



Dispute between BT and each of EE and Three regarding BT's charges for terminating calls to 03 numbers

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Final
determination
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About this document

The document sets out Ofcom's final determination of the regulatory disputes between BT and each of EE and Three concerning BT's termination rates for calls to 03 numbers.

03 telephone numbers are UK-wide, non-geographic numbers typically used to provide voice services such as customer service helplines and public services. Ofcom rules require that the retail price charged for calls to 03 numbers must not exceed that of calls to standard geographic numbers, i.e. those that begin 01 or 02. In addition, calls to 03 numbers must be included in any call allowances or discounts offered to customers in the same way as geographic calls.

Termination rates are the wholesale prices that communications providers such as BT charge other operators for connecting a call to the party that is being called. The disputes relate to whether BT's charges for connecting calls to 03 numbers are consistent with Ofcom's regulatory and policy objectives.

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Glossary of terms

03 number: A telephone number beginning with 03 is a national non-geographic number which is charged to the caller as if it were a geographic (01, 02) number.

03 revenue sharing statement: A statement published by Ofcom on 11 December 2014 entitled *The 03 Number Range: Decision to clarify that revenue-sharing with callers is prohibited on the 03 number range*.¹

08x numbers appeals: In 2010, Ofcom resolved a series of disputes concerning tiered termination rates for calls to the 0845, 0870 and 080 number ranges. Ofcom's dispute determinations were appealed to the CAT, the Court of Appeal and the Supreme Court.²

0845/0870 Determination: Determination to resolve a dispute between BT and each of Vodafone, T-Mobile, Three, O2, Orange and Everything Everywhere about BT's termination charges for 0845 and 0870 calls.³ The 0845/0870 Determination was one of the determinations appealed in the 08x numbers appeals.

0870 Determination: Determination to resolve 0870 call termination rate disputes between BT and various operators, 17 June 2009.⁴

2003 Act: The Communications Act 2003.

2011 03 Determination: Determination to resolve a Dispute between Everything Everywhere and BT about BT's termination charges for 03 calls, 27 January 2011.⁵

AIT: Artificially inflated traffic/artificial inflation of traffic – this is essentially telephony traffic which is fraudulent or has no apparent legitimate commercial purpose.

Arbitrage: The practice of taking advantage of a price differential.

BT: British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 1159 of the Companies Act 2006.

CAT: Competition Appeal Tribunal.

CP: Communications provider.

CRD: Consumer Rights Directive. Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights.

DLE: Digital local exchange.

¹ See <http://stakeholders.ofcom.org.uk/consultations/03-modification/statement/>.

² The Supreme Court's judgment on the case can be found here: http://www.supremecourt.uk/decided-cases/docs/UKSC_2012_0204_Judgment.pdf.

³ See http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/761146/Final_Determination.pdf).

⁴ See <http://stakeholders.ofcom.org.uk/binaries/consultations/resolve0870calls/statement/determination.pdf>.

⁵ See <http://stakeholders.ofcom.org.uk/binaries/consultations/draft-everything-bt-termination/statement/determination.pdf>.

Double tandem: Terminology used to describe conveyance whereby a call is routed through more than one tandem switch.

EE: EE Limited, whose registered company number is 02382161, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 1159 of the Companies Act 2006.

FAC: Fully Allocated Cost.

Final determination: This document.

FNMR: Fixed narrowband market review, the final statement of which was published on 26 September 2013.⁶

Framework Directive: 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 (Framework Directive) (as amended).

FTRs: Fixed termination rates.

Geo-rated numbers: Phone numbers beginning 01, 02 or 03.

IN DIP: A commonly used industry term for the translation of a non-geographic number into a geographic number to facilitate call termination.

ITC: Inter-tandem conveyance. The conveyance of calls between tandem switches.

LRIC (or pure LRIC): Long run incremental cost without any mark-up for common costs.

LTC: Local tandem conveyance. The conveyance of calls between a tandem switch and a DLE.

MNO: Mobile network operator.

MRC: Monthly recurring charges.

NCC: Network charge control. The term given to the regulation of BT's interconnection prices that has existed since 1997.

NCCN: Network Charge Change Notice. The mechanism by which BT notifies other communications providers of changes to its charges pursuant to paragraph 12 of the SIA.

NCCN 966: Network Charge Change Notice 966 issued by BT on 3 August 2009 to amend its charges for terminating calls to 03 numbers.

NGCS: Non-geographic call services.

NTS: Number translation service.

Numbering Plan: A document published by Ofcom which sets out details of the numbers available for allocation as telephone numbers and the restrictions that should apply for the adoption and use of these numbers.⁷

⁶ See http://stakeholders.ofcom.org.uk/binaries/consultations/nmr-2013/statement/Final_Statement.pdf.

OCP: Originating communications provider.

Provisional Conclusions: The document setting out our provisional conclusions in relation to these Disputes, published on 17 December 2014.⁸

SIA: Standard Interconnect Agreement. BT's Network Charge Change Control Standard Interconnect Agreement. This is BT's standard interconnect agreement and provides the terms and conditions on which calls are connected between the respective networks of BT and other CPs.

Single tandem: Terminology used to describe conveyance whereby a call is routed through one tandem switch.

SMP: Significant market power.

SP: Service Provider, the organisations who use NTS numbers for consumers, citizens and business to contact them.

TCP: Terminating communications provider.

The Parties: BT, EE and Three.

The Referring Parties: EE and Three.

Three: Hutchinson 3G UK Limited whose registered company number is 03885486, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 1159 of the Companies Act 2006.

⁷ See <http://stakeholders.ofcom.org.uk/telecoms/numbering/>.

⁸ See http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01139/cw01139.pdf

Section 1

Summary

- 1.1 This determination (the “Final determination”) sets out our resolution of these disputes.
- 1.2 The disputes, brought by each of EE Limited (“EE”) and Hutchinson 3G UK Limited (“Three”) against British Telecommunications plc (“BT”) (collectively the “Parties”), relate to BT’s wholesale termination charges for calls to 03 numbers terminating on BT’s network (the “Disputes”).
- 1.3 EE and Three have alleged that BT’s 03 termination charges are no longer consistent with the objectives set out in Article 8 of the Framework Directive⁹ and that Ofcom should require BT to reduce its charges. In particular, EE and Three claimed that the costs of geographic termination, which forms an input into 03 termination, have fallen significantly and that BT has not reflected this (and other cost changes) in its 03 termination charges. As a consequence, there is a risk of consumer harm arising.
- 1.4 BT disagreed with the claims of EE and Three and argued that its charges remain consistent with the objectives in Article 8 of the Framework Directive.

Ofcom’s conclusions on the matters in dispute

- 1.5 In order to determine whether it is appropriate for us to require BT to revise its 03 call termination charges, in our analysis we have asked ourselves whether BT’s charges for terminating calls to 03 numbers on its fixed network (as notified in NCCN 966) are no longer consistent with the policy objectives in Article 8 of the Framework Directive, or threaten end-to-end connectivity, in light of regulatory and market developments. We gathered information from the Parties to help us to answer this question.
- 1.6 On 17 December 2014, we published a document setting out our provisional conclusions on the matters in dispute (“Provisional Conclusions”)¹⁰ and invited comments from interested parties.
- 1.7 We received seven responses to our Provisional Conclusions and have taken these responses into account in reaching our final conclusions in these Disputes.

Final Determination

- 1.8 Having considered the arguments of the Parties and the evidence before us, we are not satisfied that it would be appropriate for us to determine that BT’s current 03 termination rates are no longer consistent with the objectives in Article 8 of the Framework Directive or threaten end-to-end connectivity, such that it is necessary to vary them at this point in time.

⁹ 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 (Framework Directive) (as amended).

¹⁰ http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01139/cw01139.pdf.

- 1.9 In making our assessment of whether to vary termination charges in these Disputes, we have considered the direct and indirect effects on consumers of BT's charges and effects on competition. We have also considered the extent to which arbitrage, including artificially inflated traffic ("AIT"),¹¹ on BT's 03 numbers results in consumer harm (after taking account of our recent statement on 03 revenue sharing¹²) and/or threatens end-to-end connectivity.
- 1.10 We have assessed these effects primarily relative to a "charge-based" benchmark comprising a cost stack of: (i) the current regulated geographic termination rate; (ii) BT's current average charge for conveyance weighted by the average distance used for 03 traffic; and (iii) interconnection circuit charges. We have also considered a benchmark based on LRIC. We reach the same overall conclusions with both versions of the benchmark rate.
- 1.11 Compared to the termination charge we considered in the 2011 03 Determination,¹³ the use of the current geographic termination rate in calculating the charge-based benchmark significantly reduces the termination rate below BT's current rate. This is partially, but not fully, offset by a higher weighted cost of conveyance (due to higher traffic weights), such that the overall benchmark 03 termination rate is lower than BT's current charge. The LRIC-based benchmark is further below BT's current charge.
- 1.12 There is some evidence to suggest that BT's 03 termination charges could cause consumer harm, relative to the benchmark, arising from an increase in the retail prices of geographic and 03 calls (which we refer to as the direct effects). There is also some evidence consistent with the economic theory suggesting pass-through to consumers of 03 termination rates. If this harm occurred, we consider it is likely to be contrary to the objectives of Article 8 of the Framework Directive. However, whilst we recognise there is a risk of such harm, there is also a lack of evidence on actual pass-through to date to consumers of termination rate reductions for calls to geographic numbers (01 and 02) by EE and Three.
- 1.13 There may also be indirect effects on consumers if BT's current termination rates mean that prices of 03 numbers to SPs are lower than they would otherwise be and this affects SPs' choice of number range. We have little evidence to support the existence, size or direction of the indirect effects. In any case, we consider that it is inappropriate to put much weight on them, given the purpose of the 03 number range was not to subsidise SPs or provide them with a revenue stream.
- 1.14 We have seen no evidence to suggest that BT's current 03 termination rates are distorting competition.
- 1.15 We have considered the parties' arguments in respect of AIT and arbitrage in relation to the 03 number range, and the implications of BT's current 03 termination rates in this regard. On the evidence we have seen, we do not consider we should conclude

¹¹ AIT is essentially telephony traffic which is fraudulent or has no apparent legitimate commercial purpose.

¹² The 03 Number Range: Decision to clarify that revenue-sharing with callers is prohibited on the 03 number range, 11 December 2014: <http://stakeholders.ofcom.org.uk/binaries/consultations/03-modification/statement/statement.pdf> (the "03 revenue sharing statement").

¹³ Determination to resolve a Dispute between Everything Everywhere and BT about BT's termination charges for 03 calls, 27 January 2011. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/draft-everything-bt-termination/statement/determination.pdf>.

that BT's termination rates are inconsistent with the Article 8 policy objectives or threaten end-to-end connectivity in this regard. Further, we consider that there is already regulation in place to enable us to take action against the specific types of arbitrage highlighted in the responses to the Provisional Conclusions which involve AIT or revenue sharing, and we are currently considering how best to deal with this.

- 1.16 In resolving disputes, we have discretion whether to exercise our remedial powers. In exercising that discretion we take account of the nature of the evidence available, including the extent to which there is conflicting evidence or a lack of evidence. Based on the arguments and evidence before us in these Disputes, we do not consider that it would be appropriate for us to determine in these Disputes that BT's current 03 termination rates are inconsistent with the objectives in Article 8 of the Framework Directive or threaten end-to-end connectivity, such that we should decide to exercise our powers under section 190(2) of the 2003 Act to require BT to reduce those rates.
- 1.17 We do however consider that some of the matters raised in these Disputes may give some wider cause for concern in relation to the 03 number range, its use and termination charges. We therefore intend to consider separately whether there is other regulatory action that it would be appropriate for us to take in light of the potential concerns identified.

Structure of the remainder of this document

- 1.18 In line with Ofcom's Dispute Resolution Guidelines,¹⁴ this document sets out the main elements of our reasoning and assessment in relation to the matters in dispute.
- 1.19 We set out an introduction to 03 numbers, including a brief history of our policy and the regulation applicable to these numbers, in **Section 2**. The background to the Disputes is set out in **Section 3** and the analysis underpinning our provisional conclusions is set out in **Section 4**. In **Section 5** we consider the responses to the Provisional Conclusions and draw our final conclusions on the matters in dispute.

¹⁴ *Dispute Resolution Guidelines*, 7 June 2011. See: <http://stakeholders.ofcom.org.uk/binaries/consultations/dispute-resolution-guidelines/statement/guidelines.pdf>.

Section 2

03 numbers and regulatory background

Introduction

- 2.1 These Disputes, brought by EE and Three against BT, concern BT's wholesale termination charges for calls to 03 numbers terminating on BT's network.

Telephone numbering in the UK

- 2.2 Ofcom is required by section 56 of the 2003 Act to publish a document setting out details of the numbers available for allocation as telephone numbers and the restrictions that should apply for the adoption and use of these numbers. This document is known as the National Telephone Numbering Plan (the "Numbering Plan").¹⁵
- 2.3 The Numbering Plan designates telephone numbers on the basis of the initial digits of the telephone number. For example, telephone numbers beginning with the digits 01 and 02 are designated for use as "Geographic Numbers".

03 numbers

- 2.4 Telephone numbers that begin with the digits 03 are designated as "*Non-Geographic Numbers charged at a geographic rate*" in the Numbering Plan. The 03 number range was opened by Ofcom in February 2007¹⁶ for organisations that required a national, location-neutral number but neither wished to use a revenue-sharing range that would lead to an additional charge to consumers for calling them nor to use a freephone number that would cost them significantly more to operate than a geographic number. From the point of its introduction, revenue-sharing was not permitted on the 03 number range.
- 2.5 BT's current 03 wholesale termination charges were notified to industry in NCCN 966 and came into effect on 1 September 2009. These charges are based on charges that we determined in a previous dispute in relation to termination rates for 0870 numbers in 2009¹⁷ and which, in a further dispute in 2011, we confirmed as being fair and reasonable at that time in relation to 03 numbers.¹⁸

¹⁵ A copy of the current version of the Numbering Plan is published on Ofcom's website at: <http://stakeholders.ofcom.org.uk/telecoms/numbering/>.

¹⁶ The policy was set out in the statement 'Raising confidence in telephone numbers' published 13 February 2007. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/numberingreview/statement/statement.pdf>.

¹⁷ Determination to resolve 0870 call termination rate disputes between BT and various operators, 17 June 2009:

<http://stakeholders.ofcom.org.uk/binaries/consultations/resolve0870calls/statement/determination.pdf>.

¹⁸ Determination to resolve a Dispute between Everything Everywhere and BT about BT's termination charges for 03 calls, 27 January 2011: <http://stakeholders.ofcom.org.uk/binaries/consultations/draft-everything-bt-termination/statement/determination.pdf>.

Conveyance of non-geographic calls

- 2.6 Non-geographic numbers, for example numbers which start 03, 08 or 09, do not relate to a specific geographic location (unlike geographic numbers), but instead to a particular service. In order for a call to a non-geographic number to be conveyed to its destination, the number in question has to be 'translated' to a geographic number.¹⁹
- 2.7 Figure 2.1 outlines the parties involved in a typical non-geographic call. These are:
- 2.7.1 the originating communications provider ("OCP") on whose network a call originates;
 - 2.7.2 the terminating communications provider ("TCP") on whose network a non-geographic number terminates; and
 - 2.7.3 the service provider ("SP"), which is the individual or organisation using a non-geographic number to provide a service to consumers and who is the recipient of the non-geographic call from the consumer wishing to access that service.

Figure 2.1: Parties involved in a typical non-geographic call



- 2.8 The TCP performs two distinct functions:
- 2.8.1 First, it translates the non-geographic number called into the underlying network number²⁰ and then terminates the call on this number in return for a termination charge paid by the OCP.
 - 2.8.2 Second, it provides various 'hosting' services to the SPs, typically in return for a hosting charge.²¹ These services may include call management, conditional call routing and recorded announcements.

The conveyance and routing of 03 calls

- 2.9 When an OCP passes a geographic call to a communications provider ("CP") for termination, the TCP levies a call termination charge. TCPs normally have a ladder of interconnection charges to reflect the distance and the number of switching stages over which they carry calls before they are terminated. OCPs therefore have an

¹⁹ At a technical level, the non-geographic number dialled by a caller has to be "translated" to a geographic number to deliver the call to its destination. A commonly used industry term for the translation of a non-geographic number into a geographic number to facilitate call termination is "IN DIP".

²⁰ This has traditionally been a geographic number but other routing methods may be used if the call is terminating on an IP-based network.

²¹ We understand that not all TCPs charge for the provision of hosting services.

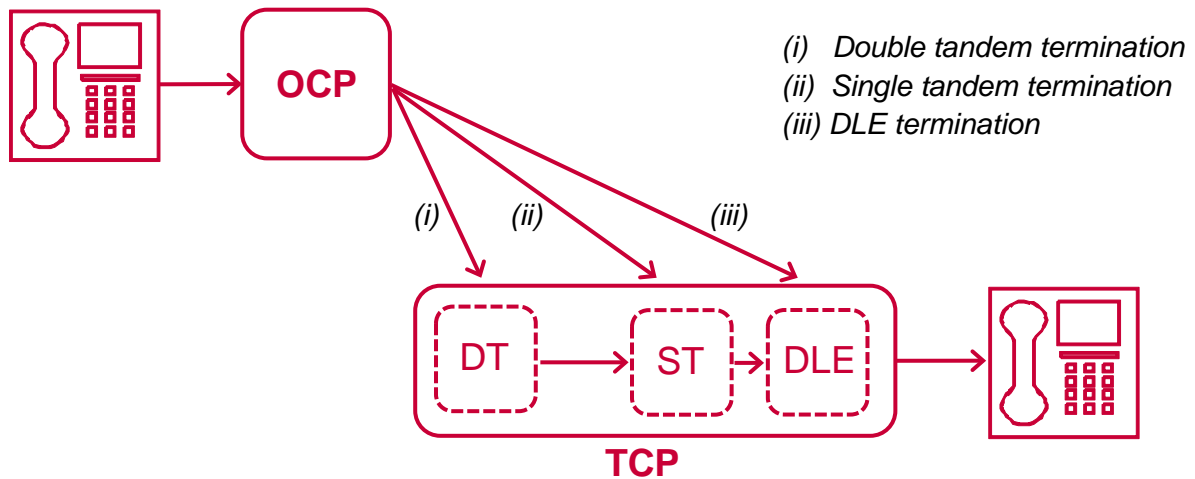
incentive to carry calls on their own networks and deliver them to the TCP as close to their ultimate (geographic) destination as possible, in order to maximise the use of their own networks and to minimise the termination charges payable to TCPs.

- 2.10 For a geographic call, the geographic destination of the call is known to the OCP, who will normally seek to deliver calls to their point of interconnection with the TCP that is closest to the called party. This is the routing principle conventionally referred to as “far-end handover”.
- 2.11 It would not be possible to apply the far-end handover approach to the first leg of a non-geographic call (before translation to a geographic number), since the OCP does not know the final geographic destination of the call. Non-geographic calls (such as those to 03 numbers) are therefore taken off the OCP’s network as soon as possible. This means that the OCP hands the call over to the TCP (or transit operator if the OCP and TCP are not interconnected) at the point of interconnection closest to the call’s origination. This is the routing principle conventionally referred to as “near-end handover”.

Far-end handover

- 2.12 The far-end handover termination charge is determined by the point at which the call is handed over to the TCP:
 - 2.12.1 Digital Local Exchange (“DLE”) Termination: where an OCP that has a large network carries the call all the way to the local exchange closest to its ultimate destination on its own network, resulting in the lowest termination charge payable to BT as the TCP.
 - 2.12.2 Single Tandem (“ST”) Termination: where an OCP that has a smaller network carries the call from the caller to a tandem switch close to its ultimate destination, and then hands the call over to BT for conveyance to the destination and termination on the relevant number, resulting in a higher termination charge payable to BT as the TCP.
 - 2.12.3 Double Tandem (“DT”) Termination: where the OCP hands the call over to BT at a tandem switch further from its ultimate destination, for conveyance to the destination and termination on the relevant number, resulting in the highest termination charge payable to BT as the TCP.

