, we explained that if BT considers that there is a higher than average systematic risk associated with Ethernet services, and therefore that a higher WACC than the "rest of BT" WACC is warranted in this case, it would need to supply us with specific evidence supporting this argument.
- 14.78 In the CWW Provisional Determination, we also considered whether BT had overcharged for BES 100 rental in 2010/11. As discussed in paragraphs 13.47 to 13.50, we do not have DSAC data for 2010/11 because BT reported the BES 100 rental service within BES "other bandwidth" rental. We carried out the DSAC test using four possible proxies, and found revenues to be less than DSAC under each option.¹⁰⁶² Therefore, we provisionally concluded that BT did not overcharge in 2010/11.

Views of the Parties

- 14.79 Beyond the general arguments made by the Disputing CPs, only Sky and TTG specifically commented on our assessment of charges for BES 100 rental. Both Sky

¹⁰⁶⁰ We noted that although DSAC was below FAC in 2006/07, revenues were substantially above both DSAC and FAC.

¹⁰⁶¹ We also noted that BT's ROCE in 2009/10 was 13%.

¹⁰⁶² In 2010/11, BT's data shows minimum term discounts for BES "other bandwidth" rentals overall and does not separate out how much of this discount applies to the different services. However, we explained that it seems that BES 100 is the only service included in the BES "other bandwidth" category which has a term option. Therefore, we derived the unit charges for BES 100 rental by removing this discount from the BES 100 rental revenue. We noted that without this adjustment average revenue is £1642, which was higher than the DSAC we calculated using some of the proxies.

and TTG agree with our provisional conclusion that BT overcharged for BES 100 rental.¹⁰⁶³

14.80 BT argues that it had not been made clear to it that BT could 'fail' the DSAC test "where BT had reduced its prices specifically to attempt to satisfy that obligation but not quite far enough (as is the case, according to Ofcom, in relation to 2009/10 for BES 100 rental)".¹⁰⁶⁴

14.81 We note that BT and CWW did comment on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.82 Table 14.6 below shows the relevant comparisons of external DSAC, FAC and ROCE for BES 100 rental over the Relevant Period. As discussed above, BT did not report BES 100 rental services separately in the RFS in 2010/11. As explained in paragraphs 13.45 to 13.50, we have decided to proxy the unit DSAC for BES 100 rental in 2010/11 using Option 4 (i.e. use the ratio of 2009/10 BES 100 and BES 1000 FAC and DSAC to calculate the 2010/11 BES 100 unit FAC and DSAC from the 2010/11 BES 1000 unit FAC and DSAC). Our proxy now includes an adjustment to remove the proportion of 2010/11 electronics costs that relate to equipment purchased prior to 2010/11 (see paragraph 13.52).

14.83 Figure 14.5 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for BES 100 rental over the Relevant Period.¹⁰⁶⁵ The average external revenue per local end can vary materially from the price of each variant listed in the OPL, particularly in 2006/07 where revenue associated with main link rental is included (whereas for other years it is not). Where there is a divergence, we rely on the average revenue for our assessment of overcharging, as this is what the CPs actually paid on average.

Table 14.6: Key financial measures for BES 100 rental

BES100 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	2,710	5,556	6,080	5,272	4,187
Average external revenue, £ per local end	4,459	2,302	2,293	1,583	1,535
External unit DSAC, £ per local end	2,131	749	1,669	1,542	4,290*
External revenue as % of DSAC	209%	307%	137%	103%	36%
External unit FAC, £ per local end	2,328	520	1,260	1,461	2,372*
External revenue as % of FAC	191%	443%	182%	108%	65%
External ROCE	46%	122%	38%	14%	n/a

Source: Ofcom analysis of BT data

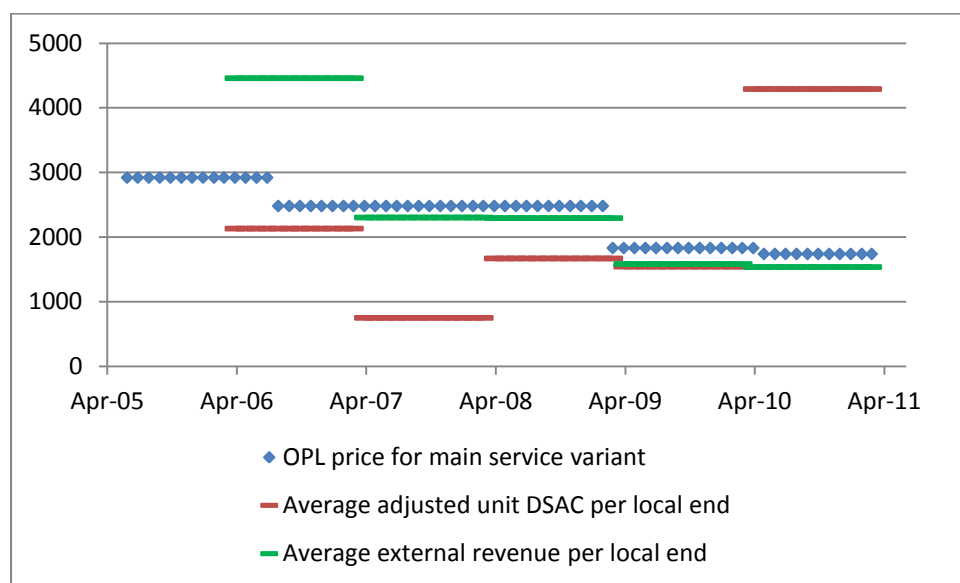
* 2010/11 unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information in this year.

¹⁰⁶³ Sky's response to our Provisional Conclusions, paragraph 21; TTG's response to our Provisional Conclusions, paragraph 6.31.

¹⁰⁶⁴ BT's response to our Provisional Conclusions, paragraph 93.3.

¹⁰⁶⁵ In 2010/11, the proxy DSAC per local end is shown.

Figure 14.5: OPL price, unit DSAC and average external revenue for BES 100 rental, £ per local end



Source: Ofcom analysis of BT data

14.84 BT's external revenues exceeded DSAC in 2006/07, 2007/08, 2008/09 and 2009/10, but were below our proxy DSAC in 2010/11.

2006/07 to 2009/10

14.85 As can be seen from Table 14.6 above, revenues exceeded DSAC in 2006/07, 2007/08 and 2008/09 by a considerable margin. In each of these years, revenues were also substantially above FAC and BT's ROCE was several multiples of BT's WACC.¹⁰⁶⁶ In 2009/10, revenues were still above DSAC, but by a smaller amount compared to previous years (3%). Consistent with this, revenues exceeded FAC by considerably less than in the preceding years, and BT's ROCE was only slightly above its WACC for that year.¹⁰⁶⁷

14.86 We therefore consider that BT's charges were persistently above DSAC for the majority of the Relevant Period. As we explain in Section 9, we would normally expect charges above DSAC for this length of time to indicate that BT had failed to take action to alter its charges appropriately.

14.87 In 2006/07, the unit DSAC was below the unit FAC. As discussed in Section 12, this is not what we would typically expect. However, BT's average external revenue in 2006/07 is substantially above both unit DSAC and unit FAC in 2006/07: about twice as high as unit DSAC, and about 90% higher than unit FAC (see Table 14.6 above). Therefore, consideration of the evidence on FAC as well as DSAC is consistent with overcharging for BES 100 rentals in 2006/07.

14.88 We recognise that the amount by which revenues exceeded DSAC in 2009/10 is considerably less than in the earlier three years. As a result of amendments to the adjustments we have made to BT's data, we now find that BT's revenues exceeded DSAC in 2009/10 by a slightly greater amount than in our Provisional Conclusions (3% compared to 0.5%).¹⁰⁶⁸ Nevertheless, due to the relatively smaller degree by

¹⁰⁶⁶ BT's WACC was 11.4% in 2006/07, 2007/08 and 2008/09.

¹⁰⁶⁷ BT's WACC was 11% in 2009/10.

¹⁰⁶⁸ We also find that revenues exceeded FAC by 8%, resulting in a ROCE of 14%.

which charges exceeded DSAC in 2009/10, we consider that the circumstances surrounding BT's charges warrant further consideration.

- 14.89 Although BT reduced its rental charge over the period 2006/07 to 2009/10, these price reductions were insufficient to bring prices below DSAC in each of those years. As noted in our Provisional Conclusions, BT's price reductions in February 2009 (i.e. towards the end of 2008/09) brought charges more in line with DSAC for 2008/09, so that the 2009/10 average revenues were below the 2008/09 unit DSAC. But the price reductions were not substantial enough to bring the average revenues in either 2008/09 or 2009/10 below the respective DSACs for those years.¹⁰⁶⁹
- 14.90 In our Provisional Conclusions we noted that average revenues had decreased in 2009/10, but not by enough to bring them below unit DSAC for the year. We therefore invited BT to provide evidence that it reasonably expected the unit DSAC in 2009/10 to be high enough that charges would not exceed DSAC. Such evidence is particularly relevant in this case given that the most recent published RFS available to BT at the start of 2009/10 (and when it set the February 2009 charges) was the 2007/08 RFS. The unit DSAC for 2007/08 was £749, as shown in Table 14.6 above, which is significantly lower than the charges that BT set in 2009/10. However, BT's response to the Provisional Conclusions does not provide any specific evidence to demonstrate that, despite this, it reasonably expected the unit DSAC for BES 100 rental in 2009/10 to be high enough that the charges would not exceed DSAC. Indeed, as set out in paragraphs 14.66 above, our review of the pricing papers provided by BT suggests that BT did not make use of its DSAC data in setting its charges relevant to these disputes.
- 14.91 As in our Provisional Conclusions, we recognise that if a higher WACC were used and this was reflected in a higher DSAC, this might cause us to conclude that BT did not overcharge for 2009/10.¹⁰⁷⁰ However, as set out in paragraphs 9.188 to 9.193, BT has failed to provide the evidence we required to conclude that a higher WACC than the 'rest of BT' WACC is warranted in this case. Therefore, we do not consider that we should depart from the established 'rest of BT' WACC in this case.
- 14.92 Finally, we note that it is now our understanding that BT's DSAC data published in its RFS appear not to reflect cost causation in their treatment of duct costs (see paragraph 12.184). In paragraphs 10.75 and 12.239 to 12.242, we explain that, although robust evidence is lacking, it seems plausible that the DSACs of local access components (i.e. local ends) are under-stated in the original methodology compared to the cost causation approach. As a result, the DSAC for BES 100 rental under BT's original approach (i.e. the published DSACs for 2006/07 to 2009/10) may be understated. It is possible that, without this understatement of DSACs, BT's revenues may not have been above DSAC in 2009/10. However, as discussed in paragraph 12.242, the extent of the under-statement of DSAC is not clear. Given this limitation, we put limited weight on this consideration in our conclusion on overcharging.

¹⁰⁶⁹ In our Provisional Conclusions, we noted that even if BT's charges had been reduced in November 2008, as BT initially proposed, its revenues in 2008/09 would still have exceeded DSAC. However, BT's original price notification on 24 November 2008 only intended for the new prices of *connection* services to become effective on the date of publication. BT intended the new prices of *rental* services to come into effect on 1 February 2009. Therefore, the implementation of the price reductions for BES 100 rental was not affected by the delays referred to in paragraphs 10.189 to 10.203 above.

¹⁰⁷⁰ However, we note that we now find BT's ROCE in 2009/10 was 14%, compared to 13% in our Provisional Conclusions.

- 14.93 Therefore, we conclude that BT overcharged for BES 100 rental in 2006/07, 2007/08 and 2008/09, with revenues well in excess of DSAC and FAC, and associated high rates of return. In addition, on the evidence available to us, given the pattern of overcharging in the previous years and the lack of explanation from BT as to why it reasonably expected the unit DSAC in 2009/10 to be high enough that the charges would not exceed DSAC, we conclude that overcharging also took place in 2009/10 albeit to a lesser extent.

2010/11

- 14.94 Using our chosen proxy for unit DSAC in 2010/11, we continue to find that revenues are less than DSAC and FAC. We have not received specific arguments which cause us to consider that these charges below DSAC are nevertheless not cost orientated.
- 14.95 As noted in our Provisional Conclusions, BT slightly reduced its rental charge for standard BES 100 rental in April 2010, from £1830 to £1738. In addition, our proxy unit DSAC for 2010/11 implies a large increase in unit DSAC from around £1500 per local end in 2009/10 to around £4300 per local end in 2010/11. Given that the level of overcharging was already relatively low in 2009/10, this price reduction supports the results of our proxied DSAC test for 2010/11, namely that BT was not overcharging for BES 100 rental in 2010/11.
- 14.96 On this basis, we conclude that BT did not overcharge for BES 100 rental in 2010/11.

Final conclusion on BES 100 rental

- 14.97 In summary, on the evidence available to us, we confirm our provisional conclusions that BT overcharged for BES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:
- 14.97.1 revenues exceeded DSAC in each year;
 - 14.97.2 revenues substantially exceeded FAC in the first three years, and were also above FAC in 2009/10;
 - 14.97.3 ROCE was substantially above WACC in the first three years, and was also above the WACC in 2009/10; and
 - 14.97.4 BT's 2009 price reductions were insufficient to reduce charges below DSAC, and BT has not supplied us with any specific evidence to demonstrate that it reasonably expected the unit DSAC for BES 100 rental in 2009/10 to be high enough that the charges would not exceed DSAC.
- 14.98 We also confirm our provisional conclusion that BT did not overcharge for BES 100 rental in 2010/11 on the basis that revenues do not exceed our chosen proxy for DSAC.

BES 1000 rental

Our Provisional Conclusions

14.99 We provisionally concluded that BT overcharged for BES 1000 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:

14.99.1 revenues significantly exceeded DSAC in these years;

14.99.2 revenues substantially exceeded FAC in these years; and

14.99.3 ROCEs were substantially above WACC in these years.

14.100 We provisionally concluded that BT did not overcharge for BES 1000 rental in 2010/11 on the basis that revenues were significantly less than DSAC in this year.

14.101 Following publication of the CWW Provisional Determination, we received new information from BT in relation to development costs in 2010/11, which indicated that the adjustment for development costs in 2010/11 should not have been made.¹⁰⁷¹ In an update note published on our website on 5 April 2012, we set out the impact of not making an adjustment for development costs.¹⁰⁷² This change did not alter our conclusion that charges were significantly less than DSAC in 2010/11.

Views of the Parties

14.102 Beyond the general arguments made by the Disputing CPs, only Sky and TTG specifically commented on our assessment of charges for BES 1000 rental. Both Sky and TTG agree with our provisional conclusion that BT overcharged for BES 1000 rental.¹⁰⁷³ TTG cites BES 1000 rental in its response as an example demonstrating that BT chose not to actively monitor actual costs and make adjustments where it found that prices were above actual costs, noting that BT would (or should) have known that DSAC for 2006/07 was above DSAC from September 2006, but did not take appropriate steps to reduce its charges below DSAC.¹⁰⁷⁴

14.103 Beyond the general arguments made by BT and its calculation of the effects of its proposed cost adjustments on specific services (set out and considered in Section 13), BT did not comment specifically on our assessment of charges for BES 1000 rental.

Our analysis

14.104 Table 14.7 below shows the relevant comparisons of external DSAC, FAC and ROCE for BES 1000 rental over the Relevant Period. Figure 14.6 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for BES 1000 rental over the Relevant Period.

14.105 We note that CWW is also in dispute with BT about the charges for BES 1000 Extended Reach rental. BES 1000 Extended Reach has a higher price than the standard variant and so is also likely to have been overcharged over the period

¹⁰⁷¹ See paragraph 13.129 above.

¹⁰⁷² http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01078/

¹⁰⁷³ Paragraph 21 of Sky's response to our Provisional Conclusions, and paragraph 6.31 of TTG's response to our Provisional Conclusions.

¹⁰⁷⁴ Paragraph 3.127 of TTG's response to our Provisional Conclusions.

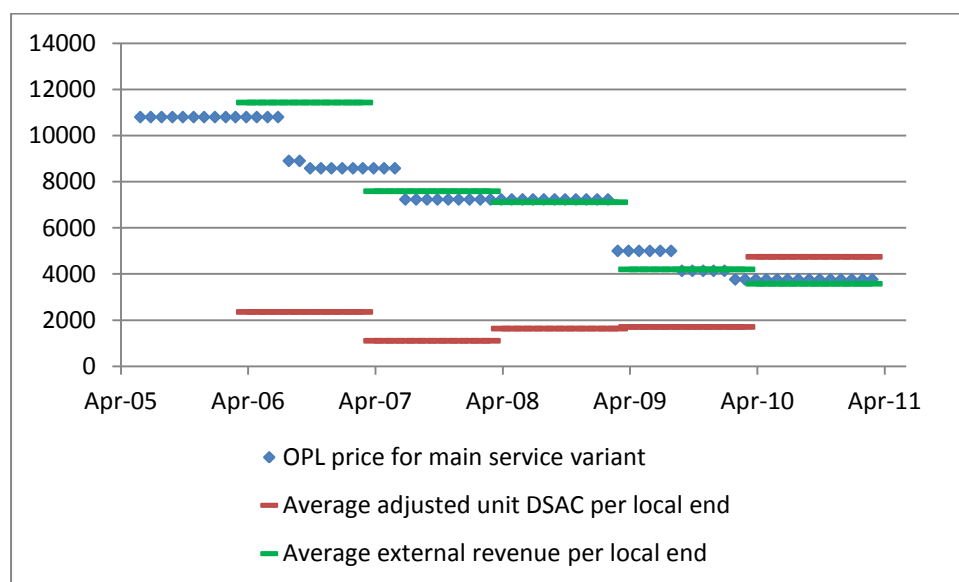
(although we note that it may also have a higher incremental cost due to the longer distance covered by the local end). As noted at paragraph 13.28 we are resolving these Disputes in relation to BES 1000 rental variants by using the level of aggregation presented in the RFS since we are unable to disaggregate the cost data to the level of bandwidth variants. Therefore, our findings cover all service variants, and we do not make a separate finding for BES 1000 Extended Reach.

Table 14.7: Key financial measures for BES 1000 rental

BES1000 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	1,150	3,504	3,972	4,106	4,915
Average external revenue, £ per local end	11,430	7,586	7,110	4,199	3,576
External unit DSAC, £ per local end	2,355	1,105	1,634	1,705	4,743
External revenue as % of DSAC	485%	687%	435%	246%	75%
External unit FAC, £ per local end	2,405	645	1,249	1,547	2,511
External revenue as % of FAC	475%	1177%	569%	271%	142%
External ROCE	155%	544%	169%	76%	34%

Source: Ofcom analysis of BT data

Figure 14.6: OPL price, unit DSAC and average external revenue for BES 1000 rental, £ per local end



Source: Ofcom analysis of BT data

14.106 BT's external revenues exceeded DSAC in 2006/07, 2007/08, 2008/09 and 2009/10, but were below DSAC in 2010/11.¹⁰⁷⁵

2006/07 to 2009/10

14.107 As can be seen from Table 14.7 above, revenues exceeded DSAC in 2006/07, 2007/08, 2008/09 and 2009/10 by between 146% and 587%. In each of the four

¹⁰⁷⁵ As a result of amendments to the adjustments we have made to BT's data, the amount by which BT's revenues exceeded DSAC has changed since our provisional conclusions. In particular, we now find that the ratio of revenues to DSAC in 2007/08 was 687% (compared to 584% in our Provisional Conclusions). We also find that the ratio of revenues to FAC and the ROCE in this year were materially higher than in our Provisional Conclusions. This is largely a result of changes to the way in which we apply our FAC adjustments to BT's DSACs (see paragraphs 13.392 to 13.441).

years, BT's revenues were also substantially above FAC, and BT's ROCE was several multiples of BT's WACC. Whilst in 2006/07 DSAC is slightly below FAC¹⁰⁷⁶, BT's revenue substantially exceeded both DSAC and FAC in this year.

14.108 Other than as noted at paragraph 14.103, BT has provided no specific arguments as to why we should consider these charges to be cost orientated following our Provisional Conclusions.

14.109 Although BT did reduce its rental charge over time (see Figure 14.6), the rate of reduction was insufficient to take account of the fact that its charges were substantially above DSAC for a number of years.

14.110 Therefore, we conclude that BT overcharged for BES 1000 rental in 2006/07, 2007/08, 2008/09 and 2009/10.

2010/11

14.111 In 2010/11, revenue was well below DSAC.¹⁰⁷⁷ This is largely because unit DSAC increased almost three-fold from around £1700 per local end in 2009/10 to around £4700 per local end in 2010/11. This appears to be due to a combination of factors including the change in BT's methodology for calculating DSACs (as discussed in Section 12). In addition, there was a slight reduction in average revenue, resulting from a small price reduction in January 2010.¹⁰⁷⁸

14.112 The Parties have not put forward any specific arguments which cause us to consider that these charges below DSAC are nevertheless not cost orientated. Therefore, we conclude that BT did not overcharge for BES 1000 rental services in 2010/11.

Final Conclusion on BES 1000 rental

14.113 In summary, we confirm our provisional conclusion that BT overcharged for BES 1000 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:

14.113.1 despite some reductions in prices over time, revenues significantly exceeded DSAC in these years;

14.113.2 revenues substantially exceeded FAC in these years; and

14.113.3 ROCEs were substantially above the WACC in these years.

14.114 We also confirm our provisional conclusion that BT did not overcharge for BES 1000 rental in 2010/11 on the basis that revenues were below DSAC in this year.

¹⁰⁷⁶ As we explain in paragraphs 12.43 to 12.47.

¹⁰⁷⁷ While revenue exceeded FAC, it did so by considerably less than in the earlier four years. Consistent with this, BT's ROCE was above its WACC for this year but also by a significantly lower amount than in the earlier years.

¹⁰⁷⁸ BT reduced the price of standard BES 1000 rental from £4137 per end to £3765 per end.

BES 155 rental

Our Provisional Conclusions

14.115 We used BES 100 rental unit DSAC and unit FAC as a proxy for the unit DSAC and unit FAC of BES 155.¹⁰⁷⁹ Our provisional conclusion was that BT overcharged for BES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.115.1 revenues significantly exceeded DSAC in these years; and

14.115.2 revenues substantially exceeded FAC in these years.

Views of the Parties

14.116 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the BES 155 rental service.

14.117 We note that BT and CWW commented on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.118 Table 14.8 below shows the relevant comparisons of external DSAC and FAC for BES 155 rental over the Relevant Period. As set out in paragraph 13.53, we are using BES 100 rental DSAC and FAC as a proxy for the DSAC and FAC of BES 155, but with a small adjustment to remove electronics costs in 2010/11 as there were no BES 155 connections in that year (see paragraphs 13.54 to 13.58).

14.119 Figure 14.7 shows the price listed in the OPL, the average external revenue per local end, and our chosen proxy for the external DSAC per local end for BES 155 rental over the Relevant Period.

Table 14.8: Key financial measures for BES 155 rental

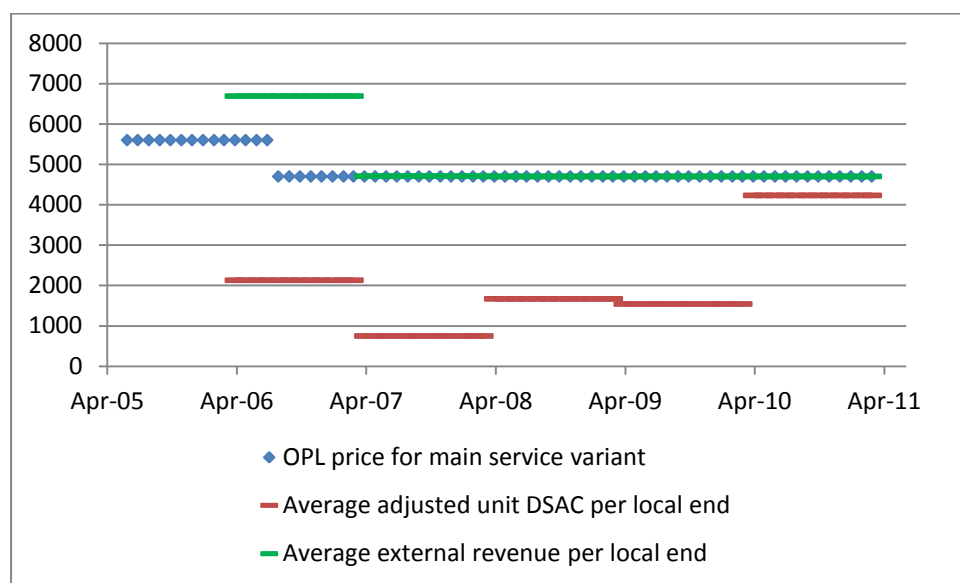
BES155 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	166	281	175	24	10
Average external revenue, £ per local end	6,690	4,708	4,700	4,700	4,700
External unit DSAC, £ per local end	2,131*	749*	1,669*	1,542*	4,231*
External revenue as % of DSAC	314%	629%	282%	305%	111%
External unit FAC, £ per local end	2,328*	520*	1,260*	1,461*	2,326*
External revenue as % of FAC	287%	905%	373%	322%	202%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information for BES 155 rental.

¹⁰⁷⁹ As noted above, BT did not produce DSAC for BES 100 rentals in 2010/11, so we used the four possible estimates produced for assessing BES 100 for the assessment of BES 155 in this year.

Figure 14.7: OPL price, unit DSAC and average external revenue for BES 155 rental, £ per local end



Source: Ofcom analysis of BT data

14.120 Table 14.8 above shows that revenues exceeded our proxy DSAC in each year from 2006/07 to 2010/11, and by a considerable margin in the first four years (revenues were between 182% and 529% above DSAC). Revenues were also substantially above our proxy FAC in all five years (even though FAC was above DSAC in 2006/07).

14.121 These figures are based on a proxy for the unit DSAC and unit FAC of BES 155 rental, using BES 100 rental. However, we note that the charges for BES 155 rental are higher than even the BES 1000 rental DSAC in each year except 2010/11 (set out in Table 14.7 above). Indeed, BES 155 rental unit DSACs would need to be around 200% higher than our proxy (higher in 2007/08) for them to be higher than the charges levied for BES 155 rentals in the years 2006/07 to 2009/10. We consider that this supports a finding of overcharging on BES 155 rental.

14.122 BT has provided no specific arguments in respect of these charges following our Provisional Conclusions. We note that BT has not changed its price for standard BES 155 rental since July 2006, and the reduction in that year was insufficient to bring charges below DSAC.

14.123 We recognise that in 2010/11, revenues exceeded DSAC by a relatively modest amount (11%) compared to previous years. This was not because of a reduction in price but because of a large increase in our proxy unit DSAC, from around £1500 per local end in 2009/10 to around £4200 per local end in 2010/11. BT's change in DSAC methodology is likely to be a very significant contributor to this increase. However, we consider that the pattern of overcharging in the previous years, and the fact that BT has not changed its price for standard BES 155 rental since July 2006 (despite it having data available which showed that charges were above DSAC in previous years), supports a finding of overcharging in 2010/11. Moreover, as noted above, revenues substantially exceeded FAC in this year by more than 100%.

14.124 Therefore, we conclude that BT overcharged for BES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11.

Final conclusion on BES 155 rental

14.125 In summary, we confirm our provisional conclusion that BT overcharged for BES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.125.1 revenues exceeded DSAC in each of these years, and by an especially significant amount for the first four years; and

14.125.2 revenues substantially exceeded FAC in all of these years.

BES 622 rental

Our Provisional Conclusions

14.126 We used the average of BES 100 and BES 1000 rental unit DSAC and unit FAC as a proxy for the DSAC and FAC of BES 622.¹⁰⁸⁰ Our provisional conclusion was that BT overcharged for BES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.126.1 revenues significantly exceeded DSAC in these years; and

14.126.2 revenues substantially exceeded FAC in these years.

14.127 Following publication of the CWW Provisional Determination, we received new information from BT in relation to development costs in 2010/11, which indicated that the adjustment for development costs in 2010/11 should not have been made (see paragraph 14.101 above). In an update note published on our website on 5 April 2012, we set out that if we do not make an adjustment for development costs, BT's revenue exceeds DSAC for BES 622 rentals in 2010/11, but by a smaller amount than proposed in the CWW Provisional Determination as originally published.¹⁰⁸¹

Views of the Parties

14.128 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the BES 622 rental service.

14.129 We note that BT and CWW commented on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.130 Table 14.9 below shows the relevant comparisons of external DSAC and FAC for BES 622 rental over the Relevant Period. As set out in paragraph 13.53, we are using the average of BES 100 and BES 1000 rental unit DSAC and unit FAC as a proxy for the DSAC and FAC of BES 622, but with a small adjustment to remove electronics costs in 2010/11 as there were no BES 622 connections in that year (see paragraphs 13.54 to 13.58).¹⁰⁸²

14.131 Figure 14.8 shows the price listed in the OPL, the average external revenue per local end, and our chosen proxy for the external DSAC per local end for BES 622 rental over the Relevant Period.

¹⁰⁸⁰ As noted above, BT did not produce DSAC for BES 100 rentals in 2010/11. In our Provisional Conclusions, we used our preferred method of calculating 2010/11 BES 100 rental DSAC (Option 2).

¹⁰⁸¹ http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01078/

¹⁰⁸² As noted above, BT did not report BES 100 rental services separately in the RFS in 2010/11. We have decided to proxy the unit DSAC for BES 100 rental in 2010/11 using Option 4 (see paragraphs 13.45 to 13.50). Our proxy for BES 100 rental in 2010/11 now includes an adjustment to remove the proportion of 2010/11 electronics costs that relate to equipment purchased prior to 2010/11 (see paragraph 13.52).

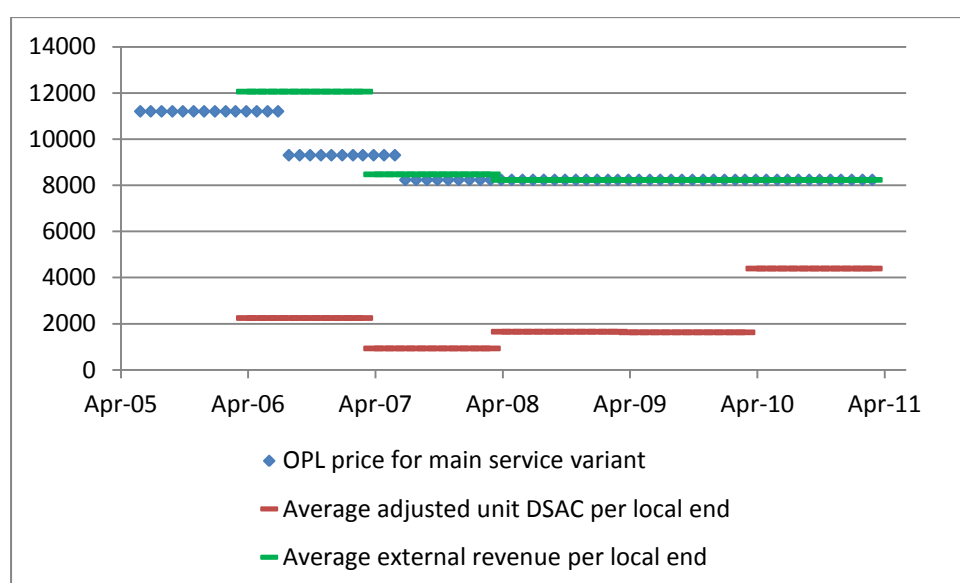
Table 14.9: Key financial measures for BES 622 rental

BES622 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	241	206	117	3	2
Average external revenue, £ per local end	12,055	8,470	8,230	8,230	8,230
External unit DSAC, £ per local end	2,243*	927*	1,651*	1,623*	4,389*
External revenue as % of DSAC	538%	914%	498%	507%	188%
External unit FAC, £ per local end	2,367*	582*	1,255*	1,504*	2,342*
External revenue as % of FAC	509%	1454%	656%	547%	351%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information for BES 622 rental.

Figure 14.8: OPL price, unit DSAC and average external revenue for BES 622 rental, £ per local end



Source: Ofcom analysis of BT data

14.132 Table 14.9 above shows that revenues exceeded our proxy DSAC in each year from 2006/07 to 2010/11 by a considerable margin. Revenues were also significantly above our proxy FAC in all of these years (even though FAC was above DSAC in 2006/07).

14.133 We recognise that these figures are based on a proxy for the unit DSAC and unit FAC of BES 622 rental, using the average of BES 100 and BES 1000 rental. BES 622 rental unit DSACs would need to be around 400% higher than our proxy (and more in 2007/08) for them to be higher than the charges levied for BES 622 rentals in 2006/07 to 2009/10. In 2010/11, BES 622 rental unit DSAC would have to be around 90% higher than our proxy for it to be above the charges levied in this year.

14.134 Moreover, we would expect the underlying costs of BES 622 rental to be less than BES 1000, given that it seems reasonable to believe costs increase with bandwidth to some extent. However, we note that the charges for BES 622 rental are higher than even the BES 1000 rental DSAC in each year including 2010/11 (albeit by considerably less than in earlier years) when DSAC increased significantly. We consider that this supports a finding of overcharging on BES 622 rental.

14.135 BT has provided no specific arguments or evidence as to why we should consider these charges to be cost orientated following our Provisional Conclusions. As noted in our Provisional Conclusions, BT has not changed its price for BES 622 rental since June 2007, and the reduction in that year was insufficient to bring charges below DSAC.

14.136 Therefore, we conclude that BT overcharged for BES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11.

Final conclusion on BES 622 rental

14.137 In summary, we confirm our provisional conclusion that BT overcharged for BES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.137.1 revenues significantly exceeded DSAC in all of these years; and

14.137.2 revenues substantially exceeded FAC in all of these years.

BES 2500 rental

14.138 BT's charges for BES 2500 rental are in dispute for part of 2008/09 (i.e. from 1 April 2008 until 8 December 2008 when Conditions HH3 were revoked in relation to the high bandwidth AISBO market in the 2008 BCMR Statement, as set out at paragraph 4.32).

Our Provisional Conclusions

14.139 We used BES 1000 rental unit DSAC as a proxy for the DSAC of this service. In addition, in the absence of revenue data, we compared this proxy with the price of the standard service listed in the OPL. Our provisional conclusion was that BT overcharged for BES 2500 rental in 2008/09 on the basis that prices as listed in the OPL exceeded DSAC in this year.

14.140 We noted that although our DSAC proxy was the best available to us at the time, we understood that it may not reflect the costs of providing BES and WES with bandwidths greater than or equal to 2500 Mbit/s. We stated that we would take into consideration any additional relevant cost information stakeholders were able to provide in response to the Provisional Conclusions.

Views of the Parties

14.141 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the BES 2500 rental service.

14.142 We note that BT and CWW commented on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.143 Table 14.10 below shows the relevant comparisons of external DSAC and FAC for BES 2500 rental over the Relevant Period. As set out in paragraph 13.53, we are using the BES 1000 rental unit DSAC and unit FAC as a proxy for the unit DSAC and unit FAC of BES 2500. As in our Provisional Conclusions, in the absence of revenue data, we compare this proxy with the price of the standard service listed in the OPL. Figure 14.9 shows the price listed in the OPL and our chosen proxy for the external DSAC per local end for BES 2500 rental over the Relevant Period.

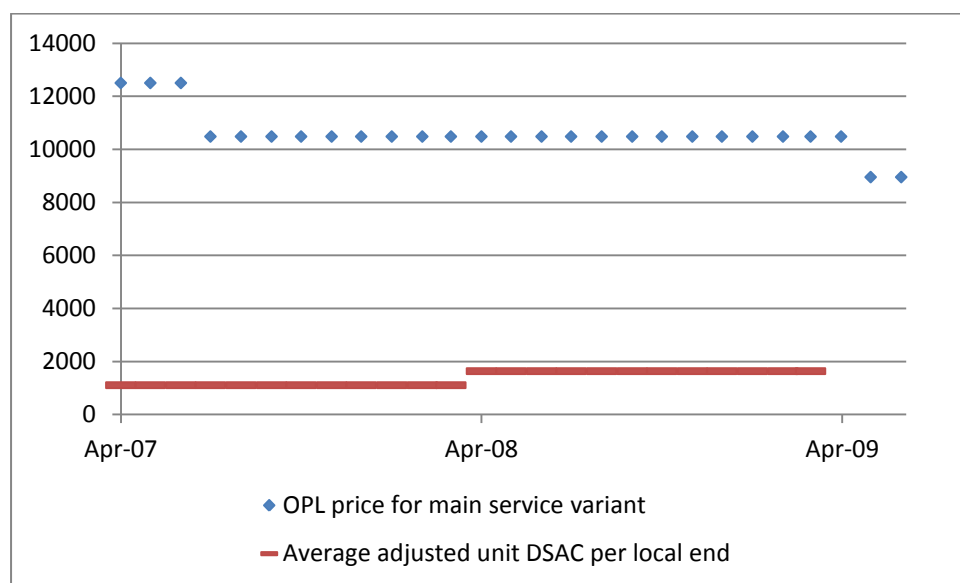
Table 14.10: Key financial measures for BES 2500 rental

BES 2500 Rental	2008/09
External volume, ends	12
OPL price, £ per end	10,480
External unit DSAC, £ per local end	1,634*
OPL price as % of unit DSAC	641%
External unit FAC, £ per local end	1,249*
OPL price as % of unit FAC	839%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information for BES 2500 rental.

Figure 14.9: OPL price, unit DSAC and average external revenue for BES 2500 rental, £ per local end



Source: Ofcom analysis of BT data

14.144 Table 14.10 above shows that the price for BES 2500 listed in the OPL was approximately six times higher than our proxy DSAC during 2008/09. In addition, the charge was approximately eight times higher than our proxy FAC during 2008/09. This suggests a considerable degree of overcharging for this service in that year.

14.145 In our Provisional Conclusions, we recognised that these figures are based on a proxy which may not reflect the costs of providing BES with bandwidths greater than or equal to 2500 Mbit/s. As set out in paragraph 13.41, BT suggests in its response that our choice of proxy (BES 1000 rental) may understate the costs of BES 2500 as electronics cost vary by bandwidth. However, in 2008/09, BES services did not attract any electronics cost – the majority of the cost was associated with fibre.¹⁰⁸³ Moreover, BT and CWW agreed that whilst electronics unit costs are most likely to vary by bandwidth, fibre unit costs are likely to be bandwidth independent.¹⁰⁸⁴ In light of this, and the fact that neither BT nor any other party has advanced any other reasons why our proxy is inappropriate, we consider that BES 1000 rental DSAC continues to represent the best available proxy for BES 2500 rental DSAC in 2008/09.

14.146 Finally, we note that although BT did reduce its price in June 2007 from £12,500 per end to £10,480 per end, it remained significantly above our cost proxy.

Final conclusion on BES 2500 rental

14.147 Therefore, we confirm our provisional conclusion that BT overcharged for BES 2500 rental in 2008/09, on the basis that:

¹⁰⁸³ We note that BT's RFS shows that fibre represented 89% of the total costs of BES 1000 rental services in 2008/09. Costs of support functions largely made up the remainder. See Appendix 1.2.1 of the 2008/09 RFS.

¹⁰⁸⁴ BT's response to our Provisional Conclusions, paragraph 158; CWW's response to our Provisional Conclusions, paragraph 122.

14.147.1 the price as listed in the OPL significantly exceeded our proxy for DSAC in this year; and

14.147.2 the price as listed in the OPL was many multiples of our proxy for FAC in this year.

BES 10000 rental

14.148 BT's charges for BES 10000 rental are in dispute for part of 2008/09 (i.e. from 1 April 2008 until 8 December 2008 when Conditions HH3 were revoked in relation to the high bandwidth AISBO market in the 2008 BCMR Statement, as set out at paragraph 4.32).

Our Provisional Conclusions

14.149 We used BES 1000 rental unit DSAC as a proxy for the DSAC of this service. In addition, in the absence of revenue data, we compared this proxy with the price of the standard service listed in the OPL. Our provisional conclusion was that BT overcharged for BES 10000 rental in 2008/09 on the basis that prices as listed in the OPL exceeded DSAC in this year.

14.150 We noted that although our DSAC proxy was the best available to us at the time, we understood that it may not reflect the costs of providing BES and WES with bandwidths greater than or equal to 2500 Mbit/s. We stated that we would take into consideration any additional relevant cost information stakeholders were able to provide in response to the Provisional Conclusions.

Views of the Parties

14.151 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the BES 10000 rental service.

14.152 We note that BT and CWW commented on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.153 Table 14.11 below shows the relevant comparisons of external DSAC and FAC for BES 10000 rental over the Relevant Period. As set out in paragraph 13.53, we are using the BES 1000 rental unit DSAC and unit FAC as a proxy for the unit DSAC and unit FAC of BES 10000. As in our Provisional Conclusions, in the absence of revenue data, we compare this proxy with the price of the standard service listed in the OPL. Figure 14.10 shows the price listed in the OPL and our chosen proxy for the external DSAC per local end for BES 10000 rental over the Relevant Period.

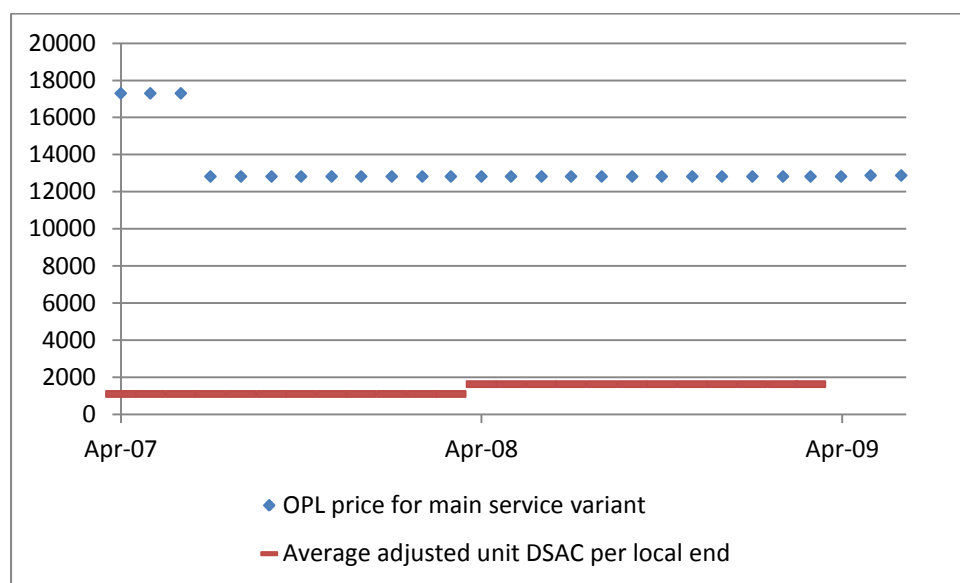
Table 14.11: Key financial measures for BES 10000 rental

BES10000 Rental	2008/09
External volume, ends	16
OPL price, £ per end	12,820
External unit DSAC, £ per local end	1,634*
OPL price as % of unit DSAC	785%
External unit FAC, £ per local end	1,249*
OPL price as % of unit FAC	1026%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information in this year.

Figure 14.10: OPL price, unit DSAC and average external revenue for BES 10000 rental, £ per local end



Source: Ofcom analysis of BT data

14.154 Table 14.11 above shows that the price for BES 10000 listed in the OPL was over seven times higher than our proxy DSAC during 2008/09. In addition, the charge was approximately ten times higher than our proxy FAC during 2008/09. This suggests a considerable degree of overcharging for this service in that year.

14.155 In our Provisional Conclusions, we recognised that these figures are based on a proxy which may not reflect the costs of providing BES with bandwidths greater than or equal to 2500 Mbit/s.

14.156 We consider that BES 1000 rental DSAC continues to represent the best available proxy for BES 10000 rental DSAC in 2008/09 for the same reasons set out in relation to BES 2500 rental DSAC, at paragraph 14.145 above.

14.157 Finally, we note that although BT did reduce its price in June 2007 (from £17,300 per end to £12,820 per end for the standard variant), it remained significantly above our cost proxy.

Final conclusion on BES 10000 rental

14.158 Therefore, we confirm our provisional conclusion that BT overcharged for BES 10000 rental in 2008/09, on the basis that:

14.158.1 the price as listed in the OPL significantly exceeded our proxy for DSAC in this year; and

14.158.2 the price as listed in the OPL was many multiples of our proxy for FAC in this year.

BES 100 connection

Our Provisional Conclusions

14.159 Our provisional view was that BT overcharged for BES 100 connection in 2006/07 and 2007/08 (but not in 2008/09) on the basis that:

14.159.1 revenues exceeded DSAC in both years; and

14.159.2 revenues exceeded FAC in both years.¹⁰⁸⁵

14.160 In 2008/09, we provisionally found that BT's revenues were below DSAC, primarily as a consequence of a significant increase in unit DSAC, rather than as a result of a reduction in prices at the end of the year.¹⁰⁸⁶

14.161 We noted that if BT was able to demonstrate that it could have reasonably expected its unit charges to be below unit DSAC in 2006/07 and 2007/08, it would be possible to conclude that it did not overcharge its external customers. However, given the extent to which BT's charges exceeded DSAC, and the high rate of increase in unit DSAC, it seemed to us unlikely that BT expected that its unit DSACs would be substantially higher than they were.

14.162 Although BT had told us before we issued the Initial Draft Determinations that it was unable to provide DSAC data for 2009/10, we considered that the reduction in price implemented by BT towards the end of 2008/09 and the fact that revenues were substantially below FAC were sufficient to provisionally conclude that BT did not overcharge for BES 100 connection in 2009/10.

Views of the Parties

14.163 In response to our Provisional Conclusions, BT states that it does not believe our provisional finding that it overcharged for BES 100 connection in 2006/07 and 2007/08 is justified, for the following reasons:¹⁰⁸⁷

14.163.1 BT states that the DSACs on which we rely for our finding of non-compliance were not known to BT at the time. In relation to 2006/07, BT points out that the DSAC for this year was not published until August 2007, and the only published RFS data available – the 2005/06 RFS – did not report at a level that would have identified a DSAC for BES 100 connection.

14.163.2 Whilst BT accepts that it took no pricing action when the 2006/07 RFS was published showing that the charge for BES 100 connection was above the 2006/07 DSAC, it points out that it did reduce its charge within two months of it becoming apparent that prices exceeded the published DSAC for a second consecutive year. BT considers that when this is taken into account, it is unfair to find that BT breached its cost orientation obligation.

¹⁰⁸⁵ We noted that we placed less weight on BT's ROCE when considering whether BT's charges were cost orientated as connection services typically have low levels of mean capital employed, and can thus show very high levels of ROCE even when charges are below DSAC.

¹⁰⁸⁶ We noted that this increase in unit DSAC was driven by a reduction in volumes from 1,746 local end connections in 2007/08 (assuming that there were two local ends to each of the 873 connections reported in the RFS in 2007/08) to 649 local end connections in 2008/09.

¹⁰⁸⁷ BT's response to our Provisional Conclusions, paragraphs 326 to 331.

14.163.3 BT believes that the unit DSACs for 2006/07 and 2007/08 as estimated in our Provisional Conclusions are too low, as a result of errors in mapping components to their end-services. BT states that provisioning costs are excluded from the DSACs for connection costs for BES 100 services in 2006/07 and 2007/08 (see also paragraphs 13.352 to 13.358). Based on BT's own cost estimates, it considers that prices were only in excess of DSAC in one year ([X]), and then only by [X]%.¹⁰⁸⁸

14.164 Beyond the general arguments made by the Disputing CPs, only Sky and TTG specifically commented on our assessment of charges for BES 100 connection. Both Sky and TTG agree with our provisional conclusion that BT overcharged for BES 100 connection.¹⁰⁸⁹

Our analysis

14.165 Table 14.12 below shows the relevant comparisons of external DSAC, FAC and ROCE for BES 100 connection over the Relevant Period.¹⁰⁹⁰ Figure 14.11 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for BES 100 connection over the Relevant Period.

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

Table 14.12: Key financial measures for BES 100 connection

BES100 Connection	2006/07	2007/08	2008/09	2009/10
External volume, ends	3,708	1,746	649	33
Average external revenue, £ per local end	2,750	2,741	2,370	975
External unit DSAC, £ per local end	715	1,642	3,168	11,180
External revenue as % of DSAC	384%	167%	75%	9%
External unit FAC, £ per local end	530	652	2,101	5,684
External revenue as % of FAC	519%	421%	113%	17%
External ROCE	561%	366%	67%	-224%

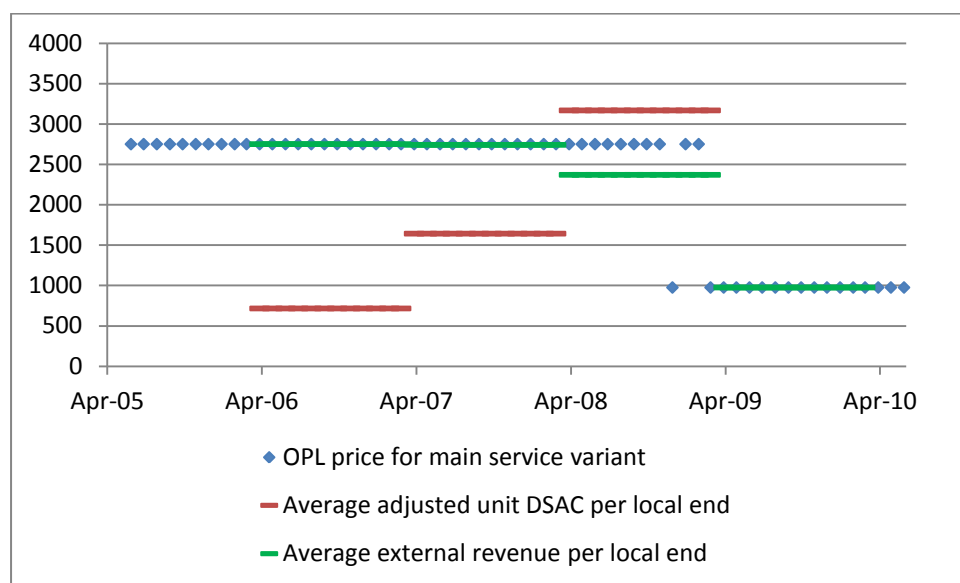
Source: Ofcom analysis of BT data

¹⁰⁸⁸ Table 7.3 of BT's response to our Provisional Conclusions.

¹⁰⁸⁹ Paragraph 21 of Sky's response to our Provisional Conclusions, and paragraph 6.31 of TTG's response to our Provisional Conclusions.

¹⁰⁹⁰ In the Initial Draft Determinations, we said BT was unable to provide DSAC data for BES 100 connection in 2009/10, although it did provide FAC data. However, BT was able to provide its unit DSAC for 2009/10 in its response dated 18 January 2012 to Question 11 of the 22 December 2011 section 191 notice. This information is now reflected in Table 13.38.

Figure 14.11: OPL price, unit DSAC and average external revenue for BES 100 connection, £ per local end



Source: Ofcom analysis of BT data

Note: for presentational clarity, the Figure does not show the much higher unit DSAC in 2009/10 (£11,180 per local end)

14.167 We continue to find that BT's external revenues exceeded DSAC in 2006/07 and 2007/08, and were below DSAC in 2008/09. In addition, using the 2009/10 DSAC data provided by BT in January 2012 (see paragraph 14.17.1), we now find that BT's external revenues were also below DSAC in 2009/10.

14.168 We now consider the relevant circumstances of the charges.

2006/07 and 2007/08

14.169 As noted in our Provisional Conclusions, revenues were also substantially above FAC in 2006/07 and 2007/08, by 419% and 321% respectively. This would support a finding of overcharging in these years.

14.170 In paragraphs 14.52 to 14.64 above, we address BT's general argument that we should not find any overcharging in 2006/07 and conclude that BT has not provided sufficient evidence in this case to satisfy us that all its charges in 2006/07 were cost orientated despite a number of them (substantially) exceeding DSAC.

14.171 In the following paragraphs, we address the specific comments made by BT in relation to whether it overcharged for BES 100 connection in 2006/07 and 2008/09.

Contemporaneous data unavailable

14.172 We recognise that BT does not always have contemporaneous data available and that it has to rely on lagged or forecast data. Therefore, in our Provisional Conclusions we stated that we may conclude charges were nevertheless cost orientated, if BT could supply specific evidence to demonstrate that it reasonably expected its unit charges to be below unit DSAC. We noted BT would need to demonstrate that it reasonably expected that its unit DSACs would be substantially higher than they were, given the extent to which BT's charges exceeded DSAC.

14.173 At the start of the 2006/07 financial year the 2004/05 RFS would have been the most recent set of published regulatory accounting information available.¹⁰⁹¹ At the start of 2007/08, the most recent published information would have been the 2005/06 RFS.¹⁰⁹² We accept that the published regulatory accounting information available to BT in setting its charges at the start of these two years was not sufficiently granular for BT to identify the specific costs and revenues for BES 100 connections.

14.174 However, Condition HH3.1 (i.e. the Basis of Charges Condition relevant to BES 100 connections) was imposed on BT in 2004 (see paragraphs 9.12 to 9.17). The Condition imposed on BT an obligation to ensure and be able to demonstrate that its charges were cost orientated. Therefore, from 2004 BT should have established an approach to setting its charges that enabled it to comply with its obligations despite the lack of published data in the RFS. For example, BT could have developed proxies for the costs of the AISBO services using the costs for comparable services for which it did have granular data. BT's response does not provide any discussion or evidence to demonstrate that it took such steps. Indeed, although BT has highlighted the lack of data available to it in setting its BES 100 connection charges in 2006/07, it has not explained in its response how it went about pricing the service. Reflecting this, BT has not provided evidence in its response on the DSAC forecasts it used or explanations of why it reasonably expected DSACs to be higher than they were in the years where charges exceeded DSAC.

14.175 In our view the extent to which charges exceeded both DSAC and FAC is also relevant to our assessment. In these two years, and in 2006/07 in particular, BT's charges were not marginally out of line with costs but were considerably so. BT's charges in 2006/07 were almost four times unit DSAC and over five times unit FAC. In monetary terms, BT's average external revenue exceeded unit DSAC by more than £2000 per local end. Therefore, BT would have had to underestimate unit DSAC and/or unit FAC by a significant margin in order not to have identified any risk that charges would be above DSAC.

14.176 As set out at paragraph 14.59, we recognise that BT does not always have contemporaneous data available and that it has to rely on lagged or forecast data. Nevertheless, given its apparent lack of costing data when setting charges for 2006/07, and its cost orientation obligations, we would expect BT to have monitored its costs for the service during the course of the year and, specifically, monitored the extent to which they compared with its charges. BT's response provides no evidence of such monitoring activity. In BT's 20 May 2011 submission (i.e. prior to the publication of our Provisional Conclusions), BT referred to its 'draft' RFS and how it used it for pricing decisions (see paragraph 10.189). Given the extent to which charges for BES 100 connection exceeded both FAC and DSAC in 2006/07, it seems likely that any such draft RFS, or other cost monitoring exercises that BT may have undertaken, ought to have highlighted the material risk that charges were not consistent with its cost orientation obligations. Yet BT did not take steps to reduce its charges in 2006/07.

14.177 With respect to 2007/08, BT would have had longer to monitor its charges as compared to costs, yet it still did not reduce its charges. In particular, in August 2007 (at the latest) it would have had the 2006/07 RFS upon which to assess the appropriateness of its charges. This showed that its charges exceeded DSAC in 2006/07 for BES 100 connection. BT has provided no evidence to show why, upon

¹⁰⁹¹ BT's 2004/05 RFS was published on 2 September 2005.

¹⁰⁹² BT's 2005/06 RFS was published on 7 September 2006.

receiving the 2006/07 RFS, it considered that its charges above DSAC in that year were temporary and therefore did not warrant a price reduction.

14.178 Therefore, on balance, we do not consider that BT has satisfactorily demonstrated that the lack of contemporaneous cost data was sufficient to explain why its charges failed the DSAC test in 2006/07 and 2007/08.

BT reduced its prices in 2008/09

14.179 Although BT did take action in September 2008 to reduce its prices when it realised they exceeded the published DSAC for a second consecutive year, we do not consider that this means that BT's charges in 2007/08 were cost orientated despite the fact that revenues exceeded DSAC.

14.180 As explained in paragraphs 9.218 to 9.227, we expect BT to ensure compliance with its cost orientation obligation at all times. BT should have reduced its charge as soon as it became apparent that its price exceeded its published DSAC, unless it could have reasonably expected its charges to be below the contemporaneous DSAC.

14.181 However, as BT accepts, when it had data available in August 2007 which showed that the charge was substantially above the published DSAC, it took no action. In addition, as noted above, BT has not provided any specific evidence in its response to our Provisional Conclusions to demonstrate that it reasonably expected that its unit DSACs would be substantially higher than they were or that the failure of the DSAC test in 2006/07 was otherwise temporary. As noted in our Provisional Conclusions, given the rate of increase in unit DSAC (DSAC more than doubled between 2006/07 and 2007/08), it seems unlikely that BT could have expected unit DSACs to grow even faster than they did.

Errors in DSACs

14.182 For the reasons set out in paragraphs 13.351 to 13.368, we consider that we should not make BT's proposed adjustment to provisioning costs. We address BT's other arguments in relation to adjustments to its data in Section 13 of this document.

2008/09 and 2009/10

14.183 In both 2008/09 and 2009/10 revenues were below DSAC, and by a substantial amount in 2009/10.¹⁰⁹³ Revenues were below DSAC in 2008/09 primarily as a consequence of a significant increase in unit DSAC (from around £1600 per local end in 2007/08 to around £3200 per local end in 2008/09), rather than as a result of the price reduction at the end of the year.¹⁰⁹⁴ Revenues were even further below DSAC in 2009/10, largely as a consequence of a further, very significant increase in unit DSAC, from around £3200 per local end to £11,200 per local end. We note that BES 1000 connections (which we discuss next) experienced a similar increase in unit

¹⁰⁹³ Whilst revenue was above FAC in 2008/09, this was by a significantly lower amount than in 2006/07 and 2008/09. Revenue was significantly below FAC in 2009/10.

¹⁰⁹⁴ In paragraph 328 of BT's response to our Provisional Conclusions, BT notes that the implementation of this price reduction was delayed due to complaints from one CP. However, even if BT had implemented the reduction in November 2008, the increase in DSAC would still be the primary reason for BT's revenues being below DSAC. If BT's charges had been reduced on 24 November 2008 rather than 1 February 2009, the average price for the standard variant of BES 100 connection in 2008/09 would only have been around 13% lower (where the average price for 2008/09 is calculated by weighting the existing and new prices by the proportion of the year in which they applied).

DSAC (and FAC). As we set out in paragraph 14.190 below, BT informed us that, in the context of BES 1000 connection, this cost increase was the result of changes in cost allocation methodologies and increases in the amount of depreciation being allocated to BES 1000 connection.

14.184 The Parties have not put forward specific arguments which cause us to consider that these charges below DSAC are not cost orientated. Therefore, we do not consider that BT overcharged for BES 100 connection services in 2008/09 and 2009/10.

Final conclusion on BES 100 connection

14.185 In summary, we confirm our provisional conclusion that BT overcharged for BES 100 connection in 2006/07 and 2007/08 on the basis that :

14.185.1 revenues significantly exceeded DSAC in both years;

14.185.2 revenues substantially exceeded FAC in both years; and

14.185.3 based on the evidence available to us, BT has failed to satisfactorily demonstrate that the lack of contemporaneous cost data, price reductions in 2008 or accounting adjustments are sufficient to explain why it set prices significantly above DSAC in both years.

14.186 We also confirm our provisional conclusion that BT did not overcharge for BES 100 connections in 2008/09 and 2009/10, on the basis that revenues were less than DSAC.

BES 1000 connection

Our Provisional Conclusions

14.187 Our provisional conclusion was that BT overcharged for BES 1000 connection in 2006/07, but not in 2007/08, 2008/09 or 2009/10, on the basis that:

14.187.1 revenues exceeded DSAC in 2006/07, but not in any of the other years;

14.187.2 in 2006/07 revenues were substantially above FAC; and

14.187.3 in 2006/07 ROCEs were substantially above WACC.

14.188 We noted that the primary reason why BT's charges exceeded DSAC in 2006/07 but not the latter years is that unit DSACs increased over the period from 2006/07, while charges remained constant or fell. However, we had not seen any evidence of other factors which would support a finding that BT did not overcharge for BES 1000 connection in 2006/07.

14.189 We explained that in order for us to find that there was no overcharge in 2006/07, BT would need to supply us with specific evidence that demonstrates, for example, that it reasonably expected its unit DSAC to be higher in 2006/07 than was actually the case. We stated that we would also consider any other evidence BT might put to us to show that the circumstances of the 2006/07 charges did not in themselves amount to an overcharge.

Views of the Parties

14.190 In response to our Provisional Conclusions BT argues that we should not find overcharging for BES 1000 connections in the *"isolated single year"* 2006/07. Beyond the general arguments advanced by BT, BT makes the following points specifically in relation to BES 1000 connections:¹⁰⁹⁵

14.190.1 BT states that the 2006/07 DSAC on which we rely for our finding of non-compliance was not known to BT at the time (and was not published until 21 August 2007). BT points out that the only published RFS data available – the 2005/06 RFS – did not report at a level that would have identified a DSAC for BES 1000 connection.

14.190.2 BT argues that the requirement under its EOI obligations for it to introduce new products and services (e.g. BES 1000 Extended Reach in 2006) made judging the correct level of pricing more problematic when new products were being introduced which could affect the volume and DSAC levels.

14.190.3 BT believes that the unit DSAC for 2006/07 as estimated in the Provisional Conclusions is not accurate. BT argues that it is wrong to criticise BT for failing to anticipate Ofcom's adjustments when it does not agree with all of our adjustments, and considers that further adjustments should be made.

14.190.4 Finally, BT considers that, even on the basis of Ofcom's cost adjustments, revenues are below DSAC when looked at over the four year period as a whole (2006/07 to 2009/10).

¹⁰⁹⁵ BT's response to our Provisional Conclusions, paragraphs 319 to 325.

14.191 Beyond the general arguments made by the Disputing CPs, Sky, TTG and CWW agree with our provisional conclusion that BT overcharged for BES 1000 connection in 2006/07.¹⁰⁹⁶

14.192 CWW considers that we should conclude that there was overcharging in 2006/07 by virtue of the magnitude by which BT's charges exceeded DSAC (22%) and since this resulted in a ROCE of 332% in that year.¹⁰⁹⁷

14.193 TTG considers that the degree of overcharging is significant even though this only occurred in one year, and states there is no evidence that BT took steps to address the overcharge by reducing the price.¹⁰⁹⁸

Our analysis

14.194 Table 14.13 below shows the relevant comparisons of external DSAC, FAC and ROCE for BES 1000 connection over the Relevant Period. Figure 14.12 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for BES 1000 connection over the Relevant Period.