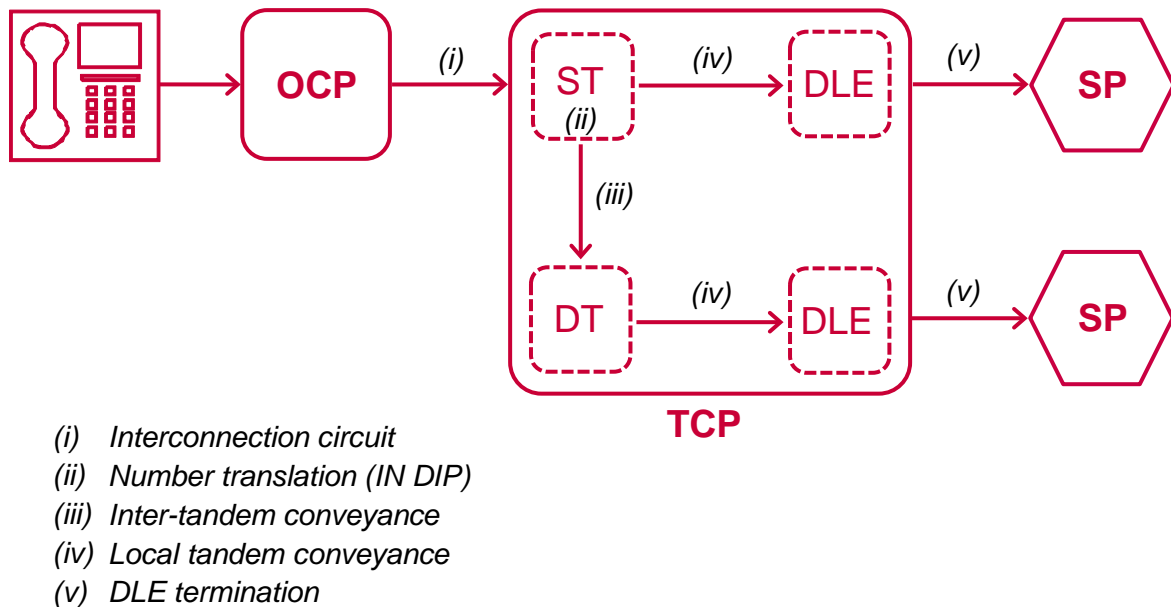
Figure 2.2: Far-end handover for calls to geographic numbers



Near-end handover

2.13 Figure 2.3 shows how near-end handover termination services are comprised of conveyance services. For example, double tandem termination comprises inter-tandem conveyance (“ITC”) plus local tandem conveyance (“LTC”) plus DLE termination,²² whereas single tandem termination comprises LTC plus DLE termination.

Figure 2.3: Near end handover for calls to 03 numbers



²² We also refer to ‘DLE termination’ as ‘geographic termination’.

Regulation of 03 numbers

- 2.14 Prior to the opening of the 03 number range, the 0870 number range had been designated for non-geographic calls priced at the geographic rate. OCPs were required to charge no more than the cost of a call to a geographic number unless they had published details of the actual cost of calls to these numbers and in accordance with their code of practice for such calls.²³ In reality, this meant that many OCPs chose not to price 0870 calls at the same level as their geographic calls.
- 2.15 When we opened the 03 number range in 2007, we decided that it was integral to the 03 policy that the pricing was regulated at a retail level in order to deliver the greatest benefits to consumers. We therefore required that calls to 03 numbers must be *“charged at up to the same rate the customer would pay to call a UK Geographic Number”*. We also made clear that calls to 03 numbers must be included in *“inclusive call minutes if the customer has remaining inclusive minutes to UK Geographic Numbers, and included in any discount structures that apply to UK Geographic Numbers”*.²⁴
- 2.16 The idea behind our 03 policy was *“to provide numbers that are like geographic number from the consumers’ perspective, whilst providing numbers with a national presence (and without revenue-sharing) to meet SPs’ service requirements”*.²⁵ In deciding to regulate 03 at the retail level, we said that *“the outcome we are seeking to address by this regulatory solution is to ensure that consumers are protected in all cases when calling particular numbering services. This is distinct from the use of price regulation to address problems that can arise in markets characterised by ineffective competition.”*²⁶
- 2.17 In order to enact our policy proposals, we made amendments to General Condition 17 so as to place a formal obligation on all OCPs to adhere to the service and tariff descriptions we had set out in our ‘Raising confidence in telephone numbers’ statement.²⁷

Ofcom’s policy in relation to 03 numbers

NGCS Statement

- 2.18 As part of our work to raise confidence in telephone numbers, Ofcom published a statement on ‘Simplifying non-geographic numbers’ (“the NGCS statement”) in December 2013.²⁸ In this we confirmed that the 03 range would be the only non-geographic number range linked to geographic call prices (e.g. 01 and 02).
- 2.19 The NGCS statement has changed the way in which 0845 and 0870 numbers are to be priced and regulated so that from the summer of 2015 there will no longer be a

²³ See the Numbering Plan and the requirements of General Condition 14

(<http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/general-conditions/>).

²⁴ “Raising confidence in telephone numbers” statement, 13 February 2007, Annex 3:

<http://stakeholders.ofcom.org.uk/binaries/consultations/numbering03/summary/03.pdf>.

²⁵ “Raising confidence in telephone numbers” statement, 13 February 2007, paragraph 3.48.

²⁶ “Raising confidence in telephone numbers” statement, 13 February 2007, paragraph 3.45.

²⁷ “Raising confidence in telephone numbers” statement, 13 February 2007, Annex 3.

²⁸ Simplifying non-geographic numbers - Final statement on the unbundled tariff and making the 080 and 116 ranges free-to-caller, 12 December 2013:

<http://stakeholders.ofcom.org.uk/binaries/consultations/simplifying-non-geo-no/statement/final-statement.pdf>.

link to geographic call prices. This statement also confirmed that 080 and 116 calls will be made free-to-caller from mobiles as well as landlines in order to restore trust in non-geographic numbers.

- 2.20 While this review did not seek to change the regulation of the 03 number range, the existence of the 03 range as a reasonable alternative for organisations to the freephone and revenue-sharing ranges was frequently referenced in our analysis of the options for those ranges.
- 2.21 Long-term consumer understanding and confidence in the 03 range is, therefore, important as it offers a migration path for SPs who consider that the changes made to the freephone and revenue-sharing ranges mean that those ranges will no longer meet their needs.

Clarification of policy on revenue sharing

- 2.22 On 11 December 2014, we published a statement clarifying the position as regards revenue sharing on the 03 number range following concerns that there was a misapprehension on the part of some TCPs that it was permissible to share revenue with callers to 03 numbers.²⁹ The statement modified the restriction on the use of 03 numbers to make clear that CPs are prohibited from sharing with end users or callers any revenues they receive (directly or indirectly) from calls to 03 numbers adopted or used by them.
- 2.23 This statement outlined three reasons why revenue sharing on the 03 number range was harmful overall for consumers. The reasons were that: (i) the economic viability of subscribers' call allowances (bundles) was compromised, (ii) incentivising consumers to call 03 numbers could lead to significant inflation of traffic on the network which could increase the cost of maintaining sufficient capacity on networks, and (iii) confidence in the 03 number range could be compromised.

Previous dispute determinations relevant to 03 termination rates

- 2.24 We resolved a previous dispute relating to 03 termination rates in 2011. The analysis we carried out in determining that dispute was based largely on that used in the resolution of an earlier dispute regarding 0870 termination rates from 2009. In this section we summarise these two previous disputes. We note that BT has not changed its termination rates for calls to 03 numbers since 2011.

The 0870 Dispute Determination (June 2009)

- 2.25 In June 2009 we published a determination (the "0870 Determination") to resolve a dispute between BT and various other CPs over termination charges payable by BT to those other CPs for the termination by them of calls to 0870 numbers they hosted (the "0870 Dispute").³⁰
- 2.26 In light of our policy to re-establish the link between retail prices for 0870 calls and those for geographic calls, we found that the 0870 termination charges proposed by a number of TCPs were too high to be reasonable and were likely to deter BT (the

²⁹ Available at <http://stakeholders.ofcom.org.uk/binaries/consultations/03-modification/statement/statement.pdf>.

³⁰ Available at <http://stakeholders.ofcom.org.uk/binaries/consultations/resolve0870calls/statement/determination.pdf>.

OCP in that case) from linking the retail prices for calls to 0870 numbers to the prices for calls to geographic numbers.³¹

- 2.27 The methodology we adopted in calculating the termination rate for 0870 calls, in order to resolve this dispute, ensured that 0870 termination charges were set at a rate that allowed TCPs to recover geographic call termination charges plus other costs that we considered relevant, namely (i) costs related to near-end handover and (ii) an allowance for interconnection circuit costs.³² At that time, both geographic termination and LTC were regulated services, and so we included each at their regulated rates (which were both FAC-based charges). We then considered two options for the cost standard to be used for the other elements of the cost stack – one based on LRIC and the other based on FAC. We determined that using FAC-based estimates represented the outcome that was fair and reasonable.
- 2.28 One of the concerns that we were seeking to address through our resolution of this dispute was to ensure that out-payments made by TCPs through revenue-sharing would not be sufficient to enable AIT to be profitable. We were concerned that AIT would undermine our aim of improving price transparency through the restoration of the link between 0870 and geographic national calls.³³
- 2.29 As part of our economic analysis we determined a “*no-arbitrage ceiling*”.³⁴ Noting that arbitrage was the practice of taking advantage of a price differential, we said that high termination charges could create the risk of arbitrage activity by TCPs. Our intention was to prevent the exploitation of a price differential in this way, and we said that the no-arbitrage ceiling represented a level above which we would consider a termination charge to be unreasonable. Any charges above this level would carry an “*unacceptable risk of encouraging arbitrage activity*” on 0870 numbers and would also undermine OCPs’ ability to maintain the alignment of 0870 and geographic retail call charges. Charges based on both FAC and LRIC were below the no-arbitrage ceiling in this case.

The 03 Dispute Determination (January 2011)

- 2.30 In January 2011 we published a determination (the “2011 03 Determination”) to resolve a dispute between Everything Everywhere (now EE) and BT over BT’s termination charges for calls made to 03 numbers (the “2011 03 Dispute”).³⁵
- 2.31 BT had aligned its termination charges for calls to 03 numbers with those for calls to 0870 numbers (as determined by us in the 0870 Determination), effective from 1 September 2009. EE submitted that the termination charges for calls to 03 numbers should be the same as or similar to those for calls to geographic numbers.³⁶
- 2.32 In summary, in our analysis of this dispute:³⁷
- we recalled that in our 0870 Determination we had set termination charges with a view to enabling OCPs to retail 0870 calls at geographic call rates. Termination

³¹ 0870 Determination, paragraph 1.19.

³² 0870 Determination, paragraph 1.21.

³³ 0870 Determination, paragraph 2.31.

³⁴ 0870 Determination, paragraph 1.23.

³⁵ Available at <http://stakeholders.ofcom.org.uk/binaries/consultations/draft-everything-bt-termination/statement/determination.pdf>.

³⁶ 2011 03 Determination, paragraphs 1.2 and 1.3.

³⁷ 2011 03 Determination, paragraph 1.5.

rates for 0870 calls were calculated on the basis of the cost of terminating 0870 calls, which was the geographic termination charges plus relevant additional costs for terminating 0870 calls calculated on a FAC basis;

- we found that there were no material differences in the routing and costs of terminating 03 calls and the routing and costs of terminating 0870 calls. Therefore, for this dispute we used the same analytical framework we used in our 0870 Determination;
- we said that the prohibition on OCPs from setting 03 call prices which are higher than those for geographic calls did not have any effect on the costs of terminating 03 calls;
- we noted that EE (the OCP) had neither suggested nor provided evidence that it was failing to recover its efficiently incurred costs on calls to 03 numbers;
- although EE had said that the increased termination rates would be passed on to callers, we had not been provided with any evidence to suggest that there was a realistic prospect of retail prices for calls to 03 or geographic numbers increasing;
- we noted that if the termination charges for 03 calls were aligned with those for geographic calls then TCPs would not recover their costs for terminating 03 calls from termination charges – because terminating 03 calls is more costly than terminating geographic calls; and
- no party had argued, and we had seen no evidence to suggest, that BT's revised 03 call termination charges would have a negative effect on competition.

2.33 We therefore concluded that it was fair and reasonable for BT to align its termination charges for calls to 03 numbers with those for calls to 0870 numbers – to reflect the costs of termination as calculated in the 0870 Determination.³⁸

³⁸ 2011 03 Determination, paragraph 1.8.

Section 3

Background to the Disputes

Issues in dispute

3.1 We received a dispute referral from EE on 24 September 2014, followed by a referral from Three (together the “Referring Parties”) on 1 October 2014. Both referrals concerned BT’s charges for the termination of calls to 03 numbers so we decided that we would consider them at the same time.³⁹

Submissions from EE

3.2 In its dispute submission, EE argued that BT’s charges for terminating calls to 03 numbers are no longer appropriate as the cost of terminating 03 calls has fallen since we last looked at the charges: “*Geographic termination rates have fallen materially since the rate in the 0870 Determination was first set in 2009, most strongly with effect from 1 February 2014 as a result of the FNMR*”.⁴⁰ EE also claimed that “*the current contribution allowed to BT for additional conveyance costs arising from near end handover and interconnection circuit costs in the 0870 Determination and the 03 Determination is also likely to be unduly high, given decreasing efficient network and technology costs over time*”.⁴¹

3.3 EE claimed that the use of FAC as the cost measure for 03 termination rates is no longer in the interests of consumers, arguing that LRIC should be adopted as it was the measure used in geographic termination. It also argued that “*[a]n arbitrage incentive is created where the incremental revenue a TCP earns from 03 termination is higher than its incremental costs of termination. This will inherently be the case where the incremental revenue the TCP can earn from the OCP is calculated on a FAC basis, but where it only faces incremental termination costs. Since the change in the geographic termination rate cost standard to pure LRIC, this is exactly the position we are in*”.⁴² EE suggested that Ofcom’s clarification of the ban on revenue sharing on 03 numbers will not totally prevent arbitrage occurring on the number range. It believed that the current charges, and associated arbitrage incentive that they provide, pose a threat to end-to-end connectivity.⁴³

3.4 EE also considered that if termination rates for calls to 03 numbers remain at their current rate, prices for both 03 and geographic calls cannot be reduced and that this has a direct negative effect for consumers.

3.5 EE additionally argued that BT’s 03 termination charges pose a “*real risk of distorting and harming competition*” and that this distortion will occur “*since OCPs are paying*

³⁹ On 23 December 2014 we received a dispute submission from Telefónica UK Limited concerning BT’s 03 termination rates, asking to be joined to these Disputes. We rejected this request as we considered the issues raised by Telefónica would be addressed through the resolution of these Disputes.

⁴⁰ EE dispute submission, paragraph 3.4(a).

⁴¹ EE dispute submission, paragraph 1.9(b).

⁴² EE dispute submission, paragraph 1.12(a)(i).

⁴³ EE dispute submission, paragraph 2.29.

*more than the efficiently incurred costs of the TCPs, reducing efficiency incentives and subsidising TCPs in their competition in other areas”.*⁴⁴

- 3.6 EE considered that its dispute falls within the third category identified in the Supreme Court in its judgment of 9 July 2014 in the 08x numbers appeals (“the Supreme Court judgment”⁴⁵), meaning that Ofcom’s role is a regulatory one.⁴⁶ EE has requested that Ofcom determines this dispute by directing BT:

“To withdraw NCCN 966 with retrospective effect from no later than 1 February 2014.

To charge EE, with retrospective effect from no later than 1 February 2014, no more for the termination of calls to 03 numbers on BT’s network than the amount specified by Ofcom as the pure LRIC cost of 03 termination by an efficient TCP.

*To reimburse EE, with interest, all amounts overcharged.”*⁴⁷

Submissions from Three

- 3.7 In its submission, Three made two main arguments about why BT’s current termination rates are inappropriate: (i) that “*a variation of charges is necessary to achieve the Article 8 objectives*”, and (ii) that “*end-to-end connectivity is threatened*”.⁴⁸ Three made the same point as EE, stating that “*there is a clearly negative Direct Effect since maintaining the current above-cost level of prices prevents prices falling for both 03 calls and geographic calls (since both must move together). It may also have a directly negative effect to the extent OCPs block access to 03 number ranges, reduce the size of call allowances, raise the price of out of allowance calls, and to the extent AIT impacts on OCP costs and/or network performance.*”⁴⁹
- 3.8 In relation to end-to-end connectivity, Three stated that “*it is clear that the no-arbitrage ceiling which Ofcom established no longer prevents arbitrage, OCPs can and will block access to 03 number ranges as a result*”.⁵⁰ Three also made the argument that “*competition will be distorted since OCPs are paying more than BT’s efficiently incurred costs subsidising BT in competing in other areas*”.⁵¹
- 3.9 Three stated that Ofcom should resolve the dispute using the same approach that was used in the 2011 03 Determination with the only change in approach being “*the use of pure LRIC rather than FAC costs*”.⁵²
- 3.10 Three requested that Ofcom resolve this dispute by directing BT:

⁴⁴ EE dispute submission, paragraph 2.34 (b)(iii).

⁴⁵ *British Telecommunications Plc v Telefónica O2 UK Ltd* [2014] UKSC 42, available at https://www.supremecourt.uk/decided-cases/docs/UKSC_2012_0204_Judgment.pdf.

⁴⁶ EE dispute submission, paragraph 2.34.

⁴⁷ EE dispute submission, paragraph 1.16.

⁴⁸ Three dispute submission, paragraph 8.14.

⁴⁹ Three dispute submission, paragraph 8.14(a)(ii)(A).

⁵⁰ Three dispute submission, paragraph 8.14(b).

⁵¹ Three dispute submission, paragraph 8.14(a)(ii)(C).

⁵² Three dispute submission, paragraph 8.9.

“To withdraw NCCN 966 with retrospective effect from no later than 1 February 2014.

To amend the termination charges for calls to 03 numbers to reflect no more than the efficient costs of 03 termination calculated on a pure LRIC basis with retrospective effect from no later than 1 February 2014.

To reimburse Three in full, with interest, for any overpayments made under these new charging arrangements from no later than 1 February 2014.”⁵³

Submissions from BT

- 3.11 We provided BT with copies of the dispute submissions of EE and Three on 25 September 2014 and 2 October 2014 respectively. We invited BT to comment on the submissions.
- 3.12 BT considered that Ofcom should not accept the disputes for resolution and that they did not fall within Ofcom’s administrative priorities for a number of reasons including but not limited to:
- 3.12.1 Ofcom has already found BT’s 03 termination rates are fair and reasonable.
- 3.12.2 Ofcom has already dealt with the revenue sharing risk as part of the 03 revenue sharing statement.
- 3.12.3 Ofcom’s Narrowband Market Review Statement, which set geographic termination rates at LRIC, has no impact on 03 termination rates.⁵⁴
- 3.13 BT also said that it *“firmly contests”* EE’s interpretation that the dispute falls within the third category of disputes listed in the Supreme Court judgment stating that *“[i]n particular, BT’s termination rate relates to existing contract terms which are in accordance with the assessment made by Ofcom in its 2011 Determination. BT considers that the present dispute falls within the first category of disputes listed in §32 of the Supreme Court judgment where Ofcom can only exercise an adjudicatory role.”⁵⁵*
- 3.14 After Ofcom had accepted the Dispute for resolution, BT provided further submissions on 29 October 2014.
- 3.15 BT considered that *“Ofcom would be acting contrary to the approach of the Common Regulatory Framework (“CRF”), as now clarified by the judgment of the Supreme Court in the 08x Numbers case, if it accepted EE and Three’s arguments and regulated 03 termination rates at pure LRIC.”⁵⁶* It went on to state that *“there would*

⁵³ Three dispute submission, paragraph 8.18.