Table 14.13: Key financial measures for BES 1000 connection

BES1000 Connection	2006/07	2007/08	2008/09	2009/10
External volume, ends	1,666	1,358	558	1,192
Average external revenue, £ per local end	5,200	5,525	5,528	2,014
External unit DSAC, £ per local end	2,338	5,895	11,508	25,800
External revenue as % of DSAC	222%	94%	48%	8%
External unit FAC, £ per local end	1,798	2,346	7,601	13,438
External revenue as % of FAC	289%	235%	73%	15%
External ROCE	401%	162%	-134%	-139%

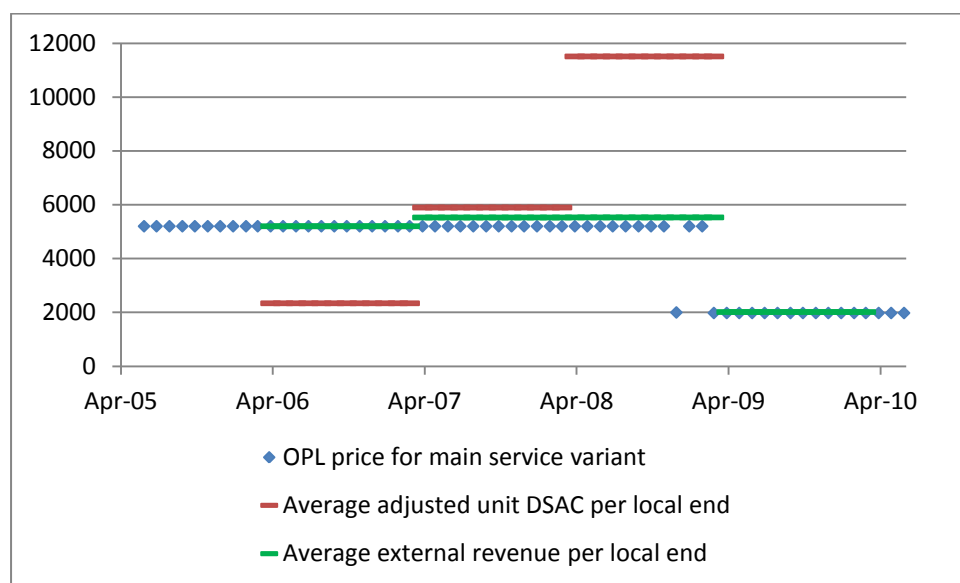
Source: Ofcom analysis of BT data

¹⁰⁹⁶ Paragraph 21 of Sky's response to our Provisional Conclusions, paragraph 6.32 of TTG's response to our Provisional Conclusions and paragraph 39 of CWW's response to our Provisional Conclusions.

¹⁰⁹⁷ Paragraph 39 of CWW's response to our Provisional Conclusions.

¹⁰⁹⁸ Paragraph 6.32 of TTG's response to our Provisional Conclusions and paragraph 39 of CWW's response to our Provisional Conclusions.

Figure 14.12: OPL price, unit DSAC and average external revenue for BES 1000 connection, £ per local end



Source: Ofcom analysis of BT data

Note: for presentational clarity, the figure does not show the much higher unit DSAC in 2009/10 (£25,800 per local end)

14.195 BT's external revenues only exceeded DSAC in 2006/07, and did so by a considerable margin (122%). Revenues also significantly exceeded FAC in this year, by 189%. This would tend to support a conclusion of overcharging in 2006/07 but not in any of the later years.¹⁰⁹⁹ We continue to find that revenues were below DSAC for all other years of the Relevant Period.

14.196 The primary reason why BT's charges exceeded DSAC in 2006/07 but not the latter years is that unit DSACs increased over the period from 2006/07 to 2009/10, while charges remained constant or fell. This increase in unit DSAC was driven by an eight-fold increase in the total amount of DSAC being allocated to BES 1000 connection between 2006/07 and 2009/10. The increase was particularly marked in 2009/10 and reflected the increase in total FAC being allocated to BES 1000 connection in this year. BT said that the reason for this increase was due to changes in cost allocation methodologies and increases in the amount of depreciation being allocated to BES 1000 connection.¹¹⁰⁰

2006/07

14.197 In paragraphs 14.59 to 14.68 above, we address BT's general argument that we should not find any overcharging in 2006/07 and conclude that BT has not provided sufficient evidence in this case to satisfy us that all its charges in 2006/07 were cost orientated despite a number of them (substantially) exceeding DSAC. In the following paragraphs, we address the comments made by BT specifically in relation to whether it overcharged for BES 1000 connections in 2006/07.

¹⁰⁹⁹ As noted in paragraph 14.166 above, given the volatility of ROCEs for connection services, we place less weight on this measure when considering whether BT's charges were cost orientated.

¹¹⁰⁰ BT response to question 10 of our follow up questions to the 22 October 2010 section 191 notice.

Contemporaneous data unavailable

14.198 As set out at paragraph 14.59, we recognise that BT does not always have contemporaneous data available and that it has to rely on lagged or forecast data. Therefore, in our Provisional Conclusions we stated that that we may conclude that charges in 2006/07 were nevertheless cost orientated, if BT could supply specific evidence that demonstrates that it reasonably expected its unit DSAC to be higher in 2006/07 than was actually the case. However, BT has not supplied us with any such evidence in its response. As noted at paragraphs 14.173 and 14.174 above, we consider BT should have established an approach to setting its charges that enabled it to comply with its obligations despite the lack of published data in the RFS. BT's response does not provide any discussion or evidence to demonstrate that it took such steps.

14.199 In our view the magnitude by which charges exceeded both DSAC and FAC is also relevant to our assessment, as we set out in the context of BES 100 connection charges. In 2006/07 BT's charges were not marginally out of line with costs but were considerably so. BT's charges were more than double unit DSAC and nearly three times unit FAC. In monetary terms, BT's average external revenue exceeded unit DSAC by nearly £3000 per local end. Therefore, BT would have had to underestimate unit DSAC and/or unit FAC by a significant margin in order not to have identified any risk that charges would be above DSAC.

14.200 As noted above at paragraph 14.176, given its apparent lack of costing data when setting charges for 2006/07, and its cost orientation obligations, we would expect BT to have monitored its costs for the service during the course of the year.

14.201 Therefore, on balance, we do not consider that BT has satisfactorily demonstrated that the lack of contemporaneous cost data was sufficient to explain why it failed the DSAC test in 2006/07 despite best endeavours to prevent such an outcome.

EOI requirement to launch new products

14.202 BT argues that the requirement under its EOI obligations for it to introduce new products and services made judging the correct level of pricing more problematic when new products were being introduced which could affect the volume and DSAC levels.

14.203 We accept that where a new service is launched that shares common costs with existing services, volumes and costs for the existing product may be impacted. We also accept that this may be difficult to forecast accurately. Given the extent to which many of BT's services share common costs, this is likely to be a problem that often arises for BT. However, the relevant issue in this case is whether the introduction of new services created sufficient uncertainty for BES 1000 connections that BT's charges above DSAC do not constitute overcharging. In our view BT has not satisfactorily demonstrated this to be the case.

14.204 In addition to the lack of evidence demonstrating that BT considered DSAC when setting prices, its response provides no specific evidence to support the difficulties it asserts arose. For example, its response does not set out how it went about pricing its BES 1000 connection service for the affected year, what forecasts it used in setting these prices and then, most importantly, why the introduction of new services gave rise to the forecasting error that led to charges exceeding DSAC.

Effect of Ofcom's adjustments

14.205 We address BT's arguments in relation to adjustments to its data in Section 13 of this document. For the reasons explained in Section 13, in our view it is appropriate to base our assessment of overcharging on our adjusted data.

14.206 In any event, we note that even using the adjustments which BT believes are relevant, BT's external revenues still exceeded DSAC in 2006/07 by a material amount ([§]%).¹¹⁰¹

Average over the period 2006/07 to 2009/10

14.207 Finally, regarding BT's argument that its charges are cost orientated on the basis of a comparison of revenues and DSAC over the Relevant Period as a whole, we explain in paragraph 9.221 why we do not directly consider average charges compared to average DSAC across the whole period.

Conclusion on charges in 2006/07

14.208 In summary, BT has not supplied us with specific evidence as to why, despite its revenues exceeding DSAC in 2006/07, its charges were nonetheless cost orientated. We therefore conclude that BT overcharged for BES 1000 connection in 2006/07.

2007/08 to 2009/10

14.209 In 2007/08, 2008/09 and 2009/10 revenue was below DSAC, and by a substantial amount in 2008/09 and 2009/10. Whilst revenue was above FAC in 2007/08, it was below FAC in 2008/09 and 2009/10.

14.210 The Parties have not put forward specific arguments which cause us to consider that these charges below DSAC are nevertheless not cost orientated. Therefore, we do not consider that BT overcharged for BES 1000 connection services in 2007/08, 2008/09 and 2009/10.

Final conclusion on BES 1000 connection

14.211 In summary, we confirm our provisional conclusion that BT overcharged for BES 1000 connection in 2006/07 on the basis that:

14.211.1 revenues substantially exceeded DSAC in this year;

14.211.2 revenues substantially exceeded FAC in each year; and

14.211.3 based on the evidence available to us, BT has failed to satisfactorily demonstrate that the lack of contemporaneous cost data, the EOI requirement to launch new products or accounting adjustments are sufficient to explain why it set its price significantly above DSAC in 2006/07.

14.212 We also confirm our provisional conclusion that BT did not overcharge for BES 1000 connections in 2007/08, 2008/09 and 2009/10, on the basis that revenues were less than DSAC.

¹¹⁰¹ Table 7.2 of BT's response to our Provisional Conclusions.

WES 10 rental

Our Provisional Conclusions

14.213 We provisionally concluded that BT had overcharged for WES 10 rental in 2008/09 on the basis that.

14.213.1 revenues exceeded DSAC;

14.213.2 revenues substantially exceeded FAC;

14.213.3 BT's ROCE substantially exceeded its WACC; and

14.213.4 BT's charges exceeded DSAC as a result of BT increasing its charges three times for the standard variant WES 10 rentals in June 2007, December 2007 and June 2008.

14.214 We noted that we may conclude that there was not overcharging in this year if BT were able to provide us with specific evidence as to why, despite its revenues exceeding DSAC, its charges were nonetheless cost orientated, for example, if BT were able to supply us with specific evidence that demonstrates that it reasonably expected its charges in 2008/09 to be below unit DSAC.

14.215 We provisionally concluded that BT had not overcharged for WES 10 rental services in 2006/07, 2007/08, 2009/10 and 2010/11 on the basis that its charges were below DSAC in all of these years.

Views of the Parties

BT's response to our Provisional Conclusions

14.216 In response to our Provisional Conclusions BT argues that we should not find overcharging for WES 10 rentals in the "*isolated single year*" 2008/09. In addition to a number of general arguments advanced by BT (set out at paragraphs 9.199 and 9.200 and addressed at paragraphs 9.223 to 9.225), BT makes the following specific points with reference to WES 10 rentals:¹¹⁰²

14.216.1 BT states that it increased the price of WES 10 rentals to address the historically low level of charges for WES 10 circuits against costs, noting that the increases were "*explicitly formulated*" taking into account an offsetting decrease in the connection charge of [X]%. BT points out that taken together, the connection and rental charges aimed to achieve a margin on each circuit of [X]% on an EBIT basis, which it does not consider to be excessive.

14.216.2 BT considers that we did not take into account the reductions in the price of the WES 10 Local Access variant in June 2007.¹¹⁰³

14.216.3 BT contends that we did not take due account of the fact that BT sets its charges on the basis of the information that is available to it at the time. BT states that when the June 2008 price increase was notified in early 2008,

¹¹⁰² BT's response to our Provisional Conclusions, paragraphs 311 to 318.

¹¹⁰³ See paragraph 6.13.4.

only the 2006/07 RFS would have been available, which shows that the rental charge was below the DSAC known at the time.

14.216.4 BT considers the charge for WES 10 rental only breached the DSAC ceiling because of adjustments we made to the cost data. It argues that it is unreasonable to "*criticise BT for failing to anticipate the adjustments made by Ofcom many years after the event*". BT considers that its argument is reinforced by the fact that it does not agree with all of our adjustments.

14.216.5 BT states that the increase in WES 10 rental charges were part of a wider strategy for the portfolio discussed with Ofcom in 2006. Firstly, by increasing the rental charges it provided "*a differential between local access variants of WES/WEES and the local access plus backhaul variants of WES/WEES, in order that CPs were encouraged to invest in backhaul networks*." It also considered that by reducing connections and increasing rentals it reduced upfront costs which could encourage entry and competition in downstream markets.

14.216.6 Finally, BT considers that, even on the basis of Ofcom's cost adjustments (as opposed to BT's proposed adjustments), revenues are below DSAC when looked at over the four year period as a whole (2006/07 to 2009/10). It argues that we took average DSACs into account in the 2009 PPC Determinations and we should do so here.

Disputing CPs' response to our Provisional Conclusions

14.217 Beyond the general arguments made by the Disputing CPs (set out at paragraphs 9.206 to 9.208), Virgin and CWW consider that we should conclude that there was overcharging in 2008/09 by virtue of the magnitude by which BT's charges exceeded DSAC (25%) and since this resulted in a ROCE of 32% in that year.¹¹⁰⁴

14.218 CWW disagrees that we should take into account the reductions in the price of the WES 10 Local Access services in June 2007, which it regards as a separate service with its own cost orientation obligations. In addition, CWW notes that the service was purchased solely by BT at that time.¹¹⁰⁵

Our analysis

14.219 Table 14.14 below shows the relevant comparisons of external DSAC, FAC and ROCE for WES 10 rental over the Relevant Period. Figure 14.13 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for WES 10 rental over the Relevant Period.

¹¹⁰⁴ Paragraph 9.3 of Virgin's response to our Provisional Conclusions and paragraph 39 of CWW's response to our Provisional Conclusions.

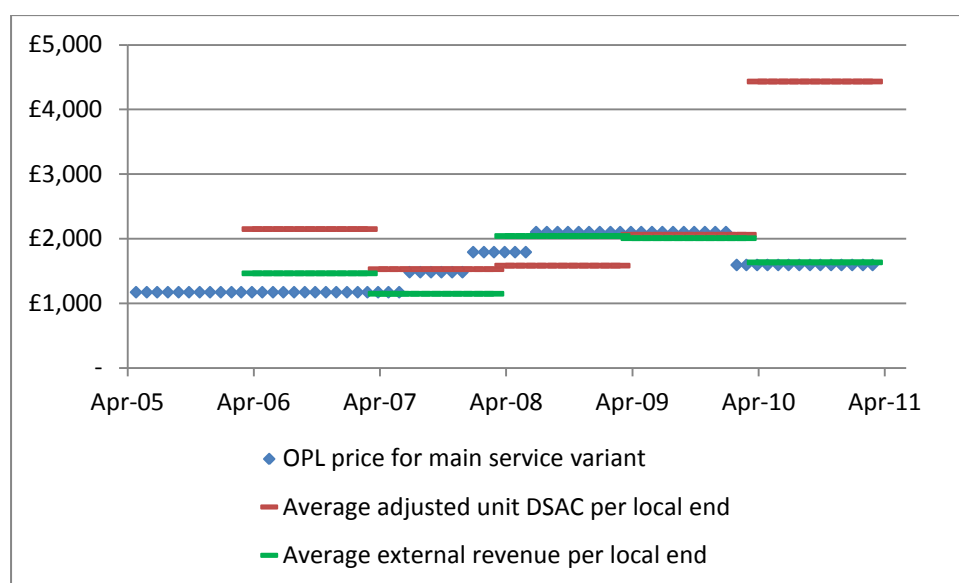
¹¹⁰⁵ Paragraph 36 of CWW's comments on BT's response.

Table 14.14: Key financial measures for WES 10 rental

WES10 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	1,516	8,872	14,214	19,418	21,055
Average external revenue, £ per local end	1,462	1,146	2,040	2,006	1,632
External unit DSAC, £ per local end	2,147	1,526	1,581	2,059	4,431
External revenue as % of DSAC	68%	75%	129%	97%	37%
External unit FAC, £ per local end	2,064	1,189	1,186	1,518	2,100
External revenue as % of FAC	71%	96%	172%	132%	78%
External ROCE	0%	10%	35%	23%	0%

Source: Ofcom analysis of BT data

Figure 14.13: OPL price, unit DSAC and average external revenue for WES 10 rental, £ per local end



Source: Ofcom analysis of BT data

14.220 BT's external revenues exceeded DSAC in 2008/09 by 29%, but were below DSAC in all other years in the Relevant Period. Revenues exceeded FAC in 2008/09 by 72%, and BT's ROCE was around three times its WACC of 11.4% in this year.

14.221 As Figure 14.13 shows, BT increased its charges three times for the standard variant of WES 10 rentals in June 2007, December 2007 and June 2008 from £1170 per local end to £2100 per local end. As noted above, in our Provisional Conclusions we observed that if BT had not increased its prices from the level in June 2007 then it would have passed the DSAC test for the whole period.

2008/09

14.222 In the following paragraphs, we address the comments made by BT in relation to whether it overcharged for WES 10 rentals in 2008/09.

Offsetting reduction in connection charges

14.223 As set out above, BT states that the price increases were part of a strategy to “remedy a previous level of undercharging”, which also involved an offsetting reduction in WES 10 connection charges.¹¹⁰⁶

14.224 However, given our conclusion in Section 8 that it is not appropriate to consider rentals and connections in aggregate when assessing cost orientation, we do not consider the reduction in WES 10 connection charges to be relevant to our assessment of WES 10 rental charges.

14.225 We note that there is evidence to support BT's argument that charges for WES 10 circuits had previously been low relative to costs. Looking at WES 10 rental separately, in 2006/07 BT was only just covering operating costs with a ROCE of only 0.3%, significantly below BT's WACC of 11.4%. Whilst this might suggest that it was reasonable for BT to increase WES 10 rental charges, this does not amount to a justification for increasing charges above DSAC in 2008/09.

Reduction in WES 10 Local Access charge

14.226 In relation to BT's argument that our analysis in our Provisional Conclusions did not take into account the reduction that BT made to the charge for WES 10 Local Access in June 2007, we make the following points:

14.226.1 It is our understanding that the revenues and costs associated with these services are included in the RFS data which forms the basis of our DSAC test. Therefore, our assessment does reflect any reduction BT made to the charge for WES 10 Local Access rental in June 2007.¹¹⁰⁷

14.226.2 The previous point notwithstanding, given our conclusion in paragraph 8.80 that the cost orientation obligation applies to each and every charge offered by BT for Ethernet services, we agree in principle with CWW that the charges for WES 10 Local Access rental are distinct and should be individually cost orientated.¹¹⁰⁸ However, we are unable to robustly disaggregate the cost and revenue data that relates to WES 10 Local Access rental, and so consider it in aggregate with other WES 10 rental services (see paragraphs 13.28 to 13.30).

14.226.3 In any event, we note CWW's comment that WES 10 Local Access rental services were purchased solely by BT at that time. Our own analysis of BT's billing data shows that in 2008/09 (the year in which BT's external revenues exceeded DSAC), WES 10 Local Access rental services only accounted for around [REDACTED]¹¹⁰⁹% of the total external revenue associated with all WES 10 rental services.¹¹⁰⁹ Therefore, any reduction in charges will have had an immaterial effect in 2008/09, and as a result, we consider BT's charges for WES 10 Local Access not to be significant in assessing whether the standard WES 10 rental charges were cost orientated or not in 2008/09.

¹¹⁰⁶ BT's response to our Provisional Conclusions, paragraph 312.

¹¹⁰⁷ In its response, BT does not provide any specific information about the reductions made to WES 10 Local Access charges, for example, whether this was true of WES 10 LA rental charges.

¹¹⁰⁸ WES 10 Local Access rental is listed separately and attracts different charges in the OPL.

¹¹⁰⁹ Ofcom analysis of BT's billing data provided by BT on 13 January 2011.

Effect of Ofcom's adjustments

14.227 In relation to BT's argument that it is unreasonable to "*criticise BT for failing to anticipate the adjustments made by Ofcom many years after the event*", we address BT's arguments in relation to adjustments to its data in Section 13 of this document.

14.228 Notwithstanding this, we do not agree that the charge for WES 10 rental only breached the DSAC ceiling because of adjustments we made to the cost data. The revenue per local end and unit DSAC per local end as reported in the 2008/09 RFS and as adjusted by Ofcom are shown in Table 14.15 below.

Table 14.15: Internal and external revenue and DSAC per local end in 2008/09

	Internal	External	Combined
Unit revenue	£1,473	£2,040	£1,601
Unit DSAC (as per RFS)	£1,790	£1,790	£1,790
Unit DSAC (as adjusted by Ofcom)	-	£1,581	-

Source: Ofcom analysis of BT data

14.229 Table 14.15 shows that on an overall basis (i.e. looking at internal and external revenues together) BT's average revenue did not exceed the unit DSAC reported in BT's RFS. However, the comparison most relevant to assessing whether charges are cost orientated in this case is whether average revenue for services sold to external customers exceeds unit DSAC. Table 14.15 shows that the average revenue for services sold to external customers was higher than the average revenue for services sold internally.¹¹¹⁰ As a result, BT's average external revenue exceeded unit DSAC in 2008/09 by 14%, even before any of our adjustments to the data.

Contemporaneous data unavailable

14.230 As set out at paragraph 14.59, we recognise that BT does not always have contemporaneous data available and that it has to rely on lagged or forecast data. Therefore, in our Provisional Conclusions we stated that that we may conclude that charges in 2008/09 were nevertheless cost orientated, if BT could supply specific evidence that demonstrates that it reasonably expected its charges in 2008/09 to be below unit DSAC.

14.231 BT has not provided specific evidence as to how it went about ensuring that the charges for WES 10 rental complied with its cost orientation obligation. It does, however, claim that when the final price increase (taking the charge from £1790 per end to £2100 per end) was notified in early 2008 (for implementation in June 2008), it would only have known the DSAC figure as initially published in the 2006/07 RFS, which stated that the DSAC was around £5333 per circuit (or £2667 per local end before Ofcom's adjustments compared to £2147 after Ofcom's adjustments shown in Table 14.14).

14.232 Condition HH3.1 (i.e. the Basis of Charges Condition relevant to WES 10 rentals) was imposed on BT in 2004. As noted at paragraphs 9.12 to 9.20 above, the Condition imposed on BT an obligation to ensure and be able to demonstrate that its charges were cost orientated. Therefore, from 2004 BT should have established an approach to setting its charges that enabled it to comply with its obligations.

¹¹¹⁰ This was because the make-up of service variants within the WES 10 group varied between internal and external customers.

- 14.233 We accept that at the start of the 2008/09 financial year, the 2006/07 RFS would have been the most recent set of published regulatory accounting information available (although, as we have set out in paragraph 10.189 above, BT may also have had access to drafts of the 2007/08 RFS by June 2008, given that it was published in September 2008). However, as we explain below, we consider that BT could have reasonably identified the material risk that its charges would fail the DSAC test in 2008/09 based on the information it had at the time of setting prices, but it did not reduce its prices in response to this risk.
- 14.234 We address BT's arguments in relation to adjustments to its data in Section 13.¹¹¹¹ For reasons explained in Section 13, in our view it is appropriate to base our assessment of overcharging on our adjusted data. We do not consider it reasonable for BT to rely on cost data which is incorrect as a result of its own errors to justify prices above DSAC. On the basis of our adjusted data, had BT compared its proposed charge (for example, £2100 per local end for the standard variant) with unit FAC (£2064 per local end) or unit DSAC (£2147 per local end), it would have found that it was above unit FAC and very close to unit DSAC in 2006/07. As such, based on appropriately calculated financial data for 2006/07, there was a risk that the proposed price increase for June 2008 would lead to charges exceeding DSAC. Yet BT still increased its charges despite this risk.
- 14.235 By September 2008, the 2007/08 RFS was published. This showed a significant drop in unit DSAC. On the per circuit data published in the RFS, the unit DSAC dropped from £5333 to £3482. On our adjusted per local end data it dropped from £2147 in 2006/07 to £1520 in 2007/08. Therefore, by September 2008 at the latest BT should have been aware that there was a material risk that its charges would have exceeded DSAC for 2008/09. Yet, BT did not reduce its prices. It has not argued or provided evidence that it considered this reduction in DSAC in 2007/08 to be temporary.
- 14.236 Indeed, in our view, BT could reasonably have foreseen the reductions in cost between 2006/07 and 2007/08. We understand that the reduction in unit DSAC between these two years is largely accounted for by the removal of the costs associated with main link rental when BT disaggregated the costs and revenues associated with main link rental in 2007/08.¹¹¹² We consider that BT should have been able to anticipate that the unit FACs and unit DSACs of WES 10 rental would fall (and possibly significantly so) when the costs and revenues of main link rental were separated out. In addition, BT has not provided us with evidence to demonstrate that it reasonably expected other elements of the cost of WES 10 rental to increase between 2006/07 and 2008/09. Therefore, we consider that BT should have been able to anticipate the risk that its price would exceed DSAC in 2008/09.

¹¹¹¹ We note that the 2006/07 data provided by BT represents the fourth re-statement to correct for errors identified by BT – the earlier restatements were:

(i) The volumes and revenues for WES services in BT's 2006/07 RFS were restated in the 2007/08 RFS as a result of errors made by BT in estimating its circuit volumes for WES services.

(ii) BT subsequently made a second restatement for 2006/07 in December 2008 as a result of an audit which found that the restated volumes in 2006/07 had not been taken into account when costs had been allocated. This led to unit costs for 2006/07 being revised.

(iii) Whilst not affecting the DSAC figure, BT uncovered a further error in how its unit FAC had been calculated, due to an inconsistency between the volumes used to derive component unit costs and the volumes used to distribute component costs to services (see paragraph 13.113). It corrected for this error in data provided in response to a section 191 notice as part of these Disputes. (BT's response to Question 2 of the 22 October 2010 section 191 notice.)

¹¹¹² The reduction in unit DSAC between 2006/07 and 2008/09 (of £656 using the figures after Ofcom's adjustments) is largely accounted for by the removal of the unit DSAC for main link rental (which was £549 in 2008/09).

14.237 We therefore consider that while BT perhaps could not have known for sure that its price rises over the period up to June 2008 would lead to the failure of the DSAC test in 2008/09, it could have reasonably identified the material risk that its charges would fail the test based on the information it had, but it did not reduce its prices in response to this risk and indeed increased its prices.

Wider strategy for the portfolio

14.238 In relation to BT's argument that the increase in WES 10 rental charges were part of a wider strategy for the portfolio discussed with Ofcom in 2006, we explain in paragraph 8.80 that the cost orientation obligation applies to each and every charge offered by BT for Ethernet services. Therefore, we do not take into account rebalancing across a number of different services.

14.239 In any event, we do not consider that the evidence submitted by BT specifically demonstrates that the flexibility afforded to it through the cost orientation obligation was insufficient to achieve the desired portfolio effect without charges for WES 10 rental services exceeding DSAC. For example, while BT's response describes the rebalancing at a high level (see paragraph 14.216.5 above), it provides no specific evidence explaining what changes to charges the rebalancing involved or why these changes were needed. More importantly, the response also does not explain the relative costs of those affected services (including DLRIC and DSACs), nor does it provide any analysis to demonstrate that it was necessary to set some charges above DSAC to achieve the desired rebalancing.

14.240 Moreover, as noted at paragraph 14.57 above, if at the time BT set its charges it felt that it could not do so in a manner that was consistent with its obligations (for example due to the portfolio tariff considerations which BT refers to), in the first instance, it should have either sought to remedy the difficulties it faced or raised compliance difficulties with Ofcom in advance of setting its charges (for example by seeking a direction under Condition HH3.2, as we note at paragraph 9.182.3).

Average over the period 2006/07 to 2009/10

14.241 Finally, regarding BT's argument that its charges are cost orientated on the basis of a comparison of revenues and DSAC over the Relevant Period as a whole, we explain in paragraph 9.221 why we do not directly consider average charges compared to average DSAC across the whole period.

Conclusion on charges in 2008/09

14.242 In summary, BT has not supplied us with specific evidence as to why, despite its revenues exceeding DSAC in 2008/09, its charges were nonetheless cost orientated. We therefore conclude that BT overcharged for WES 10 rental in 2008/09.

2006/07, 2007/08, 2009/10 and 2010/11

14.243 In 2006/07, 2007/08, 2009/10 and 2010/11, revenue for WES 10 rentals was well below DSAC. Revenue was also below FAC and BT's ROCE was below its WACC in each of these years except 2009/10.

14.244 The Parties have not provided specific arguments which cause us to consider that these charges below DSAC are nevertheless not cost orientated. Therefore, we do not consider that BT overcharged for WES 10 rental services in 2006/07, 2007/08, 2009/10 and 2010/11.

Final conclusion on WES 10 rental

14.245 In summary, we confirm our provisional conclusion that BT overcharged for WES 10 rental in 2008/09 on the basis that:

14.245.1 revenues exceeded DSAC by 29% in this year;

14.245.2 revenues substantially exceeded FAC in this year;

14.245.3 BT's ROCE was more than twice its WACC in this year; and

14.245.4 based on the evidence available to us, and given BT's three price increases in 2007 and 2008, BT has failed to satisfactorily demonstrate that the reduction in WES 10 Local Access charge, the lack of contemporaneous cost data, the wider strategy for the portfolio or the other considerations it put forward are sufficient to explain why it set its price above DSAC in 2008/09.

14.246 We also confirm our provisional conclusion that BT did not overcharge for WES 10 rentals in 2006/07, 2007/08, 2009/10 and 2010/11, on the basis that revenues were less than DSAC.

WES 100 rental

Our Provisional Conclusions

14.247 Our provisional conclusion was that BT overcharged for WES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:

14.247.1 revenues exceeded DSAC in each of the years;

14.247.2 revenues exceeded FAC in each of the years;

14.247.3 BT's ROCE was more than twice its WACC in all years; and

14.247.4 BT's price reductions over the period were insufficient to bring its charges below unit DSAC.

14.248 We also provisionally concluded that BT did not overcharge for WES 100 rental in 2010/11 on the basis that revenues were less than DSAC. Following publication of the CWW Provisional Determination, we received new information from BT in relation to development costs in 2010/11, which indicated that the adjustment for development costs in 2010/11 should not have been made (see paragraph 14.101 above). In the Verizon Provisional Conclusions, we explained that the revised costs data for 2010/11 still led us to reach the same provisional conclusion that BT did not overcharge for WES 100 rental in 2010/11.

Views of the Parties

14.249 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the WES 100 rental service.