⁵⁴ BT submissions of 1 and 8 October 2014.

⁵⁵ BT submission of 1 October 2014. Ofcom notes that, contrary to BT’s assertion, paragraph 32 of the Supreme Court judgment clearly provides that where Ofcom is resolving a dispute falling within the first category Ofcom *“may perform an adjudicatory or a regulatory role or a combination of the two”*. In any event, as explained in paragraph 3.25, Ofcom considers that these Disputes properly fall within the third category identified in the Supreme Court judgment, in that there are binding terms in place but the Referring Parties consider that those terms no longer satisfy the policy objectives in Article 8 of the Framework Directive.

⁵⁶ BT submission of 29 October 2014, paragraph 1.

*have to be compelling material supporting the need for any regulatory intervention. Such material is absent in the present case.*⁵⁷

- 3.16 In relation to Ofcom's proposed modification to the Numbering Plan to clarify the prohibition against revenue sharing on the 03 number range, BT claimed that "*there is no reason to believe that the measures which are expected to be adopted by Ofcom at the outcome of the current consultation will be ineffective*".⁵⁸ It also considered that reducing termination rates to prevent arbitrage would be disproportionate, noting that the Supreme Court judgment "*made clear that the 'extreme precautionary approach' in that case was contrary both to the applicable contractual position and to the scheme under the Directives*". BT argued that the "*same principle applies to the present situation*" and that such an approach "*would be unlawful and fall outside Ofcom's powers*".⁵⁹
- 3.17 Responding to the assertions from EE that end-to-end connectivity is threatened by the current termination rates, BT argued that "*it is far from clear that the MNOs would be entitled to block calls on any significant scale*".⁶⁰

Dispute resolution

Legal framework for resolving disputes

EU common regulatory framework

- 3.18 The telecommunications sector is regulated under an EU-wide common regulatory framework for electronic communications networks and services (the "CRF"), the purposes of which include ensuring end-to-end connectivity throughout the EU, free of distortions arising from anti-competitive behaviour or restrictions arising from national law or practices. The CRF is comprised of five Directives, including the Framework Directive,⁶¹ which were first adopted in March 2002 and subsequently revised and updated in 2009.
- 3.19 Article 8 of the Framework Directive requires Member States to ensure that, in carrying out the regulatory tasks specified in the CRF, (which include dispute resolution⁶²), national regulatory authorities take all reasonable measures which are aimed at achieving the objectives set out in paragraphs 2, 3 and 4 of Article 8. Such measures shall be proportionate to those objectives.

Communications Act 2003

- 3.20 The dispute resolution provisions of the CRF are reflected in sections 185 to 191 of the 2003 Act. Ofcom has the power to resolve the following types of disputes referred to it by one or more of the parties:

⁵⁷ BT submission of 29 October 2014, paragraph 5.

⁵⁸ BT submission of 29 October 2014 paragraph 33.

⁵⁹ BT submission of 29 October 2014, paragraph 41.

⁶⁰ BT submission of 29 October 2014, paragraph 36.

⁶¹ 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 (Framework Directive) (as amended).

⁶² See Article 20 Framework Directive and Article 5(3) Access Directive.

- 3.20.1 a dispute relating to the provision of network access (section 185(1) of the 2003 Act);
 - 3.20.2 a dispute relating to entitlements to network access that a CP is required to provide by or under a condition imposed on him under section 45 of the 2003 Act between that CP and a person who is identified, or is a member of a class identified, in the relevant condition (section 185(1A) of the 2003 Act); and
 - 3.20.3 a dispute between CPs, which is not an 'excluded dispute', relating to rights or obligations conferred or imposed by or under a condition set under section 45 of the 2003 Act or any of the enactments relating to the management of the radio spectrum (section 185(2) of the 2003 Act).
- 3.21 Sections 186(1) and (2) of the 2003 Act provide that where a dispute is referred to Ofcom in accordance with section 185, Ofcom must decide whether or not it is appropriate to handle the dispute. In the case of a dispute falling within section 185(1) of the 2003 Act, Ofcom has discretion whether to decide that it is appropriate for it to handle the dispute. In exercising that discretion, section 186(2A) of the 2003 Act provides that Ofcom may in particular take into account its priorities and available resources at the time.
- 3.22 When resolving a dispute under the provisions set out in sections 185 to 191 of the 2003 Act, Ofcom is exercising one of its regulatory functions. 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 2003 Act, and (pursuant to section 4(1)(c) of the 2003 Act) the six Community requirements set out in section 4 of the 2003 Act, which give effect, amongst other things, to the requirements of Article 8 of the Framework Directive.
- 3.23 In addition, where a dispute falls within section 185(1) of the 2003 Act, section 190(2A) of the 2003 Act provides that Ofcom must exercise their powers in the way that seems to them most appropriate for the purpose of securing: efficiency, sustainable competition, efficient investment and innovation and the greatest possible benefit for the end-users of public electronic communications services.

Supreme Court judgment in the 08x numbers appeals

- 3.24 Ofcom's dispute resolution powers were considered by the Supreme Court in its judgment of 9 July 2014 in the 08x numbers appeals.⁶³ In that judgment, and in the context where, as here, Ofcom had made no finding of SMP and no SMP or other regulatory conditions applied to the termination rates in question, the Supreme Court identified three categories of disputes that may be referred to Ofcom for resolution relating to the terms of contracts between the disputing parties. The disputes which may arise are "*(i) under the existing interconnection terms, or (ii) because the parties have been unable to agree terms and one of them wants the regulator to impose them, or (iii) because there are binding terms but they do not satisfy (or no longer*

⁶³ Judgment of the Supreme Court of 9 July 2014 in *British Telecommunications Plc v Telefónica O2 UK Ltd* [2014] UKSC 42 available at https://www.supremecourt.uk/decided-cases/docs/UKSC_2012_0204_Judgment.pdf.

satisfy) Article 5.3 of the Access Directive or the policy objectives in Article 8 of the Framework Directive.⁶⁴

- 3.25 These Disputes appear to fall into the third category as there are binding terms in place between the parties (in the form of NCCN 966 imposed under the SIA) but EE and Three have no contractual right to revise these charges⁶⁵ and they consider that those terms no longer satisfy the policy objectives in Article 8 of the Framework Directive. In this type of case, where there is no contractual right for the mobile network operators (“MNOs”) to require BT to vary its charges, the Supreme Court considered that “*it is difficult to see how Ofcom can approve a variation unless it is necessary to achieve end-to-end connectivity (for example to enable operators to recover their efficient costs) or to achieve the Article 8 objectives*”.⁶⁶ The scope which we have set for resolution of the Disputes (see paragraph 3.28) takes account of the Supreme Court’s comments in this regard.

Accepting the Disputes

- 3.26 Having considered both EE’s and Three’s submissions and subsequent comments made by the Parties, we were satisfied that the Disputes fell within section 185(1)(a) of the 2003 Act.
- 3.27 On 13 October 2014 we informed the parties of our decision that it was appropriate for us to handle the Disputes for resolution in accordance with section 186(2A) of the 2003 Act.

Scope of the Disputes

- 3.28 We set the following scope for the Disputes:

“Whether, in light of regulatory and market developments, the wholesale termination charges notified by BT in NCCN 966 for calls to 03 numbers that terminate on BT’s fixed network are no longer consistent with the policy objectives in Article 8 of the Framework Directive including end-to-end connectivity.”

Interested Parties

- 3.29 Aloha Telecom Limited (“Aloha”), Gamma Telecom Limited (“Gamma”), Lexgreen Services Limited, Magrathea Telecommunications Limited (“Magrathea”) and Telefónica UK Limited (“Telefónica”) have expressed an interest in the outcome of these Disputes.

Powers when resolving disputes

- 3.30 Ofcom’s powers in relation to making a dispute determination are limited to those set out in section 190 of the 2003 Act. Except in relation to disputes relating to the

⁶⁴ The Supreme Court judgment, paragraph 32. The Supreme Court acknowledged that the 2003 Act gives effect to the Directives in the UK and explained that “[s]ince it is common ground that the Directives are accurately transposed in the [2003] Act, it will generally be convenient to refer to the European rather than the domestic legislation” (see paragraph 14 of the Supreme Court judgment).

⁶⁵ Under the terms of BT’s standard interconnect agreement (the “SIA”), EE and Three may propose new charges for BT services but these proposed new charges do not take effect unless BT accepts them.

⁶⁶ See paragraph 34 of the Supreme Court judgment.

management of the radio spectrum, Ofcom's main power is to do one or more of the following:

- 3.30.1 make a declaration setting out the rights and obligations of the parties to the dispute (section 190(2)(a));
 - 3.30.2 give a direction fixing the terms or conditions of transactions between the parties to the dispute (section 190(2)(b));
 - 3.30.3 give a direction imposing an obligation on the parties to enter into a transaction between themselves on the terms and conditions fixed by Ofcom (section 190(2)(c)); and
 - 3.30.4 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 (section 190(2)(d)).
- 3.31 A determination made by Ofcom to resolve a dispute binds all the parties to that dispute (section 190(8)).

Information relied on in resolving the Disputes

- 3.32 In resolving these Disputes, we have relied upon:
- 3.32.1 Dispute referrals from EE and Three, dated 24 September 2014 and 1 October respectively;
 - 3.32.2 BT's submissions on the dispute referrals, dated 1, 6, 8 and 29 October 2014;
 - 3.32.3 Gamma's letter in which it advised that it was an interested party to the Disputes, 23 October 2014;
 - 3.32.4 EE's further comments on the dispute, dated 13, 27 and 29 October 2014;
 - 3.32.5 Three's further comments on the dispute, dated 17 October 2014;
 - 3.32.6 Three's response to the first section 191 Notice, received 7 November 2014;
 - 3.32.7 EE's responses to the first section 191 Notice, received 7 and 11 November 2014;
 - 3.32.8 BT's responses to the first section 191 Notice, received 7 and 17 November 2014;
 - 3.32.9 EE's response to the second section 191 Notice, received 14 November 2014;
 - 3.32.10 Three's response to the second section 191 Notice, received 14 November 2014;
 - 3.32.11 Aloha's email in which it advised that it was an interested party to the Disputes, 17 November 2014;

- 3.32.12 BT's responses to the second section 191 Notice, received 17 and 21 November and 4 December 2014;
- 3.32.13 BT's submission on AIT, dated 24 November 2014;
- 3.32.14 Gamma's response to the Provisional Conclusions, received 6 January 2015;
- 3.32.15 BT's response to the Provisional Conclusions, received 9 January 2015;
- 3.32.16 Telefónica's response to the Provisional Conclusions, received 9 January 2015;
- 3.32.17 Three's response to the Provisional Conclusions, received 9 January 2015;
- 3.32.18 Magrathea's response to the Provisional Conclusions, received 11 January 2015;
- 3.32.19 BT's response to the third section 191 Notice, received 16 January 2015; and
- 3.32.20 EE's response to the Provisional Conclusions, received 20 January 2015.

Section 4

Analysis and provisional conclusions

Introduction

- 4.1 This section sets out the analysis and provisional conclusions on which we consulted in December 2014. The submissions we received in response to our Provisional Conclusions are addressed in Section 5 of this document where we also set out our final conclusions on the matters in dispute.
- 4.2 As discussed in Section 3, the scope for the Disputes is whether, in light of regulatory and market developments, the wholesale termination charges notified by BT in NCCN 966 for calls to 03 numbers that terminate on BT's fixed network are no longer consistent with the policy objectives in Article 8 of the Framework Directive, including end-to-end connectivity. In order to consider the effect of BT's current termination rates, we needed to have an analytical framework, including the specification of an alternative benchmark as a counterfactual. We therefore first considered what this benchmark should be.
- 4.3 We then considered the arguments put forward as to why BT's current 03 termination rates might be inconsistent with the Article 8 objectives. We have summarised these arguments into four effects:
- The direct effects on consumers⁶⁷ arising from changes that OCPs may make to their retail offerings;
 - The indirect effects on consumers that occur as a result of the impact that changes in 03 termination rates have on the amount TCPs charge SPs for hosting 03 numbers;
 - The risk of distortions to competition arising from the current 03 termination rates; and
 - Harm arising from AIT and arbitrage, including the potential threat to end-to-end connectivity and consumer confidence in the 03 number range.

The benchmark rate

- 4.4 We needed to compare the position with BT's current 03 termination rates to a benchmark case in which its rates are different. This allowed us to assess whether we believed its current rates are leading to consumer detriment when compared to this benchmark rate and whether BT's current termination charges are consistent with the Article 8 objectives.

⁶⁷ Both callers and SPs can be considered as consumers. We have considered the effect on SPs as part of our assessment of indirect effects but in accordance with our previous policy preference, we have placed greater weight on the impact on callers where these are in conflict with SPs.

Stakeholder comments on the benchmark rate

- 4.5 EE and Three both argued that BT's charges are too high. They noted that BT's termination rates for calls to 03 numbers have not changed since 2009, when BT set them at the same level as the termination rates for 0870 calls that we determined in the 0870 Determination. These rates were set to allow recovery of the geographic termination rate (then calculated on a LRIC+ basis), the costs of conveyance (calculated on a FAC basis) and the costs of interconnection circuits (calculated on a FAC basis).
- 4.6 Since January 2014, the regulation of fixed geographic termination rates ("FTRs") has changed and a pure LRIC standard has been adopted, which represented a reduction in geographic termination rates of about 85% at the time.⁶⁸ Both EE and Three argued that this reduction in FTRs should be reflected in BT's 03 termination charges. They also believed that conveyance and interconnection circuit costs were likely to have fallen and that, in line with our approach to geographic termination, these costs should also be calculated on a LRIC basis.
- 4.7 BT, in contrast, maintained that its current charges are consistent with the 0870 and 03 Determinations, as there have not been any significant changes in the costs of the elements used to provide an 03 call (even though our approach to regulating geographic calls has changed). BT said that there was no evidence to support the claim that costs of conveyance and interconnection circuits had fallen. It noted that the 2009-2013 network charge control ("NCC") statement⁶⁹ showed that Ofcom expected that the unit cost (on an FAC basis) of calls would be broadly flat in real terms.⁷⁰ It also referred to the prices listed on its Carrier Price List, which showed that conveyance prices were slightly higher than in 2009,⁷¹ and to data from its Regulatory Financial Statements on call origination and termination, which it claimed also suggested conveyance costs were constant.⁷²
- 4.8 [S<] also noted that geographic termination rates had changed because of a change in our regulation method rather than a change in cost. It did not believe there had been any substantial changes in the market or the costs which suggested that BT's termination rates were not fair and reasonable. It noted that the European Commission's recommendation to use a LRIC cost standard for termination did not apply to non-geographic services.⁷³
- 4.9 [S<] said that what needs to be questioned is not the 03 termination rate as such, but the way BT charges for call transit. It pointed out that the costs of an 03 call on double tandem are more than double that of a single tandem and said that in today's networks of digital switching, it was questionable whether these rates were fair and reasonable. It noted that there is no way for operators to know what they will be billed, until the call had gone through.⁷⁴

⁶⁸ At the same time we decided that fixed wholesale call origination would be regulated on the basis of LRIC+ but where the "+" included an additional contribution to common costs no longer recovered from setting FTRs at LRIC.

⁶⁹ Ofcom's 'Review of BT's Network Charge Controls' 15 September 2009, available at http://stakeholders.ofcom.org.uk/binaries/consultations/review_bt_ncc/statement/nccstatement.pdf.

⁷⁰ BT submission of 1 October 2014, page 5.

⁷¹ BT submission of 8 October 2014, paragraph 11.

⁷² BT submission of 29 October 2014, paragraph 30.

⁷³ [S<].

⁷⁴ [S<].

Our analysis of the benchmark rate

- 4.10 We first considered the impact of the change in the regulation of geographic termination, before moving on to consider whether there had been any changes to other elements of the cost stack for BT's 03 termination charges. We then considered what the appropriate cost standard for the counterfactual should be. Finally, we considered whether the counterfactual should include TCPs other than BT reducing the charges for 03 termination on their networks.

Change in regulation of geographic calls

- 4.11 BT has not adjusted its 03 termination rate to reflect the change in our approach to the regulation of fixed geographic call termination. EE and H3G may therefore currently face a difference in the incremental cost of originating an 03 call that terminates on BT's network and in the incremental cost of originating a geographic call that terminates on BT's network (unless other elements of the 03 cost stack have risen to counterbalance the reduction in geographic termination).
- 4.12 This is contrary to the aim of our previous determination on 03 termination rates, which focused on supporting the alignment of retail prices of 03 calls with 01 and 02 calls.⁷⁵ In that determination we noted that the incremental costs faced by an OCP of geographic termination comprised far-end conveyance, interconnection circuit costs plus the geographic termination charge. As 03 and 0870 calls are handed over at the near-end, most of the conveyance is carried out by the TCP but we said that the *"[costs of interconnection circuits and conveyance] should be borne by the OCP so that, as far as possible, the underlying costs of call origination for 0870 calls and geographic calls would be aligned. The same analysis applies to 03 calls..."*⁷⁶
- 4.13 Because our aim was to support the alignment of retail prices, in both the previous 0870 and 03 determinations, we used BT's actual (at that time FAC-based) geographic termination rates in both the LRIC and FAC termination cost stacks, rather than considering different measures of the cost of providing geographic termination. We therefore disagree with BT that its current charges are consistent with the 0870 and 03 determinations. In order to maintain consistency with the approach we adopted in those previous disputes, we believe that BT would need to have reflected the change in its geographic termination rates to LRIC in its 03 termination rates.

Changes in other elements of the cost

- 4.14 We requested information from the Parties which has shown that the underlying costs of 03 call termination have changed since the 2011 03 Dispute. The main causes of this are:
- Changes in the charges for (and costs of) local tandem conveyance and inter-tandem conveyance (short, medium and long) services;
 - Changes in the average distance that 03 traffic is conveyed; and

⁷⁵ See, for example, paragraphs 4.32 and 4.34 of the 2011 03 Determination: <http://stakeholders.ofcom.org.uk/binaries/consultations/draft-everything-bt-termination/statement/determination.pdf>.

⁷⁶ 2011 03 Determination, paragraph 4.15.

- Changes in the costs of interconnection circuits.

4.15 In the 0870 Dispute, we considered that “for the purposes of this dispute, BT’s competitively determined prices for inter-tandem conveyance can be viewed as the best available rough proxy for the FAC costs incurred by an efficient network TCP providing these services”.⁷⁷ We therefore took the prices of inter-tandem conveyance from BT’s Carrier Price List to use as our proxy for FAC costs in the 0870 cost stack. BT has noted that the prices on Carrier Price List suggest that the price of conveyance has not fallen since 2009. However, BT’s conveyance charges are no longer regulated and BT may now offer discounts to CPs purchasing these services. Therefore the prices listed in the Carrier Price List are unlikely to continue to represent a good proxy of BT’s FAC costs (nor even a good proxy of the actual average price paid by CPs) for these services. BT provided us with data showing its average prices charged for these conveyance services. These figures are lower than those listed in the Carrier Price List that we used in the 0870 and previous 03 disputes.