Our analysis

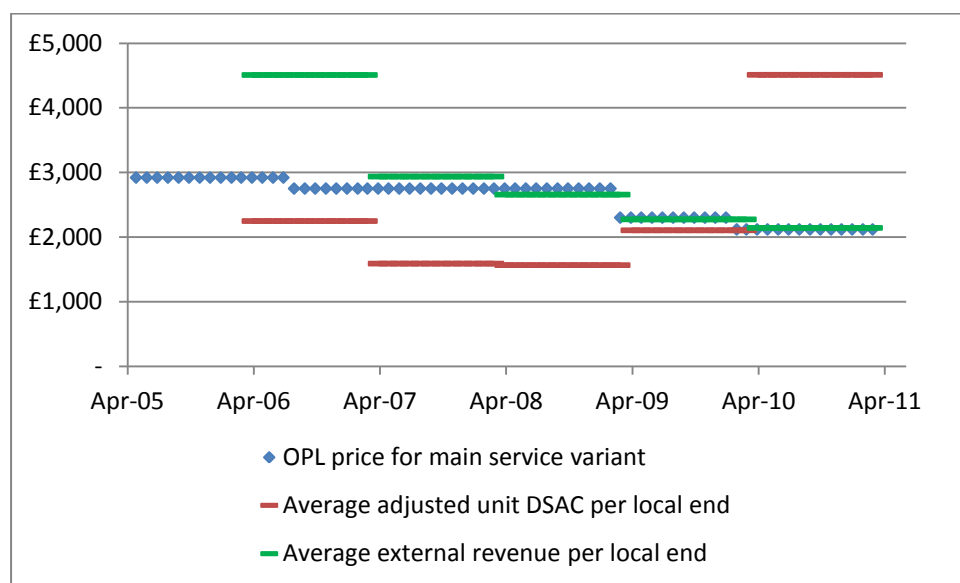
14.250 Table 14.16 below shows the relevant comparisons of external DSAC, FAC and ROCE for WES 100 rental over the Relevant Period. Figure 14.14 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for WES 100 rental over the Relevant Period.

Table 14.16: Key financial measures for WES 100 rental

WES 100 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	924	4,604	7,820	12,213	16,127
Average external revenue, £ per local end	4,508	2,936	2,656	2,273	2,141
External unit DSAC, £ per local end	2,247	1,589	1,565	2,104	4,510
External revenue as % of DSAC	201%	185%	170%	108%	47%
External unit FAC, £ per local end	2,059	1,197	1,188	1,540	2,136
External revenue as % of FAC	219%	245%	224%	148%	100%
External ROCE	60%	57%	52%	29%	11%

Source: Ofcom analysis of BT data

Figure 14.14: OPL price, unit DSAC and average external revenue for WES 100 rental, £ per local end



Source: Ofcom analysis of BT data

14.251 BT's external revenues exceeded DSAC in 2006/07, 2007/08, 2008/09 and 2009/10, but were below DSAC in 2010/11.

2006/07 to 2009/10

14.252 As can be seen from Table 14.16 above, revenues exceeded DSAC in 2006/07, 2007/08, 2008/09 and 2009/10, and by a considerable margin in the first three years (revenues were between 70% and 101% above DSAC). In all four years, revenues were also substantially above FAC and BT's ROCE was more than twice its WACC and substantially more in most years.

14.253 On this basis, we consider that BT's charges were persistently above DSAC for the majority of the Relevant Period. As we explain in Section 9, we would normally expect charges above DSAC for this length of time to indicate that BT had failed to take action to alter its charges appropriately. BT has provided no specific arguments or evidence as to why these charges were nonetheless cost orientated following our Provisional Conclusions.

14.254 Although BT did reduce its rental charge over time, the rate of reduction was insufficient to take account of the fact that its charges were substantially above DSAC for a number of years:

14.254.1 BT reduced the rental prices of both its standard service and its more expensive local access managed service in February 2009. However, these reductions were not sufficient to bring charges for 2008/09 (or 2009/10) below DSAC.¹¹¹³

¹¹¹³ In our Provisional Conclusions, we noted that even if BT's charges had been reduced in November 2008, its charges would still have exceeded DSAC in 2008/09. However, BT's original price notification on 24 November 2008 only intended for the new prices of *connection* services to become effective on the date of publication. BT intended for the new prices of *rental* services to come into effect on 1 February 2009. Therefore, the implementation of the price reductions for WES 100 rental was not affected by the delays referred to in paragraphs 10.186 to 10.196.

14.254.2 BT further reduced its rental charges in January 2010 (for example, BT reduced the price of standard WES 100 rental from £2300 to £2117). Again, this was not sufficient to bring charges for 2009/10 below DSAC.

14.255 We recognise that in 2009/10, the amount by which revenues exceeded DSAC (8%) is considerably less than in the earlier three years.¹¹¹⁴ Consistent with this, the amount by which revenue exceeded FAC was 48% resulting in a ROCE of 29%. Both figures are considerably lower than in the preceding years. This was partly due to an increase in DSAC in 2009/10 (from around £1600 per local end to around £2100 per local end), and partly due to a reduction in average revenue due to the price reductions in early 2010. Our analysis of BT's DSAC modelling outputs suggests that the increase in unit DSAC is primarily the result of an increase in fibre depreciation costs (which is likely to be due to a CCA adjustment).

14.256 As noted above in the context of BES 100 rental, it seems plausible that the DSACs of local access components (i.e. local ends) are under-stated in the original methodology compared to the cost causation approach. As a result, the DSAC for WES 100 rental under BT's original approach (i.e. the published DSACs for 2006/07 to 2009/10) may therefore be understated. It is possible that, without this understatement of DSACs, BT's revenues may not have been above DSAC, in particular in 2009/10. However, as discussed in paragraph 12.242, the extent of the under-statement of DSAC is not clear. Given this limitation, we put limited weight on this consideration in our conclusion on overcharging.

14.257 We note that BT has not provided us with any specific evidence to demonstrate that it reasonably expected the unit DSAC for WES 100 rental in 2009/10 to be so high that its charges would not exceed DSAC. Therefore, given that BT's price reductions in early 2010 were insufficient to bring charges below DSAC (despite the fact that it would have known in 2009/10 that rental charges had been above DSAC in 2006/07, 2007/08 and, from July 2009 onwards, 2008/09), we consider that this supports a finding of overcharging in 2009/10.

14.258 Therefore, we maintain our view that BT overcharged for WES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10.

2010/11

14.259 In 2010/11, revenue was well below DSAC.¹¹¹⁵ This is largely because unit DSAC more than doubled from around £2100 per local end in 2009/10 to around £4500 per local end in 2010/11. BT's change in DSAC methodology is likely to be a very significant contributor to this increase. In addition, there was a small reduction in average revenue, resulting from the price reductions in January 2010.¹¹¹⁶

¹¹¹⁴ As a result of amendments to the adjustments we have made to BT's data, we now find that BT's revenues exceeded DSAC in 2009/10 by a greater amount than in our Provisional Conclusions (8% compared to 5%).

¹¹¹⁵ While revenue exceeded FAC, it did so by only 0.2%. Consistent with this, BT's ROCE was approximately equal to its WACC for this year.

¹¹¹⁶ In our Provisional Conclusions, we noted that even without the increase in DSAC in 2010/11, the reduction in average revenue in 2010/11 would have brought prices into line with DSAC. As a result of amendments to the adjustments we have made to BT's data, this is no longer true. We now find that without the increase in DSAC in 2010/11, BT's revenues would have exceeded DSAC by a small amount.

14.260 We have not received specific arguments as to why these charges in dispute were not cost orientated despite passing the DSAC test. Therefore, we do not consider that BT overcharged for WES 100 rental services in 2010/11.

Final conclusion on WES 100 rental

14.261 In summary, we confirm our provisional conclusion that BT overcharged for WES 100 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:

14.261.1 revenues exceeded DSAC in each of these years, and by an especially significant amount for the first three years;

14.261.2 revenues substantially exceeded FAC in all of these years;

14.261.3 BT's ROCE was more than twice its WACC in all years; and

14.261.4 BT's price reductions over the period were insufficient to bring its charges below unit DSAC.

14.262 We also confirm our provisional conclusion that BT did not overcharge for WES 100 rental in 2010/11 on the basis that revenues were less than DSAC.

WES 1000 rental

Our Provisional Conclusions

14.263 Our provisional conclusion was that BT overcharged for WES 1000 rental in 2006/07, 2007/08, 2008/09 and 2009/10 on the basis that:

14.263.1 revenues exceeded DSAC in each of the years;

14.263.2 revenues substantially exceeded FAC in each of the years;

14.263.3 BT's ROCE was substantially above the WACC in each of the years; and

14.263.4 BT's price reductions over the Relevant Period were insufficient to bring its charges below unit DSAC.

14.264 Initially, we reached the same provisional conclusion in relation to BT's charges for WES 1000 rental in 2010/11. However, we changed our provisional conclusion for 2010/11 in the Verizon Provisional Conclusions as new information received from BT indicated that the adjustment for development costs in 2010/11 should not have been made (see paragraph 14.101 above). In the Verizon Provisional Conclusions, we explained that the revised costs data for 2010/11 meant that revenues for WES 1000 rental in 2010/11 did not exceed DSAC. Accordingly, we provisionally concluded that BT did not overcharge for WES 1000 rental services in 2010/11 as revenues were below DSAC.¹¹¹⁷

Views of the Parties

14.265 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the WES 1000 rental service.

Our analysis

14.266 Table 14.17 below shows the relevant comparisons of external DSAC, FAC and ROCE for WES 1000 rental over the Relevant Period. Figure 14.15 shows the price listed in the OPL, the average external revenue per local end, and the external DSAC per local end for WES 1000 rental over the Relevant Period.

14.267 We note that CWW is also in dispute with BT about the charges for WES 1000 Extended Reach rental. WES 1000 Extended Reach has a higher price than the standard variant and so is also likely to have been overcharged over the period (although we note that it may also have a higher incremental cost due to the longer distance covered by the local end). As noted at paragraph 13.28 we are resolving these Disputes in relation to WES 1000 rental variants by using the level of aggregation presented in the RFS since we are unable to disaggregate the cost data to the level of bandwidth variants. Therefore, our findings cover all service variants, and we do not make a separate finding for WES 1000 Extended Reach.

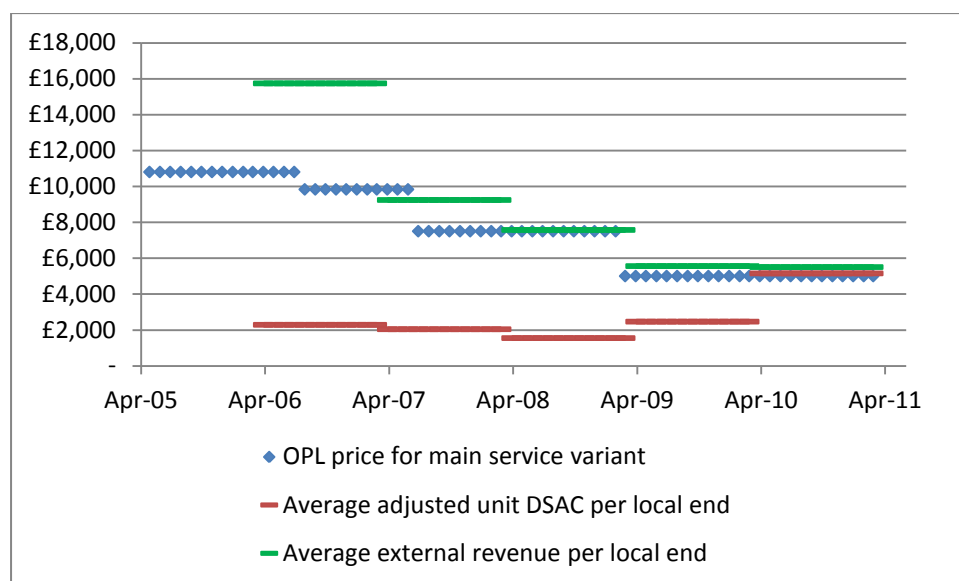
¹¹¹⁷ On 5 April 2012, we issued an update to the CWW Provisional Determination setting out the impact of the new information on that Dispute.
http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01078/.

Table 14.17: Key financial measures for WES 1000 rental

WES 1000 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	78	336	846	1,518	2,324
Average external revenue, £ per local end	15,736	9,238	7,569	5,555	5,500
External unit DSAC, £ per local end	2,283	2,037	1,544	2,460	5,148
External revenue as % of DSAC	689%	453%	490%	226%	107%
External unit FAC, £ per local end	1,956	1,342	1,221	1,696	2,453
External revenue as % of FAC	805%	688%	620%	327%	224%
External ROCE	377%	242%	176%	102%	78%

Source: Ofcom analysis of BT data

Figure 14.15: OPL price, unit DSAC and average external revenue for WES 1000 rental, £ per local end



Source: Ofcom analysis of BT data

14.268 Table 14.17 above shows that revenues exceeded DSAC in each year from 2006/07 to 2009/10 by a considerable margin (revenues were between 126% and 589% above DSAC). As a result of amendments to the adjustments we have made to BT's data, we now find that BT's revenues also exceeded DSAC in 2010/11, although by a considerably lower amount than in the earlier years (7%). In all five years, revenues were also substantially above FAC resulting in ROCE many multiples of BT's WACC in each of these years.

14.269 On this basis, we consider that BT's charges were above DSAC for the majority of the Relevant Period. As we explain in Section 9, we would normally expect charges above DSAC for this length of time to indicate that BT had failed to take action to alter its charges appropriately. BT has provided no specific arguments in respect of these charges following our Provisional Conclusions.

14.270 Although BT did reduce its rental charge over time, the rate of reduction was insufficient to take account of the fact that its charges were substantially above DSAC for a number of years. For example, BT reduced the price of standard WES 1000 rental from £9830 per local end to £7500 per local end in June 2007, and then again to £5000 per local end in February 2009. However, these reductions were not

sufficient to bring them below DSAC.¹¹¹⁸ We consider that this supports a finding of overcharging, particularly in the years 2006/07 to 2009/10 given the relative stability of unit DSACs over this period.

14.271 We recognise that in 2010/11, revenues exceeded DSAC by a significantly lower amount (7%) compared to previous years. This was not because of a reduction in price but because of a large increase in unit DSAC, from around £2500 to around £5100 that year. BT's change in DSAC methodology is likely to be a very significant contributor to this increase. Whilst revenue still exceeded FAC by a significant margin, it did so by considerably less than in the earlier four years. Consistent with this, BT's ROCE for this year was lower but still substantially above its WACC.

14.272 We note that BT has not provided us with any specific evidence to demonstrate that it reasonably expected the unit DSAC for WES 1000 rental in 2010/11 to be so high that the charges would not exceed DSAC in that year. In light of this, and the fact that BT had failed to reduce prices sufficiently in earlier years to bring charges below DSAC (despite it having data available which showed that charges had been above DSAC in 2006/07, 2007/08 and 2008/09), we consider that this supports a finding of overcharging in 2010/11. Moreover, in this year revenues substantially exceeded FAC by 124%, and BT's ROCE was around eight times its WACC of 9.7%.

14.273 Therefore, we maintain our view that BT overcharged for WES 1000 rental in 2006/07, 2007/08, 2008/09 and 2009/10. We also now conclude that BT overcharged for WES 1000 rental in 2010/11.

Final conclusion on WES 1000 rental

14.274 In summary, we confirm our provisional conclusion that BT overcharged for WES 1000 rental services in 2006/07, 2007/08, 2008/09, 2009/10. In addition, we now conclude that BT also overcharged for WES 1000 rental services in 2010/11. We have reached our conclusions on the basis that:

14.274.1 BT's charges exceeded DSAC in each of these years, and by an especially significant amount for the first four years;

14.274.2 Revenues substantially exceeded FAC in all of these years;

14.274.3 BT's ROCE was substantially above its WACC in all years; and

14.274.4 BT's price reductions over the period were insufficient to bring its charges below unit DSAC.

¹¹¹⁸ In our Provisional Conclusions, we noted that even if BT's proposed reductions had been introduced in November 2008, it is likely that BT's charges for 2008/09 would still have remained above DSAC. However, BT's original price notification on 24 November 2008 only intended for the new prices of *connection* services to become effective on the date of publication. BT intended for the new prices of *rental* services to come into effect on 1 February 2009. Therefore, the implementation of the price reductions for WES 1000 rental was not affected by the delays referred to in paragraphs 10.186 to 10.196.

WES 155 rental

Our Provisional Conclusions

14.275 We used WES 100 rental unit DSAC and unit FAC as a proxy for the DSAC and FAC of WES 155. Our provisional conclusion was that BT overcharged for WES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.275.1 revenues significantly exceeded DSAC in these years; and

14.275.2 revenues substantially exceeded FAC in these years.

14.276 Following publication of the CWW Provisional Determination, we received new information from BT in relation to development costs in 2010/11, which indicated that the adjustment for development costs in 2010/11 should not have been made (see paragraph 14.101 above). In an update note published on our website on 5 April 2012, we set out that if we do not make an adjustment for development costs, BT's revenue exceeds DSAC for WES 155 rentals in 2010/11, but by a smaller amount than we proposed in our Provisional Conclusions.

Views of the Parties

14.277 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the WES 155 rental service.

14.278 We note that BT and CWW did comment on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.279 Table 14.18 below shows the relevant comparisons of external DSAC and FAC for WES 155 rental over the Relevant Period. As set out in paragraph 13.53, we are using WES 100 rental DSAC and FAC as a proxy for the DSAC and FAC of WES 155, but with a small adjustment to reflect the fact that WES 155 equipment was more expensive than WES 100 equipment in 2010/11 (see paragraphs 13.54 to 13.58).¹¹¹⁹

14.280 Figure 14.16 shows the price listed in the OPL, the average external revenue per local end, and our chosen proxy for the external DSAC per local end for WES 155 rental over the Relevant Period.

¹¹¹⁹ Unlike the adjustment we make to our proxies for BES 155 rental, BES 622 rental and WES 622 rental, we have not removed electronics costs from our proxy for WES 155 rental. This is because there were some new local end connections for WES 155 services in 2010/11.

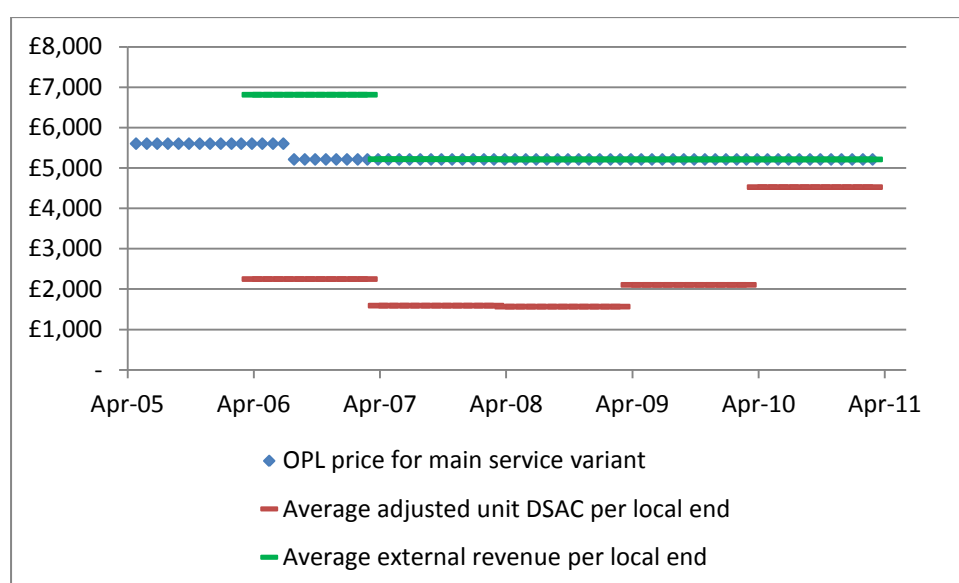
Table 14.18: Key financial measures for WES 155 rental

WES 155 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	126	261	295	289	276
Average external revenue, £ per local end	6,812	5,215	5,210	5,210	5,210
External unit DSAC, £ per local end	2,247*	1,589*	1,565*	2,104*	4,523*
External revenue as % of DSAC	303%	328%	333%	248%	115%
External unit FAC, £ per local end	2,059*	1,197*	1,188*	1,540*	2,146*
External revenue as % of FAC	331%	436%	439%	338%	243%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information for WES 155 rental.

Figure 14.16: OPL price, unit DSAC and average external revenue for WES 155 rental, £ per local end



Source: Ofcom analysis of BT data

14.281 Table 14.18 above shows that revenues exceeded our proxy DSAC in each year from 2006/07 to 2010/11, and by a considerable margin in the first four years (revenues were between 148% and 233% above DSAC). Revenues were also substantially above FAC in all five years.

14.282 We recognise that these figures are based on a proxy for the unit DSAC and unit FAC of WES 155 rental, using WES 100 rental. Notwithstanding the adjustment we have made to our proxy in 2010/11 to account for WES 155 equipment being more expensive than WES 100 equipment, the costs of WES 155 rental may still be higher than our proxy due to higher bandwidth. But WES 155 rental unit DSACs would need to more than triple for them to exceed the charges levied for WES 155 rentals in 2006/07 to 2008/09.

14.283 Moreover, we would expect the underlying costs of WES 155 rental to be closer to those of WES 100 than WES 1000. This is because it seems reasonable to believe costs increase with bandwidth to some extent. However, we note that the charges for WES 155 rental are higher than even the WES 1000 rental DSAC in each year

including 2010/11.¹¹²⁰ We consider that this supports a finding of overcharging on WES 155 rental.

14.284 On this basis, we consider that BT's charges were persistently above DSAC for the majority of the Relevant Period. As we explain in Section 9, we would normally expect charges above DSAC for this length of time to indicate that BT had failed to take action to alter its charges appropriately. BT has provided no specific arguments or evidence as to why these charges are nevertheless cost orientated following our Provisional Conclusions. We note that BT has not changed its price for WES 155 rental since July 2006, and the reduction in this year was insufficient to bring charges below DSAC.

14.285 We recognise that the amount by which revenues exceeded DSAC in 2010/11 (15%) is considerably less than in the previous four years. This was not because of a reduction in price but because of a large increase in our proxy unit DSAC, from around £2100 per local end to around £4500 per local end in that year. BT's change in DSAC methodology is likely to be a very significant contributor to this increase. However, we consider that the pattern of overcharging in the previous years, and the fact that BT has not changed its price for WES 155 rental since July 2006 (despite it having data available which showed that charges were above DSAC in previous years), supports a finding of overcharging in 2010/11. Moreover, revenues substantially exceeded FAC in this year by more than 140%.

14.286 Therefore, we conclude that BT overcharged for WES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11.

Final conclusion on WES 155 rental

14.287 In summary, we confirm our provisional conclusion that BT overcharged for WES 155 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.287.1 revenues exceeded DSAC in each of these years, and by an especially significant amount for the first four years; and

14.287.2 revenues substantially exceeded FAC in all of these years.

¹¹²⁰ In our Provisional Conclusions, this was not the case for 2010/11.

WES 622 rental

Our Provisional Conclusions

14.288 We used the average of WES 100 and WES 1000 rental unit DSAC and unit FAC as a proxy for the unit DSAC and unit FAC of WES 622. Our provisional conclusion was that BT overcharged for WES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.288.1 revenues significantly exceeded DSAC in these years; and

14.288.2 revenues substantially exceeded FAC in these years.

14.289 Following publication of the CWW Provisional Determination, we received new information from BT in relation to development costs in 2010/11, which indicated that the adjustment for development costs in 2010/11 should not have been made (see paragraph 14.101 above). In an update note published on our website on 5 April 2012, we set out that if we do not make an adjustment for development costs, BT's revenue exceeds DSAC for WES 622 rentals in 2010/11, but by a smaller amount than we proposed in our Provisional Conclusions.

Views of the Parties

14.290 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the WES 622 rental service.

14.291 We note that BT and CWW did comment on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.292 Table 14.19 below shows the relevant comparisons of external DSAC and FAC for WES 622 rental over the Relevant Period. As set out in paragraph 13.53, we are using the average of WES 100 and WES 1000 rental unit DSAC and unit FAC as a proxy for the DSAC and FAC of WES 622, but with a small adjustment to remove electronics costs in 2010/11 as there were no WES 622 connections in that year (see paragraphs 13.54 to 13.58).

14.293 Figure 14.17 shows the price listed in the OPL, the average external revenue per local end, and our chosen proxy for the external DSAC per local end for WES 622 rental over the Relevant Period.

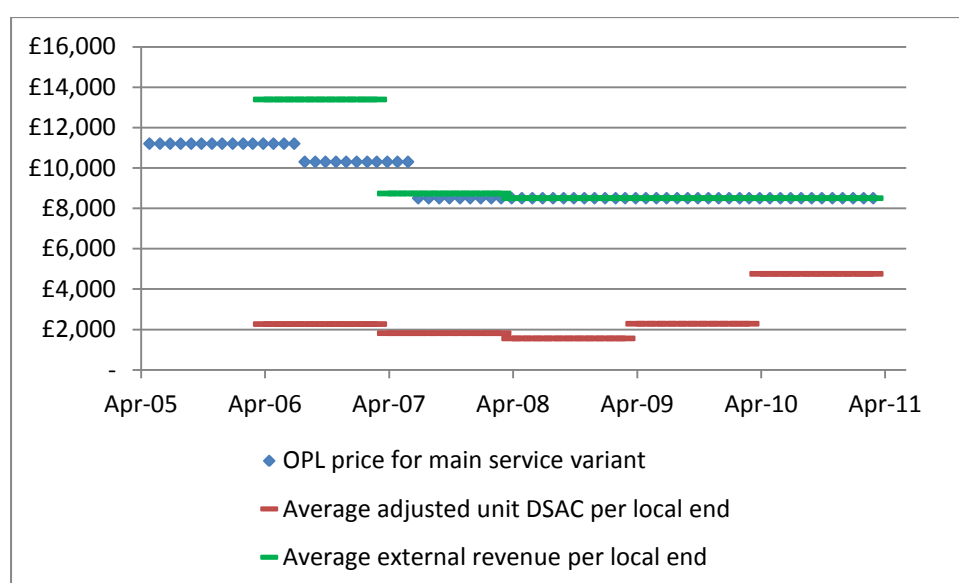
Table 14.19: Key financial measures for WES 622 rental

WES 622 Rental	2006/07	2007/08	2008/09	2009/10	2010/11
External volume, ends	21	48	50	54	56
Average external revenue, £ per local end	13,389	8,732	8,500	8,500	8,500
External unit DSAC, £ per local end	2,265*	1,813*	1,554*	2,282*	4,753*
External revenue as % of DSAC	591%	482%	547%	372%	179%
External unit FAC, £ per local end	2,007*	1,269*	1,204*	1,618*	2,235*
External revenue as % of FAC	667%	688%	706%	525%	380%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information for WES 622 rental.

Figure 14.17: OPL price, unit DSAC and average external revenue for WES 622 rental, £ per local end



Source: Ofcom analysis of BT data

14.294 Table 14.19 above shows that revenues exceeded our proxy DSAC in each year from 2006/07 to 2010/11 by a considerable margin. Revenues were also significantly above FAC in all of these years.

14.295 We recognise that these figures are based on a proxy for the unit DSAC and unit FAC of WES 622 rental, using the average of WES 100 and WES 1000 rental. While the costs of WES 622 rental may be higher than our proxy due to the higher bandwidth, WES 622 rental unit DSACs would need to be around four to six times higher than our proxy for them to be higher than the charges levied for WES 622 rentals in 2006/07 to 2009/10, and around twice as high to be above the charges in 2010/11.

14.296 Moreover, we would expect the underlying costs of WES 622 rental to be less than WES 1000, given that it seems reasonable to believe costs increase with bandwidth to some extent. However, we note that the charges for WES 622 rental are higher than even the WES 1000 rental DSAC in each year including 2010/11 (albeit by considerably less than in earlier years) when DSAC increased significantly. We consider that this supports a finding of overcharging on WES 622 rental.

14.297 On this basis, we consider that BT's charges were persistently above DSAC for the majority of the Relevant Period. As we explain in Section 9, we would normally expect charges above DSAC for this length of time to indicate that BT had failed to take action to alter its charges appropriately. BT has provided no specific arguments or evidence as to why its charges are nonetheless cost orientated following our Provisional Conclusions. As noted in our Provisional Conclusions, although BT did decrease its rental prices over time (most recently in June 2007), it did not reduce prices sufficiently to bring them below DSAC.

14.298 Therefore, we conclude that BT overcharged for WES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11.

Final Conclusion on WES 622 rental

14.299 In summary, we confirm our provisional conclusion that BT overcharged for WES 622 rental in 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 on the basis that:

14.299.1 revenues significantly exceeded DSAC in all of these years; and

14.299.2 revenues substantially exceeded FAC in all of these years.

WES 10000 rental

14.300 The charge for WES 10000 rental is in dispute for 2007/08 and for part of 2008/09, until 8 December 2008 when Conditions HH3 were revoked in relation to the high bandwidth AISBO market in the 2008 BCMR Statement.

Our Provisional Conclusions

14.301 We provisionally concluded that BT overcharged for WES 10000 rental services in 2007/08 and 2008/09.

14.302 We used WES 1000 rental unit DSAC as a proxy for the DSAC of this service. In addition, in the absence of revenue data, we compared this proxy with the price of the standard service listed in the OPL. Our provisional conclusion was that BT overcharged for WES 10000 rental in 2007/08 and 2008/09 on the basis that prices as listed in the OPL exceeded DSAC in those years.

14.303 We noted that although our DSAC proxy was the best available to us at the time, we understood that it may not reflect the costs of providing BES and WES with bandwidths greater than or equal to 2500 Mbit/s. We stated that we would take into consideration any additional relevant cost information stakeholders were able to provide in response to our Provisional Conclusions.

Views of the Parties

14.304 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the WES 10000 rental service.

14.305 We note that BT and CWW did comment on the proxies used in these Disputes where BT has been unable to provide disaggregated data. Their views are set out at paragraphs 13.38 to 13.41, and addressed at paragraphs 13.43 to 13.59.

Our analysis

14.306 Table 14.20 below shows the relevant comparisons of external DSAC and FAC for WES 10000 rental over the Relevant Period. As set out in paragraph 13.53, we are using the WES 1000 rental unit DSAC and unit FAC as a proxy for the unit DSAC and unit FAC of WES 10000. As in our Provisional Conclusions, in the absence of revenue data, we compare this proxy with the price of the standard service listed in the OPL. Figure 14.18 shows the price listed in the OPL and our chosen proxy for the external DSAC per local end for WES 10000 rental over the Relevant Period.

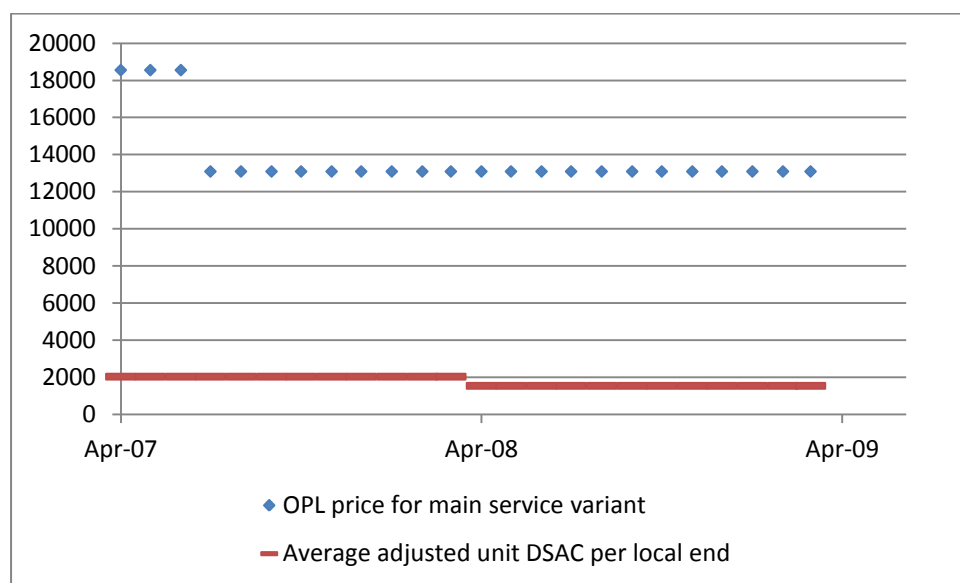
Table 14.20: Key financial measures for WES 10000 rental

WES 10000 Rental	2007/08	2008/09
External volume, ends	2	22
OPL price, £ per end	14,194	13,090
External unit DSAC, £ per local end	2,037*	1,544*
OPL price as % of unit DSAC	697%	848%
External unit FAC, £ per local end	1,342*	1,221*
OPL price as % of unit FAC	1058%	1072%

Source: Ofcom analysis of BT data

* Unit DSAC and unit FAC figures are proxy figures. As a result, we do not have ROCE information in this year.

Figure 14.18: OPL price, unit DSAC and average external revenue for WES 10000 rental, £ per local end



Source: Ofcom analysis of BT data

14.307 Table 14.20 above shows that the price for WES 10000 listed in the OPL was almost seven times higher than our proxy DSAC in 2007/08, and over eight times higher in 2008/09. In addition, the charge was over ten times higher than our proxy FAC in each of these years. This suggests a considerable degree of overcharging for this service in that year.

14.308 In our Provisional Conclusions, we recognised that these figures are based on a proxy which may not reflect the costs of providing WES with bandwidths greater than or equal to 2500 Mbit/s.

14.309 As set out in paragraph 13.41, BT suggests in its response that our choice of proxy (WES 1000 rental) may understate the costs of WES 10000 as electronics cost vary by bandwidth. However, in 2007/08 and 2008/09, WES services did not attract any electronics cost – the majority of the cost was associated with fibre.¹¹²¹ Moreover, BT and CWW agreed that whilst electronics unit costs are most likely to vary by bandwidth, fibre unit costs are likely to be bandwidth independent.¹¹²² Therefore, in light of this, and the fact that neither BT nor any other party has advanced any other reasons why our proxy is inappropriate, we consider that WES 1000 rental DSAC continues to represent the best available proxy for WES 10000 rental DSAC in 2008/09.

14.310 Finally, we note that although BT did reduce its price in June 2007 (from £18,550 per end to £13,090 per end for the standard variant), it remained significantly above our cost proxy.

¹¹²¹ We note that BT's RFS shows that fibre represented 90% of the total costs of WES 1000 rental services in 2008/09. Costs of support functions largely made up the remainder. See Appendix 1.2.1 of the 2008/09 RFS.

¹¹²² BT's response to our Provisional Conclusions, paragraph 158; CWW's response to our Provisional Conclusions, paragraph 122.

Final conclusion on WES 10000 rental

14.311 Therefore, we confirm our provisional conclusion that BT overcharged for WES 10000 rental in 2007/08 and 2008/09, on the basis that:

14.311.1 the price listed in the OPL exceeded our proxy for DSAC in these years;
and

14.311.2 the price listed in the OPL exceeded our proxy for FAC in these years.

Main link

Our Provisional Conclusions

14.312 We provisionally concluded that BT did not overcharge for main link services in 2007/08, 2008/09 or 2009/10 because the charges did not exceed DSAC in those years. The main link charge was not in dispute in 2010/11.

14.313 BT was unable to provide us with any separate information for main link rentals for 2006/07 (see paragraph 13.60). We considered that there was not a robust way of disaggregating the main link data, and so based our assessment of overcharging in 2006/07 on the aggregated BES and WES rental data in 2006/07. We noted that to the extent that the aggregated data for the BES rental services in dispute contains an embedded overcharge on main link, this would be captured within the data.

14.314 We noted that BT's revenues were substantially above FAC in each of the years where data was available, and, consistent with this, BT's ROCE for main link was also substantially above its WACC. However, we explained that we did not consider that FAC should be used as the primary indicator for overcharging, but rather as a cross-check on the outcome of the DSAC test.

Views of the Parties

14.315 Beyond the Parties' general views on our assessment of individual charges, the Parties did not make any specific comments in relation to our provisional conclusions on whether BT overcharged for the main link rental service.

14.316 We note that BT, RGL and CWW commented on our approach to assessing whether BT overcharged for main link rentals in 2006/07. Their views are set out at paragraphs 13.64 to 13.66, and addressed at paragraphs 13.67 to 13.69.

Our analysis

14.317 Table 14.21 below shows the relevant comparisons of external DSAC, FAC and ROCE for main link rental over the Relevant Period. As noted above, main link revenues and costs were aggregated with rental services in 2006/07. Therefore, we were unable to report any key financial measures for this year.

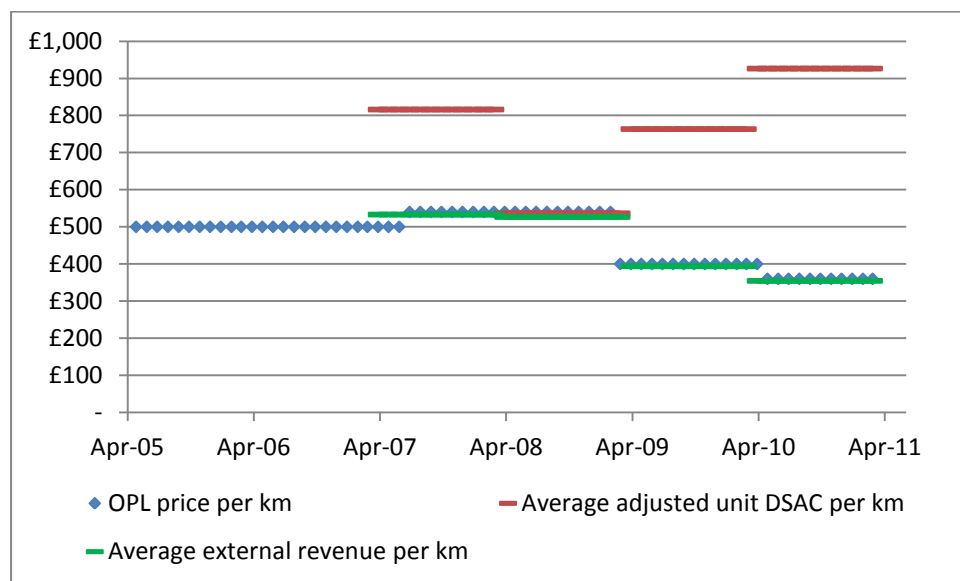
14.318 Figure 14.19 shows the price per km listed in the OPL, the average external revenue per km, and the external DSAC per km for main link rental over the Relevant Period.

Table 14.21: Key financial measures for main link rental

Main link rental	2007/08	2008/09	2009/10
External volume, km	75,820	123,010	154,497
Average external revenue, £ per km	533	526	394
External unit DSAC, £ per km	816	537	763
External revenue as % of DSAC	65%	98%	52%
External unit FAC, £ per km	296	155	208
External revenue as % of FAC	180%	340%	189%
External ROCE	34%	56%	33%

Source: Ofcom analysis of BT data

Figure 14.19: OPL price, unit DSAC and average external revenue for main link rental, £ per km



Source: Ofcom analysis of BT data

14.319 Table 14.21 shows that BT's external revenues did not exceed DSAC for any of the years where data is available. We have not received specific arguments as to why these charges were not cost orientated despite passing the DSAC test.

14.320 Although revenues were only 2% below DSAC in 2008/09, as noted in our Provisional Conclusions this was caused by DSAC falling by around 35% in that year before returning to a level similar to that observed in 2007/08.

14.321 In addition, it is now our understanding that BT's DSACs published in its RFS appear not to reflect cost causation in their treatment of duct costs (see paragraph 12.184). In paragraphs 10.75 and 12.239 to 12.242, we explain that, although robust evidence is lacking, it seems likely that the DSACs of core transmission components are overstated in both the original and revised methodologies compared to the cost causation approach. As a result, the DSAC for main link rental may be overstated in the DSAC methodology used in BT's published RFS. It is possible that, without this overstatement of DSACs, BT's revenues may have exceeded DSAC, in particular in 2008/09. However, as discussed in Section 12, the extent of the over-statement of DSAC is not clear. Given this limitation, we put limited weight on this consideration in our conclusion that there is no overcharging.

Final conclusion on main link

14.322 In summary, we conclude that BT did not overcharge for main link rental in 2007/08, 2008/09 or 2009/10 on the basis that revenues did not exceed DSAC in these years. The analysis of main link rental in 2006/07 is included within our assessment of BES and WES rental services in that year, as we explain in paragraphs 13.67 to 13.69 above.

Summary of our overcharging conclusions

14.323 In Table 14.22 we summarise our final conclusions on overcharging. We highlight in grey where our final conclusions differ from our provisional conclusions.

Table 14.22: Final conclusions on services and years where BT has overcharged

Ethernet service	2006/07	2007/08	2008/09	2009/10	2010/11
BES 100 Rental	Yes	Yes	Yes	Yes	No
BES 1000 Rental	Yes	Yes	Yes	Yes	No
BES 155 Rental	Yes	Yes	Yes	Yes	Yes
BES 622 Rental	Yes	Yes	Yes	Yes	Yes
BES 2500 Rental	NiD	NiD	Yes	NiD	NiD
BES 10000 Rental	NiD	NiD	Yes	NiD	NiD
BES 100 Connection	Yes	Yes	No	No	NiD
BES 1000 Connection	Yes	No	No	No	NiD
WES 10 Rental	No	No	Yes	No	No
WES 100 Rental	Yes	Yes	Yes	Yes	No
WES 1000 Rental	Yes	Yes	Yes	Yes	Yes
WES 155 Rental	Yes	Yes	Yes	Yes	Yes
WES 622 Rental	Yes	Yes	Yes	Yes	Yes
WES 10000 Rental	NiD	Yes	Yes	NiD	NiD
Main link rental	n/a*	No	No	No	NiD

Source: Ofcom analysis of BT data. Yes = Overcharging in year, No = No overcharging in year. "NiD" indicates no decision has been made with respect to this year.

** In 2006/07, revenues and costs associated with main link rentals were included within the revenue and cost information for BES and WES rental services (see paragraphs 13.67 to 13.69).*

14.324 As Table 14.22 shows, in addition to confirming the services and years in which we provisionally concluded that BT overcharged its customers, we now also conclude that BT overcharged its customers in respect of WES 1000 rental in 2010/11.

Calculating the level of overcharge

Our Provisional Conclusions

14.325 In our Provisional Conclusions, we established the level of overcharge by comparing actual charges with the maximum charge under which we would have considered BT not to have overcharged for its services. We considered that the maximum charge that would have been permissible is normally at the level of DSAC, and where we concluded that BT has overcharged for a service, we considered that the extent of overcharging was the extent to which BT's charges exceeded DSAC.

14.326 In the case of BES 100 rental services in 2006/07, we found that the unit DSAC was below the unit FAC. We considered whether this unusual result meant that we should deviate from viewing DSAC as the maximum permissible charge, and hence the benchmark against which we assess the extent of overcharging, in this case. For example, we considered whether FAC may be a more appropriate ceiling for this specific charge. However, we provisionally concluded that it was appropriate to use DSAC as the benchmark, and noted that the choice of benchmark (i.e. FAC or DSAC) is irrelevant to the finding of overcharging and the difference in the level of overcharge between using DSAC and FAC was very small.

Views of the Parties

14.327 BT does not comment specifically on our calculation of overcharging, although it argues that the fact that the DSAC of BES 100 rental was below FAC shows that our approach is flawed. This is discussed further in Section 12.

14.328 TTG, Sky and Verizon all argue that our approach to assessing the level of overcharge should be based on FAC rather than DSAC. Their comments are addressed in Section 9, as is BT's response.

Our analysis

14.329 As in our Provisional Conclusions, we establish the level of overcharge by comparing actual charges with the maximum charge under which we would have considered BT not to have overcharged for its services. The maximum charge that would have been permissible is normally at the level of DSAC, and where we conclude that BT has overcharged for a service, we consider that the extent of overcharging is the extent to which BT's charges exceeded DSAC.

14.330 We maintain our view that it is appropriate to consistently use DSAC as the benchmark for all charges, including for BES 100 Rental in 2006/07 and for BES 1000, BES 155 and BES 622 rentals in that year.

14.331 Therefore, the level of overcharging we calculate for each service is:

14.331.1 zero if charges were lower than DSAC; or

14.331.2 the difference between charges and DSAC, if charges were above DSAC and we consider that they were not cost orientated.

14.332 We summarise the levels of overcharging in Table 14.23 below. We calculate the level of overcharging with respect to all of BT's external customers.

Table 14.23: The degree of overcharging to BT's external customers, £ million

	06/07	07/08	08/09	09/10	10/11	All years
BES 100 rental	6.3	8.6	3.8	0.2	-	19.0
BES 1000 rental	10.4	22.7	21.8	10.2	-	65.1
BES 155 rental	0.8	1.1	0.5	0.1	0.0	2.5
BES 622 rental	2.4	1.6	0.8	0.0	0.0	4.7
BES 2500 rental	NiD	NiD	0.1	NiD	NiD	0.1
BES 10000 rental	NiD	NiD	0.1	NiD	NiD	0.1
BES 100 connection	7.5	1.9	-	-	NiD	9.5
BES 1000 connection	4.8	-	-	-	NiD	4.8
WES 10 rental	-	-	6.5	-	-	6.5
WES 100 rental	2.1	6.2	8.5	2.1	-	18.9
WES 1000 rental	1.0	2.4	5.1	4.7	0.8	14.1
WES 155 rental	0.6	0.9	1.1	0.9	0.2	3.7
WES 622 rental	0.2	0.3	0.4	0.3	0.2	1.5
WES 10000 rental	NiD	0.0	0.2	NiD	NiD	0.2
Main link rental	n/a*	-	-	-	NiD	-
Total	36.1	45.8	48.8	18.6	1.2	150.6

Source: Ofcom based on BT data

* In 2006/07, revenues and costs associated with main link rentals were included within the revenue and cost information for BES and WES rental services (see paragraphs 13.67 to 13.69). 2008/09 data has been pro-rated to 8 December 2008 for services with bandwidths of more than 1Gbit/s.

Section 15

Repayments

Introduction

- 15.1 In Section 14, we concluded that BT has overcharged for the services in dispute as set out in Table 14.22.
- 15.2 Where Ofcom has made a determination of the proper amount of a charge in respect of which amounts have been paid by one of the Parties to the other, section 190(2)(d) of the Act gives us the power 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.
- 15.3 In this section we consider whether we should exercise our discretion to require BT to make a repayment to the Disputing CPs, by way of an adjustment of an overpayment, and if so, what the level of any such repayment should be.
- 15.4 In reaching our decision, we have been guided by our duties and Community obligations under sections 3, 4 and 4A of the Act (as amended). We have also taken account of the findings of the CAT and the Court of Appeal in relation to Ofcom's power under section 190(2)(d) to require repayments in the PPC Judgment and PPC Court of Appeal Judgment, and comments made to us by the Parties.
- 15.5 For the sake of completeness, we have included an account of the PPC Judgment and the Parties' responses to our Provisional Conclusions. However, it is important to note that these pre-date the PPC Court of Appeal Judgment and that court's reasoning on these issues is the current authority, and is fuller and largely on a different basis to that of the CAT in the PPC Judgment.
- 15.6 As noted at paragraph 3.64, we sought comments from the Parties in response to the PPC Court of Appeal Judgment and we refer to the Parties' comments below.

The PPC Court of Appeal Judgment

- 15.7 On 27 July 2012 the Court of Appeal handed down the PPC Court of Appeal Judgment which considers, among other matters, Ofcom's power under section 190(2) to require repayments.
- 15.8 The Court of Appeal rejected BT's ground of appeal that Ofcom and the CAT had acted unlawfully and contrary to English law principles of compensation and restitution in their directions for repayment by BT to the disputing parties in the PPC Disputes.
- 15.9 The Court did not accept that it is necessary or appropriate to align section 190(2)(d) of the Act with English common law causes of action and remedies. It considered that section 190 is part of a statutory code intended to give effect to the CRF, and:

*"[t]he express purpose of section 190(2)d) is to give effect to the determination by Ofcom of "the proper amount" of a charge and to do so by way of adjustment of any underpayment or overpayment."*¹¹²³

- 15.10 The Court did not accept that Ofcom's discretion under section 190 is an "all or nothing" discretion but held that it is:

*"a discretion to make such order for repayment as will best achieve the objectives of the Act and the CRF on the particular facts of the case."*¹¹²⁴

- 15.11 It held that the discretion under section 190 *"must be exercised in a principled way with a view to achieving those objectives."*¹¹²⁵ It considered that:

*"The starting point must be, in a case of overcharging in breach of an SMP condition, to order repayment of the amount of the excess charge. If, however, the payee can show some good reason why a lesser repayment or no repayment at all would better achieve the objectives of the Act and the CRF then that would provide a principled basis for Ofcom to give a direction for only a partial repayment or to make no direction for repayment at all."*¹¹²⁶

- 15.12 The Court rejected BT's contention that, by way of analogy with damages for breach of statutory duty or with restitution for unjust enrichment, neither Ofcom nor the Tribunal should have given a direction for repayment because (1) there was no evidence that the Disputing CPs had suffered any harm, and (2) it would be unjust to make an order for repayment without the Disputing CPs having to account, or give credit, for the benefit they received by virtue of the low charges for terminating segments they purchased from BT.¹¹²⁷

- 15.13 In relation to BT's first ground, the Court of Appeal found that *"both Ofcom and the Tribunal found that overcharging had adverse consequences for both the Disputing CPs and their customers and distorted the market"*.¹¹²⁸ It held therefore that: *"Both Ofcom and the Tribunal were perfectly entitled to conclude that it is not consistent with the regulatory regime and the objectives of the CRF to leave BT with the benefit of its excessive charging for trunk segments in breach of Condition H3.1 in the light of those economic consequences as well as the economic harm suffered by the ultimate retail customers."*¹¹²⁹ The Court noted that Ofcom found that it was appropriate, in the light of the regulatory objectives, to direct BT to repay the overcharges even if the Disputing CPs passed on those charges to their customers.

- 15.14 In relation to the second ground, the Court of Appeal found that *"[f]ar from promoting the objects of the Act and the CRF counter-restitution would, on the facts of the present case, undermine them"*.¹¹³⁰

- 15.15 The Court of Appeal also rejected BT's argument that the need to show loss or damage for a civil claim for breach of an SMP condition under section 104 of the Act

¹¹²³ PPC Court of Appeal Judgment, paragraph 82.

¹¹²⁴ PPC Court of Appeal Judgment, paragraph 83.

¹¹²⁵ PPC Court of Appeal Judgment, paragraph 84.

¹¹²⁶ PPC Court of Appeal Judgment, paragraph 84.

¹¹²⁷ PPC Court of Appeal Judgment, paragraph 85.

¹¹²⁸ PPC Court of Appeal Judgment, paragraph 87.

¹¹²⁹ PPC Court of Appeal Judgment, paragraph 88.

¹¹³⁰ PPC Court of Appeal Judgment, paragraph 86.

requires a different interpretation of section 190(2)(d) of the Act, finding that “[e]ach section turns on its particular wording”.¹¹³¹

Structure of this section

15.16 Our analysis in this section is split into three parts.

15.16.1 First, we consider whether we should require BT to make a repayment to the Disputing CPs.

15.16.2 Second, we consider what the level of any repayment should be.

15.16.3 Third, we consider whether BT is required to pay interest on repayments to the Disputing CPs.

15.17 Finally, we explain how our decision is consistent with our duties and powers.

Is BT required to make repayments to the Disputing CPs?

Our Provisional Conclusions

15.18 In our Provisional Conclusions, we considered that in applying section 190(2)(d) of the Act, BT should not unfairly retain any overcharge, as this could provide a disincentive for it to comply with its regulatory obligations. We noted that the incentives and regulatory signals that determinations in disputes of this nature send to CPs as to how we interpret regulatory obligations and assess future conduct are of real importance.

15.19 We considered that this position was supported by the PPC Judgment, in which the CAT noted that Ofcom’s discretion under section 190(2)(d) “is a “hard” discretion confined to requiring Ofcom to follow through on the conclusions it has drawn pursuant to the Dispute Resolution Process”.¹¹³²

15.20 The CAT also held that:

*“Had BT carefully sought to apply Condition H3.1, but failed, then we consider that that should have been taken into account, and the amount BT would have to pay reduced. But that is not so in this case. This is a case where BT has comprehensively misconstrued the obligation on it, and overcharged as a result. Any shift away from the restitutionary approach that we have described would, so we conclude, be unjustifiable.”*¹¹³³

15.21 We provisionally concluded that BT had not demonstrated to us that it carefully sought to apply Condition HH3.1 in its charges for the services in dispute, and that the amounts we required BT to repay should not therefore be reduced to reflect any efforts to comply with its obligation. We proposed to apply the same approach to the level of repayments in these Disputes as we applied in the 2009 PPC Determinations, which is to base the level of repayments on the difference between the level of the charge and DSAC.

¹¹³¹ PPC Court of Appeal Judgment, paragraph 90.

¹¹³² PPC Judgment, paragraph 182.

¹¹³³ PPC Judgment paragraph 338(2).

- 15.22 Given Ofcom's conclusion in the 2009 PPC Determinations that BT had overcharged, in that certain of its prices were not cost orientated, the CAT found that it was plain that the CPs in dispute with BT had overpaid in respect of those services and that BT had had the benefit of such overpayments. The CAT held that repayment was simply *"putting the parties in the position they would have been in had Condition H3.1 been complied with. Failure to do so would undoubtedly signal that compliance with SMP conditions is not rigorously policed and that – we consider – is an inappropriate signal to send."*¹¹³⁴ The CAT described its approach as "restitutionary".
- 15.23 The CAT went on to reject BT's characterisation of Ofcom's direction as the imposition of a penalty: *"OFCOM's direction... was not intended (and did not) penalise BT, but sought to rectify some (but probably not all) of the adverse effects of BT's failure to comply with Condition H3.1."* The CAT considered that in so acting, Ofcom *"was acting consistently with a number of cases stating that where a person is given the power to levy charges, if that person charges excessively, then the excess is recoverable at the instance of the person who has overpaid"*.¹¹³⁵
- 15.24 In the 2009 PPC Determinations¹¹³⁶ we also 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 to 30 September 2008. In the PPC Judgment, the CAT commented that it had some misgivings about this approach.¹¹³⁷ We therefore did not carry out a similar assessment of the impact of any repayments on BT's rate of return in reaching our Provisional Conclusions
- 15.25 Given the evidence of overcharging and in light of the CAT's findings in the PPC Judgment, we proposed that we should direct BT to pay to the Disputing CPs sums by way of adjustment of those overpayments.

Views of the Parties

Parties' views on our Provisional Conclusions

- 15.26 Virgin supported Ofcom's proposed conclusion that BT is required to make repayments of *"the difference between the amounts paid by it for the various Ethernet services in dispute and the maximum charge under which Ofcom would have considered BT not to have overcharged for those services (DSAC)"*, considering it *"appropriate in order to provide the correct incentives to BT to comply with its regulatory obligations and to promote competition in the relevant markets."*¹¹³⁸
- 15.27 Virgin considered that Ofcom's proposal was *"fair as between BT and Virgin Media, reasonable from the point of view of Ofcom's regulatory objectives and consistent with Ofcom's statutory duties, the Community Requirements and the CAT's conclusions in the PPC Judgment."* It referred to paragraph 338(4) of the PPC Judgment, in which it considered that the CAT:

*"made it clear ... that the exercise by Ofcom of its discretion under section 190(2)(d) of the Communications Act 2003 to order repayment was not dependent on proof of loss or economic harm."*¹¹³⁹

¹¹³⁴ PPC Judgment, paragraph 338(2).

¹¹³⁵ PPC Judgment, paragraph 338(3).

¹¹³⁶ 2009 PPC Determinations, paragraph 9.30.

¹¹³⁷ PPC Judgment, paragraph 338(5).

¹¹³⁸ Virgin's response to our Provisional Conclusions, paragraph 10.1 to 10.4.

¹¹³⁹ Virgin's response to our Provisional Conclusions, paragraph 10.5 to 10.7.

- 15.28 Verizon argued that the serious breaches by BT have had “*a very harmful effect on competition, and a detrimental impact on the ability of BT's competitors to invest and innovate.*” Verizon therefore considered that given its statutory duties, Ofcom should make it clear that it expects BT to make repayments to all customers that have been overcharged, “*as quickly as possible*”.¹¹⁴⁰
- 15.29 CWW agreed that the overcharge should lead to repayments, arguing that “*the repayment required only reflects the scale of the systematic overcharging that has occurred over a prolonged period in this case*”. CWW said that it supports Ofcom's proposal to order repayment, “*regarding it as the minimum level of repayment that could reasonably be expected in the circumstances*”.¹¹⁴¹
- 15.30 Sky agreed that Ofcom should order BT to repay Sky the overpayments made by Sky.¹¹⁴² TTG did not comment on this subject in its response to our Provisional Conclusions – we discuss TTG's comments on BT's response at paragraphs 15.38 to 15.42 below.
- 15.31 BT argues that “*Ofcom ought not to be effectively fining BT considerable sums for having made an error in the published accounts.*”¹¹⁴³
- 15.32 BT contended that, given the factors outlined in BT's response to our Provisional Conclusions, such as the market conditions, Ofcom's “*regular involvement*” with BT's pricing decisions and lack of clear guidance, and Ofcom's “*specific involvement*” in considering BT's cost orientation in the course of the BCMR, “*[i]t is not only wrong to find that BT has breached its cost orientation obligation, but in any event it is totally unfair to order BT to repay monies to the CPs*”.¹¹⁴⁴
- 15.33 BT argued that Ofcom's use of its powers under section 190(2)(d) to order a “*mechanistic repayment*” of any charges above DSAC is “*unlawful as a matter of EU and English public law*” and “*contrary to well-established English compensatory and/or restitutionary principles*”. It argued that Ofcom's powers under section 190 must be construed in the light of the objectives of the CRF and any direction for BT to make payment must satisfy the policy objectives laid down in Article 8(2) of the Framework Directive and the proportionality and consistency/transparency requirements in section 3(3) of the Act.¹¹⁴⁵
- 15.34 BT considered that Ofcom did not carry out the required assessment of proportionality (as addressed in *Tesco v Competition Commission* [2009] CAT 6 at paragraph 135 and in *Vodafone v Ofcom* [2008] CAT 22) before deciding whether to order repayment, and that the CAT in the PPC Judgment had “*failed to consider whether the payments ordered complied with these EU and public law duties.*”¹¹⁴⁶
- 15.35 BT stated that the payment regime in section 190(2)(d) must be either compensatory or restitutionary, and concludes that it appears compensatory “*in view of the parallel enforcement regime for breach of statutory duty under section 104(2)(a) of the 2003 Act, which is compensatory in nature*”. Accordingly, the payments proposed in

¹¹⁴⁰ Verizon's response to our Provisional Conclusions, paragraphs 8 and 9.

¹¹⁴¹ CWW's response to our Provisional Conclusions, paragraphs 8 and 9.

¹¹⁴² Sky's response to our Provisional Conclusions, paragraph 88.

¹¹⁴³ BT's response to our Provisional Conclusions, paragraph 236.3.

¹¹⁴⁴ BT's response to our Provisional Conclusions, paragraph 353.

¹¹⁴⁵ BT's response to our Provisional Conclusions, paragraphs 372 to 373.

¹¹⁴⁶ BT's response to our Provisional Conclusions, paragraph 373.

Ofcom's Provisional Conclusions "*are plainly wrong because there has been no finding of any loss suffered by the CPs.*"¹¹⁴⁷

- 15.36 If, however, the regime is restitutionary, BT contended that the Disputing CPs are similarly not entitled to the proposed payments, since "*a true restitutionary approach is based on principles designed to ensure that neither claimant nor defendant is unjustly enriched at the expense of the other.*" BT stressed that counter-restitution must be taken into account in order to avoid the Disputing CPs being unjustly enriched at the expense of BT.¹¹⁴⁸
- 15.37 BT argued that Ofcom has failed to carry out a counter-restitution analysis. For example:¹¹⁴⁹
- 15.37.1 it has failed to take into account the fact that connections and rentals are different aspects of the charge for a single service. BT contends that charges for connections and rentals should be assessed on an aggregated basis but, "*even if that were not to be the case*", before considering any repayment under section 190(2)(d), the benefits to CPs of one should be balanced against the detriments of the other;
- 15.37.2 it has failed to take into account duration, in particular that normal contracts would last 3 or 5 years, and if there was overcharging in one year that must be counter-balanced against the rest of the contractual years.

Parties' comments on responses to our Provisional Conclusions

- 15.38 Only TTG commented specifically on the issue of repayments in providing comments on BT's response. BT's comments on the Disputing CPs' responses referred to some of the same issues as its response to our Provisional Conclusions, but this was in the context of its arguments on interest (below).
- 15.39 TTG suggested that "*BT's arguments [in its response to our Provisional Conclusions] appear to amount to a confusion of the statutory regime under which Ofcom decides disputes with certain principles which might apply if this were a claim for contractual (or possibly tortious) damages.*" TTG considered that the power in section 190(2)(d) "*is crystal clear: where Ofcom determines the proper amount for a charge, it may give a direction requiring the adjustment of an overpayment (including interest as applicable).*"¹¹⁵⁰
- 15.40 While TTG accepted that:
- "the regime may appear to be 'restitutionary' in a non-technical sense. This does not mean it falls to be analysed in the scheme of case law on restitution in a technical sense (which relate primarily to cases on contract or proprietary torts) as BT has claimed."*¹¹⁵¹ (emphasis in original)
- 15.41 TTG considered that "*the concept of counter-restitution as developed in case-law... does not apply... because section 190 is clear in setting out specific regime relating to Ofcom's powers relating to repayments of past overcharging (above the proper amount).*" Moreover, TTG suggested, BT's proposed counter-restitutionary approach

¹¹⁴⁷ BT's response to our Provisional Conclusions, paragraph 375.

¹¹⁴⁸ BT's response to our Provisional Conclusions, paragraph 376.

¹¹⁴⁹ BT's response to our Provisional Conclusions, paragraphs 377 to 379.

¹¹⁵⁰ TTG's comments on BT's response, paragraphs 7.19 to 7.20.

¹¹⁵¹ TTG's comments on BT's response, paragraphs 7.21.

would be incompatible with Condition HH3, which requires that *“each charge must be assessed on its own and any overcharge is on the basis of each charge”*.¹¹⁵²

- 15.42 Finally, TTG contended that there is no need to consider BT's arguments about a compensatory approach as section 190 does not require an assessment of economic harm. TTG referred to paragraph 326 of the PPC Judgment:

“Economic harm and breach of the cost orientation obligation are, therefore, two sides of the same coin. If prices are not orientated, then potential purchasers of PPCs are very likely to be damaged.”

Parties' comments following the PPC Court of Appeal Judgment

- 15.43 As set out in paragraph 15.5, the PPC Court of Appeal Judgment sets out reasoning on the issue of repayments that we are following and we sought the Parties' comments on the judgment which we set out below.