Table 4.1: Comparison of derived Carrier Price List charges and actual average charges for conveyance in 2013/14, 24-hour prices in ppm]

	CPL	Average charge ⁷⁸
DLE	0.0093	[]
Local tandem conveyance	0.0902	[]
Inter-tandem conveyance (short)	0.1713	[]
Inter-tandem conveyance (medium)	0.2904	[]
Inter-tandem conveyance (long)	0.4547	[]

Source: Ofcom analysis based on CPL, BT

Note: DLE termination fell sharply in February 2014 following the move to LRIC-based regulation for geographic termination. Average charge data are the average of the 12 months to 31 March 2014 and so include 10 months of the higher original charge. CPL component prices for LTC and ITC (short, medium, long) did not change over this period and so were unaffected by this change. CPL data reflect charges in effect on 31 March 2014.

4.16 We previously calculated the 03 termination rate on the basis of a set of traffic weightings that we understood represented the likely proportion of calls that required each of the conveyance services considered at that time.⁷⁹ BT provided traffic weightings for these services for the 2013/14 financial year, which we present in Table 4.2. The updated weightings provided by BT are for all non-geographic calls rather than for 03 calls specifically. BT was unable to provide call weighting data for just 03 calls in the timeframe of the Dispute but has assumed that, on average, the geographic routing of 03 calls is the same as the non-geographic routing of calls.⁸⁰

⁷⁷ 0870 Determination, paragraph 6.121.

⁷⁸ The Day/Evening/Weekend average charges for these services are as follows: DLE termination []; LTC []; ITC (short) []; ITC (medium) []; ITC (long) []. These have been weighted by actual volumes over the period to derive the average charge.

⁷⁹ 0870 Determination, Table 5, page 54.

⁸⁰ BT’s response to Question 5 of the 2nd section 191 Notice.

Table 4.2: Comparison of traffic weightings of calls for estimating termination costs

	0870 Determination	2013/14 estimates
DLE	0%	[X]%
Single Tandem	68%	[X]%
Double Tandem (short)	10%	[X]%
Double Tandem (medium)	9%	[X]%
Double Tandem (long)	13%	[X]%

Source: 0870 Determination, BT

- 4.17 The updated traffic weightings were notably different to those used in the 0870 Determination, with a far greater weighting of Double Tandem services than previously assumed. This suggests there has been an increase in 03 termination costs, as these services are more costly than Single Tandem termination.⁸¹
- 4.18 It is likely that the factors which affect the costs of interconnection circuits had also changed since the rates were last calculated in 2009, due to a number of factors. However, due to the small proportion of the cost stack that interconnection circuit costs represent (around 12% in our 2009 decision), and the complexity of the calculations, we have not carried out any detailed work on estimating current interconnection circuit costs at this point of our analysis. We would consider these costs further if we were to conclude that it was necessary to set different charges, and we requested data from the Parties to allow us to do so if necessary.

The appropriate cost standard

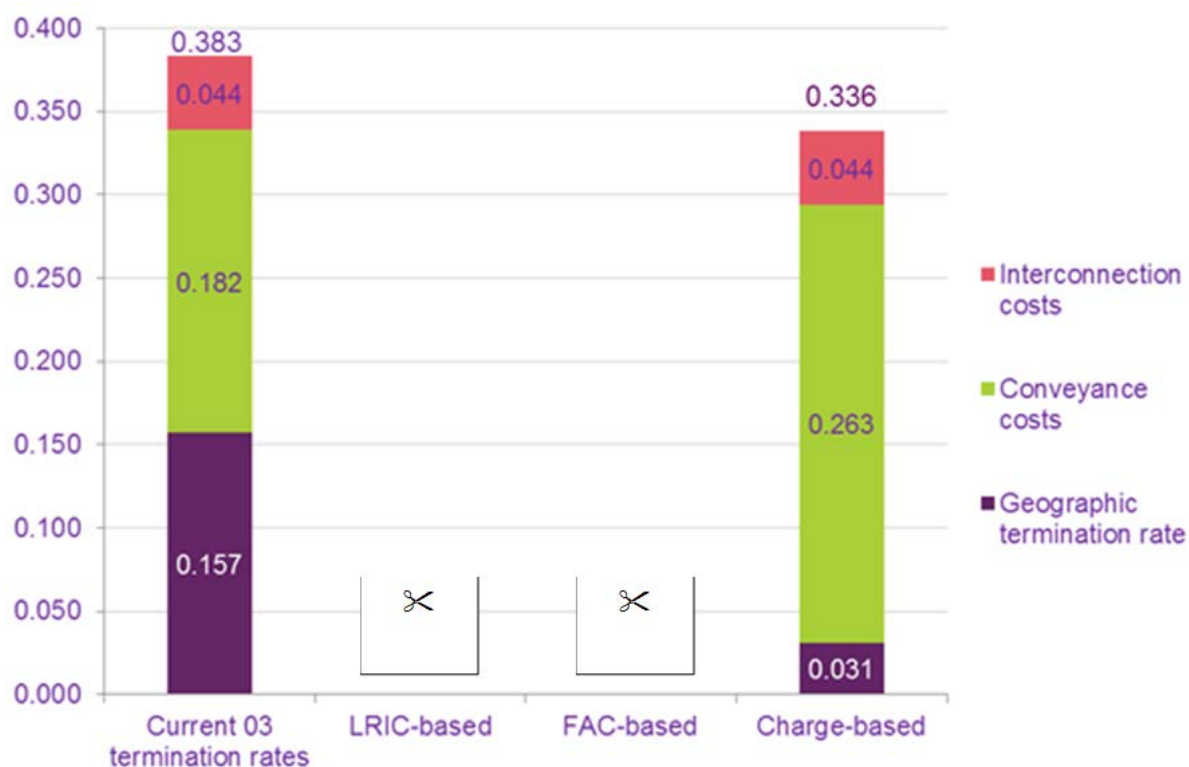
- 4.19 We identified three potential options for the cost standard for our benchmark rate. These are:
- 4.19.1 LRIC: We could have considered the appropriate measure of additional conveyance and interconnection circuit costs included in the cost stack to be the LRIC of these services, as has been suggested by EE and Three. This would allow BT to recover only the incremental costs of using these services for 03 termination, with no allowance for common cost recovery.
- 4.19.2 FAC: We could have considered the appropriate measure of additional conveyance and interconnection circuit costs included in the cost stack to be the FAC of these services. This would allow BT to recover the incremental costs of these services, plus an allowance for common costs. We have considered TDM, rather than internet protocol (“IP”) costs, as we believe this is the technology BT currently uses to supply the majority of its conveyance, including in the deregulated transit market.
- 4.19.3 Charge-based measures: We could have considered the appropriate measure of additional conveyance and interconnection circuit costs included in the cost stack to be BT’s current average charges for these services.

⁸¹ As discussed in paragraphs 2.12 and 2.13, double tandem termination services comprise DLE termination plus some local-tandem and inter-tandem conveyance, whereas single tandem requires only local-tandem conveyance plus DLE termination. The higher weighting of double tandem termination services means that more traffic will require inter-tandem conveyance in addition to local-tandem conveyance, and as such will be more costly.

- 4.20 In the 0870 Determination, only the first two options were named. However, we considered that competitively determined prices roughly approximated FAC (see paragraph 4.15).⁸² The three elements of the cost stack in the 0870 Determination, which were followed in the 2011 03 Determination and are reflected in BT's current termination charge, are shown in Figure 4.3.
- 4.21 We have obtained data from BT which has allowed us to estimate the possible counterfactual 03 termination rates on the basis of each of the above options. These updated cost stack estimates are presented in Figure 4.3.
- 4.21.1 Geographic termination rates are the same for all three cost standards in the LRIC-, FAC- and charge-based cost stacks, in all three cases reflecting the current geographic termination rate (set from January 2014 using a LRIC cost standard).
- 4.21.2 Conveyance costs vary between the three cost standards, based on the information supplied by BT.
- 4.21.3 As explained above, we did not produced new estimates of interconnection circuit costs. Instead, we have included the FAC estimate calculated in the 0870 Determination in the FAC-based and charge-based cost stacks, and the LRIC rate calculated in that Determination in the LRIC-based cost stack (which was estimated as 50% of the FAC estimate).
- 4.22 The FAC-based estimate of conveyance costs is likely to be understated as no "hypothetical on-going network" adjustment has been made to account for the fact that BT's TDM network is heavily depreciated (see paragraph 4.26.2). As such, the estimates of 03 termination costs are indicative estimates only, designed to aid our assessment of the parties' arguments against our analytical framework, and are not intended to be taken as the resultant rates of a full analysis if we were to intervene on the basis of each option.

⁸² 0870 Determination, paragraph 6.144.

Figure 4.3: Estimate of possible counterfactual 03 termination rates, ppm



Source: BT responses to section 191 Notices, Ofcom.

Note: Only the blended Single-Tandem point-of-handover rate is presented for each option. Actual rates would differ by time of day weighting and by point of handover.

Note: The FAC-based estimate is likely to be understated as no “hypothetical on-going network” adjustment has been made to account for the fact that BT’s TDM network is heavily depreciated.

4.23 The change in conveyance costs between the 0870 Determination (as reflected in the cost stack for BT’s current termination rate) and the three updated cost stacks is the net effect of two changes in opposite directions (see Tables 4.1 and 4.2 above):

4.23.1 reduction in ppm conveyance rates; and

4.23.2 increase due to the change in traffic weights.

4.24 The difference between the conveyance rates used in the 0870 Determination and the current Disputes for the charge-based option would lead to a reduction in conveyance costs included in the cost stack, from 0.182ppm to [X], were the traffic weights to remain the same. However, the change in the traffic weights used increases this from [X] to 0.261ppm. The result is a net increase in the conveyance costs included in the cost stack under the charge-based counterfactual option, compared with the 0870 Determination.

4.25 Under each of the three options, the counterfactual 03 termination rate would be lower than the current rate so whichever option we chose to take as our counterfactual the direction of any effect would be the same.

4.26 In producing these estimates, we relied upon unadjusted data from BT. However we considered whether it may be appropriate to make some adjustments to this data. We consider that whilst not being significant enough to influence our conclusions on

whether the existing charges meet the Article 8 objectives, a number of adjustments to this cost data were necessary were we to conclude it appropriate to set 03 termination rates. Adjustments that may be necessary include:

- 4.26.1 The LRIC estimates involve an assumed increment over which to measure costs that are incremental. We have obtained estimates of LRIC based on the incremental cost of each network component providing all the services that the network component delivers, not just 03 termination. This is likely to be higher than the incremental costs of providing conveyance for 03 termination alone (if, for example, there are fixed overheads in providing conveyance which don't vary with small changes in volume).
- 4.26.2 The FAC (and LRIC) estimates are based on BT's current network which, from previous disputes and the NCC charge control, we are aware contains heavily-depreciated network assets.⁸³ We consider that it may be appropriate to make adjustments (similar to those made previously) to these FAC and LRIC estimates to more closely simulate the costs of an on-going network. In order to carry out these adjustments we would require more granular component based data, which we have not requested.
- 4.26.3 Our charge based conveyance cost estimates are based on average charges, and may not reflect the conveyance charged to EE and Three. Indeed, in its initial submission, EE explained that "[redacted]".⁸⁴ EE provided [redacted].⁸⁵⁸⁶ However the difference would not affect our conclusions.
- 4.27 In light of the issues described above, we believed that the most robust estimates we had were those used to calculate the charge-based rate. These data are actual market data based on the average prices BT charges for its conveyance services, which we believe to be competitively negotiated.
- 4.28 Moreover, we did not consider that EE and Three have advanced strong theoretical arguments for the use of LRIC as a cost standard. Their primary argument seems to be that it is the cost standard adopted in geographic termination. However, the situation in geographic termination is different as, in that situation, the originator and terminator are in reciprocal relationships, i.e. paying each other's termination charges, and both compete to offer calls to consumers. In that situation, the use of a LRIC+ cost standard could affect that competition. In 03 termination, the OCP and the TCP are not generally in reciprocal relationships and so the arguments for using a LRIC cost standard for geographic termination do not read across. EE and Three also suggested that LRIC may be more effective in preventing arbitrage but, as outlined in paragraph 4.115 below, this does not seem to be a relevant consideration to BT's termination charges, as neither party has suggested that BT or SPs hosted by BT are engaged in arbitrage on its 03 numbers.
- 4.29 We recognised that as LRIC-based costs best reflect OCPs' avoided costs they may best align the costs of geographic and 03 termination, at least in cases where OCPs'

⁸³ For example, see paragraphs 4.40 to 4.49 of the "*Gamma Interconnect Extension Circuits Determination*", 23 May 2014, available here:

http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01119/Final_Determination_23_May_NON-CONFIDENTIAL_VERSION.pdf.

⁸⁴ EE submission of 24 September 2014, paragraph 1.14(a).

⁸⁵ EE submission of 24 September 2014, paragraph 2.40.

⁸⁶ [redacted].

self-supply conveyance and interconnection circuits. However, these costs would be below the competitively-determined market price and could be allocatively inefficient (for example, because of demand-side considerations⁸⁷). Charge-based rates, on the other hand, may best reflect OCPs' avoided costs in the cases where OCPs buy these services from other operators. They also better reflect the competitive market outcome.

- 4.30 Therefore, in the discussion below, we used the charge-based measure as our primary counterfactual. However, we also considered the impact of using a LRIC-based counterfactual.

Is it appropriate to consider changes in other TCPs' 03 termination rates?

- 4.31 EE pointed out that in Ofcom's NGCS statement we had noted that the 2011 03 Determination was only formally binding on EE and BT, but that it had acted as an industry standard which has been adopted throughout the industry. It may be the case that, were we to intervene against BT's 03 termination rates in these Disputes, other TCPs may revise their own 03 termination charges accordingly.
- 4.32 BT, in contrast, noted that there was no suggestion that arbitrage was undertaken on its 03 numbers and stated that it cannot compel other TCPs to reduce their termination rates.⁸⁸
- 4.33 Other TCPs are free to set their own rates, subject to commercial negotiation. In these Disputes, which are about BT's 03 termination rates, we have focused on evidence in relation to costs and charges on BT's network and we have not investigated the circumstances of other TCPs. As such, when considering the possible harm caused by BT's 03 termination rates, we did not assume that changes to BT's termination rates would necessarily affect those of other TCPs.

Summary of our views on the appropriate benchmark rate

- 4.34 In the discussion below, we took the charge-based rate as our primary benchmark. However, we also discussed the impact of charges based on LRIC. We did not assume that BT's current 03 termination rate necessarily influences the rates charged by other 03 TCPs, although we have noted that this is a possibility in practice.

Direct effects

- 4.35 In this section we have considered the direct effect which BT's current wholesale termination charges may have on consumers. Specifically, we have considered whether BT's termination rates are resulting in EE and Three charging higher retail prices for geo-rated calls (i.e. calls to 01, 02 or 03 numbers) or providing fewer geographically-rated minutes in a bundle than they would otherwise, relative to our charge-based benchmark.⁸⁹

⁸⁷ For example, under Ramsey pricing the least distortionary way to recover a lump sum (in terms of allocative efficiency and in the absence of Government subsidies), is to set mark-ups over marginal cost for each good or service in an inverse relationship to the responsiveness of demand to prices.

⁸⁸ BT submission of 1 October 2014, page 3.

⁸⁹ In paragraphs 4.22 and 4.23 of a dispute regarding 0845/0870 termination charges we referred to the "Direct Effects" as effects relating to the fact that "[t]he prices paid by callers to 0845/0870

Stakeholder comments on direct effects

- 4.36 EE and Three claimed that BT's failure to adjust its 03 termination rates to reflect the changes in fixed geographic termination regulation and the reduction in cost of conveyance and interconnection circuits mean that its 03 termination charges have resulted or were likely to result in direct consumer harm. They explained that retail regulation tying the retail prices of 03 calls to those of 01/02 geographic calls meant that as volumes of 03 calls have increased, the average cost of 01/02/03 calls was also increasing. [redacted]. They believed this harm was likely to increase in future given the increase in volumes of 03 calls. EE stated *"As 03 calls continue to increase in popularity for use by government organisations and for post-contract customer complaints and queries by commercial organisations (in line with Ofcom and government policies and requirements), [redacted]."*⁹⁰
- 4.37 BT said that any overall consumer benefit of reducing its charges would be minimal when spread across the entire mobile origination market, and it has not been established that such reductions would be made.
- 4.38 [redacted] suggested that Ofcom investigate whether fixed termination rate reductions had been passed through to consumers. It also suggested that, as 03 volumes grow, EE and Three should have the foresight to adjust for this in their forward pricing, as the growth of 03 is predictable.

Our analysis

- 4.39 In this section, we first considered the theoretical arguments behind the direct effect. We then looked at the extent of any impact on EE and Three's incremental costs, relative to our benchmark. Next we looked at actual evidence that the growth in 03 volumes at current 03 termination rates has affected EE and Three's prices, as well as evidence of the effect changes in other termination rates have had on EE and Three's retail pricing. These provide a means of assessing the potential impact on retail prices of BT's 03 termination rates.

Theoretical underpinnings

- 4.40 EE and Three maintained that a consequence of BT's 03 termination rate remaining unchanged is that it is putting upward pressure on the price of geographically rated calls, or pressure to reduce the size of bundles. Both EE and Three have explained that the costs of 03 call termination are one of a number of factors taken into account when setting new tariffs. Termination costs are included in financial modelling when assessing potential new tariffs.

numbers may be affected by both the level and the structure of termination charges", while the "Tariff Package Effects" were effects relating to the fact that "[t]he prices paid by consumers at the originating end of 0845/0870 calls for other elements of the bundle of mobile services purchased when they subscribe to an MNO or MVNO (e.g. for handsets, geographic calls, data services) may also be affected by a change to the termination charges payable for 0845/0870 calls." (Determination to resolve a dispute between BT and each of Vodafone, T-Mobile, Three, O2, Orange and Everything Everywhere about BT's termination charges for 0845 and 0870 calls (the "0845/0870 Determination"), see http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/761146/Final_Determination.pdf). Due to the similarity of these effects in the current Disputes, we are considering them both under the title of the direct effect.

⁹⁰ EE submission of 24 September 2014, paragraph 1.12(a)(ii).

- 4.41 EE's and Three's views are consistent with economic theory which suggests that, generally, higher incremental costs (compared to the benchmark case) should lead to higher prices for a firm's offerings. At BT's current 03 termination rates, compared to the benchmark rate, there are higher incremental costs to EE and Three of providing calls to 03 numbers to their customers. The effect of higher termination rates, in particular, on CPs' pricing has been referred to in, for example, our mobile call termination and fixed narrowband statements.⁹¹
- 4.42 The retail prices of 03 calls are linked to the prices of other geo-rated calls to 01 and 02 numbers. In these circumstances, economic theory suggests that the scale of the effect of BT's termination charges on the price of geographic-rated calls will depend on both the level of the termination charge and the volume of calls to which it applies (relative to other geo-rated calls). This is considered in the next subsection.

Impact of BT's current termination rates on EE and Three's incremental costs

- 4.43 BT's charges are 14% higher than our charge-based benchmark. Applied across BT's 03 termination volumes (excluding BT-transited volumes terminated by other TCPs), this amounted to higher incremental costs for all OCPs of providing 03 calls of around £[<] over the year from October 2013 to September 2014. This figure would be smaller if we looked solely at 03 calls originated by EE and Three. Compared to the LRIC-based counterfactual case, OCPs' incremental costs would be higher by around £[<].
- 4.44 The scale of this effect is likely to grow as 03 volumes grow. Both EE⁹² and Three⁹³ provided data that show that 03 traffic volumes have already increased considerably over the past two years (see Figure 4.4). These volumes are forecast by BT⁹⁴ and EE⁹⁵ to grow further over the next 12 months, though it is uncertain by how much. This might also differ according to the TCP – for example, Three suggested international dial-through services might lead to a large increase in 03 traffic, but Three has not suggested that these services would occur on 03 numbers hosted by BT. BT forecast that its originated 03 volumes will grow by [<]% over the next 12 months. This suggests the OCPs' incremental costs could be around £[<] higher in the 12 month period from October 2014 to September 2015 compared to a charged-based benchmark. Compared to the LRIC-based counterfactual case, the incremental costs would be around £[<] higher.