- 15.44 Noting the Court's conclusions on Ofcom's powers under section 190(2)(d), CWW and Virgin consider that BT would have to do more than *“just show that it did its best to comply, but failed to do so through some misunderstanding of its obligations [...] There must be a reason relating to ‘the better achievement of the objectives of the Act and the CRF’ for any repayment to be reduced”*. They consider that BT is also unable to argue that a repayment should be less than the full amount because the Disputing CPs have not demonstrated that they suffered economic harm. CWW and Virgin consider that the judgment made clear that whether or not evidence that the Disputing CPs suffered harm is presented is not a proper ground for impugning the exercise of Ofcom's discretion to order repayment in full.¹¹⁵³

- 15.45 CWW and Virgin also consider that economic harm is likely to have occurred given the scale of the overcharging. Retail customers will also have been harmed to the extent that Disputing CPs were unable to absorb the entire overcharge themselves. If the overcharge had been passed on to retail customers, CWW and Virgin argue that it would still be appropriate to direct BT to make repayments in full, as *“Ofcom's approach to pass on was not criticised by the Court.”* Similarly, they argue that there is *“no scope for BT to argue that credit must be given by disputing CPs for any ‘low’ charges for other services taken with the services which were overcharged”*. Finally, CWW and Virgin argue that *“it would be just as inconsistent with the objectives of the CRF to leave BT with the benefit of its excessive charging”* in these Disputes as in the PPC Disputes.¹¹⁵⁴

- 15.46 CWW and Virgin argue that the PPC Court of Appeal Judgment:

*“clearly supports the award of repayment in full in these cases and [they] cannot conceive of any further arguments BT could make to justify the award of either a partial or no repayment.”*¹¹⁵⁵

- 15.47 TTG notes the Court of Appeal's view that the starting point in a case of overcharging in breach of an SMP condition should be to order repayment of the amount of the excess charge. TTG considers that *“it does not matter in this assessment whether*

¹¹⁵² TTG's comments on BT's response, paragraphs 7.23 to 7.25.

¹¹⁵³ CWW and Virgin's joint response to the PPC Court of Appeal Judgment, paragraphs 14-15.

¹¹⁵⁴ CWW and Virgin's joint response to the PPC Court of Appeal Judgment, paragraphs 16-19.

¹¹⁵⁵ CWW and Virgin's joint response to the PPC Court of Appeal Judgment, paragraph 20.

CPs have suffered any economic harm" but that there would clearly have been harm resulting from overcharging in this case.¹¹⁵⁶

15.48 TTG argues that BT *"has not shown why an amount of repayment less than the overcharge would better meet Ofcom's objectives"*. TTG considers that Ofcom's objectives would be better met with a repayment greater than the overcharge, to take account of the *"welfare harm"* being greater than the overcharge. This, it argues, would incentivise BT to *"act in the best interests of overall welfare"*.¹¹⁵⁷

15.49 Finally, TTG notes that the Court makes clear that to take account of counter-restitution when assessing repayment would in effect undermine the *ex ante* regulatory regime by not assessing each charge individually.¹¹⁵⁸ TTG therefore considers that *"it does not matter whether there was any corresponding 'credit' for other services purchased from BT"*.¹¹⁵⁹

15.50 Verizon notes that the Court of Appeal rejected BT's position that *"both Ofcom and the Tribunal had acted unlawfully and contrary to well established English law principles of compensation and restitution in their directions for payment of compensation by BT."* Verizon notes that the Court of Appeal *"stated categorically"* that Ofcom and the CAT were correct in concluding that it is not consistent with the regulatory regime and the objectives of the CRF to leave BT with the benefit of its excessive charging.¹¹⁶⁰

15.51 We set out Sky's comments on the PPC Court of Appeal Judgment in relation to interest at paragraph 15.128.

15.52 BT states that:

*"the Judgment helpfully clarifies that the statutory dispute resolution scheme does not involve a hard discretion in respect of repayments, but rather, should the payee show good reason, Ofcom may reduce, in part or even in full, the gross repayment."*¹¹⁶¹

15.53 BT considers that there are *"clear, significant and good reasons"* why Ofcom should direct a reduced payment or no payment at all, including:¹¹⁶²

15.53.1 *"giving BT a significant allowance or margin of error when assessing what BT should have concluded was a compliant maximum charge for network access at the time that BT set those charges, or, alternatively, reviewed those charges. Specifically, allowance should be made reflecting the significant policy and regulatory obligations with which BT was striving to meet and comply, for example the creation of Openreach and a new Ethernet portfolio, the level of discussion between BT and both Ofcom and industry in respect of BT's portfolio, the general difficulties, particularly in 2006 and 2007 of predicting end of year DSACs for what were essentially nascent products, etc.;*

¹¹⁵⁶ TTG's response to the PPC Court of Appeal Judgment, p. 2.

¹¹⁵⁷ TTG's response to the PPC Court of Appeal Judgment, p. 2.

¹¹⁵⁸ TTG's response to the PPC Court of Appeal Judgment, p. 3.

¹¹⁵⁹ TTG's response to the PPC Court of Appeal Judgment, p. 2.

¹¹⁶⁰ Verizon's response to the PPC Court of Appeal Judgment, p. 2.

¹¹⁶¹ BT's response to the PPC Court of Appeal Judgment, p. 2.

¹¹⁶² BT's response to the PPC Court of Appeal Judgment, p. 2.

- 15.53.2 *to the extent that Ofcom declines to allow BT's proposed cost adjustments (or objections to Ofcom's cost adjustments) and error corrections for the purpose of assessing the after the event limit of what is a compliant charge, by reflecting those cost adjustments and error corrections in a reduction in the amount of any repayment;*
- 15.53.3 *should Ofcom conclude, for the purpose of assessing compliance with the basis of charges condition, that it is appropriate to disaggregate the charge for network access into separate rental and connection prices, or that it is inappropriate to aggregate prices across bandwidths, nonetheless assessing whether the total charge to any given CP for the provision of a service or group of services results in an excessive or otherwise unfair charge and to the extent that there has been no unfairness reduce the repayment accordingly; and*
- 15.53.4 *considering the impact of "pass-through" or alternatively "windfall" and the impact of either of these two factors on citizens generally in communications markets and consumers of these products specifically, especially in the context of the promotion of effective competition, reducing any repayment accordingly."*

Our analysis

- 15.54 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 pay a sum to another party by way of an adjustment of an overpayment.
- 15.55 In this analysis we have taken full account of the PPC Court of Appeal Judgment. In that judgment, the Court held that Ofcom's discretion under section 190 *"must be exercised in a principled way"* with a view to achieving the objectives of the Act and the CRF on the particular facts of the case.¹¹⁶³
- 15.56 In considering our regulatory objectives, we return first to the CRF and our reason for imposing an SMP condition on BT. These reasons are discussed at paragraphs 9.86 to 9.89 above and we are satisfied that we complied with our obligations in setting Condition HH3.1. We consider that remedying a breach of the SMP Condition is consistent with the objectives of the CRF, as without a remedy the regime would risk being ineffective. We also consider that remedying a breach is consistent with the Act, which clearly envisages by way of section 190(2)(d) that Ofcom may decide that there should be a repayment of sums previously over- or under-paid.
- 15.57 We do not consider that our findings of overcharging depend on a finding of economic harm (see paragraph 9.243 above). However, we note our conclusions at paragraph 10.93 that not only did BT's charges have the potential for causing economic harm, but such harm may have occurred. We consider that this is a further indication that we should order repayments, as to do otherwise would be inconsistent with our duties to further the interests of consumers, where appropriate by promoting competition.
- 15.58 The Court of Appeal considered that our starting point in a case of overcharging in breach of an SMP condition must be to order repayment of the amount of the excess charge, but that if BT can show a good reason why a lesser repayment or no repayment would better achieve the objectives of the Act and the CRF then we may

¹¹⁶³ PPC Court of Appeal Judgment, paragraphs 83 and 84.

order only a partial repayment or make no direction for repayment. The Court of Appeal also noted that it is not necessary or appropriate to align section 190(2)(d) of the Act to English common law causes of action and remedies and that, on the facts of that case, counter-restitution would be inconsistent with the 2004 regulatory regime and would undermine the objects of the Act and the CRF.¹¹⁶⁴

- 15.59 In applying section 190(2)(d) of the Act, we consider that BT should not be left with the benefit of its excessive charging in breach of Condition HH3.1, as this could provide an incentive for it to fail to comply with its regulatory obligations. Implicit in providing incentives for future conduct is the need to address unreasonable historic behaviour. As we noted in the 2009 PPC Determinations¹¹⁶⁵, 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.
- 15.60 We do not agree with BT's argument that the enforcement regime under section 104(2)(a) of the Act implies that the regime under section 190(2)(d) must be compensatory in nature. In our view, this would be inconsistent with the views of the Court of Appeal in the PPC Court of Appeal Judgment (at paragraph 90).
- 15.61 We do not agree that in ordering repayment we are effectively fining BT, as BT contends. As noted at paragraph 15.23, in the PPC Judgment the CAT rejected BT's characterisation of Ofcom's direction as the imposition of a penalty.
- 15.62 We remain of the view that we should not carry out an assessment of the impact of any repayments on BT's rate of return, given the misgivings about this approach expressed by the CAT in the PPC Judgment, as noted at paragraph 15.24 above.
- 15.63 We do not agree that we are 'mechanistic' in the exercise of our discretion to order repayments. On balance, having considered all our relevant regulatory duties in exercising this regulatory discretion, we consider that repayment is likely to best promote our regulatory objectives unless we have conflicting evidence that such an outcome would be inconsistent with our duties or the objectives of the legislative framework. We do not consider in this case that BT has shown any good reason why a lesser repayment or no repayment at all would better achieve the objectives of the Act and the CRF. In particular:
- 15.63.1 We have noted the issues raised by BT in relation to the obligations it was under at the start of the Relevant Period and its views regarding the "*nascent*" state of the market (see paragraphs 14.51 to 14.65). However, as discussed above (for example at paragraph 4.40), the DSAC ceiling already provides appropriately bounded flexibility for BT. Especially where BT's charges exceeded DSAC in fewer than three financial years, we considered evidence that they did not constitute overcharging (see paragraph 14.20). We do not therefore consider it would be appropriate for us to exercise our discretion to order a lesser repayment on this basis.

¹¹⁶⁴ PPC Court of Appeal Judgment, paragraphs 82 to 84 and 86.

¹¹⁶⁵ 2009 PPC Determinations, paragraph 8.34.

- 15.63.2 In relation to BT's argument that we should reflect cost adjustments that we have not accepted in our assessment of overcharging in our determination of the appropriate level of repayments, we consider it would not be appropriate to base these decisions on two different data sets.
- 15.63.3 For the reasons summarised at paragraph 8.80, we consider that Condition HH3.1 requires 'each and every' charge to be cost orientated. In calculating the level of overcharge, we therefore carry out that calculation for each connection and rental service individually. We do not think that it would be appropriate to calculate repayments against a different benchmark in this case and consider this approach is consistent with the Court of Appeal's finding that a counter-restitution analysis would undermine the objects of the Act and the CRF (see paragraph 15.59 above).
- 15.63.4 We consider that in this case, where we have found that BT has overcharged in breach of an SMP condition, it is appropriate to require a repayment of the amount of the overcharge, even if the Disputing CPs may have passed on that charge to their customers.
- 15.64 We therefore conclude that we should direct BT to repay the Disputing CPs the amounts by which BT has overcharged them for WES and BES services. We consider that, by way of adjustment of an overpayment, we should direct BT to repay the full amount of the overcharge because, having considered arguments for a lesser amount, we do not consider that they are made out.
- 15.65 We would strongly encourage the Disputing CPs to pass on the benefits of any repayment to their customers. If they do so, customers of Disputing CPs may benefit from lower prices that the Disputing CPs may be able to deliver as a consequence of any repayment.

Calculating repayments

- 15.66 Having identified that BT has overcharged the Disputing CPs and concluded that we should require BT to refund the overpayments, we now identify the amount that BT must repay to each Disputing CP.

Our Provisional Conclusions

- 15.67 In the Joint Dispute Submission, Sky and TTG argued that repayments should be assessed by reference to FAC.¹¹⁶⁶ However, we provisionally concluded that the appropriate method to calculate the level of repayment is relative to DSAC, not to FAC.
- 15.68 We proposed to adopt the same approach to quantifying the level of repayment for each Disputing CP as we adopted in the 2009 PPC Determinations.¹¹⁶⁷ To calculate repayments to each Disputing CP for each year, we proposed to use BT's billing data for each service in dispute to calculate the relative share of total external spend that is attributable to each of the Disputing CPs.

¹¹⁶⁶ See Annexes 3 and 4 to the Joint Dispute Submission.

¹¹⁶⁷ 2009 PPC Determinations, paragraphs 8.70 *et seq.*

Views of the Parties

15.69 Sky and TTG make a number of further comments about the use of DSAC, as opposed to FAC, as the appropriate cost benchmark for establishing overcharging, which we address in Section 9 above.

15.70 The only comment about Ofcom's approach to calculating individual repayments (see paragraph 15.68 above) was from Virgin, which noted that it "*has the advantage that it starts from BT's audited RFS and allows a consistent approach to repayments across the Disputing CPs*".¹¹⁶⁸

Our analysis

15.71 Our analysis in Section 9 addresses Sky and TTG's arguments that the overcharging should be assessed by reference to FAC. In Section 9 we concluded that DSAC, not FAC, is the appropriate cost benchmark for establishing the level of overcharging. Since we have concluded that BT is required to repay the amount of the overcharge, DSAC is also the appropriate cost benchmark for calculating repayments.

15.72 Since none of the Parties disagrees with our proposed approach to calculating individual repayments we intend to follow the approach set out in our Provisional Conclusions which is to use BT's billing data for each service in dispute to calculate the relative share of total external spend that is attributable to each of the Disputing CPs.

15.73 On this basis, we set out in Table 14.2 below the total refunds for each of the Disputing CPs in each year (rounded to the nearest £1000). In Table 14.3 we show the total repayments split by Disputing CP, Ethernet service and year.

Table 15.1: Summary of repayments due to the Disputing CPs in £, split by year

Year	Sky	TTG	Virgin	CWW	Verizon	Total
2005/06	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2006/07	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2007/08	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2008/09	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2009/10	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2010/11	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: Ofcom – based on data supplied by BT

¹¹⁶⁸ Virgin's response to our Provisional Conclusions, paragraph 10.6.

Table 15.2: Repayments due to the Disputing CPs in £, split by service

Disputed service	Sky	TTG	Virgin	CWW	Verizon	Total
BES 100 rental	[X]	[X]	[X]	[X]	[X]	[X]
BES 1000 rental	[X]	[X]	[X]	[X]	[X]	[X]
BES 155 rental	[X]	[X]	[X]	[X]	[X]	[X]
BES 622 rental	[X]	[X]	[X]	[X]	[X]	[X]
BES 2500 rental	[X]	[X]	[X]	[X]	[X]	[X]
BES 10000 rental	[X]	[X]	[X]	[X]	[X]	[X]
BES 100 connection	[X]	[X]	[X]	[X]	[X]	[X]
BES 1000 connection	[X]	[X]	[X]	[X]	[X]	[X]
WES 10 rental	[X]	[X]	[X]	[X]	[X]	[X]
WES 100 rental	[X]	[X]	[X]	[X]	[X]	[X]
WES 1000 rental	[X]	[X]	[X]	[X]	[X]	[X]
WES 155 rental	[X]	[X]	[X]	[X]	[X]	[X]
WES 622 rental	[X]	[X]	[X]	[X]	[X]	[X]
WES 10000 rental	[X]	[X]	[X]	[X]	[X]	[X]
Main Link	[X]	[X]	[X]	[X]	[X]	[X]
Total	[X]	[X]	[X]	[X]	[X]	[X]

Source: Ofcom – based on data supplied by BT

Interest on repayments

Ofcom's Provisional Conclusions

15.74 The Disputing CPs requested that an appropriate level of interest be paid on any repayment. However, clause 12.3 of each of the contracts relevant to the services in dispute¹¹⁶⁹ excludes interest on any repayments due to either party as a result of recalculation or adjustment of a charge with retrospective effect under a direction (or other requirement) of Ofcom:

“12.3... If any charge is recalculated or adjusted with retrospective effect under an order, direction, determination or requirement of Ofcom, or any other regulatory authority or body of competent jurisdiction, the Purchaser Parties agree that interest will not be payable on any amount due to either party as a result of that recalculation or adjustment.”

15.75 In the Provisional Conclusions, Ofcom proposed to direct that interest should be paid on the repayments in accordance with the contractual provisions entered into by the Parties. We noted that this was consistent with our previous determinations. In this case, the relevant contractual provisions provide that interest will not be payable.

15.76 In the Verizon Provisional Conclusions, we also noted Verizon's reference to our determination of the *Dispute between THUS and BT about payment terms for PPCs, IECs and IBCs* (the “PPC payment terms dispute”),¹¹⁷⁰ in which Ofcom directed BT to make a repayment that had been calculated on the basis of the total cost of capital which BT avoided as a result of BT's reduced working capital requirements caused

¹¹⁶⁹ From 2004 until March 2009 BES services were provided under BT's contract for Backhaul Extension Services and WES services under BT's contract for Wholesale Extension Services; from March 2009 to March 2010 BES and WES services were provided under a consolidated contract for Backhaul and Wholesale Extension Services; and since March 2010 they have been provided under BT's Contract for Connectivity Services.

¹¹⁷⁰ See http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/cw_916/thusbt.pdf

by THUS' early payment for certain products and services. We noted that the PPC payment terms dispute concerned specifically whether BT's payment terms for the provision of certain products and services¹¹⁷¹ were in accordance with SMP conditions requiring BT to provide those products and services on fair and reasonable terms, conditions and charges. Ofcom determined that they were not, and required BT to change its payment terms and to pay THUS a sum by way of adjustment for the overpayment of charges for the products and services to cover the loss incurred through early payment. We provisionally concluded that the Verizon Dispute concerns whether BT's charges for certain WES services were cost orientated, and whether the contractual terms on which BT provided the services were fair and reasonable is outside its scope.

Parties' responses to our Provisional Conclusions

15.77 BT agrees with Ofcom's provisional view that interest should be paid in accordance with the contractual provisions entered into by the Parties.¹¹⁷² The Disputing CPs all disagree¹¹⁷³ and their arguments relate to seven principal themes:

- 15.77.1 the scope of the Disputes;
- 15.77.2 Ofcom's duties and powers;
- 15.77.3 whether the term was imposed by BT;
- 15.77.4 whether the term is fair and reasonable;
- 15.77.5 BT's incentives;
- 15.77.6 competition; and
- 15.77.7 the appropriate remedy.

The scope of the Disputes

15.78 TTG and Verizon both argue that interest is within the scope of the Disputes.

15.79 TTG argues that the question of interest is "*squarely within the scope of the dispute*" given that "*[i]t was always clearly part of the dispute that TalkTalk claimed interest*"¹¹⁷⁴ and that the way the scope is drafted requires Ofcom "*to have regard to all such matters as are relevant in deciding the dispute*". TTG argues that Ofcom must therefore assess whether it is fair and reasonable to award interest on the overcharged amount and if so the rate that should be applied.¹¹⁷⁵

¹¹⁷¹ PPCs, interconnection extension circuits ("IECs") and intra building circuits ("IBCs")

¹¹⁷² BT's comments on the Disputing CPs' responses, paragraph 4.

¹¹⁷³ Sky's response to our Provisional Conclusions, section 8; TTG's response to our Provisional Conclusions, section 4; Virgin's response to our Provisional Conclusions, paragraphs 10.8 to 10.17; CWW's response to our Provisional Conclusions, paragraphs 137 to 151; Verizon's response to the Verizon Provisional Conclusions, pages 3 to 4.

¹¹⁷⁴ TTG refers to paragraph 14 of the Joint Dispute Submission which requests that Ofcom give a direction for repayment of the overcharge "*together with interest on that sum at such rate and for such period as may be appropriate and just, or alternatively...to repay the Purchaser Parties such amounts as Ofcom may determine to be appropriate and just*".

¹¹⁷⁵ TTG's response to our Provisional Conclusions, paragraphs 4.7 to 4.10.

- 15.80 Verizon disagrees with Ofcom's view that it is not within the scope of the Verizon Dispute to consider whether the contractual terms are fair and reasonable. Verizon considers that the scope of the Verizon Dispute gives Ofcom freedom to consider all relevant obligations. Verizon considers that given Ofcom itself stated in the Provisional Conclusions that the Verizon Dispute "*concerns the terms on which BT provides Network Access to Verizon...it would seem quite frankly extraordinary if in the circumstances Ofcom were to ignore the requirement that those terms be reasonable*".¹¹⁷⁶
- 15.81 Verizon submits: "*As the CAT noted in its MCT TRD judgment¹¹⁷⁷ at paragraph 178 with regard to Ofcom's dispute resolution obligations "...Ofcom must have regard to what is fair as between the parties and what is reasonable from the point of view of the regulatory objectives set out in the Common Regulatory Framework directives and in the [Act]". This appears to Verizon to compel Ofcom to reach a determination that is fair and reasonable and therefore Ofcom cannot exclude consideration of the contract terms relating to interest from the scope of the dispute, given the significance of the matter to the overall outcome of the dispute*". Verizon considers that "*it is simply a matter of Ofcom properly applying its duties to promote competition and further the interests of consumers.*"¹¹⁷⁸
- 15.82 BT argues that the fairness and reasonableness of the interest exclusion provision was never included by the Disputing CPs in their reference of the present Disputes. BT disagrees with the Disputing CPs' request that Ofcom issue a direction under section 190(2)(b) to strike out the relevant clause from the contract, arguing that it would be "*a serious irregularity for Ofcom now to change the scope of the dispute to include any consideration of whether clause 12.3 was fair and reasonable*", particularly without any consultation with other parties to the contract who would be affected by the change.¹¹⁷⁹ BT refers to the CAT's judgment in the '08 dispute¹¹⁸⁰ (the "08 CAT Judgment"), in which BT notes that the CAT found that Ofcom had changed the scope to BT's prejudice. Moreover, BT noted that in these Disputes there have not been any negotiations regarding this issue (as required by Ofcom's guidelines), but for certain historic discussions in 2008.¹¹⁸¹

Ofcom's duties and powers

- 15.83 All of the Disputing CPs argue that Ofcom should order BT to pay interest on repayments and that such payments would be in accordance with Ofcom's duties and powers.¹¹⁸²
- 15.84 TTG argues that Ofcom cannot simply refer to its previous practice as this would "*constitute an unlawful fettering of discretion, particularly since Ofcom has apparently not considered the representations made by TalkTalk and Sky on this point.*"¹¹⁸³

¹¹⁷⁶ Verizon's response to the Verizon Provisional Conclusions, p.3. Also Verizon's comments on BT's response, paragraph 16.

¹¹⁷⁷ *T-Mobile (UK) Limited v Ofcom* [2008] CAT 12 (the "CAT's TRD Judgment").

¹¹⁷⁸ Verizon's response to the Verizon Provisional Conclusions, p.4. Also Verizon's comments on BT's response, paragraphs 17 to 18.

¹¹⁷⁹ BT's comments on the Disputing CPs' responses, paragraphs 18 to 20.

¹¹⁸⁰ *BT (Termination charges: 080 calls) v OFCOM* [2011] CAT 24 at paragraph 241.

¹¹⁸¹ BT's comments on the Disputing CPs' responses, paragraphs 21 to 22.

¹¹⁸² TTG's response to our Provisional Conclusions, paragraph 4.37; Sky's response to our Provisional Conclusions, paragraphs 86 to 87; Virgin's response to our Provisional Conclusions, paragraphs 10.8 to 10.9; CWW's response to our Provisional Conclusions, paragraphs 138 to 139; Verizon's response to our Provisional Conclusions, paragraphs 11 to 12.

- 15.85 TTG argues that the approach taken by the CAT in the 08 CAT Judgment should not be applied in these Disputes because the 08 case was “*fundamentally different, because...BT did not have SMP in respect of the disputed product*”. TTG also argues that even if the 08 case was relevant, “*the correct conclusion would be that contractual rights are not (as Ofcom seems to contend) the only relevant factor and further other relevant considerations can over-ride contractual rights*”, including “*Ofcom’s statutory obligations and the impact on consumers, competition and economic efficiency*”.¹¹⁸⁴
- 15.86 Sky notes that under section 190(2)(b) Ofcom has the power “*to give a direction fixing the terms or conditions of transactions between the parties to the dispute*”. It argues that Ofcom “*can and should*” issue a direction which would have the effect of “*striking out the clause of the standard BES agreement that excludes the payment of interest and requiring BT to include in the standard agreement a clause that entitles communications providers to interest in the event of overcharging by BT.*”¹¹⁸⁵
- 15.87 Sky submits that “*the fact that the contractual rate of interest has been deemed appropriate in past cases does not mean that it is appropriate in relation to the specific facts of this case*” and that there is “*no presumption that the contractual rate should apply, particularly where, as in this case, the contract actually provides that no interest is payable*”. Sky considers that in light of Ofcom’s obligation to further the interests of consumers, it is appropriate that the repayments that BT is ordered to make be adjusted with interest at a rate above the contractual interest rate applicable in this case. Sky argues that this would encourage BT to comply with its SMP obligations by “*(disgoring) from itself the benefit of the overpayments*”.¹¹⁸⁶
- 15.88 Sky argues that “*Ofcom’s decision that interest should be paid on the repayments has the effect – or at least should have the effect – of disregarding the contractual exclusion on the payment of interest*”. Sky argues that Ofcom “*has, in effect, determined that BT cannot rely upon part of clause 12.3*”. Sky therefore considers that it is “*inconsistent for Ofcom to decide that interest should be payable and thus override the exclusion but then Ofcom allows BT to rely up on the otherwise overridden exclusion which permits BT not to pay interest.*” According to Sky, therefore, it is unreasonable and inconsistent with its duties under section 3(3)(a) of the Act, for Ofcom to first state that interest should be payable, thus overriding the exclusion, but then allow BT to rely upon the exclusion of interest.¹¹⁸⁷
- 15.89 CWW also argues that if Ofcom “*simply let the contractual situation dictate whether interest is payable and did not carry out a proper assessment of what is fair as between the parties, and reasonable from the point of view of Ofcom’s regulatory objectives*”, it “*would be failing in its Section 3 duties*”. CWW also argues that “*following the relevant contractual term in any given dispute without consideration of what is fair and reasonable will lead to inconsistency of outcomes*” which would be “*contrary to the principles under which Ofcom’s regulatory activity should be consistent*”. It argues that these Disputes are distinguishable from those considered in the 08 CAT Judgment, where BT did not have SMP.¹¹⁸⁸

¹¹⁸³ TTG’s response to our Provisional Conclusions, paragraphs 4.7 to 4.10.

¹¹⁸⁴ TTG’s response to our Provisional Conclusions, paragraphs 4.14 to 4.22. Also paragraph 4.55.

¹¹⁸⁵ Sky’s response to our Provisional Conclusions, paragraphs 86 and 87.

¹¹⁸⁶ Sky’s response to our Provisional Conclusions, paragraphs 92 to 94.

¹¹⁸⁷ Sky’s response to our Provisional Conclusions, paragraphs 94 to 99.

¹¹⁸⁸ CWW’s response to our Provisional Conclusions, paragraphs 146 to 149.

- 15.90 Virgin argues that, irrespective of the contractual terms agreed to by the Parties, awarding interest would be consistent with the CAT's decisions in the PPC Judgment and the 08 CAT Judgment. Like CWW, Virgin argues that it would be inconsistent with Ofcom's section 3 duties to simply rely on the relevant contractual provisions and not properly assess "*what is fair as between the parties and reasonable from the point of view of Ofcom's regulatory objectives*" and would risk leading to inconsistent outcomes in the determination of disputes.¹¹⁸⁹
- 15.91 Verizon argues that in accordance with its statutory duties, Ofcom should "*have an overwhelming preference to put the parties in the position they would have been in had overcharging not taken place*", including the interest that BT has gained on each overcharge. Verizon argues BT would be put in "*an unfairly beneficial position, where it has been unjustly enriched*" as a result of overcharging, and that not to account for this would run counter to Ofcom's duties to promote competition and further the interests of consumers.¹¹⁹⁰
- 15.92 Verizon considers that in light of the PPC Court of Appeal Judgment, it is clear that Ofcom has discretion about what it awards under section 190, "*including awards of interest*", and reiterates that Ofcom should give due consideration to how it exercises that discretion.¹¹⁹¹
- 15.93 BT refers to the 08 CAT Judgment, noting that private law rights must be considered by Ofcom in determining a dispute. It pointed to the fact that under section 190(2)(d), no provision is made for the payment of interest, unlike under other statutory schemes. Likewise, the CRF does not require a national regulatory authority to apply interest. Accordingly, BT argues, the "*obvious statutory intention*" was that contractual arrangements should govern the question of interest and it would be wrong, therefore, for Ofcom to ignore such provisions. Moreover, BT argues that the 08 CAT Judgment shows that interest is not an automatic remedy and that even if interest is provided for in the parties' contractual arrangements, it may not be imposed.¹¹⁹²
- 15.94 BT argues that, contrary to the Disputing CPs' arguments, Ofcom has acted consistently with its previous determinations, and in accordance with regulatory certainty, by relying on the relevant contractual term. Referring to the 2009 PPC Determinations, BT notes that Ofcom had regard to the provisions in the contract in question in determining the interest rate payable. BT rejects some of the Disputing CPs' arguments that Ofcom had fettered its discretion by simply relying on the terms in question. BT argues that "*there can be no objection to Ofcom giving effect to what the parties have agreed, provided that Ofcom considers that the outcome is an appropriate one*". In BT's view, it is not part of Ofcom's regulatory duties to ignore the provisions of contracts between parties, and to do so would undermine the value and certainty of contractual agreements.¹¹⁹³
- 15.95 The Disputing CPs all refer to the Court of Appeal's judgment in the appeal of the 08 CAT Judgment (the "08 Court of Appeal Judgment").¹¹⁹⁴ They consider that the 08 Court of Appeal Judgment is relevant to their submissions on interest and supports

¹¹⁸⁹ Virgin's response to our Provisional Conclusions, paragraphs 10.10 to 10.13.

¹¹⁹⁰ Verizon's response to our Provisional Conclusions, paragraphs 10 to 12.

¹¹⁹¹ Verizon's response to the PPC Court of Appeal Judgment, page 3.

¹¹⁹² BT's comments on the Disputing CPs' responses, paragraphs 10 to 12.

¹¹⁹³ BT's comments on the Disputing CPs' responses, paragraphs 30 to 34.