⁹¹ See for example 'Wholesale mobile voice call termination' published 11 March 2011, available at http://stakeholders.ofcom.org.uk/binaries/consultations/mtr/statement/MCT_statement.pdf and "Review of the fixed narrowband services markets" published September 2013 http://stakeholders.ofcom.org.uk/binaries/consultations/nmr-2013/statement/Final_Statement.pdf.

⁹² EE's response to Question 4 of the 1st section 191 Notice.

⁹³ Three's response to Question 4 of the 1st section 191 Notice.

⁹⁴ BT's response to Question 1 of the 1st section 191 Notice.

⁹⁵ EE's response to Question 5 of the 1st section 191 Notice.

Figure 4.4: Volumes of EE and Three 03 originated volumes as a proportion of geographic-rated calls, excluding AIT,⁹⁶ March 2011 to September 2014

[REDACTED]

Source: EE and Three responses to section 191 Notices.

Evidence that 03 termination rates have affected retail pricing

- 4.45 We asked EE and Three for practical examples of how their offerings to consumers had been affected by the growth in 03 volumes. EE provided several examples:
- 4.45.1 It said that “[REDACTED]”.⁹⁷
- 4.45.2 In addition it said that “*In 2011, EE’s Orange brand customers paid 10p/min for an out-of bundle call to landline numbers and 25p/min for calls to mobiles. Now Orange customers pay 40p/min to call both landlines and mobiles out-of-bundle. The alignment of these charges had two main drivers: [REDACTED] [... and ...] Simplicity...*”⁹⁸
- 4.45.3 Regarding the availability of call minutes in its bundles, it stated “[REDACTED]”⁹⁹
- 4.45.4 It also said that other changes had been considered, stating that “*Confidential Annex 1 to this letter ... contains an impact assessment conducted by EE in January 2014 to assess the potential impact of the [REDACTED] CRD [REDACTED]*”.¹⁰⁰
- 4.46 EE provided internal documentary evidence it believed supported these claims.
- 4.47 Three said that 03 termination costs were taken into account in its recent tariff change in March 2014.¹⁰¹ It did not provide any specific documentary evidence in support of this.
- 4.48 We considered the evidence presented by EE and Three. The relevant question for these Disputes is the impact on retail prices of BT’s current 03 termination charge compared to the benchmark rate. There are a number of factors which made it more difficult to isolate this effect in the evidence presented to us:
- 4.48.1 The benchmark rate is a counterfactual which we do not currently observe (and is understandably not explicitly addressed in the documentary evidence provided by EE).
- 4.48.2 In practice, changes in retail tariffs take into account a range of considerations and in the evidence submitted we have not observed specific changes solely related to isolated effects, such as the 03 termination rate.

⁹⁶ AIT has been excluded from the volumes on the basis of data provided by EE and Three.

⁹⁷ EE’s response to Question 1(b) of the 1st section 191 Notice.

⁹⁸ EE’s response to Question 1(b) of the 1st section 191 Notice.

⁹⁹ EE’s response to Question 1(b) of the 1st section 191 Notice.

¹⁰⁰ EE’s response to Question 2 of the 1st section 191 Notice.

¹⁰¹ Three’s response to Question 2 of the 1st section 191 Notice.

- 4.48.3 Considerations other than 03 termination rates may be larger in scale and so more important drivers of retail tariff changes. This does not mean that 03 termination rates have no effect, but it can complicate the interpretation of the evidence.
- 4.49 From the documentary evidence provided by EE it seems to us that the tariff changes were primarily driven by the other factors identified by EE, such as [redacted], not 03 termination charges.
- 4.50 We recognised that it may be difficult to provide evidence of the direct harm of a smaller cost change, like a difference in 03 termination rates, given other, much larger changes in the market. The evidence provided by EE does show that 03 termination charges are considered as a factor when it comes to setting the level of its prices or the design of its bundles, along with many other factors (which appear much more significant). However, the degree to which BT's current 03 termination rates may have contributed to higher consumer prices at this point in time (compared to the charge-based counterfactual case) is difficult to isolate.
- 4.51 Three's claim is consistent with the claims made by EE. But without some documentary evidence to demonstrate the impact that BT's 03 termination rate is having on Three's prices, it does not advance our analysis.
- 4.52 BT suggested that any overall consumer benefit of reducing its termination charges would be minimal when spread across the entire mobile origination market. This argument seems to suggest that the materiality of the effects on consumers should be judged by their proportional effect relative to the market as a whole. However, we consider that materiality should also take into account the absolute scale of the effects (in £ millions). Small proportional effects in large markets, such as mobile origination, can have significant impacts on consumers.
- 4.53 We were not been able to isolate from the evidence a specific effect on prices of the difference between BT's current 03 termination charge and the benchmark rate. However, on balance, in our view the evidence considered above is consistent with higher retail prices set by EE or Three at BT's current 03 termination charge compared to the benchmark rate.

Evidence of impact of other termination charges on retail pricing

- 4.54 We also asked for other examples of how termination rates affect prices. In particular, we asked EE and Three what effect, if any, the reduction in FTRs in February 2014 had on their prices. This reduction represented around [redacted]% of EE's costs of all geographic-rated calls at the time and around [redacted]% of Three's.¹⁰² In terms of absolute cost saving, EE has saved around £[redacted] per annum and Three has saved around £[redacted] per annum due to this decline. This amount is many times more than the potential cost saving from any intervention on 03 termination rates that we might make in these Disputes.
- 4.55 EE and Three told us [redacted].

¹⁰² Added note (not present in published Provisional Conclusions): The immediate drop in FTRs in February 2014 was to a rate lower than the regulated cap, as BT needed to counterbalance the over-recovery of costs in January 2014 (due to a delay in implementing the new regulated rate). This was a temporary measure and BT raised its FTRs to the regulated cap in October 2014. As such, these proportions slightly overstate the overall reduction in FTRs.

- 4.56 EE explained that this was because margins are “incredibly tight” in the mobile industry, with “great pressure on constantly funding investment”. It claimed that it [redacted]. It further indicated that [redacted].¹⁰³
- 4.57 Three claimed that the reduction in geographic termination rates “was fed into [its] cost forecasts and taken into account in the overall design of [its] latest tariffs” and that “the reduction in [its] costs as a result of lower geographic termination rates has been partially offset by the increase in 03 termination costs”.¹⁰⁴
- 4.58 EE and Three also provided other examples of when termination rates had affected prices. EE, for example, said that [redacted].¹⁰⁵ Three pointed to the “One Plan”, which was introduced as a result of anticipated reduction in MTRs, and recent plans with calls to non-geographic numbers priced at 5ppm and free 0800 numbers in which they say termination rates were a factor.¹⁰⁶
- 4.59 Having considered EE and Three’s responses, we see no clear evidence that EE or Three have passed through their incremental cost savings from the reduction in FTRs since the start of 2014. It is possible that this effect is hard to detect, or has been passed through in other changes, or may yet be passed through. However, there is, at present, no clear evidence from EE or Three that this is the case either.

Provisional conclusion on direct effects

- 4.60 Economic theory clearly suggests that termination rates should affect retail prices. Whilst the evidence from EE of the effect of 03 termination rates on its retail prices is consistent with this theory, it is not straightforward to isolate the relevant effect for the purpose of these Disputes, i.e. the effect on the retail prices of the difference between BT’s current 03 termination charge and the benchmark rate. However, there is no clear evidence that the much larger recent reduction in fixed termination rates for geographic calls has been passed through to consumers.
- 4.61 We recognised that the difference in 03 termination charges between current charges and the benchmark rate is a small change relative to other changes in the industry. This does not mean that no harm arises from it. But it may contribute to the difficulty in isolating specific evidence of the impact on retail prices of the difference in 03 termination charges. It may also be that the change in fixed termination rates has been passed through in ways other than contemporaneous price reductions.
- 4.62 In light of the above and in the context of these Disputes, we considered that the evidence on whether the difference between BT’s current 03 termination rates and the benchmark rate is having a negative direct effect on consumers was inconclusive.

Indirect effects

- 4.63 In this section we have considered the possible indirect effects of BT’s termination charges on consumers. BT has suggested that higher termination rates mean lower hosting charges, which could make the 03 number range more attractive to SPs relative to other number ranges. If this means that SPs use the 03 number range rather than 084/087 numbers, and callers to these numbers are charged at a higher

¹⁰³ EE’s response to Question 3 of the 1st section 191 Notice.

¹⁰⁴ Three’s response to Question 3 of the 1st section 191 Notice.

¹⁰⁵ EE’s response to Question 1(a) of the 1st section 191 Notice.

¹⁰⁶ Three’s response to Question 1(a) of the 1st section 191 Notice.

rate than 03 numbers, this could be in the interest of consumers. On the other hand, low hosting charges could also mean that SPs use 03 instead of 080 which, if 080 calls are cheaper than 03 calls under the new regulatory regime for non-geographic numbers, could be a detriment to consumers of higher termination rates once the new regulatory regime is in place.¹⁰⁷

- 4.64 Lower hosting charges could also lead to SPs offering improved services or lower prices to consumers, as their costs of supplying consumers are reduced.
- 4.65 The impact on the choice of the number range, and any associated benefit or detriment to consumers, has to be considered in light of the significant changes in the regulatory regime for non-geographic numbers, which are due to be introduced in the summer of 2015. These changes will have a significant impact on SPs' choice of number range and the prices that consumers pay for calls to different number ranges. Here, we have considered any impact of BT's 03 termination rate over and above that.

Stakeholder comments on indirect effects

- 4.66 BT stated that "[<]"¹⁰⁸
- 4.67 [<] said that changes to the 03 termination rate could mean it is no longer able to economically provide its 03 hosting services free of charge, causing detriment to its clients, many of who have moved to its 03 offering as they saw it as a replacement to the 0845 service.
- 4.68 [<] commented that "*the wholesale dynamics of the 03 range play a material part in the choice of number range for service providers and any reduction in wholesale termination rates may have adverse consequences for wider society*".¹⁰⁹ It suggested that a reduction in termination rates may result in higher prices for the provision of services to the population, be it through taxation or inflation.
- 4.69 Both EE and Three suggested that we should put little weight on indirect effects because of the CAT's conclusions on the indirect effect in the 08x numbers appeals.¹¹⁰ The CAT concluded that indirect effects were so speculative there that they should not have been taken into account by Ofcom in the disputes under appeal.¹¹¹
- 4.70 EE noted that the guidance issued by the Department of Business, Innovation and Skills ("BIS"), that the 03 ranges comply with the 'basic rate' requirements of the CRD, had been issued on the basis that such 03 numbers do not provide the trader with a contribution to their costs.¹¹²

¹⁰⁷ In the context of the current non-geographic numbering regime, migration from 080 numbers may also be in consumers' interests as calls to these numbers are not generally free from mobiles. This will change in summer 2015 as part of the forthcoming changes to the non-geographic numbering regime.

¹⁰⁸ BT's response to Question 3 of the 1st section 191 Notice.

¹⁰⁹ [<].

¹¹⁰ EE dispute submission, paragraph 1.12(b); Three dispute submission, paragraph 8.14(a)(ii)(B).

¹¹¹ *British Telecommunications plc and EverythingEverywhere Limited v Office of Communications*, [2011] CAT 24 at paragraph 377.

¹¹² EE submission of 24 September 2014, paragraph 2.25(a).

- 4.71 EE believed that BT's current 03 termination rates would distort SPs' choice away from 080/116 numbers, which would not be in consumers' interests once the new NGCS regime comes into effect. It argued this distortion would be removed if the 03 termination rates were set at LRIC.
- 4.72 EE also suggested that if we lowered 03 termination rates, it was likely that the 03 range would still be by far the cheapest of the non-geographic ranges for SPs, and so would not dissuade SPs from switching from 084/087 numbers. In addition, it believed that other non-geographic ranges do not meet the CRD 'basic rate' requirements, and highly price sensitive SPs are unlikely to have been attracted to the 03 range in the first place. EE considered that whilst 03 numbers may be marginally more expensive for SPs to use than 01 and 02 numbers, they would come with the benefits of a number translation service (national, location non-specific number, call management properties etc) not available on the 01 and 02 ranges that are likely to ensure their continued popularity.

Our analysis of indirect effects

- 4.73 The mechanism for indirect effects involves a number of steps which we have considered in turn. We discussed first the impact of current 03 termination charges (relative to the benchmark rate) on hosting charges. Then we considered the impact of any changes in hosting charges (arising from a difference in 03 termination rates) on SPs' choice of number range and the impact this might have on consumers. We then look at the possibility of SPs providing improved quality of service or lower prices to consumers due to lower 03 hosting charges. Finally, we considered indirect effects in light of our policy intentions for the 03 number range.

Impact on hosting charges

- 4.74 BT and [X] claimed that lower 03 termination charges would result in higher hosting charges to SPs using 03 numbers. We understand the economic theory underlying this potential effect. However, we have not received evidence of this effect in practice.
- 4.75 BT's argument why hosting charges would be affected seems to us to apply equally to the direct effect. Therefore, to the extent that BT's argument for an impact on hosting charges is valid, a similar argument would also imply higher retail prices for calls to 03 numbers charged by OCPs.
- 4.76 We also note that, when assessing the direct effects above, we did not consider that economic theory and the claims of the affected operators (in that case, EE and Three) provided a sufficient basis to conclude that BT's current termination rates are having a negative direct effect on consumers. Applying the same approach to the indirect effects in these Disputes, we provisionally concluded that, on the evidence available to us, the effect of current 03 termination charges, compared to the benchmark rate, was inconclusive.

Impact on choice of number range

- 4.77 The change in the non-geographic numbering regime is likely to lead (or have already led) to a lot of migration between number ranges due to the changing nature of the ranges. For example, in our impact assessment of the changes to the 084/087 ranges we assumed there would be migration between the 0845/0870 ranges and the 03 range, as these numbers are not generally chosen for revenue sharing,

although we believed it was unlikely that SPs with services on the 0844/3 and 0871/2/3 ranges would migrate to the 03 range.¹¹³

- 4.78 The CRD is also likely to affect (or have already affected) this migration. EE provided internal documents which show its assumptions regarding the CRD. [§<].
- 4.79 However, the relevant question for these Disputes is the extent to which the migration from 084/087 will be affected by any changes in 03 hosting charges that could result from the difference between the current 03 termination charge and the benchmark rate. None of the Parties provided us with evidence on this effect.
- 4.80 Those organisations which are compelled to move away from 084/087 numbers because of the CRD are unlikely to be influenced by hosting charges (unless they use a geographic number instead). However, this accounts for only a proportion of traffic. It is not clear the extent to which those organisations that are migrating to 03 numbers because of other pressure will be influenced by the relevant change in hosting charges.
- 4.81 If there were lower hosting charges arising from BT's current termination rates compared to the benchmark rate, and if they were to encourage migration from 084/087 numbers, consumers may benefit if 03 calls are cheaper. We did not have clear information on the average prices to consumers of 084/087 calls relative to 03 calls, but it seems likely that at present, 084/087 calls are on average more expensive.¹¹⁴ We also do not know what prices will be charged for 084/087 numbers in future. These could be lower than at present but are likely to remain above the price of geographic calls.
- 4.82 The changes to the 080 range are also likely to lead to migration to 03. We considered that around 19% of SPs may migrate away from 080 numbers as a reaction to us making 080 numbers completely free to call from mobiles (which would increase the charges SPs would pay for 080 numbers as they would have to pay more than at present in origination charges to the mobile OCP). We believe that many of these SPs may migrate to 03 numbers to maintain their service rather than shut it down completely.¹¹⁵ However, as with migration from 084/087, we also do not know the extent to which SPs currently using 080 numbers will be influenced by any changes in 03 hosting charges arising from the difference between the current 03 termination charges and the benchmark rate.

¹¹³ See paragraph A10.111 of the Annexes to Ofcom's statement on "*Simplifying non-geographic numbers*", 12 December 2013, available here:

http://stakeholders.ofcom.org.uk/binaries/consultations/simplifying-non-geo-no/annexes/Part_A_8_13.pdf.

¹¹⁴ For example, information on EE's website suggests prices for calls to 084/087 are 40ppm, while the incremental price of an 03 call could be free if a consumer has a bundle and has not used up all the minutes in it. This is based on price plan guides on EE's website, checked on 4 December 2014, available here: http://ee.co.uk/content/dam/ee-help/e-gain.s3.amazonaws.com/external/content/EE/Price%20plans%20and%20costs/EE_PAYM_SIMO_post_170914v2.pdf and http://ee.co.uk/content/dam/ee-help/e-gain.s3.amazonaws.com/external/content/EE/Price%20plans%20and%20costs/P14_EE_PAYG_030914.pdf. Some charges for 084/087 are much lower. For example, Three has introduced a tariff which charges 5ppm for calls to 084/087 numbers. This is based on the price plan for Three's "Tricolore" tariffs, published on Three's website and checked on 04 December 2014, available here: http://www.three.co.uk/standalone/Link_Document?content_aid=1220489068227.

¹¹⁵ Paragraph 4.56 of Ofcom's statement on "*Simplifying non-geographic numbers*", 12 December 2013, available here: <http://stakeholders.ofcom.org.uk/binaries/consultations/simplifying-non-geo-no/statement/final-statement.pdf>.

- 4.83 At present, if lower 03 hosting charges were to encourage migration to 03, this could be to consumers' benefit to the extent that current charges for 080 numbers are higher than charges for geographic calls from EE and Three's network.¹¹⁶ However, under the new regime, they will be free to call, suggesting that in the longer term migration away from 080 will not be in the interests of consumers.

Impact on SPs' pricing or quality of service

- 4.84 We considered that indirect effects on consumers in the form of SPs offering improved quality of services or lower prices are even more indirect than the impact on the SPs' choice of number range and are very uncertain. No empirical or documentary evidence of this effect has been submitted to us as part of these Disputes.

Intention of our 03 policy

- 4.85 Ofcom did not intend for 03 termination rates to be used to reduce the hosting charges to SPs. In our consultation on clarifying the rules on revenue sharing on the 03 number range, we reiterated the point made in our 2007 statement that introduced 03 numbers that: "*Consumers calling these numbers should be confident that they will be paying only for the call, and not for any additional services provided by the organisation being called*" (emphasis added).¹¹⁷ We also said in that statement that "*Ofcom would expect that the costs of providing value-added services to SPs would be met by those SPs*".¹¹⁸
- 4.86 At the time that we introduced the 03 number range, we believed that 03 termination charges ought to be close to, and may match FTRs,¹¹⁹ and so 03 termination rates would not have resulted in OCPs making losses when originating 03 calls.
- 4.87 Our policy preference for not using termination rates to subsidise hosting charges was reflected in our previous 03 and 0870 Determinations. This aimed for 03 termination rates to reflect the cost of 03 termination only, meaning that SPs had to bear the costs of hosting and value-added services themselves.
- 4.88 As EE and Three noted, the CAT's judgment in the 08x numbers appeals suggested that where a flow of revenue was contrary to the purpose of a number range, we should put little weight on it. Specifically, the judgment stated that "*a significant revenue flow from caller/originating CP to the call recipient [...] in our view subverts the purpose of these calls, and the regulatory policy that OFCOM was espousing*" (emphasis in original).¹²⁰ Based on this, the CAT concluded that the indirect effect should not have been taken into account by Ofcom in resolving the disputes before it as the purpose of the number ranges under consideration was not to raise revenues for the call recipient. The CAT stated: "*While it might be going too far to say this was a wholly irrelevant factor, we consider it to be so minor in importance that it should not have been taken into account by OFCOM, given the level of investigation it entailed.*"

¹¹⁶ For example, information on EE's website suggests calls to 080 numbers can cost 20ppm, although in other cases they are free.