¹¹⁹⁴ *Telefónica O2 UK Ltd v Office of Communications* [2012] EWCA Civ 1002.

the view that the contractual position between the parties does not bind a regulator when it is determining a dispute.¹¹⁹⁵

- 15.96 Sky argues that Ofcom must “*look past the purported effect of the contractual exclusion*” and determine whether the clause is a relevant consideration or should be disregarded. If it is relevant, Ofcom must determine whether the clause is fair and reasonable in the circumstances of the case. In Sky’s view, the clause excluding interest is not a relevant consideration and should be disregarded. In the event that Ofcom determines that the clause is a relevant consideration, Sky submits that the clause is neither fair nor reasonable in the light of the facts.¹¹⁹⁶
- 15.97 CWW and Virgin contend that “*Clause 12.3 of... the contract should have very little, if any, weight attached to it when determining whether interest should be payable on repayments awarded in the Ethernet disputes*”. CWW and Virgin argue that, in line with the 08 Court of Appeal Judgment, Ofcom must “*carry out a proper assessment of what is fair and reasonable in the circumstances*”, which should lead to an award of interest.¹¹⁹⁷
- 15.98 CWW and Virgin also note that the PPC Court of Appeal Judgment “*confirmed that ‘it is not consistent with the regulatory regime and the objectives of the CRF to leave BT with the benefit of its excessive charging’*” and argue that not awarding interest “*absolutely leaves BT with the benefit of its excessive charging*”.¹¹⁹⁸
- 15.99 TTG considers that, in relying on the contractual provision on interest, “*Ofcom has provisionally attached overriding significance to the contract in conflict with the reasoning of the Court of Appeal in the 08 judgment*” and that instead “*Ofcom must consider whether it is fair and reasonable for interest to be payable (and at what level) irrespective of what the contract stipulates*”.¹¹⁹⁹
- 15.100 Verizon considers that the 08 Court of Appeal Judgment “*clearly demonstrate[s] that a correct legal analysis of the position is that contractual agreements are not binding or determinative on Ofcom in the exercise of its dispute resolution powers*” and that “*over reliance by Ofcom on the contractual conditions between parties in dispute may result in Ofcom not reaching a decision that achieves the relevant regulatory objectives...to reach a decision that is fair and reasonable between the parties and which restores the parties to the position they would have been had Condition [HH3.1] been complied with*”.¹²⁰⁰

Whether the term was imposed by BT

- 15.101 The Disputing CPs all argue that their proposal that Ofcom should override the contract should be given greater weight because BT effectively imposed the term on them.¹²⁰¹

¹¹⁹⁵ See Sky’s, TTG’s, CWW and Virgin’s and Verizon’s responses to the PPC Court of Appeal Judgment. The responses refer in particular to paragraphs 73-75 and 101 of the 08 Court of Appeal Judgment.

¹¹⁹⁶ Sky’s response to the PPC Court of Appeal Judgment, p.2 to 3.

¹¹⁹⁷ CWW and Virgin’s response to the PPC Court of Appeal Judgment, paragraphs 33 to 35.

¹¹⁹⁸ CWW and Virgin’s response to the PPC Court of Appeal Judgment, paragraph 36 to 43.

¹¹⁹⁹ TTG’s response to the PPC Court of Appeal Judgment, p.3 to 4.

¹²⁰⁰ Verizon’s response to the PPC Court of Appeal Judgment, p.4.

¹²⁰¹ Sky’s comments on the Disputing CPs’ responses, paragraphs 104 to 106; TTG’s comments on the Disputing CPs’ responses, paragraphs 4.29 to 4.30; CWW’s comments on the Disputing CPs’

- 15.102 Sky asserts that CPs at the time requested interest to be payable on overcharging, but that BT rejected this term. Sky claims that *"had BT not possessed SMP in relation to BES, Sky considers that it is likely that a clause providing for the payment of interest at a commercially acceptable rate could have been negotiated for inclusion in the agreement."* Accordingly, Sky considers that there were no free bilateral negotiations with respect to the exclusion of interest on repayments, and BT exercised its market power to refuse to accept such terms.¹²⁰²
- 15.103 TTG also argues that the CPs did not agree the term excluding interest *"on a proper commercial basis and in any real sense"*. TTG asserts that although it did ultimately sign various contracts containing the term, it *"certainly did not consider the term reasonable"*, noting that it is only ever likely to work in BT's favour. TTG argues that as an SMP operator, BT can *"impose broadly whatever terms it likes"*, and therefore, Ofcom cannot simply rely on the provisions of the contract, especially if there is a question as to whether the contract is fair and reasonable.¹²⁰³ TTG, Sky and CWW have provided some evidence regarding the negotiations which have taken place with BT regarding the Ethernet contracts.¹²⁰⁴
- 15.104 Virgin argues that it would be *"neither appropriate nor consistent with Ofcom's duties"* for the question of interest to be determined in accordance with the relevant contracts, whose terms were not individually negotiated at the time the agreement was first entered into because *"BT and the CPs ran out of time – and CPs therefore had no choice but to sign the agreement."* Virgin argues that the term has *"been disputed by the CPs ever since"*.¹²⁰⁵
- 15.105 CWW argues that *"[i]n circumstances where standard industry contracts are effectively imposed by BT on wholesale customers, particularly in cases such as this where BT has SMP, Ofcom should place less weight on the terms of the contract"*. CWW also argues that the term was not individually negotiated at the time the original contract was first entered into, partly because BT and the CPs ran out of time, and that it has been disputed by the CPs ever since. CWW comments that BT can charge interest on late payment by CPs but not the other way round, which it submits is not fair.¹²⁰⁶
- 15.106 Verizon contends that the relevant contracts were not individually negotiated and that BT *"imposed"* these contracts on the Disputing CPs, refusing to consider revising them. Accordingly, Verizon argues that it is not fair or reasonable to rely solely on its terms, which are weighted in favour of BT.¹²⁰⁷
- 15.107 BT argues that the contracting parties specifically chose to have a different solution to other situations where either the purchasing party defaults on payments or BT has to refund payments. BT claims that the parties understood this distinction when they negotiated the contract and that they could have challenged this but chose not to.¹²⁰⁸

responses, paragraphs 141 to 143; Virgin's comments on the Disputing CPs' responses, paragraphs 10.8 to 10.9; Verizon's comments on the Disputing CPs' responses, paragraphs 28 to 29.

¹²⁰² Sky's response to our Provisional Conclusions, paragraphs 104 to 106.

¹²⁰³ TTG's response to our Provisional Conclusions, paragraphs 4.29 to 4.30.

¹²⁰⁴ TTG's response to our Provisional Conclusions, Annex C, Sky's response to our Provisional Conclusions, Annex 2, CWW's response to our Provisional Conclusions, Annex 2.

¹²⁰⁵ Virgin's response to our Provisional Conclusions, paragraphs 10.8 to 10.9.

¹²⁰⁶ CWW's response to our Provisional Conclusions, paragraphs 141 to 143.

¹²⁰⁷ Verizon's response to the Verizon Provisional Conclusions, page 3.

¹²⁰⁸ BT's comments on the Disputing CPs' responses, paragraph 6.

- 15.108 BT argues that there is nothing illogical or unreasonable in drawing such a distinction because in the case of a retrospective adjustment the parties will not know when or how much it will be until the time of the adjustment. BT argues that without this lack of advance knowledge a sudden requirement to pay a large sum plus interest (such as in the case of a regulatory decision) can place the party ordered to make a repayment in a far worse position than if the adjustment had occurred prospectively at the time at which the terms complained of came into effect. BT claims that in view of these considerations, parties are entitled to agree between themselves that there should be no interest paid by any party affected by an adjustment.¹²⁰⁹
- 15.109 BT refers to the evidence produced by TTG and Sky in support of their argument that the contractual terms were imposed on them by BT. BT argues that this material is *"potentially misleading"* in that much of the discussion referred to a different issue. Where the discussion was relevant, it did not suggest that the terms were entirely one-sided in BT's favour, without any negotiation or concession in favour of the Disputing CPs.¹²¹⁰
- 15.110 Moreover, BT contends that the agreement *"plainly works both ways"* as it would have equally applied had Ofcom held that the charges paid by the CPs were too low, and had required the CPs to make repayments to BT retrospectively. This, BT claims, was well understood at the time and evidenced in communications at the time of negotiations.¹²¹¹
- 15.111 BT notes that the Disputing CPs have been aware since 2005 that Ofcom can issue directions to change contractual terms.¹²¹² It notes that none of them chose to challenge the contractual terms in these Disputes. Moreover, the contract provided for a review of the terms by the Disputing CPs prior to 1 March 2010, but the interest term was not reviewed at that time. Accordingly, BT argues that it *"nonsense to suggest that the Disputing CPs have had clause 12.3 arbitrarily imposed upon them by BT."*¹²¹³

Whether the term is fair and reasonable

- 15.112 Sky and TTG both contend that the *"contractual exclusion"* is invalid, as it does not comply with SMP Condition HH1.2 which requires BT to provide network access on fair and reasonable terms.¹²¹⁴ Sky refers to the 2004 LLMR Statement which required BT to publish a reference offer for AISBO services on *"terms and conditions that are fair and reasonable"*. In determining whether BT's terms and conditions are fair and reasonable, Sky contends that Ofcom *"should consider whether the terms and conditions would be ones that would exist in a contract for the provision of BES from BT if these BES could be purchased in a competitive market."*¹²¹⁵
- 15.113 TTG notes that the term awards an unfair working capital advantage to BT and so is unreasonable. It argues that Condition HH1.2 is a *"hard obligation"* on BT, which cannot simply be signed away by the CPs entering into the contract.¹²¹⁶

¹²⁰⁹ BT's comments on the Disputing CPs' responses, paragraph 7.

¹²¹⁰ BT's comments on the Disputing CPs' responses, paragraphs 24 to 27.

¹²¹¹ BT's comments on the Disputing CPs' responses, paragraphs 8 to 9.

¹²¹² Following the *H3G No 1* case [2005] CAT 39.

¹²¹³ BT's comments on the Disputing CPs' responses, paragraphs 28 to 29.

¹²¹⁴ Sky's response to our Provisional Conclusions, paragraph 100; TTG's response to our Provisional Conclusions, paragraph 4.25.

¹²¹⁵ Sky's response to our Provisional Conclusions, paragraphs 100 to 103.

¹²¹⁶ TTG's response to our Provisional Conclusions, paragraphs 4.24 to 4.25.

- 15.114 TTG argues: *"If the contractual term is not of itself fair and reasonable, then the resolution of the dispute will not be fair and reasonable. Ofcom must therefore consider all relevant factors and in particular properly assess whether the Interest Exclusion Term is fair and reasonable and in accordance with Condition HH1 considering the circumstances of the current case"*.¹²¹⁷
- 15.115 TTG contends that a term excluding interest constitutes an exclusion or limitation clause that does not pass the fair and reasonable test under the Unfair Contract Terms Act 1977 ("UCTA"). TTG argues that the UCTA applies to an assessment of reasonableness under any Act, and therefore BT must prove such reasonableness and regard must be had to the resource to which a person may have access in meeting the liability. TTG contends that since in the current case it is BT which has had the benefit of the avoided capital costs (and, conversely, the Disputing CPs' capital costs have increased), BT is clearly in a better position to bear that liability. In light of these considerations, in TTG's view, the term excluding interest cannot be deemed reasonable under the UCTA.¹²¹⁸
- 15.116 BT argues that the UCTA is irrelevant in the context of these Disputes. It contends that the UCTA deals with matters which do not arise in these Disputes, such as *"contractual exclusions of liability for negligence, or terms which purport to permit the rendering of a contractual performance substantially different from that which was expected"*.¹²¹⁹ BT also argues that the UCTA does not apply because: *"There can be no suggestion that BT is in breach of contract"*, but rather Ofcom is dealing with a breach of a regulatory obligation.¹²²⁰ BT notes that Ofcom has *"refused to consider the payment under s.190(2)(d) as any form of compensation but in effect as a restitutionary remedy."*¹²²¹
- 15.117 CWW and Virgin argue that *"[f]airness...dictates that CWW, Virgin Media and the other CPs should be put in the position in which they would have been had BT complied with its SMP obligations from the outset, and this requires that BT should have to pay interest on the amounts it has overcharged"*. They invite Ofcom to reconsider their previous submissions on interest.¹²²²

BT's incentives

- 15.118 The Disputing CPs argue that Ofcom should consider the effect of its decision on BT's incentives.¹²²³
- 15.119 Sky considers that requiring BT to pay interest on repayments *"not only puts the parties back in the position they would have been in but for the breach, it also sends BT the right message – namely, that it cannot retain the financial benefit of breaching SMP Conditions."*¹²²⁴ Sky goes on to say that *"[t]he lack of an adverse financial consequence for BT in the event it retains overpayments creates a real incentive for overcharging"*, noting that even if BT is required to make repayments *"it would still be*

¹²¹⁷ TTG's response to our Provisional Conclusions, paragraphs 4.23.

¹²¹⁸ TTG's response to our Provisional Conclusions, paragraphs 4.31 to 4.33.

¹²¹⁹ BT's comments on the Disputing CPs' responses, paragraph 35.

¹²²⁰ BT's comments on the Disputing CPs' responses, paragraph 37.

¹²²¹ BT's comments on the Disputing CPs' responses, paragraphs 35 to 38.

¹²²² CWW and Virgin's response to the PPC Court of Appeal Judgment, paragraph 36 to 43.

¹²²³ Sky's response to our Provisional Conclusions, paragraph 91; TTG's response to our Provisional Conclusions, paragraphs 4.37 to 4.41; Virgin's response to our Provisional Conclusions, paragraph 10.16; Verizon's response to our Provisional Conclusions, paragraphs 13 to 14.

¹²²⁴ Sky's response to our Provisional Conclusions, paragraph 89.

*incentivised to overcharge because, at worst, it is no more materially worse off than it would have been had it charged the appropriate price”.*¹²²⁵

15.120 Sky says that “*the current cost to Sky of each day’s delay in resolution of this dispute is £[£]*” and suggests that: “*Given the potentially large sums involved in disputes with BT, there is a clear risk of BT delaying resolution of future disputes (as it has in the current dispute)*”.¹²²⁶

15.121 TTG argues that Ofcom’s approach should create incentives to comply and “*should ensure as best it can that all BT’s gains resulting from non-compliance are ‘confiscated’ from it so that non-compliance is not a profitable activity for it to pursue*”. TTG also argues that retail and wholesale customers should, as far as possible, be compensated for the losses they have suffered. Accordingly, TTG argues that Ofcom must consider the other gains and losses as a result of the overcharge as well as the monetary value of the overcharge itself. TTG provides a diagram setting out the “stack” of benefits which, it claims BT derived from its non-compliance, including the benefit of avoided capital costs and benefits arising from weakened competition. The diagram shows that, according to TTG, “[b]y setting the repayment to only include the overcharge itself (without any interest) means that BT will only pay back a fraction of the benefits that it has enjoyed” and would send a message to BT that non-compliance is a profitable strategy. TTG considers that this is “*neither an appropriate approach for a regulator to take given its dreadful incentive properties nor is it fair (since customers will only be refunded a proportion of the harm they have suffered)*”.¹²²⁷

15.122 Virgin considers that were BT not made to pay interest on repayments, “*there would be a fundamental dilution of BT’s incentive to comply with its regulatory obligations in future*”.¹²²⁸ CWW makes a similar point.¹²²⁹

15.123 Verizon argues that a failure to award interest “*is effectively a way for BT to generate working capital on forced loans made to it by its competitors without penalty*”. It considers this provides BT with an incentive to breach its SMP obligations.¹²³⁰

15.124 BT argues that its incentives to comply with its SMP conditions would be unaffected by whether or not they are made to pay interest. It notes that if it had it known how Ofcom would interpret and apply Condition HH3.1, it would have sought to comply with Ofcom’s interpretation. BT notes that if there is genuine concern about their future compliance incentives, it is open to Ofcom to note that it may apply interest in the future, should the case arise, without doing so in relation to these Disputes.¹²³¹

Competition

15.125 TTG notes the benefits to BT from “*avoided capital costs in that it did not (at the margin) need to raise £120m in debt/equity [...] weakened competition against its retail activities, higher market share, higher retail prices*” and the costs to BT’s customers of “*reduced return on investment, less competition, choice, innovation*”.¹²³²

¹²²⁵ Sky’s response to our Provisional Conclusions, paragraph 91 and footnote 41.

¹²²⁶ Sky’s response to our Provisional Conclusions, paragraph 91

¹²²⁷ TTG’s response to our Provisional Conclusions, paragraphs 4.37 to 4.41.

¹²²⁸ Virgin’s response to our Provisional Conclusions, paragraphs 10.11 to 10.16.

¹²²⁹ CWW’s response to our Provisional Conclusions, paragraph 145.

¹²³⁰ Verizon’s response to our Provisional Conclusions, paragraphs 13 to 14.

¹²³¹ BT’s comments on the Disputing CPs’ responses, paragraphs 13 to 14.

¹²³² TTG’s response to our Provisional Conclusions, paragraph 4.40.

15.126 Verizon argues that, unless interest is paid, BT will be “*unjustly enriched ... to the direct detriment of its competitors who lose out on the extra capital they would have had if they had paid cost orientated prices. This means there is less capital available to invest and innovate, and ultimately it is consumers that will lose out.*”¹²³³ Verizon urges Ofcom to consider the magnitude of harm that would be rendered by allowing BT to keep the interest that would be payable on the repayments. This, Verizon notes, would be very material, given the level of overcharging, and would therefore create an even greater incentive for BT overcharge as much as possible. This would lead to a “*perverse and wholly unsatisfactory outcome*”.¹²³⁴

The appropriate remedy

15.127 The Disputing CPs make arguments for different levels of interest payments, set out below.

15.128 Sky notes the CAT's comments in the PPC Judgment supporting a restitutionary approach to remedying an overcharge, and argues that to ensure that BT does not retain any benefit from its failure to comply with its regulatory obligations, the appropriate level of interest that BT should repay should be “*that which would result in BT's disgorging itself of the benefits gained from the overcharging.*”¹²³⁵ It notes that Ofcom previously directed BT to make an adjustment for an overpayment by reference to BT's WACC in the PPC payment terms dispute, which Sky considers is analogous to these Disputes. Referring to Ofcom's conclusions in the PPC payment terms dispute, Sky contends that Ofcom used BT's WACC as a proxy for THUS' loss and as a measure of BT's gain.¹²³⁶ In its response to the PPC Court of Appeal Judgment, Sky argues that “*BT must be required to repay to Sky not only the overcharge itself, but also the costs associated with that overcharge – for which interest at Sky's WACC is a reasonable proxy*”.¹²³⁷

15.129 In the Second RGL Report, RGL submits two possible rates which it considers could reasonably be applied for calculating interest on the overcharge: (1) BT's WACC (the rate determined by Ofcom for the 'rest of BT'); and (2) Sky's WACC (which it uses as a proxy for each CP's individual WACC rate).¹²³⁸

15.130 TTG and Verizon also note the repayment ordered by Ofcom in the PPC payment terms dispute.¹²³⁹ TTG states that this was based on an interest rate which reflected the capital costs that BT avoided as a result of its non-compliance and accordingly the interest rate applied was BT's WACC.¹²⁴⁰ In line with that dispute, TTG argues that the principles of restitution and fairness and the need to create effective compliance incentives dictate that the most appropriate interest rate would be the relevant BT cost of capital (i.e. WACC of 11.4% for Rest of BT) or, alternatively, the TTG WACC “*which may be higher*”.¹²⁴¹

15.131 TTG also considers other possible interest rates, although it considers these “*inferior*”. It refers to “*the prevailing rate in the Contracts (Late Payment of*

¹²³³ Verizon's response to our Provisional Conclusions, paragraph 12.

¹²³⁴ Verizon's response to our Provisional Conclusions, paragraphs 15 to 16.

¹²³⁵ Sky's response to our Provisional Conclusions, paragraphs 107 to 111.

¹²³⁶ Sky's response to our Provisional Conclusions, paragraphs 112 to 115.

¹²³⁷ Sky's response to the PPC Court of Appeal Judgment, p.2.

¹²³⁸ Second RGL Report, paragraphs 7.02.1 to 7.04.2.

¹²³⁹ TTG's response to our Provisional Conclusions, paragraph 4.28; Verizon's response to our Provisional Conclusions, paragraph 18.

¹²⁴⁰ TTG's response to our Provisional Conclusions, paragraphs 4.28.

¹²⁴¹ TTG's response to our Provisional Conclusions, paragraph 4.48.

Commercial Debts) Act, which is the Bank of England base rate plus 8%, which it states is the interest rate used in the 2008 version of the BES contract but for other circumstances. TTG also notes that in a later version of the contract, the Interest Rate is defined as HSBC base rate +4%.¹²⁴²

15.132 TTG also notes the Of tel Interest Rate, which is set at LIBOR¹²⁴³ plus 3/8% (the "Of tel rate")¹²⁴⁴. However, TTG considers the Of tel rate would be *"wholly inadequate in these circumstances"*.¹²⁴⁵

15.133 CWW argues that *"simply following the relevant contractual terms in any given dispute without consideration of what is fair and reasonable will lead to inconsistency in outcomes"*, for example in the 2009 PPC Determinations Ofcom awarded interest on the basis that the PPC Handover Agreement allowed for interest to be payable at the Of tel Interest Rate where charges were adjusted retrospectively.¹²⁴⁶

15.134 Verizon contends that *"[a]n award of interest based on cost of capital effects would not only be completely consistent with the [08] CA judgment but the only fair and reasonable outcome to ensure the disputes are resolved in a manner consistent with Ofcom's regulatory objectives and statutory responsibilities."* It argues that Of tel took into account BT's cost of capital when determining the "Of tel interest rate" so *"such an approach would not represent a significant departure in terms of underlying thinking"*.¹²⁴⁷

15.135 BT claims that the Disputing CPs' reliance on the PPC payment terms dispute to argue that interest should be calculated on the basis of its WACC is *"thoroughly misguided."* It notes that *"the issue of interest payments was completely outside the scope of that dispute"*, which only related to *"the fairness of the contractual payment terms"*.¹²⁴⁸

15.136 In relation to these Disputes, BT notes that no enquiries have been made by Ofcom regarding economic harm or counter-restitution, nor has counter-restitution ever been raised when BT has charged the Disputing CPs less than it might have done. Accordingly, BT argues that any repayments should be made in line with the agreed terms in the relevant contract.¹²⁴⁹

15.137 BT contends that even if interest were to be awarded, it would be illogical to do so at a rate other than the Of tel rate, at most. It notes that the Of tel rate has been used for many years in BT's SIA and a number of other contracts. Moreover, Ofcom has previously applied that rate and *"it reflects a truer approximation of interest costs for trade credit for the larger entities in the Telecoms market like the CPs involved in this dispute."*¹²⁵⁰

¹²⁴² TTG's response to our Provisional Conclusions, paragraph 4.49. We assume TTG is referring to the rate applied by the Late Payment of Commercial Debts (Interest) Act 1998.

¹²⁴³ London Interbank Offered Rate.

¹²⁴⁴ This is the rate which is applied to repayments due where a charge has retrospective effect in, for example, BT's Standard PPC Handover Agreement and BT's Standard Interconnect Agreement ("SIA").

¹²⁴⁵ TTG's response to our Provisional Conclusions, paragraphs 4.52.

¹²⁴⁶ CWW's response to our Provisional Conclusions, paragraphs 147 and 148.

¹²⁴⁷ Verizon's response to the PPC Court of Appeal Judgment p. 4.

¹²⁴⁸ BT's comments on the Disputing CPs' responses, paragraph 15; see also paragraphs 40 and 41.

¹²⁴⁹ BT's comments on the Disputing CPs' responses, paragraphs 15 to 16.

¹²⁵⁰ BT's comments on the Disputing CPs' responses, paragraphs 39 and 43.

15.138 BT argues that “*the Late Payment of Interest of Commercial Debts (Interest) Act 1998 has absolutely no bearing*” as it applies only to debts under a contractual obligation to pay the contract price in whole or in part. In these Disputes, BT notes, there is no contract price or corresponding debt. Similarly, in BT's view, it is illogical to rely on the Connectivity Contract rate (HSBC base rate + 4%), because the Parties have expressly agreed that it should not be applicable to retrospective adjustments arising from an Ofcom determination and this approach was rejected by Ofcom in the 2009 PPC Determinations.¹²⁵¹

Our analysis

15.139 As we noted in our Provisional Conclusions, the Disputing CPs requested in their dispute submissions that an appropriate level of interest be paid on any repayment. Sky, TTG and Verizon referred to clause 12.3 in their contracts with BT, which they considered in breach of BT's obligation under Condition HH1.2 to provide network access on fair and reasonable terms. However, the Disputing CPs do not appear to have had negotiations with BT about the clause prior to submitting the Disputes (Sky, TTG and Verizon have confirmed this was the case¹²⁵²). The focus of the Disputes was clearly on whether BT's charges were cost orientated in compliance with Condition HH3.1.

15.140 In their responses to our Provisional Conclusions that BT's charges were not cost orientated and that BT should repay by way of adjustment of the overcharge a significant amount, the Disputing CPs provided extensive argument as to why Ofcom should set clause 12.3 aside as not fair and reasonable. They allege that the clause was imposed on them by BT in exercise of its significant market power; they state and have provided some evidence that they raised concerns about the clause with BT when the relevant contracts were originally negotiated and subsequently on contract review. BT disputes their accounts. The Disputing CPs also argue that clause 12.3 permits BT to retain a benefit from overcharging and therefore acts as an incentive on BT to overcharge, in breach of its cost orientation obligations.

15.141 In the Disputing CPs' view, therefore, Ofcom should require BT to pay interest on the repayments. They propose a range of interest rates that might apply in its place.

15.142 The question of whether clause 12.3 is fair and reasonable is not clearly within scope. In any event, Ofcom considers that interest is an ancillary issue in these Disputes to the primary issue of whether BT's charges were cost orientated. In order to determine whether clause 12.3 is not fair and reasonable we would need, critically, to understand why the Disputing CPs agreed to the inclusion of the clause. BT argues that it made concessions elsewhere. We would need to understand why this provision was agreed in the relevant contracts in the context of the contractual negotiations as a whole. We note in this context that the Disputing CPs did not bring a dispute or complaint to us in relation to this clause previously, even though it has been in place for some years during which the contract has been reviewed. We also note that BT's SIA and PPC Handover Agreement provide for interest at the Oftel rate on repayments due where a charge has retrospective effect.

15.143 The scope of these Disputes was to determine whether, during the Relevant Period, BT has overcharged for the services in dispute and to direct an adjustment to reflect

¹²⁵¹ BT's comments on the Disputing CPs' responses, paragraphs 40 to 42.

¹²⁵² Email from Sky (Matthew Marsh) to Ofcom (Matthew Peake) dated 1 September 2010; letter from TTG (Rickard Granberg) to Ofcom (Matthew Peake) dated 31 August 2010; Verizon's response to Ofcom's pre-EPM questionnaire dated 9 March 2012.

any overcharge. We have determined that there was an overcharge and directed full repayment. Our decision on repayments was made in the light of our statutory duties and in particular with a view to incentivising BT to comply with its SMP obligations. We consider that we do not have sufficient evidence to decide whether we should also award interest, which would involve setting aside the contractual provision, in order to meet our regulatory objectives.

15.144 In conclusion, we consider that the Disputing CPs have not provided strong and compelling evidence that clause 12.3 is not fair and reasonable such that we should intervene in the light of our regulatory objectives to set it aside.

Ofcom's statutory obligations and regulatory principles

15.145 We have considered our general duties in section 3 of the Act and the six "Community requirements" set out in section 4 of the Act, which give effect, among other things, to the requirements of Article 8 of the Framework Directive.

15.146 We consider that our Determinations are consistent with these duties and we would highlight in particular the following statutory obligations and regulatory principles as relevant to our decision to require BT to make repayments by way of adjustment of overpayments in these Disputes.

15.147 Accepting the Disputes for resolution fits with Ofcom's regulatory principle to intervene where there is a specific regulatory duty to do so.

15.148 Ofcom considers that to require BT to make repayments to the Disputing CPs by way of adjustment of overpayments is consistent with the regulatory regime established for the AISBO market by the 2004 LLMR Statement and 2008 BCMR Statement and with the policy objective of promoting competition that imposing the SMP conditions, including Condition HH3.1, was intended to achieve. Ofcom therefore considers that requiring BT to make repayments to the Disputing CPs supports our obligation to further the interests of consumers, where appropriate by promoting competition, as it encourages BT to comply with its SMP obligations. It promotes competition more generally by enabling other providers to compete with BT in the provision of retail leased lines to businesses. Promoting competition in this case leads to benefits for businesses in the form of increased choice, downward pressure on retail prices and improved quality of service.

15.149 Requiring BT to make repayments as set out in Tables 14.2 and 14.3 therefore supports Ofcom's principal duty at section 3(1)(b) of the Act, as well as our duty under section 4(3) of the Act, to promote competition in communications markets in accordance with the Framework Directive.

15.150 In addition, Ofcom considers that requiring BT to make repayments to the Disputing CPs by way of adjustment of overpayments supports our obligation at section 3(2)(b) of the Act to secure the availability of a wide range of communications services, as well as our duty under sections 4(7) and 4(8) of the Act to encourage the provision of network access (here, Ethernet services) for the purposes of securing efficiency and sustainable competition and efficient investment and innovation, for the benefit of consumers.

15.151 Finally, we consider that our Determinations to require BT to make repayments to the Disputing CPs by way of adjustment of the overpayments is in line with our duty and regulatory principles to ensure that our regulatory activities are transparent, accountable, evidence-based, proportionate, consistent and targeted.

15.152 Ofcom considers that this document clearly sets out BT's and the Disputing CPs' arguments and our reasoning that leads to these Determinations, thereby supporting our duty and regulatory principle to ensure that our decision making process is evidence-based, proportionate and consistent. We consider that our Determinations are proportionate, striking a fair balance between the Parties to the Disputes, and targeted in that they are limited to the matters in dispute and binding on the Parties.

Summary of our resolution of the Disputes

15.153 Based on the analysis set out in **Section 14**, Ofcom determines that :

15.153.1 BT has overcharged for a number of the services which are the subject of these Disputes;

15.153.2 BT has overcharged the Disputing CPs a total of £94.8 million during the Relevant Period; and

15.153.3 BT should refund the Disputing CPs the amounts overpaid

(a) Sky: £[REDACTED];

(b) TTG: £[REDACTED];

(c) Virgin: £[REDACTED];

(d) CWW: £[REDACTED]; and

(e) Verizon: £[REDACTED].

15.154 If other BT customers approach BT seeking similar repayment of any overcharge for the Ethernet services which are the subject of these Disputes, we would expect BT to take account of our conclusions in these Determinations.

Costs

15.155 [REDACTED]¹²⁵³ and [REDACTED]¹²⁵⁴ have requested that Ofcom require BT to pay their respective costs incurred in relation to these Disputes, in accordance with section 190(6) of the Act.

15.156 Ofcom recently published a consultation on proposed guidance as to Ofcom's approach to costs in disputes.¹²⁵⁵ In line with these proposals, we will consider submissions as to costs following the issuing of these Determinations. We do not consider that it is appropriate for us to include any decision as to whether any payment of costs should be made in these Determinations, as the Parties will need time to consider their position in light of the Determinations. We will contact the Parties regarding this issue in due course.

¹²⁵³ [REDACTED].
¹²⁵⁴ [REDACTED].

¹²⁵⁵ Consultation on payment of costs and expenses in regulatory disputes – guidance on Ofcom's approach, published 29 October 2012, <http://stakeholders.ofcom.org.uk/binaries/consultations/payment-costs/summary/main.pdf>.

Annex 1

Determination to resolve the dispute between BT and TTG

Determination under sections 188 and 190 of the Communications Act 2003 ("2003 Act") for resolving a dispute between TalkTalk Telecom Group plc ("TTG") and British Telecommunications Plc ("BT") concerning BT's charges for wholesale Ethernet services.