¹¹⁷ Paragraph 1.13, "*Raising confidence in telephone numbers*" statement, 13 February 2007, available here: <http://stakeholders.ofcom.org.uk/binaries/consultations/numbering03/summary/03.pdf>.

¹¹⁸ Paragraph 3.37, "*Raising confidence in telephone numbers*" statement, 13 February 2007.

¹¹⁹ Paragraph 3.37, "*Raising confidence in telephone numbers*", 13 February 2007.

¹²⁰ Paragraph 376 of the CAT Judgment in the 08x numbers appeals, 01 August 2011, available here: http://www.catribunal.org.uk/files/1151_1168-1169_Judgment_010811.pdf.

- 4.89 The “significant revenue flow” in that case referred to a net gain by the recipient (over and above the cost of hosting the service), but it could equally apply to a revenue gain from paying less for the hosting of their service, due to this effectively being paid for by higher termination rates levied on the OCP (and ultimately, the caller).

Provisional conclusion on indirect effects

- 4.90 It therefore seemed to us that the evidence of changes in hosting charges arising from a difference in 03 termination charges (between the current and the benchmark rate) was inconclusive. In addition, even if there would be relevant changes in hosting charges, the direction and extent of any indirect effects on consumers were very unclear. This was true under either of our benchmarks, although the potential increase in hosting charges and the possible effects this gives rise to, whether positive or negative, could be greater under a LRIC benchmark than a charge-based benchmark.
- 4.91 Furthermore, we noted that the intention of the 03 number range was for 03 termination rates to cover the cost of termination only, and not to cover hosting charges or other services provided by SPs. In line with the CAT’s reasoning in the 08x numbers appeals, this suggested we should, in any case, put little weight on the indirect effects.

Effects on competition

- 4.92 One of the policy objectives set out in Article 8 of the Framework Directive is the promotion of competition in the provision of electronic communications networks, services and associated facilities. Where 03 termination rates create a distortion in competition this may give rise to consumer harm.

Stakeholder comments

- 4.93 EE and Three both said that high termination rates would result in a distortion to competition because OCPs are paying more than BT’s efficiently incurred costs and that this could lead to them subsidising BT in competing in other areas. EE also argued that paying more than the efficiently incurred costs would reduce efficiency incentives.
- 4.94 EE additionally believed that BT’s 03 termination rates were distorting competition because they distorted SPs’ choice between number ranges, in particular the freephone ranges, and because it believed that BT had SMP in the provision of termination to the 03 number ranges on its network.¹²¹
- 4.95 BT said that if a TCP sets a termination rate for 03 calls at a level that induces OCPs to seek to reduce, or to block, 03 calls to that TCP, then that TCP would be disadvantaged in competing for SPs’ business.¹²² It also believed it would distort competition (and be generally inequitable) if Ofcom were to intervene only in relation to its 03 termination rates but other terminators were able to maintain higher prices.¹²³

¹²¹ EE submission of 29 September 2014, paragraph 2.34(b)(ii).

¹²² BT submission of 29 October, paragraph 39.

¹²³ BT submission of 29 October, paragraph 50.

Our analysis

- 4.96 In our view, it was not clear that BT's termination rates are distorting competition. No evidence has been provided in relation to this point. The amount that BT is receiving above the charge-based or LRIC-based counterfactual rates, relevant to the size of the markets in which EE and Three seem to be suggesting competitive distortions, does not seem sufficient to cause a material distortion in competition. BT's revenues are increased by at most around £[><] in 2014/15 compared to a charged-based benchmark (applied across all OCPs). Compared to the LRIC-based counterfactual case, this increase would be around £[><]. This is consistent with our 0845/0870 Determinations¹²⁴ and our NGCS Statement¹²⁵, where similar concerns were dismissed on the basis that they were not material.
- 4.97 Neither did it seem that BT's 03 termination rates are distorting efficiency incentives which should exist from providing the elements of termination more generally. We believe BT should have good incentives to reduce the costs it incurs in supplying conveyance, which is the most significant element of 03 termination. This is because reducing the costs of conveyance services, which BT uses for its own internal provision and to supply the competitive market, should generate higher margins for it.
- 4.98 EE were also concerned about distorting competition by distorting SPs' choice of number range. However, we have already considered, as part of our analysis of indirect effects, the potential adverse effects from BT's 03 termination charges affecting SPs' choice of number range between 03, 080 and 084/087. We concluded that these effects were very uncertain. Moreover, neither EE nor Three provided any evidence that any impact on the choice of number range would distort competition. We have not within these Disputes, analysed whether BT has SMP in any relevant market and do not consider that the dispute resolution process is the appropriate place to carry out such an analysis.
- 4.99 We note BT's concern that if we were to reduce its termination rates, and not that of other TCPs, this may distort competition. However, as we were not proposing to intervene in this case, we did not consider this argument further.

¹²⁴ In the 0845/0870 Determination we considered similar effects on competition, under the heading of the 'fixed tariff package effect'. We said at paragraph 7.54: "...if the Fixed tariff package effect were large, there is a risk that it could adversely affect competition for other fixed services whose prices are affected. This is because the lower prices set by some competitors would reflect the use of profits earned as a TCP on 0845/0870 calls, not the operator's performance or efficiency in those other fixed services. However, we do not place significant weight on this potential concern, as it is unlikely that such a distortion is material, given the scale of the profit on 0845/0870 termination relative to the size of the markets for the other fixed services." We went into further detail on the scale of the potential profit on 0845/0870 termination later in paragraphs 7.69 to 7.74 of the Determination.

¹²⁵ We said at paragraph A5.406 that: "With respect to competition on wider telephony bundles, we stated in the April 2013 policy position that the impact of higher mobile origination payments was unlikely to have a material impact on competition between fixed and mobile OCPs, given our view that they operate in different retail markets and that revenues from origination payments are comparatively small, compared to overall mobile revenues. Our view remains unchanged in this respect". See the Annexes to Ofcom's statement on "Simplifying non-geographic numbers", 12 December 2013, available here: <http://stakeholders.ofcom.org.uk/binaries/consultations/simplifying-non-geo-no/statement/ANNEXES.pdf>.

Provisional conclusion on effects on competition

4.100 We have seen no evidence to suggest that BT's current 03 termination charges are distorting competition.

Arbitrage and AIT

4.101 Arbitrage and AIT may take place where the revenues that can be earned from an activity materially exceed the costs of that activity. Higher charges paid to TCPs (which may be above the costs incurred in providing the termination service) could create the opportunity for arbitrage activity. AIT is essentially telephony traffic which is fraudulent or has no apparent legitimate commercial purpose.

Stakeholder comments on arbitrage and AIT

4.102 EE and Three stated in their submissions that the current 03 termination charges are leading to large amounts of AIT. EE believed that this arbitrage incentive would exist wherever 03 termination rates were above incremental costs.¹²⁶ It said that inclusive 01, 02 and 03 minutes offered by OCPs increase the arbitrage incentive because there is a zero incremental cost to the caller.¹²⁷ “[<]”¹²⁸

4.103 EE suggested that the current charges, and associated arbitrage incentive, pose a threat to end-to-end connectivity. It noted that “*AIT had resulted in [<]”*.¹²⁹ It also believed AIT poses a risk to the efficient provision of genuine communications services, and combatting this requires an inefficient increase in effort on the part of both OCPs and Ofcom.¹³⁰ Three also blocked calls to particular 03 number ranges for this reason.¹³¹

4.104 EE and Three also claimed that 03 termination rates give rise to other forms of arbitrage, and specifically identified significant volumes of 03 traffic that were due to international call-through services. In essence, these services allow a caller to call an 03 number and then make an international call which is paid for using pre-paid credit or, in some cases, is provided at no extra cost. Three “*estimate that such use of 03 numbers for international calling [...] represented some 33% of our traffic in July 14. This proportion has increased to 37% since then.*”¹³² EE stated that the “*the pricing differential between the low cost of routing the calls to the international destination (possibly through grey routes or VoIP) and the wholesale revenue generated from the high above cost 03 termination rates currently payable to BT and all other 03 TCPs to offer the customer “a very good deal” on calls to the international number by calling the relevant 03 access number*”.¹³³

4.105 All parties recognised that we had recently consulted on a proposal to modify the regulation of 03 telephone numbers to clarify the prohibition on revenue sharing with end-users. This was motivated in part by concerns about AIT driven by revenue sharing with callers.

¹²⁶ EE submission of 29 September 2014, paragraph 1.12(a)(i).

¹²⁷ EE submission of 29 September 2014, paragraph 1.12(a)(iii).

¹²⁸ EE submission of 29 September 2014, paragraph 3.6.

¹²⁹ EE submission of 29 September 2014, paragraph 3.6.

¹³⁰ EE submission of 29 September 2014, paragraph 2.34(c).

¹³¹ Three submission of 1 October 2014, paragraph 3.2(c)(ii).

¹³² Three's response to Question 7(a) of the 1st section 191 Notice.

¹³³ EE's response to Question 7(a) of the 1st section 191 Notice.

- 4.106 BT argued that there was no reason to believe that the measures which it expected to be adopted by Ofcom at the conclusion of the consultation would be ineffective.¹³⁴ BT also noted that OCPs have an appropriate process to deal with AIT under Annex E of the Standard Interconnect Agreement.¹³⁵ BT claimed that this process “*provides a useful tool for originators to discourage AIT practices on 03 calls*”.¹³⁶
- 4.107 In contrast, EE and Three felt that AIT due to arbitrage on the 03 number ranges was likely to persist, regardless of any changes to regulation that Ofcom may make, as long as there is profit to be made from it. EE said that in its experience “*even clear prohibitions in the Numbering Plan such as those proposed in Ofcom’s July 2014 consultation document are not sufficient to deter activities in violation of these prohibitions. For example, EE has observed traffic to other number ranges in violation of specific OFCOM guidelines prohibiting revenue sharing.*”¹³⁷ Three stated that “[w]e have recently raised AIT claims on traffic to certain 03 numbers [...] In response, all of our AIT claims were rejected by the relevant TCPs for a variety of reasons [...] Even though we dispute the legal correctness of [the TCPs’] arguments, they nevertheless show that there remains some ambiguity as to what it means to share revenue with an end-user. This is not necessarily something that Ofcom’s new guidance will eradicate... So long as there is a strong economic incentive to engage in this conduct, there will always be efforts to find loopholes.”¹³⁸
- 4.108 With regard to international dial-through services, EE said that it does “[<].”¹³⁹ However, it believes that it nevertheless understood this to be covered by our original arbitrage cross-check when setting 0870/03 termination rates.
- 4.109 [<] did not believe there was an issue with end-to-end connectivity as both EE and Three have connected calls to these numbers for many years and the economic feasibility of this has been upheld by our previous disputes.

Our analysis of arbitrage and AIT

- 4.110 We introduced the 03 number range “*to increase certainty, trust and confidence in the numbers that consumers use to call public services, voluntary organisations and companies who want a national presence*”.¹⁴⁰
- 4.111 The evidence suggested that arbitrage is occurring in the market, despite the fact that current 03 termination rates in the market are generally below the no arbitrage ceiling calculated in the 2011 03 Dispute. It may be that costs of arbitrage have fallen due to a reduction in the overheads associated with arbitrage, because of the lower geographic termination rate, because cheaper methods of conveyance are available or because arbitrageurs do not convey their 03 traffic as far as BT does.
- 4.112 We considered that it is possible that if services that take advantage of arbitrage opportunities become popularly associated with 03 number range, it could result in consumer confusion as to the purpose of the number range. Moreover, it could result

¹³⁴ BT submission of 8 October 2014, paragraph 13.

¹³⁵ Annex E of the SIA is available to view here:

<https://www.btwholesale.com/pages/static/Library/Billing/AIT/index.htm>.

¹³⁶ BT submission of 24 November 2014, page 3.

¹³⁷ EE’s response to Question 7(a) of the 1st section 191 Notice.

¹³⁸ Three’s response to Question 7 of the 1st section 191 Notice.

¹³⁹ EE’s response to Question 7(a) of the 1st section 191 Notice.

¹⁴⁰ “*Raising confidence in telephone numbers*”, 13 February 2007, page 2, available here:

<http://stakeholders.ofcom.org.uk/binaries/consultations/numbering03/summary/03.pdf>.

in a loss of consumer confidence in the range, as consumers may be concerned that the cost of the call is being used to cover other services.

- 4.113 We believe the 03 revenue sharing statement is likely to significantly reduce misuse of the number range, including practices leading to AIT. However, we acknowledged in the 03 revenue sharing statement that above-cost termination rates may increase incentives for revenue sharing.¹⁴¹ We recognise it is possible that some arbitrage practices may persist. This may not be in consumers interests if such arbitrage services account for a large proportion of 03 traffic. This may, for example, put upward pressure on prices, with no indirect benefits.
- 4.114 We also note, as BT suggests, that there is a contractual mechanism for dealing with AIT and we are aware that some OCPs are using it in respect of some 03 numbers. This contractual mechanism may be used by OCPs to limit their exposure to payment of termination charges in the instance of AIT. However, this is dependent on OCPs being able to identify the AIT and following the contractual mechanism to withhold payments. It is also a commercial matter for OCPs to decide whether to rely on this process. Different OCPs may adopt different approaches. It is not clear to us, therefore, that the contractual mechanism would necessarily be sufficient to deal with all instances of AIT. Neither could this process be used to address other forms of arbitrage which do not amount to AIT.
- 4.115 However, neither EE nor Three suggested that BT, or SPs hosted on BT's 03 numbers, are engaged in AIT or other arbitrage activities. Although EE had suggested that the rest of the industry effectively follow BT's 03 termination rates, there is no requirement for them to do so and they are free to set their own rates, subject to commercial negotiation. It is therefore not clear that these considerations are relevant to these Disputes.

Provisional conclusion on arbitrage and AIT

- 4.116 We did not take account of any consumer harm from arbitrage in these Disputes, as there was no clear evidence that this occurs on BT's 03 number range. As a result, we provisionally concluded that it was not necessary to vary BT's current termination rates to achieve end-to-end connectivity.
- 4.117 We did however, note in this regard that it is possible that some arbitrage activity which is not in the interests of consumers may persist due to 03 termination rates, even with the recent clarification to the prohibition on revenue sharing on the 03 number range, and that we intended to consider what other options are available to us to address this concern should it arise.

Overall provisional conclusions

- 4.118 Having considered the arguments of the Parties and the evidence before us, we provisionally concluded that the evidence we had seen did not demonstrate that BT's current 03 termination rates are no longer consistent with the objectives in Article 8 of the Framework Directive or threaten end-to-end connectivity at this point in time, such that it is necessary to vary them.
- 4.119 The evidence on the direct effect was mixed. In theory, at least, it seemed likely that BT's higher termination rates could put upward pressure on EE and Three's retail

¹⁴¹ 03 revenue sharing statement, paragraph 4.50.

prices, and we had some evidence which was consistent with this. However, we noted that although termination rates have affected retail prices generally, the most comparable recent change – the recent reduction in geographic termination rates – has not resulted in any discernible benefits for consumers to date despite being several times larger in scale than any we anticipate from a change to either of the benchmark rates considered.

- 4.120 Therefore we did not, on balance, believe that we currently have sufficient evidence to intervene on the basis of direct effects if we use either a LRIC-based benchmark or a charge-based benchmark.
- 4.121 We have little evidence to support the existence, size or direction of the indirect effect and believed, in any case, it was inappropriate to put much weight on this, given the purpose of the 03 number range was not to subsidise SPs or provide them with a revenue stream.
- 4.122 We have seen no evidence to suggest that BT's current 03 termination rates are distorting competition.
- 4.123 We are concerned that 03 termination rates across the wider industry may encourage arbitrage activity, leading to a significant volume of 03 traffic, particularly if this means that in future there is a greater risk of OCPs increasing the prices of their geographically-rated calls. These concerns would be reinforced if termination rates were above cost. However, we believe these concerns raise issues which are broader than those considered in these Disputes. If this view were to be confirmed in our determination, we would consider what other options are available which might allow us to address this concern.

Section 5

Responses to the provisional conclusions and our final conclusions

Introduction

- 5.1 As noted in Section 2, we have received responses to our provisional conclusions from the following stakeholders:
- BT;
 - EE;
 - Gamma;
 - Magrathea;
 - Telefónica; and
 - Three.
- 5.2 We also received a response from a member of the public but as this did not raise any issues relevant to the issues in dispute, we do not address it further in this document.
- 5.3 The three MNOs (EE, Three and Telefónica) disagreed with our provisional conclusions whereas BT, Gamma and Magrathea agreed with them. In discussing the points made in the responses to the Provisional Conclusions, we use the same broad headings from Section 4 of that (and this) document:
- Legal framework for resolving disputes
 - The benchmark rate
 - Direct effects
 - Indirect effects
 - Effects on competition
 - Arbitrage and AIT

Legal framework for resolving disputes

- 5.4 We set out in the Provisional Conclusions the legal framework for resolving the Disputes, including the relevance of the Article 8 objectives. We also considered the Supreme Court judgment in the 08x numbers appeals and set out our view that the Disputes appeared to fall into the third category of disputes identified by the Supreme Court in its judgment (i.e. where there is no contractual right for the MNOs to require BT to vary its charges). In such circumstances, Ofcom can require BT to revise its charges if it is necessary to achieve the policy objectives in Article 8 of the

Framework Directive or to achieve end-to-end connectivity. The scope which we set for resolution of the Disputes takes account of the Supreme Court's comments in this regard.

Stakeholder comments and Ofcom's analysis

Article 8 of the Framework Directive

5.5 EE commented on the application of the Article 8 objectives. EE said that, as step 1 in this process, Ofcom needed to consider in detail which of the Article 8 objectives are relevant to the present case and that paragraph 3.19 of the Provisional Conclusions failed to do this adequately. EE submitted that:

“the key relevant Article 8 objectives in considering the present dispute are those specified in:

- *Article 8(2)(a), to promote competition by ensuring that users derive maximum benefit in terms of choice, price and quality; and*
- *Article 4(b), to promote the interests of citizens by ensuring a high level of protection for consumers – including through the designation of services for which numbers shall be used and the setting of tariff principles and maximum prices that can apply in the specific number range for the purposes of ensuring such consumer protection under Condition C.1. in the Annex to the Authorisation Directive.”¹⁴²*

5.6 We agree that Article 8(2)(a) and Article 8(4)(b) are relevant to the present case, though we note that Article 8(4)(b) is framed in terms of protecting consumers “*in their dealings with suppliers*”. We also consider that there are other policy objectives contained in Article 8 of the Framework Directive which are relevant to the resolution of these Disputes, including Article 8(2)(d) (encouraging efficient use of numbering resources) and Article 8(3)(b) (encouraging end-to-end connectivity in the internal market). We have taken all of the Article 8 objectives into account, in so far as relevant, in resolving these Disputes.

Supreme Court judgment in the 08x numbers appeals

5.7 Each of Three, EE and BT also commented on Ofcom's interpretation of the Supreme Court judgment in the 08x numbers appeals.¹⁴³

5.8 Three noted that in the Provisional Conclusions, Ofcom only considered whether the objectives of Article 8 continue to be met in relation to BT's 03 wholesale termination rates, applying the test in the Supreme Court judgment.¹⁴⁴ However, Three argued that unlike the 08x numbers appeals case, this is a case “*where pre-existing*

¹⁴² EE's response to the Provisional Conclusions, 20 January 2015, pages 2 and 3.

¹⁴³ Telefónica also briefly referred to the Supreme Court judgment, emphasising that it confirmed that it is permissible for Ofcom to intervene where interconnection terms have been framed or are being operated in a manner which is inconsistent with end-to-end connectivity or conflicts with the Article 8 objectives. However, as Telefónica's concern appeared to relate to what it considered to be a lack of detail and an underestimation of the threat to end-to-end connectivity and the resulting consumer harm caused by arbitrage, rather than Ofcom's interpretation of the Supreme Court judgment, we have dealt with Telefónica's comments in the section dealing with stakeholder comments on arbitrage and AIT.

¹⁴⁴ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 16.

regulation has significantly contributed to the circumstances giving rise to the present dispute".¹⁴⁵ Three argued that in the absence of the pre-existing regulation, it would be expected that calls to 03 numbers would retail at a higher price than geographic calls or that OCPs would not offer calls to 03 numbers. Therefore, Three argued that *"Ofcom rightly submitted to the Supreme Court that different principles should apply where there is relevant regulation. Private contractual arrangements (especially those that are unilaterally imposed) cannot be allowed to undermine regulatory obligations. This has since been accepted by the Competition Appeal Tribunal in its Ethernet judgment."*¹⁴⁶

5.9 In light of this, Three submitted that:

"...where there is pre-existing regulation, the correct test for determining whether the principles of Article 8 of the Framework Directive have been met is two pronged:

21.1 *Firstly, Ofcom should consider whether the existing regulatory framework continues to be consistent with Article 8 at any given 03 termination rate. Specifically, Ofcom should consider (1) whether there is consumer harm to be avoided by retaining pre-existing regulation, and (2) whether pre-existing regulation goes further than is necessary and proportionate in addressing that harm.*

21.2 *Secondly, Ofcom should only consider whether a party's charges continue to be consistent with Article 8 if the first test (in §21.1) is not met."*¹⁴⁷

5.10 We do not agree that the "two pronged" approach proposed by Three represents a correct analytical framework for determining these Disputes. We consider that the correct analysis is, as we have done, to apply the approach set out by the Supreme Court in its judgment in the 08x numbers appeals. As explained, in the context of these Disputes, that means that Ofcom must consider whether BT's wholesale termination charges for calls to 03 numbers terminating on BT's network are no longer consistent with the policy objectives in Article 8, including end-to-end connectivity. Ofcom could only intervene to require BT to revise its charges if it considered it necessary to do so in order to achieve the Article 8 objectives and/or end-to-end connectivity. The existence of Ofcom's power to intervene where necessary means that contractual arrangements cannot be used to undermine regulatory obligations.

5.11 Further, we note that the existing regulation referred to by Three does not prevent operators from putting up the price for calls to 03 numbers, rather it requires that the price charged for calls to 03 numbers does not exceed the price charged for calls to geographic numbers.

5.12 EE submitted that Ofcom had *"fallen into legal error"* in its Provisional Conclusions. Specifically, EE argued that *"Ofcom's Provisional Conclusions again represent the application of an "extreme form of the precautionary principle" found to be flawed by the Supreme Court – but this time against necessary regulatory intervention in the*

¹⁴⁵ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 17. Three referred specifically to GC20.1, GC17.21 and Part A of the National Telephone Numbering Plan.

¹⁴⁶ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 20.

¹⁴⁷ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 21.

face of clear theoretical and factual evidence of likely harm to the objectives set out in Article 8 of the Framework Directive".¹⁴⁸

- 5.13 EE acknowledged that in the 08x numbers appeals, the Supreme Court observed that if and when sufficiently adverse effects were to materialise at some point in the future, Ofcom would have the power to intervene to address them at that stage. However, EE argued that that observation must be understood in the context of the very specific facts of the 08x numbers appeals case, noting that the factual and economic evidence on the welfare test was found to be inconclusive by the CAT and the Court of Appeal and that the Supreme Court found that there was *"no positive reason to believe"* that BT's charges would have adverse consequences for consumers.¹⁴⁹
- 5.14 EE therefore argued that *"[i]t would represent a serious error on Ofcom's part to consider the 08x Case as precedent requiring Ofcom to first wait for the interests of consumers to have been manifestly harmed before taking any action in relation to BT's pricing of non-SMP services"*.¹⁵⁰ Instead EE argued that it is inherent in the wording adopted by the Supreme Court that Ofcom has the power to take preventative action in appropriate cases and *"[a]ccordingly, Ofcom's apparent view in the Provisional Conclusions that it is limited to considerations of the here and now – i.e. what impact BT's rates are "at present"¹⁵¹ / "at this point in time"¹⁵² having – is simply wrong. Ofcom can and should also act to prevent likely future harm.*"¹⁵³
- 5.15 We consider that EE's comments have mischaracterised Ofcom's approach. We do not consider that the Supreme Court's decision in the 08x numbers appeals requires Ofcom to wait for the interests of consumers to have been manifestly harmed before taking any action. Rather, it is clear from the Supreme Court's decision that, in a situation such as this, Ofcom can only take action if it is necessary to achieve the Article 8 objectives or end-to-end connectivity. In considering whether action is necessary, Ofcom must consider the available evidence, including evidence of harm to consumers.
- 5.16 As explained in this document, in order to consider the effect of BT's current termination rates, we considered the arguments and evidence put forward as to why BT's current termination rates might be inconsistent with the Article 8 objectives or end-to-end connectivity (i.e. direct effects, indirect effects, effects on competition and arbitrage and AIT). Having considered each of these points, we provisionally concluded that the evidence we had seen did not demonstrate that BT's current 03 termination rates were no longer consistent with the objectives in Article 8 of the Framework Directive or threatened end-to-end connectivity. Our assessment was forward looking – in that we sought evidence of current or future harm from BT's current termination rates. However, on the evidence available to us at the time of our Provisional Conclusions we were not satisfied that BT's current 03 termination rates were no longer consistent with the objectives in Article 8 of the Framework Directive or threatened end-to-end connectivity, such that we should intervene to require BT to change those rates. We consider that this is entirely consistent with the approach laid down by the Supreme Court in the 08x numbers appeals.

¹⁴⁸ EE's response to the Provisional Conclusions, 20 January 2015, page 1.

¹⁴⁹ EE's response to the Provisional Conclusions, 20 January 2015, pages 1 and 2.

¹⁵⁰ EE's response to the Provisional Conclusions, 20 January 2015, page 2.

¹⁵¹ See e.g. Provisional Conclusions §4.62.

¹⁵² See e.g. Provisional Conclusions §4.50.

¹⁵³ EE's response to the Provisional Conclusions, 20 January 2015, page 2.

- 5.17 In its response to the Provisional Conclusions, BT noted that it had previously emphasised that there would have to be clear evidence that existing contractual terms are inconsistent with the policy objectives in Article 8 for regulatory intervention to be permitted, and that importance is to be attached to parties' contractual agreements. BT also made two observations on Ofcom's comments at paragraphs 3.24 and 3.25 of the Provisional Conclusions on whether the Disputes fall into the first or third category of disputes identified by the Supreme Court. Specifically, BT observed:

"13. First, the fact that EE and Three do not have a contractual right to vary the contract and are therefore contending in the dispute that the existing terms do not satisfy the Article 8 objectives does not mean that the prices set by BT in accordance with the mechanism set out in the SIA, which have been operating for a number of years, or the mechanisms for altering them are to be given no weight by Ofcom.

14. Secondly, the burden of demonstrating that regulatory interference with contractual arrangements is justified can certainly be no lower in relation to disputes under the third limb than it is in relation to the first limb. The principle of minimal regulatory interference applies to both types of dispute. If the burden is not met, the pricing remains that which has been set by BT."¹⁵⁴

- 5.18 BT said that, under the relevant provisions of the SIA that apply to the provision of 03 termination rates, EE and Three do not have any contractual rights to revise BT's charges without BT's prior and express permission. On this basis, BT noted, Ofcom can only require a change in BT's termination rates (at the request of EE and/or Three) if this change is necessary to achieve end-to-end connectivity or to achieve the Article 8 objectives. BT also noted that paragraph 43 of the Supreme Court's judgment emphasises the market-oriented and permissive approach under the Directives.¹⁵⁵
- 5.19 Overall, BT said that it maintained its position that regulatory interference in non-SMP cases such as the present should be limited and that there is no basis for interference here as a matter of fact.
- 5.20 We note BT's comments on its interpretation of the Supreme Court's judgment. As BT's observations do not affect the outcome of the Disputes, we do not comment further on them in this determination.

Final conclusions on the legal framework for resolving disputes

- 5.21 For the reasons set out above and in Section 4, we remain of the view that our approach is consistent with the Supreme Court's judgment in the 08x numbers appeals.

The benchmark rate

- 5.22 We provisionally concluded that we needed to compare BT's current 03 termination rates to an appropriate benchmark, in order to assess whether its current rates are leading to consumer detriment. We considered what elements to include in the cost

¹⁵⁴ BT's response to the Provisional Conclusions, 9 January 2015, paragraphs 13 and 14.

¹⁵⁵ BT's response to the Provisional Conclusions, 9 January 2015, paragraph 15.

stack, and decided that it should be comprised of the actual geographic termination rate plus an allowance for costs of conveyance and interconnection. The costs of conveyance were calculated on the basis of data, in particular traffic weightings, obtained from BT. We provisionally concluded that our primary benchmark should include these costs on an average-charge basis, but also considered a benchmark based on actual geographic termination charges plus LRIC estimates of the costs of conveyance and interconnection. We also did not assume that changes to BT's rate would necessarily affect those of other TCPs.

Stakeholder comments on the benchmark rate

- 5.23 Three, EE, BT, Gamma and Magrathea commented on the benchmark rate. The responses to the Provisional Conclusions focussed on one element of our benchmark rate – conveyance costs – and in particular the traffic weighting data used to calculate this. Comments were also received in relation to the appropriate cost standard for conveyance and interconnection costs.

Correct proxy for 03 traffic weightings

- 5.24 As discussed above, we have used a charge-based approach to calculating costs for the benchmark rate. In calculating conveyance costs, we have used traffic data from BT to weight the different types of conveyance in order to calculate an average conveyance charge. BT was unable to provide us with traffic data specific to 03 calls and instead provided traffic data for all non-geographic calls terminating on its network.

Stakeholder views

- 5.25 Three raised concerns that the traffic weightings used in the Provisional Conclusions are unreliable because they relate to all non-geographic calls rather than 03 (or 0870) calls specifically, and so are based on an assumption that the routing between number translation and geographic delivery is the same for 03 numbers as for non-geographic numbers overall. Three argued that Ofcom has not questioned this assumption sufficiently, particularly in light of how the numbers compare to the previous estimate used in the 0870 Dispute and the 2011 03 Dispute (see Table 4.2 above).¹⁵⁶
- 5.26 Three noted that the traffic weightings used in our Provisional Conclusions are different from its own data (from invoices) on use of BT transit for its own traffic. [3<]. Three noted that this comparison is not perfect (since its own numbers are for transit up to the point of handover with the TCP rather than to the relevant geographic termination point).¹⁵⁷
- 5.27 Like Three, EE also provided data showing 03 traffic originated on its network that is transited by BT. [3<]. EE asserted that these recent figures are “*much closer to the assumptions that were used in the 0870 Determination than those now being put forward by BT*”.¹⁵⁸

¹⁵⁶ Three's response to the Provisional Conclusions, 9 January 2015, paragraphs 24 to 27.

¹⁵⁷ Three's response to the Provisional Conclusions, 9 January 2015, paragraphs 28 and 29.

¹⁵⁸ EE's response to the Provisional Conclusions, 20 January 2015, page 7.

Ofcom's assessment

- 5.28 Since the publication of the Provisional Conclusions, we have further scrutinised our assumptions about conveyance costs and consider there to be two reasons why the data provided by BT is a reasonable proxy given the lack of available data for calls to 03 numbers.
- 5.29 First, we have no specific evidence that calls to 03 numbers are routed in a significantly different manner than calls to non-geographic numbers as a whole.
- 5.30 Second, we consider that the comparison EE and Three are drawing is not appropriate. Their data relates to transited rather than terminated traffic, i.e. where the OCP hands the traffic to BT which then conveys the call to the point of interconnection with the TCP, which in turn terminates the call (not BT). In our view, traffic which is transited to a heavily-interconnected TCP is likely to account for a significant majority of the transited traffic. In many instances such traffic is likely to be transited over a single tandem on BT's network. This means that it is handed over by the OCP to BT at a tandem switch and then BT hands it over to the TCP at that same switch. However, a large proportion of that traffic must then be carried further by the TCP before it can be terminated. Therefore, we consider the transit data provided by Three and EE is likely systematically to understate the traffic weightings that would be appropriate for 03 termination on BT's network.
- 5.31 Considering the above arguments, we continue to believe that the traffic weightings provided by BT (which relate to calls to all non-geographic numbers) are an appropriate proxy of the traffic weightings of calls to 03 numbers for the purpose of our assessment in these Disputes.

Reliance by Ofcom on confidential information provided by BT

- 5.32 On 24 December 2014, Three wrote to Ofcom requesting disclosure of certain data which had been redacted from the published version of the Provisional Conclusions on confidentiality grounds. This included the data redacted from Table 4.2 and Table 4.3 on the comparison of traffic weightings of calls for estimating termination costs, and the LRIC-based and FAC-based estimates of possible counterfactual 03 termination rates, respectively. Ofcom responded to Three on 6 January 2014 stating that we were unable to disclose the information used to calculate these figures as it had been obtained from BT using our statutory information gathering powers and BT had specifically asserted confidentiality over the information. Moreover, we did not consider it necessary for Three to have visibility of the specific information requested to enable it to properly respond to the Provisional Conclusions.
- 5.33 In its response to the Provisional Conclusions, Three said that it disagreed with the position adopted by Ofcom, that the reliability of the information provided by BT on transit distances was arguably the most important issue in these Disputes and that Three was severely hampered in its ability to make submissions on that issue in the absence of disclosure of the information. Three said it appreciated Ofcom was in a difficult position because the information was obtained using statutory information gathering powers. However, Three submitted that it was nevertheless appropriate to disclose the information to Three and EE relying on section 393(2)(a) of the 2003 Act,

which permits the disclosure of confidential information for the purpose of facilitating the carrying out by Ofcom of any of their functions.¹⁵⁹

- 5.34 Similarly, EE commented in its response to the Provisional Conclusions that there was insufficient non-redacted information made available to EE for it to be able to provide meaningful submissions to Ofcom as to exactly by how much BT's rates needed to be reduced.¹⁶⁰
- 5.35 The information which Three and EE requested be disclosed was obtained by Ofcom from BT using our statutory information gathering powers. BT specifically requested that the information be treated as confidential and not disclosed to the other parties to the Disputes. Section 393 of the 2003 Act contains a general restriction on the disclosure of information. This provides that information pertaining to a particular business and obtained using Ofcom's statutory powers shall not be disclosed without the consent of the business concerned unless such disclosure is permitted by the provisions of section 393.
- 5.36 We have considered the submissions made by Three and EE on this point. However we do not consider it necessary to disclose the information requested in order for Three and EE to be able to provide meaningful submissions on the analysis contained in the Provisional Conclusions or to facilitate the carrying out by Ofcom of its functions. The traffic weighting data and FAC/LRIC estimates are factual pieces of information and their redaction from the version of the Provisional Conclusions made available to the parties for comment does not inhibit Three and EE from commenting on whether or not they are the appropriate metrics to be used in our assessment. Indeed, Three and EE have made extensive submissions on BT's traffic weightings and the appropriate costs benchmark, which we have considered and addressed below.
- 5.37 We would further note that the level of the benchmark rate, which the traffic weightings help determine, has not been the determining factor in whether or not we intervene to require amendments to BT's 03 termination rates, as we explain in our conclusions at paragraphs 5.145 to 5.152 below.

Change in traffic weightings over time

- 5.38 We noted in the Provisional Conclusions that the traffic weightings we were proposing to use were significantly different from those used in the 0870 Determination and the 2011 03 Determination but nevertheless considered that these formed the most appropriate data for us to use.

Stakeholder comments

- 5.39 Three and EE questioned why the traffic weightings used in the Provisional Conclusions were materially different from Ofcom's previous estimate. Although the figures for the 2013/14 traffic weighting estimates were redacted from Table 4.2 in the non-confidential version of the Provisional Conclusions which was published, the difference between those traffic weightings and the ones used in the 0870 Determination was described in paragraph 4.17 of the Provisional Conclusions. From this and other information in the Provisional Conclusions, Three inferred that Ofcom assumed that at least 70% of 03 traffic is double tandem, compared to a figure of

¹⁵⁹ Three's response to the Provisional Conclusions, 9 January 2015, paragraphs 11 to 15.

¹⁶⁰ EE's response to the Provisional Conclusions, 20 January 2015, page 9.

around 30% used in the 0870 determination. It argued that if there had been a dramatic change in BT's approach to routing, then its own figures should also have seen similar dramatic changes.¹⁶¹

- 5.40 Three argued that the traffic weightings do not appear to have been tested by Ofcom, and suggested that verification of the data required answers to a number of questions regarding how and why the traffic weightings had seemingly changed so drastically over time, and the appropriateness of using non-geographic traffic as a proxy for 03 traffic.¹⁶² It noted that Ofcom had previously been criticised by the Competition Commission¹⁶³ for accepting figures provided by BT without sufficiently scrutinising them.¹⁶⁴
- 5.41 Three submitted that, even if the traffic weightings are correct, Ofcom should question whether they are consistent with the behaviour of a reasonably efficient provider of 03 services, as we should only allow BT to recover efficiently incurred costs.¹⁶⁵
- 5.42 Three argued that “[i]f BT cannot demonstrate convincingly that there has been a significant increase in the transit required, and which was reasonably efficient, Ofcom should fall back on using the same traffic weightings as in 2009”.¹⁶⁶
- 5.43 EE also queried the change to the traffic weightings and asserted that Ofcom “does not appear to have questioned why this might be”.¹⁶⁷ It also stated that it “does not agree that it is appropriate for Ofcom to consider that BT will be incentivised to reduce its conveyance costs as, in this context, those services are in fact not used for BT's own internal provision”.¹⁶⁸

Ofcom's assessment

- 5.44 We agree with Three and EE that further scrutiny was needed of the traffic weightings data and underlying assumptions. Since the publication of the Provisional Conclusions we have requested further data from BT and assessed whether, in light of this, the weightings are still reasonable.
- 5.45 We asked BT to provide traffic weighting data from 2007/08 to 2013/14 calculated on the same basis as that which we used in calculating the benchmark rates in the Provisional Conclusions.

Figure 5.1: Traffic weightings for estimating termination costs, 2007/08 to 2013/14

[X]

Source: BT response to section 191 Notices

Note: Data show the proportion of traffic using each of the Double Tandem short/medium/long and Single Tandem routes. The proportions add up to 100% in each year.

¹⁶¹ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 27.

¹⁶² Three's response to the Provisional Conclusions, 9 January 2015, paragraph 31.

¹⁶³ *Cable & Wireless UK v Office of Communications*, Competition Commission Determination of 30 June 2010, paragraphs 5.39 to 5.54.

¹⁶⁴ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 33.

¹⁶⁵ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 34.