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"¹ (the "2004 LLMR Statement") which found that BT held significant market power ("SMP") in a number of markets, including the wholesale alternative interface symmetric broadband origination ("AISBO") market at all bandwidths within the United Kingdom but not including the Hull Area;

¹ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

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

“HH3.1 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 HH1 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.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 8 December 2008, Ofcom published the conclusions of its second review of the markets for retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments in the 2008 Business Connectivity Market Review Statement (the “2008 BCMR Statement”).² Ofcom concluded that two separate markets should now be defined for AISBO services: a low bandwidth AISBO market for services with bandwidths up to and including 1Gbit/s and a high bandwidth AISBO market for services with bandwidths above 1Gbit/s. Ofcom concluded that BT continued to have SMP in the market for low bandwidth AISBO services outside the Hull area but that no communications provider had SMP in the high bandwidth AISBO market.

(F) In the 2008 BCMR Statement, Ofcom imposed SMP conditions on BT in relation to the low bandwidth AISBO market (services with bandwidths up to and including 1Gbit/s), including a basis of charges obligation. Ofcom additionally concluded that BT should in principle be subject to a charge control in relation to low bandwidth AISBO services, the scope and form of which was considered in a separate consultation published alongside the BCMR Statement. The basis of charges obligation requires:

“HH3.1 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 HH1 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.

HH3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition HH1 is for a service which is subject to a charge control under Condition HH4, 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 HH3.1.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

² See <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf>.

(G) On 27 July 2010, TTG and British Sky Broadcasting Ltd ("Sky") jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for certain wholesale Ethernet services, known as Backhaul Extension Services ("BES"), provided to them between 24 June 2004 and 31 July 2009 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(H) On 10 August 2010, Virgin Media Ltd ("Virgin") referred a similar dispute to Ofcom for dispute resolution requesting a determination that BT has overcharged Virgin for certain wholesale Ethernet services, known as BES and Wholesale Extension Services ("WES"), provided to them between 1 April 2006 and 31 March 2009 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(I) Having considered the submissions of all the parties to the disputes referred by TTG, Sky and Virgin, Ofcom set the scope of the issues in dispute to be resolved as follows-

"The scope of the disputes is to determine whether, during the Relevant Period:

- i. BT has overcharged the Parties for the BES and/or WES products concerned and, if so;*
- ii. by how much the Parties were overcharged during the Relevant Period; and*
- iii. whether and by how much BT should reimburse the Parties in relation to the overcharge."*

The Relevant Period was defined as being from 24 June 2004 to 31 July 2009;

(J) On 8 February 2012, Ofcom issued draft determinations to TTG, Sky and Virgin in these disputes;

(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 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(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; and

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 TTG for the provision of the services which BT calls:

- (a) [REDACTED];
- (b) [REDACTED];
- (c) [REDACTED]and

(d) [X]

in the Relevant Period for the years specified in the explanatory statement.

2. The level of that overcharge is determined at £[X].

3. Ofcom gives a direction to BT to pay to TTG, by way of adjustment of an overpayment for those services, the sum of £[X].

II Binding nature and effective date

4. This Determination is binding on BT and TTG 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 this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have in the 2003 Act;
- 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) “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, as defined by section 1159 of the Companies Act 2006;
- c) “Ofcom” means the Office of Communications;
- d) “Relevant Period” means the period between 24 June 2004 and 31 July 2009; and
- e) “TTG” means TalkTalk Telecom Group plc, whose registered company number is 07105891, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006.

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

20 December 2012

Annex 2

Determination to resolve the dispute between BT and Sky

Determination under sections 188 and 190 of the Communications Act 2003 ("2003 Act") for resolving a dispute between British Sky Broadcasting Limited ("Sky") and British Telecommunications Plc ("BT") concerning BT's charges for wholesale Ethernet services.

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"¹ (the "2004 LLMR Statement") which found that BT held significant market power ("SMP") in a number of markets, including the wholesale alternative interface symmetric broadband origination ("AISBO") market at all bandwidths within the United Kingdom but not including the Hull Area;

¹ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

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

“HH3.1 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 HH1 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.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 8 December 2008, Ofcom published the conclusions of its second review of the markets for retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments in the 2008 Business Connectivity Market Review Statement (the “2008 BCMR Statement”).² Ofcom concluded that two separate markets should now be defined for AISBO services: a low bandwidth AISBO market for services with bandwidths up to and including 1Gbit/s and a high bandwidth AISBO market for services with bandwidths above 1Gbit/s. Ofcom concluded that BT continued to have SMP in the market for low bandwidth AISBO services outside the Hull area but that no communications provider had SMP in the high bandwidth AISBO market.

(F) In the 2008 BCMR Statement, Ofcom imposed SMP conditions on BT in relation to the low bandwidth AISBO market (services with bandwidths up to and including 1Gbit/s), including a basis of charges obligation. Ofcom additionally concluded that BT should in principle be subject to a charge control in relation to low bandwidth AISBO services, the scope and form of which was considered in a separate consultation published alongside the BCMR Statement. The basis of charges obligation requires:

“HH3.1 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 HH1 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.

HH3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition HH1 is for a service which is subject to a charge control under Condition HH4, 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 HH3.1.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”

² See <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf>.

(G) On 27 July 2010, TalkTalk Telecom Group plc ("TTG") and Sky jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for certain wholesale Ethernet services, known as Backhaul Extension Services ("BES"), provided to them between 24 June 2004 and 31 July 2009 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(H) On 10 August 2010, Virgin Media Ltd ("Virgin") referred a similar dispute to Ofcom for dispute resolution requesting a determination that BT has overcharged Virgin for certain wholesale Ethernet services, known as BES and Wholesale Extension Services ("WES"), provided to them between 1 April 2006 and 31 March 2009 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(I) Having considered the submissions of all the parties to the disputes referred by TTG, Sky and Virgin, Ofcom set the scope of the issues in dispute to be resolved as follows-

"The scope of the disputes is to determine whether, during the Relevant Period:

- i. BT has overcharged the Parties for the BES and/or WES products concerned and, if so;*
- ii. by how much the Parties were overcharged during the Relevant Period; and*
- iii. whether and by how much BT should reimburse the Parties in relation to the overcharge."*

The Relevant Period was defined as being from 24 June 2004 to 31 July 2009;

(J) On 8 February 2012, Ofcom issued draft determinations to TTG, Sky and Virgin in these disputes;

(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 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(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; and

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 Sky for the provision of the services which BT calls:

(a) [REDACTED];

(b) [REDACTED];

(c) [REDACTED]; and

(d) [X]

in the Relevant Period for the years specified in the explanatory statement.

2. The level of that overcharge is determined at £[X].

3. Ofcom gives a direction to BT to pay to Sky, by way of adjustment of an overpayment for those services, the sum of £[X].

II Binding nature and effective date

4. This Determination is binding on BT and Sky 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 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 the 2003 Act;
- 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) “BT” means British Telecommunications plc, whose registered company number is 01800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006;
- c) “Ofcom” means the Office of Communications;
- d) “Relevant Period” means the period between 24 June 2004 and 31 July 2009; and
- e) “Sky” means British Sky Broadcasting Limited whose registered company number is 02906991, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006.

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

20 December 2012

Annex 3

Determination to resolve the dispute between BT and Virgin

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 wholesale Ethernet services.

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*"¹ (the "2004 LLMR Statement") which found that BT held significant market power ("SMP") in a number of markets, including the wholesale alternative interface symmetric broadband origination ("AISBO") market at all bandwidths within the United Kingdom but not including the Hull Area;

¹ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

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

“HH3.1 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 HH1 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.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 8 December 2008, Ofcom published the conclusions of its second review of the markets for retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments in the 2008 Business Connectivity Market Review Statement (the “2008 BCMR Statement”).² Ofcom concluded that two separate markets should now be defined for AISBO services: a low bandwidth AISBO market for services with bandwidths up to and including 1Gbit/s and a high bandwidth AISBO market for services with bandwidths above 1Gbit/s. Ofcom concluded that BT continued to have SMP in the market for low bandwidth AISBO services outside the Hull area but that no communications provider had SMP in the high bandwidth AISBO market.

(F) In the 2008 BCMR Statement, Ofcom imposed SMP conditions on BT in relation to the low bandwidth AISBO market (services with bandwidths up to and including 1Gbit/s), including a basis of charges obligation. Ofcom additionally concluded that BT should in principle be subject to a charge control in relation to low bandwidth AISBO services, the scope and form of which was considered in a separate consultation published alongside the BCMR Statement. The basis of charges obligation requires:

“HH3.1 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 HH1 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.

HH3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition HH1 is for a service which is subject to a charge control under Condition HH4, 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 HH3.1.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”

² See <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf>.

(G) On 27 July 2010, TalkTalk Telecom Group plc ("TTG") and British Sky Broadcasting Ltd ("Sky") jointly referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for certain wholesale Ethernet services, known as Backhaul Extension Services ("BES"), provided to them between 24 June 2004 and 31 July 2009 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(H) On 10 August 2010, Virgin referred a similar dispute to Ofcom for dispute resolution requesting a determination that BT has overcharged Virgin for certain wholesale Ethernet services, known as BES and Wholesale Extension Services ("WES"), provided to them between 1 April 2006 and 31 March 2009 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(I) Having considered the submissions of all the parties to the disputes referred by TTG, Sky and Virgin, Ofcom set the scope of the issues in dispute to be resolved as follows-

"The scope of the disputes is to determine whether, during the Relevant Period:

- i. BT has overcharged the Parties for the BES and/or WES products concerned and, if so;*
- ii. by how much the Parties were overcharged during the Relevant Period; and*
- iii. whether and by how much BT should reimburse the Parties in relation to the overcharge."*

The Relevant Period was defined as being from 24 June 2004 to 31 July 2009;

(J) On 8 February 2012, Ofcom issued draft determinations to TTG, Sky and Virgin in these disputes;

(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 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(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; and

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 the services which BT calls:

- (a) [REDACTED];
- (b) [REDACTED];
- (c) [REDACTED];

- (d) [X];
- (e) [X]; and
- (f) [X]

in the Relevant Period for the years specified in the explanatory statement.

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 those services, the sum of £[X].

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 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 the 2003 Act;
- 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) “BT” means British Telecommunications plc, whose registered company number is 01800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006;
- c) “Ofcom” means the Office of Communications;
- d) “Relevant Period” means the period between 1 April 2006 and 31 March 2009; and
- e) “Virgin” means Virgin Media Limited, whose registered company number is 02591237, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006.

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the
Office of Communications Act 2002

20 December 2012

Annex 4

Determination to resolve the dispute between BT and CWW

Determination under sections 188 and 190 of the Communications Act 2003 ("2003 Act") for resolving a dispute between Cable & Wireless Worldwide plc group ("CWW")¹ and British Telecommunications Plc ("BT") concerning BT's charges for wholesale Ethernet services.

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*"² (the "2004 LLMR Statement") which found that BT held significant market power ("SMP") in a number of markets, including the wholesale alternative interface symmetric broadband origination ("AISBO") market at all bandwidths within the United Kingdom but not including the Hull Area;

¹ Including the following CWW companies: Cable & Wireless UK; Cable & Wireless Access Limited; Energis Communications Limited; Thus Group Holdings Limited; and Your Communications Group Limited.

² See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

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

“HH3.1 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 HH1 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.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 8 December 2008, Ofcom published the conclusions of its second review of the markets for retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments in the 2008 Business Connectivity Market Review Statement (the “2008 BCMR Statement”).³ Ofcom concluded that two separate markets should now be defined for AISBO services: a low bandwidth AISBO market for services with bandwidths up to and including 1Gbit/s and a high bandwidth AISBO market for services with bandwidths above 1Gbit/s. Ofcom concluded that BT continued to have SMP in the market for low bandwidth AISBO services outside the Hull area but that no communications provider had SMP in the high bandwidth AISBO market.

(F) In the 2008 BCMR Statement, Ofcom imposed SMP conditions on BT in relation to the low bandwidth AISBO market (services with bandwidths up to and including 1Gbit/s), including a basis of charges obligation. Ofcom additionally concluded that BT should in principle be subject to a charge control in relation to low bandwidth AISBO services, the scope and form of which was considered in a separate consultation published alongside the BCMR Statement. The basis of charges obligation requires:

“HH3.1 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 HH1 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.

HH3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition HH1 is for a service which is subject to a charge control under Condition HH4, 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 HH3.1.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”

³ See <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf>.

(G) On 17 November 2011, CWW referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for certain wholesale Ethernet services, known as Backhaul Extension Services ("BES") and Wholesale Extension Services ("WES"), provided to them between 1 April 2006 to 31 March 2011 (which depends on whether or not BT's charges for those services were cost orientated during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(H) Having considered the submissions of the parties to the dispute, Ofcom set the scope of the issues in dispute to be resolved as follows-

"The scope of the dispute is to determine whether, from 1 April 2006 to 31 March 2011:

- BT overcharged CWW for BES and WES services; and if so*
- by how much CWW was overcharged for those services; and*
- whether, and by how much, BT should reimburse CWW in relation to the overcharge."*

(J) On 22 February 2012 we issued our provisional determination in this dispute;

(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 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(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; and

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 CWW for the provision of the services which BT calls:

- (a) [X];
- (b) [X];
- (c) [X];
- (d) [X];
- (e) [X];
- (f) [X];
- (g) [X];
- (h) [X];
- (i) [X];

- (j) [X];
- (k) [X]; and
- (l) [X]

in the Relevant Period for the years specified in the explanatory statement.

2. The level of that overcharge is determined at £[X].

3. Ofcom gives a direction to BT to pay to CWW, by way of adjustment of an overpayment for those services, the sum of £[X].

II Binding nature and effective date

4. This Determination is binding on BT and CWW 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 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 the 2003 Act;
- 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) (as amended);
- b) “BT” means British Telecommunications plc, whose registered company number is 01800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006;
- c) “CWW” means Cable & Wireless Worldwide plc (whose registered company number is 7029206) group, including the following CWW companies: Cable & Wireless UK (registered company number 1541957), Cable & Wireless Access Limited (registered company number 4005262), Energis Communications Limited (registered company number 2630471), Thus Group Holdings Limited (registered company number SC192666) and Your Communications Group Limited (registered company number 4171876);
- d) “Ofcom” means the Office of Communications; and
- e) “Relevant Period” means the period between 1 April 2006 and 31 March 2011.

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the
Office of Communications Act 2002

20 December 2012

Annex 5

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 wholesale Ethernet services.

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*"¹ (the "2004 LLMR Statement") which found that BT held significant market power ("SMP") in a number of markets, including the wholesale alternative interface symmetric broadband origination ("AISBO") market at all bandwidths within the United Kingdom but not including the Hull Area;

¹ See: http://www.ofcom.org.uk/consult/condocs/llmr/statement/state_note.pdf.

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

“HH3.1 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 HH1 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.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”;

(E) On 8 December 2008, Ofcom published the conclusions of its second review of the markets for retail leased lines, wholesale symmetric broadband origination and wholesale trunk segments in the 2008 Business Connectivity Market Review Statement (the “2008 BCMR Statement”).² Ofcom concluded that two separate markets should now be defined for AISBO services: a low bandwidth AISBO market for services with bandwidths up to and including 1Gbit/s and a high bandwidth AISBO market for services with bandwidths above 1Gbit/s. Ofcom concluded that BT continued to have SMP in the market for low bandwidth AISBO services outside the Hull area but that no communications provider had SMP in the high bandwidth AISBO market.

(F) In the 2008 BCMR Statement, Ofcom imposed SMP conditions on BT in relation to the low bandwidth AISBO market (services with bandwidths up to and including 1Gbit/s), including a basis of charges obligation. Ofcom additionally concluded that BT should in principle be subject to a charge control in relation to low bandwidth AISBO services, the scope and form of which was considered in a separate consultation published alongside the BCMR Statement. The basis of charges obligation requires:

“HH3.1 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 HH1 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.

HH3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition HH1 is for a service which is subject to a charge control under Condition HH4, 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 HH3.1.

HH3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.”

² See <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr08/summary/bcmr08.pdf>.

(G) On 22 February 2012, Verizon referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged Verizon for certain wholesale Ethernet services, known as Wholesale Extension Services ("WES") (which depends on whether or not BT's charges for those services were cost orientated) and, if so, by how much Verizon has been overcharged and should therefore be reimbursed. The dispute concerns the period between 1 April 2006 and 31 March 2011;

(H) Having considered the submissions of the parties to the dispute, Ofcom set the scope of the issues in dispute to be resolved as follows-

"The scope of the dispute is to determine:

Whether, from 1 April 2006 to 31 March 2011:

- *BT overcharged Verizon for the following rental charges:*
 - *WES/WEES10*
 - *WES/WEES100*
 - *WES/WEES1000*
- *by how much Verizon was overcharged for those services; and*
- *whether, and by how much, BT should reimburse Verizon in relation to the overcharge";*

(J) On 4 April 2012 Ofcom issued its provisional conclusions in respect of the dispute;

(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 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(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; and

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 the services which BT calls:

- (a) [REDACTED];
- (b) [REDACTED]; and
- (c) [REDACTED]

in the Relevant Period for the years specified in the explanatory statement.

2. The level of that overcharge is determined at £[REDACTED].

3. Ofcom gives a direction to BT to pay to Verizon, by way of adjustment of an overpayment for those services, the sum of £[REDACTED].

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 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 the 2003 Act;
- 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) (as amended);
- b) “BT” means British Telecommunications plc, whose registered company number is 01800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006;
- c) “Ofcom” means the Office of Communications;
- d) “Relevant Period” means the period between 1 April 2006 and 31 March 2011; and
- e) “Verizon” means Verizon UK Limited, whose registered company number is 02776038.

Neil Buckley
Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

20 December 2012

Annex 6

Relevant cost measures and terminology for Ofcom's analysis

- A6.1 As set out at **paragraph 2.12**, the cost orientation obligations imposed on BT in the AISBO markets require BT to secure that *“each and every charge offered, payable or proposed for Network Access covered by Condition HH3.1 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).
- A6.2 This obligation requires Ethernet charges to be LRIC-based and to provide for the recovery of an appropriate share of common costs. The key cost measures relevant to these Disputes and the common terminology used are summarised in the table below.

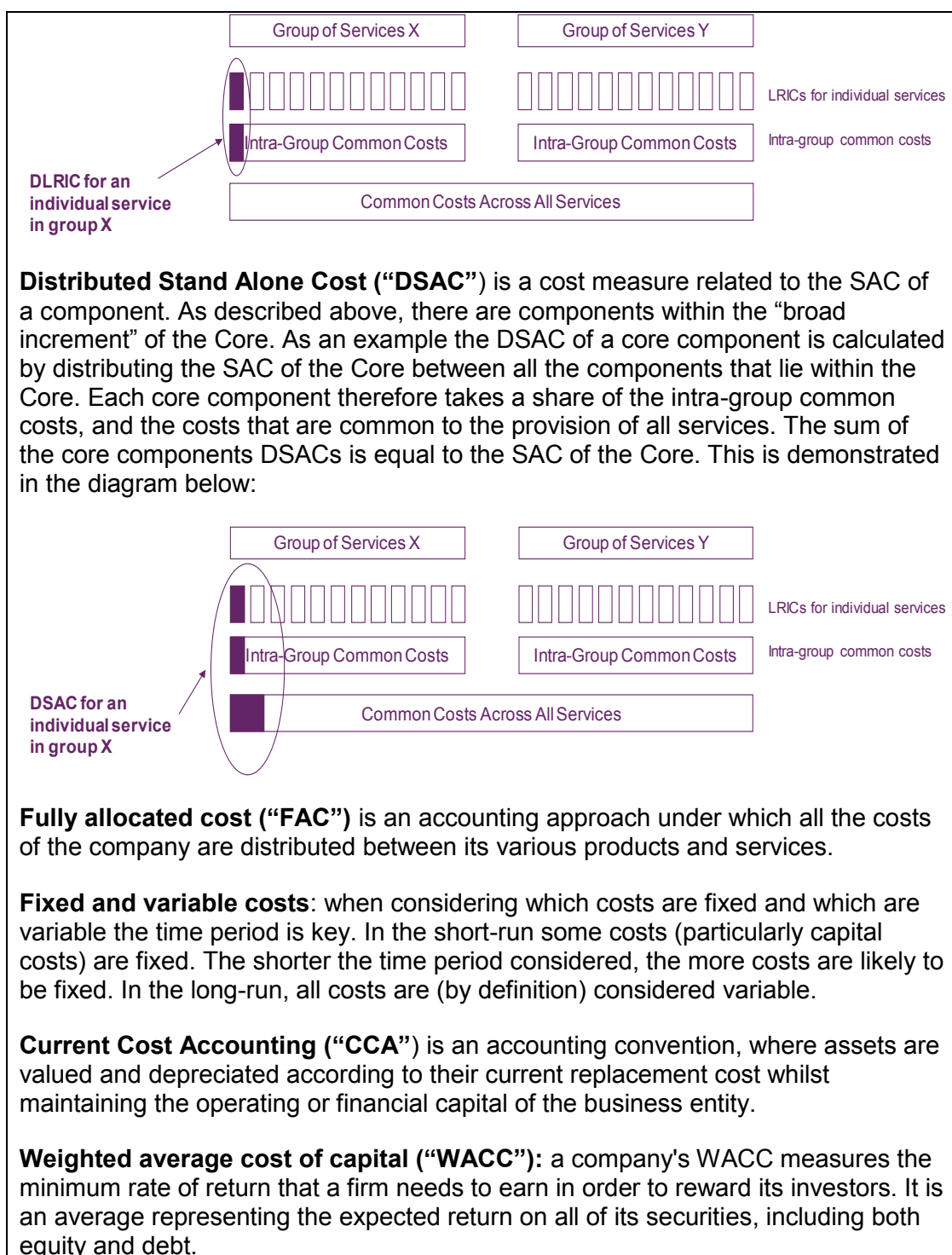
Incremental cost is the cost of producing a specified additional product, service or increment of output over a specified time period. In many cases, the relevant increment may be the entire output of a particular service or group of services. The incremental costs of a service are then those costs which 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 provided and the costs in another situation where the service is not provided.

Long Run Incremental Cost (“LRIC”) is the incremental cost over the long run, i.e. the period over which all costs can, if necessary, be varied.

Common costs are those costs which arise from the provision of a group of services but which are not incremental to the provision of any individual service. Common costs may be identified in the following way: if the incremental costs of each service are removed from the total cost of providing all services, what are left are the common costs (i.e. those costs which are shared). Where there are no common costs, incremental cost and SAC are the same. Where there are common costs, the firm's SAC 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.

Stand Alone Cost (“SAC”) is the cost of providing that particular service on its own, i.e. on a stand-alone basis.

Distributed Long Run Incremental Cost (“DLRIC”) is a cost measure related to the LRIC of a component. Within BT's network, groups of components are combined together to form what is known as a “broad increment”. Two of these “broad increments” are the core network (the “Core”) and the access network (“Access”). The DLRIC of a component is equal to the LRIC of a component plus a share of the costs that are common between the components within the “broad increment” (which are known as “intra-group” common costs). The common costs are shared between the components by distributing them on an equi-proportionate mark up (EPMU) basis. The sum of the DLRICs of all the components in the Core is equal to the LRIC of the Core itself. This is represented in the diagram below:



Annex 7

Glossary

2004 LLMR Statement Leased Lines Market Review Statement, published on 24 June 2004.

2008 BCMR Statement Business Connectivity Market Review Statement, published on 8 December 2008.

2009 LLCC Statement Leased Lines Charge Control Statement, published on 2 July 2009.

2009 PPC Determinations Ofcom's determinations published on 14 October 2009, resolving certain elements of the PPC Disputes.

21st Century Network (21CN) BT's network programme which aims to provide a new simplified and higher capacity UK core network to manage the growing volumes of digital media traffic being consumed by end users.

The Act The Communications Act 2003.

Additional Financial Statements (AFS) Financial statements which BT produces in addition to the RFS, provided to Ofcom on a confidential basis. They give a breakdown of the published accounts information by individual service.

Alternative interface symmetric broadband origination (AISBO) A form of symmetric broadband origination service providing symmetric capacity between two sites, generally using an Ethernet IEEE 802.3 interface.

Bandwidth The physical characteristic of a telecommunications system that indicates the speed at which information can be transferred. In analogue systems, it is measured in cycles per second (Hertz) and in digital systems in bits per second (Bit/s).

Backhaul Extension Services (BES) Data circuits that run between a BT exchange and a CP's network. They are used by LLU operators to connect the equipment they have installed in BT's local exchange to their own core network, thereby allowing them to provide telephony and/or broadband services to their customers. **CC** Competition Commission

Common Costs See Annex 0.

Communications Provider (CP) A person who provides an Electronic Communications Network or provides an Electronic Communications Service (as defined by section 32 of the Communications Act 2003).

Cost Volume Relationships (CVR) LRICs in a cost category are derived using a CVR. A CVR is a curve which describes how costs change as the volume of the cost driver changes. The costs associated with an increment can be of several types:

- Variable with respect to the increment being measured;
- Fixed but increment specific; and

- Fixed but spanning several increments.

CRF Common Regulatory Framework.

Current Cost Accounting (CCA) See Annex 6.

Customer Premises Equipment (CPE) Sometimes referred to as customer apparatus or consumer equipment, being equipment on consumers' premises which is not part of the public telecommunications network and which is directly or indirectly attached to it.

CWW Cable & Wireless Worldwide plc (whose registered company number is 7029206) group, including the following CWW companies: Cable & Wireless UK (registered company number 1541957), Cable & Wireless Access Limited (registered company number 4005262), Energis Communications Limited (registered company number 2630471), Thus Group Holdings Limited (registered company number SC192666) and Your Communications Group Limited (registered company number 4171876).

Disputing CPs Sky, TTG, Virgin, CWW and Verizon.

DSL Digital subscriber line

Distributed LRIC (DLRIC) See Annex 6.

Distributed SAC (DSAC) See Annex 6.

Equi-Proportionate Mark Up (EPMU) A method of allocating Fixed Common Costs in proportion to the LRICs.

Equivalence of Inputs (EOI) The concept established in undertakings provided by BT to Ofcom in which BT provides, in respect of a particular product or service, the same product or service to all CPs (including BT) on the same timescales, terms and conditions (including price and service levels) by means of the same systems and processes, and includes the provision to all CPs (including BT) of the same commercial information about such products, services, systems and processes.

Ethernet Access Direct (EAD) A wholesale Ethernet product which is a next generation network compatible service designed to complement Openreach's Ethernet Backhaul Direct (EBD) and Bulk Transport Link (BTL) products already offered within the Connectivity Services portfolio.

Ethernet Backhaul Direct (EBD) A wholesale Ethernet product which offers permanently connected, point-to-point high speed data circuits that provide a secure and un-contended backhaul service for Communications Providers.

Electronic Communications Network (ECN) A transmission system for the conveyance, by the use of electrical, magnetic or electro-magnetic energy, of signals of any description.

Fixed common costs (FCC) See Common costs.

Fully allocated cost (FAC) See Annex 6.

Gbit/s Gigabits per second. A measure of speed of transfer of digital information equal to one thousand Mbit/s.

HCA (historical cost accounting) depreciation The measure of the cost in terms of its original purchase price of tangible fixed assets that have been consumed during a period. Consumption includes the wearing out, using up or other reduction in the useful economic life of a tangible fixed asset whether arising from use, effluxion of time or obsolescence through either changes in technology or demand for the goods and services produced by the asset.

Kbit/s kilobits per second. A measure of speed of transfer of digital information – one thousand Kbit/s is equal to one Mbit/s.

LAN Extension Service (LES) A type of Ethernet service that enables the connection of two Local Area Networks.

Leased line A permanently connected communications link between two customer premises, or between a customer's premises and the CP's network, dedicated to the customers' exclusive use.

Long Run Incremental Cost (LRIC) See Annex 6.

LLU (Local Loop Unbundling) The process where the incumbent operators make their local network (the copper cables that run from customers' premises to the exchange) available to other companies.

Mbit/s Megabits per second. A measure of speed of transfer of digital information.

MCE Mean capital employed.

NCC Guidelines Network Charge Control Guidelines.

Next Generation Access (NGA): New or upgraded access networks that will allow substantial improvements in broadband speeds and quality of service compared to today's services. Can be based on a number of technologies including cable, fixed wireless and mobile. Most often used to refer to networks using fibre optic technology

Next Generation Network (NGN) A network utilising new technology such as Ethernet and IP to provide an array of services to end-users.

Openreach Price List (OPL) The price list published by BT for services provided by Openreach.

PAD BT's Primary Accounting Documents – the accounting policies and principles used in the preparation of BT's RFS, including transfer charging policies and attribution methodologies.

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 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.

Parties BT and the Disputing CPs.

Points of Connection (POC) A point where one communications provider interconnects with another communications provider for the purposes of connecting their networks to 3rd party customers in order to provide services to those customers.

PPC appeal BT's appeal of the 2009 PPC Determinations.

PPC Court of Appeal Judgment The Court of Appeal's judgment in BT's appeal of the PPC Judgment and the PPC Preliminary Issues Judgment: *British Telecommunications plc v Office of Communications* [2012] EWCA Civ 1051.

PPC Disputes Disputes about the pricing of Partial Private Circuits.

PPC Judgment The CAT's judgment disposing of the PPC appeal: *British Telecommunications plc v Office of Communication* [2011] CAT 5.

PPC Preliminary Issues Judgment The CAT's judgment on preliminary issues in the PPC appeal: *British Telecommunications plc v Office of Communications* [2010] CAT 15.

Ramsey pricing Ramsey prices minimise the loss in economic welfare when deviating from prices set at marginal cost to enable the firm to recover its fixed common costs. In a simple case (e.g. when all of the firm's services have independent demands and there are no externalities), Ramsey prices are based on an inverse price elasticity rule whereby the least elastic service would attract the smallest mark-up.

Regulated Asset Value (RAV) The RAV relates to the valuation of Openreach's access assets deployed before August 1997 on a historic costs accounting (HCA) basis, and assets deployed since August 1997 on a current costs accounting (CCA) replacement cost basis.

Regulatory Financial Statements (RFS) The annual financial statements that BT is required to prepare and publish in order to demonstrate compliance with its regulatory obligations.

Relevant Period The period covered by these Disputes: 24 June 2004 and 31 March 2011.

ROCE Return on Capital Employed.

RoN Rest of Network.

Sky British Sky Broadcasting Limited (whose registered company number is 02906991).

SMP Significant Market Power.

Stand Alone Cost (SAC) See Annex 6.

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.

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. PPCs are based on TISBO, whereas Ethernet services are based on AISBO (not TISBO).

TTG or TalkTalk TalkTalk Telecom Group plc (whose registered company number is 07105891).

Verizon Verizon UK Limited (whose registered company number is 02776038).

Virgin Virgin Media Limited (whose registered company number is 02591237).

Weighted Average Cost of Capital (WACC) See Annex 6.

Wholesale End-to-End Service (WEES) A type of Ethernet product which allows a CP to provide its customers with a dedicated fibre optic high bandwidth data circuit between two different sites.

Wholesale Extension Service (WES) WES are used by CPs to provide a dedicated fibre optic high bandwidth data circuit between their customers' premises and their own network via BT's network. Unlike BES, WES services provide high bandwidth data connectivity directly to the CP's customer's premises