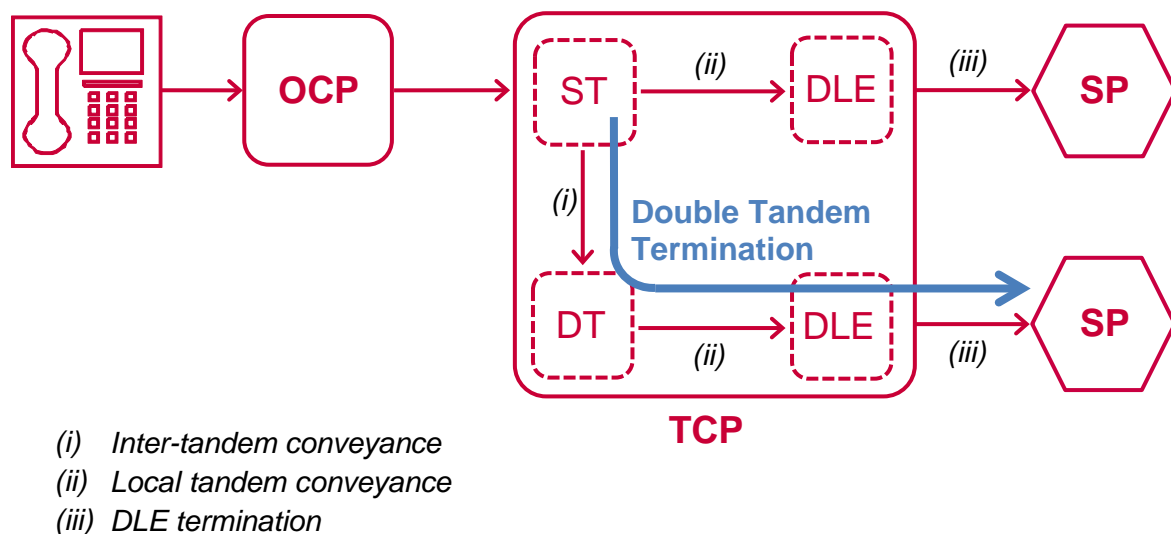
¹⁶⁶ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 35.

¹⁶⁷ EE's response to the Provisional Conclusions, 20 January 2015, page 8.

¹⁶⁸ EE's response to the Provisional Conclusions, 20 January 2015, page 8.

- 5.46 Figure 5.1 shows that there has not been a significant change in traffic weightings as between single tandem and double tandem – any change in these proportions has been gradual and minor. While this addresses a number of the questions raised by Three regarding the reasons for the change in termination routing (as there is no such change), it raises a question of consistency between these data and those used in the 0870 Determination.
- 5.47 To explore this, we have looked in further detail into the underlying data of the traffic weightings used in the 0870 Determination and those used in the Provisional Conclusions. It appears that a different approach to calculating traffic weightings was used in the 0870 Determination to that which we have used in these Disputes, as we now explain.
- 5.48 There is a distinction between overall termination services and interconnection services:
- 5.48.1 Overall termination services are from the point of ingress (i.e. point of handover to BT from the OCP's network) to the point of termination on BT's network. The following overall termination services are distinguished: (i) DLE or geographic call termination, (ii) single tandem call termination, and (iii) double tandem call termination, with three variants depending on the distance (short, medium and long).
- 5.48.2 Interconnection services are segments of the overall termination services. That is, they are specified at a greater level of granularity. For example, as can be seen in Figure 5.2, the overall termination service of double tandem termination (medium) is comprised of:
- i) DLE termination (or geographic call termination); plus
 - ii) local tandem conveyance; plus
 - iii) inter-tandem conveyance (medium).

Figure 5.2: The individual conveyance services which make up overall termination services



- 5.49 It appears that the traffic weightings used in the 0870 Determination were derived from the volumes of individual interconnection service segments (e.g. inter-tandem conveyance, medium) but they were then applied to the costs of overall termination services (e.g. double tandem call termination, medium).
- 5.50 The relationship between interconnection service segments and overall termination services is specified by usage factors, which are the number of each interconnection service on average in the defined overall termination services. We illustrate these usage factors in Table 5.3.

Table 5.3: Usage factors between interconnection service segments and overall termination services

	DLE termination	Local tandem conveyance	Inter-tandem conveyance (short)	Inter-tandem conveyance (medium)	Inter-tandem conveyance (long)
DLE termination	1	0	0	0	0
Single tandem termination	1	1	0	0	0
Double tandem termination (short)	1	1	1	0	0
Double tandem termination (medium)	1	1	0	1	0
Double tandem termination (long)	1	1	0	0	1

Source: Ofcom

- 5.51 In these Disputes, we have calculated traffic weights based on data from BT relating to the proportion of non-geographic traffic using the overall termination services of Double Tandem short/medium/long and Single Tandem routes. We have applied these weights for overall termination services to the charges/costs of those services.
- 5.52 We believe that the approach we have used to derive traffic weightings in these Disputes is the most appropriate for this case. Calculating the traffic weightings using the approach that appears to have been used in the 0870 Determination would have had the effect of yielding a significantly larger weight to single tandem call termination, and a significantly smaller weight on double tandem call termination services. Table 5.4 shows the traffic weightings used in the 0870 Determination, which we understand were derived from data on volumes of interconnection service segments, and the same data restated for overall termination services using the usage factors shown in Table 5.3 above.

Table 5.4: Original and restated traffic weightings based on data used in the 0870 Determination

	Original – interconnection service segments	Restated – implied overall termination services
DLE	0%	0%
Single Tandem	68%	6%
Double Tandem (short)	10%	29%
Double Tandem (medium)	9%	26%
Double Tandem (long)	13%	38%

Source: BT response to section 191 Notices, Ofcom.

- 5.53 Table 5.4 shows that the restated data – the implied weights for the overall termination services – are very different to the data on weights of interconnection service segments that appear to have been used in the 0870 Determination. They include much higher proportions of double tandem termination services and a much lower single tandem termination proportion. They are broadly similar to the proportions provided by BT, shown in Figure 5.1. The differences compared to Figure 5.1 are relatively small and we believe they are likely due to differences in the measurement method used.
- 5.54 We have no specific evidence that the traffic weightings we have used in this Determination are not reasonably efficient. For example, we can derive a simple reference point by assuming that, for non-geographic calls, the originating and terminating tandems are effectively independent of one another. If so, we would expect roughly a proportion of $1/n$ (where n is the number of tandems) calls to originate and terminate on the same tandem switch. We asked BT to provide us with the number of tandem switches that are currently in operation.¹⁶⁹ The proportion of calls to non-geographic numbers that require Single Tandem termination in 2013/14 is consistent with this reference point. The fact that the large majority of calls require conveyance across multiple tandems seems to result from the nature of non-geographic calls, which involve near end handover by the OCP to BT.
- 5.55 We therefore believe that the traffic weights as set out in the Provisional Conclusions continue to be the best available proxy for traffic weights of calls to 03 numbers at this time.

Appropriateness of the benchmark

Stakeholder comments

- 5.56 EE claimed that Ofcom has departed from the approach used in resolving the 0870 disputes and that “*Ofcom appears to no longer consider it appropriate to set an efficient industry benchmark termination rate, but rather only one that may be uniquely applicable to BT*”. EE considered that this change will “*drive unnecessary cost and resource burden to both the industry and Ofcom through the creation of a multiplicity of potential future disputes*”.¹⁷⁰ On a similar basis, Three argued that as BT’s 03 termination rate “*does in practice set the rate for all other TCPs*”, we should

¹⁶⁹ BT has told us it operated [3<] tandem switches at the end of 2014.

¹⁷⁰ EE’s response to the Provisional Conclusions, 20 January 2015, pages 6 and 7.

take into account the impact from other TCPs' 03 number ranges in our assessment.¹⁷¹

- 5.57 EE also stated that it is important that whatever approach Ofcom adopts to calculating the benchmark rate is adopted consistently. It argued that, in the case of a dispute raised by EE against BT's 03 termination rates, *"if it is only BT's costs of termination and actions in relation to arbitrage that Ofcom considers relevant, so too this must be considered uniquely in the case of 03 traffic originated by EE"*.¹⁷² Adopting this approach, EE suggested that forecasts by BT in relation to its own fixed originated 03 traffic would be irrelevant and that the blend of day, evening and weekend traffic that EE originates to BT would be of key importance. The interconnection circuit costs BT bears in order to interconnect with EE specifically in order to terminate its 03 calls and the proportion of 03 traffic originated by EE and terminated on BT's network as single tandem traffic would also be important.

Ofcom's assessment

- 5.58 We do not agree with EE that we have significantly departed from the approach adopted in the 0870 Determination in terms of the wider applicability of the benchmark. In both cases we have created a benchmark rate based on information provided by BT and assessed existing call termination charges against this benchmark rate. The main difference between the two sets of disputes is that in the 0870 Dispute we were considering whether the 0870 termination charges of a large number of TCPs were fair and reasonable, whereas in the current Disputes it is only the 03 termination rate of BT that has been disputed.
- 5.59 Were we to receive similar disputes in future about the 03 termination charges of other TCPs, we would be likely to adopt a similar approach to assessing whether those termination rates were consistent with the Article 8 objectives and may use the benchmark rate that we have calculated here as a starting point. We would, however, as with all disputes, need to assess each case on its own facts. As we noted in the Provisional Conclusions, in these Disputes we have not investigated the circumstances of TCPs other than BT (see paragraph 4.33 above).
- 5.60 EE's second argument about consistency is a separate point. It seems to raise the possibility of a different basis of different termination charges by BT to different OCPs. This would be contrary to the approach we typically adopt when considering termination charges, that they should be derived on the same basis for all OCPs. Given that BT's 03 termination rates apply to all OCPs, our general approach, which we also consider appropriate in these Disputes, is to base our assessment on the traffic from all OCPs and not just those that are disputing BT's charges.

FAC approach

Stakeholder comments

- 5.61 EE stated that the CPL prices of inter-tandem conveyance *"are unlikely to represent a good proxy of BT's FAC costs or even the actual average price paid by communications providers ... for these services – because they are too high"*.¹⁷³

¹⁷¹ Three's response to the Provisional Conclusions, 9 January 2015, paragraphs 49 and 52.

¹⁷² EE's response to the Provisional Conclusions, 20 January 2015, page 7.

¹⁷³ EE's response to the Provisional Conclusions, 20 January 2015, page 3.

Ofcom's assessment

- 5.62 We agree in principle with EE, as we have noted at paragraph 4.15 above. However, as the FAC benchmark is based on FAC estimates from BT, and not on prices from the CPL, this does not change our approach to estimating the FAC benchmark.

BT's prices in real terms

Stakeholder comments

- 5.63 BT noted that its rates have declined in real terms since July 2011. It said that over the past three years, based on RPI, its prices had fallen by 8.7% and over the past five years, by 17%.¹⁷⁴

Ofcom's assessment

- 5.64 We acknowledge that, by leaving termination charges unchanged in nominal terms, BT's prices have fallen in real terms. However, as we explained in the Provisional Conclusions, the benchmark rate is lower in nominal terms than BT's charge (for all three options we considered – see paragraph 4.25 above); and hence, in real terms, further below historic charges than the percentages noted by BT. In any case, our analysis in the current Disputes revolves around current BT prices and whether they are consistent with the objectives of Article 8.

LRIC benchmark

Stakeholder comments

- 5.65 BT noted that Ofcom had conducted its assessment of the compliance of BT's rates by reference to a series of benchmarks. BT said that if Ofcom's purpose was simply to test the financial implications of EE's and Three's arguments, such an approach was unobjectionable. However, BT said that it would not accept that deviation from any benchmark would necessarily be contrary to the objectives of Article 8, and that it *"would be particularly concerned about the use of a LRIC benchmark for an industry which is characterised by widespread fixed and common costs"*.¹⁷⁵
- 5.66 Gamma noted that *"Ofcom acknowledges our previous submission that there is no legal basis"* for the use of LRIC. It considered *"that should be the beginning and the end of the situation"* but stated that if *"Ofcom are so-minded to consider it further, any application of LRIC needs to also consider the displacement effect on consumers; i.e. the foregone common cost in the market for termination of 03 numbers would transfer to another unregulated or de-regulated service (as we saw in the 2013 Wholesale Narrowband Market Review for Wholesale Call Origination)"*.¹⁷⁶
- 5.67 EE said that its view remained that BT's costs of 03 termination should be assessed against a LRIC cost-standard, rather than any higher FAC or charge based cost-standard.¹⁷⁷

¹⁷⁴ BT's response to the Provisional Conclusions, 9 January 2015, paragraph 8.

¹⁷⁵ BT's response to the Provisional Conclusions, 9 January 2015, paragraph 18.

¹⁷⁶ Gamma's response to the Provisional Conclusions, 6 January 2015, pages 2 and 3.

¹⁷⁷ EE's response to the Provisional Conclusions, 20 January 2015, page 8.

- 5.68 EE said that Ofcom appeared, at paragraph 4.28 of the Provisional Conclusions, “to have forgotten that EE is a mobile operator, and not fixed network operator. It is unclear in this context how BT’s fixed geographic termination rates, which are not replicated by EE, can be said to be any more reciprocal than its 03 termination rates, which are also not replicated by EE.”¹⁷⁸

Ofcom’s assessment

- 5.69 Given that our primary benchmark is not LRIC-based and that our overall conclusion is not dependent on which of the options used for the benchmark rate, we do not consider that it is necessary to respond to the specific points raised by BT, Gamma or EE on this issue.
- 5.70 We believe that EE may have misunderstood the point we were making at paragraph 4.28 of the Provisional Conclusions. That point was not that fixed and mobile CPs pay reciprocal *rates* for termination, but that there is a reciprocal *relationship* between fixed CPs with regards to fixed termination rates (and mobile CPs with regards to mobile termination rates). Users of geographic (and mobile) numbers expect to both make and receive calls, and therefore fixed and mobile CPs expect to both pay and receive termination charges to/from other CPs. Under this arrangement, with regards calls to and from geographic and mobile numbers, termination rates set at LRIC+ could affect the competition between these CPs.
- 5.71 However, the same is not true of 03 numbers. TCPs of 03 calls are not necessarily also OCPs for 03 calls. Therefore, the argument in favour of LRIC termination based on reciprocity of the relationship between CPs does not carry across to termination rates for 03 numbers.

Final conclusions on the benchmark rate

- 5.72 We have considered the comments and evidence from Three, EE, BT and Gamma but remain of the view that the charge-based benchmark is the most appropriate benchmark for us to use. We have also considered the impact of a LRIC-based benchmark rate.
- 5.73 Having scrutinised the traffic weighting data further, we believe that the traffic weightings used to derive the benchmark rates are an appropriate proxy for 03 traffic weightings. Our calculation of the benchmark rates therefore remains unchanged.
- 5.74 We note that Three and EE have raised a number of points related to traffic weightings. We would point out in response that though they are an important part of determining the benchmark rates, our provisional conclusions were not determined by the specific benchmark rate chosen, as we reached the same view with the much lower LRIC-based benchmark rate. The same applies to this Determination, and our overall conclusion does not rely on the specific benchmark rate or the traffic weightings.

Direct effects

- 5.75 We provisionally concluded that the evidence as to whether BT’s current 03 termination rate is having a negative direct effect on consumers, as compared to the benchmark rate, was inconclusive.

¹⁷⁸ EE’s response to the Provisional Conclusions, 20 January 2015, page 9.

Stakeholder comments on direct effects and Ofcom's analysis

- 5.76 BT, Telefónica, Three, EE and Gamma all commented on the direct effects in their responses to the Provisional Conclusions. These comments touched upon the evidential threshold and evidence that Ofcom has used to assess whether there are direct effects. They also covered the size of the initial financial impact on CPs from 03 termination rates.

The threshold used for assessment of direct effects

Stakeholder comments

- 5.77 EE and Three agreed with our provisional view that economic theory suggests that higher incremental costs will typically lead to higher prices. Three submitted that the theoretical evidence points unambiguously to there being consumer detriment as a result of BT's 03 termination charges and that Ofcom had not found any evidence of consumer benefit arising from BT's current charges.¹⁷⁹
- 5.78 EE claimed that the economic theory is supported by the evidence that it and Three have supplied and noted that Ofcom had accepted "*that the evidence provided by EE does show that 03 termination charges are considered as a factor when it comes to setting the level of its prices or the design of its bundles*".¹⁸⁰
- 5.79 EE and Three argued that as the economic theory and the evidence both suggest that BT's current 03 termination charges are likely to lead to price increases, Ofcom should conclude that the charges are having a negative direct effect.
- 5.80 Gamma stated that the representations made by Three and EE are consistent with economic theory but that "*economic theory almost invariably presumes a perfect market*". Regarding the reduction in fixed termination rates, Gamma said it was damning that: "*In reality, we note that the benefits of a cost reduction in termination rates for geographic calls were not passed on to consumers*".¹⁸¹ Gamma considered that "*a key first test is to show that an opposing situation would be comparatively beneficial, which patently the MNOs have failed to do*".¹⁸²
- 5.81 Three submitted that "*Ofcom appears to now believe that it must have unambiguous and compelling empirical evidence of consumer detriment*" before Ofcom can act,¹⁸³ though it noted that Ofcom accepts that such pass-through may be "*hard to detect*".¹⁸⁴
- 5.82 Three argued that it "*cannot see how this could ever be proven to Ofcom's satisfaction given the impossibility of controlling for other factors*",¹⁸⁵ and submitted that the Supreme Court judgment does not require Ofcom to have clear empirical evidence of detriment. It argued that the Supreme Court case involved conflicting theoretical evidence, and that the current case is a more straightforward one, where the theoretical evidence is unambiguous.

¹⁷⁹ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 5.

¹⁸⁰ EE's response to the Provisional Conclusions, 20 January 2015, page 4.

¹⁸¹ Gamma's response to the Provisional Conclusions, 6 January 2015, page 3.

¹⁸² Gamma's response to the Provisional Conclusions, 6 January 2015, page 3.

¹⁸³ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 4.

¹⁸⁴ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 5.

¹⁸⁵ Three's response to the Provisional Conclusions, 9 January 2015, paragraph 5.

Ofcom's assessment

- 5.83 We consider that in their submissions, EE and Three do not appear to us to pose the appropriate question in terms of the threshold for intervening on the basis of consumer detriment. In resolving disputes such as these, it would not in our view necessarily be enough to show, on its own, that wholesale prices are above cost and that reductions in termination rates would probably be passed through to consumers. The question we must consider, in light of the Supreme Court judgment, is whether the termination rates under consideration are no longer consistent with the Article 8 policy objectives. That question needs to be considered in the round, in its proper factual, legal and economic context and on the basis of all the evidence available.
- 5.84 While the termination rates in question here may be above cost, there is currently no regulatory requirement for those rates to be cost-reflective. There is currently no finding that BT has SMP in relation to the termination of calls to 03 numbers. That is not to say that there is, or is not, SMP in practice, but there has to date been no such formal finding following a market review, and no SMP conditions have been imposed in relation to the relevant market in question. The statutory dispute resolution procedure is not an appropriate means by which to assess SMP, and we have not done so.
- 5.85 As part of our consideration in the round, we have taken the following into account in forming our view on the direct effects:
- 5.85.1 Economic theory. We maintain our view that economic theory clearly suggests that termination rates should affect retail prices. Furthermore, we disagree with Gamma's suggestion that this theory relies on a perfect market.¹⁸⁶
- 5.85.2 The impact of BT's current termination rates on EE's and Three's incremental costs (see our analysis in the Provisional Conclusions, repeated at paragraphs 4.43 and 4.44).
- 5.85.3 Evidence that 03 termination rates have affected retail pricing (see our analysis in the Provisional Conclusions, repeated at paragraphs 4.45 to 4.53).
- 5.85.4 Evidence of the impact of other termination charges on retail pricing, especially the reduction in fixed geographic termination charges in February 2014. We comment further on this type of evidence in the next sub-section.
- 5.86 We do not agree with Three's suggestion that the test for intervention in these Disputes could never be proven to our satisfaction. For example, Three has previously stated that the reduction in geographic termination rates was *"fed into our cost forecasts and taken into account in the overall design of our latest tariffs"*

¹⁸⁶ Theoretical models generally indicate pass-through of industry-wide cost changes across a wide range of market structures from perfect competition to monopoly – see RBB, *Cost pass-through: theory, measurement, and potential policy implications, A Report prepared for the Office of Fair Trading*, February 2014.

introduced from March 2014”.¹⁸⁷ However, it has not provided evidence to show how it was fed into the cost forecasts, nor how it affected Three’s choice of tariffs.

The evidence used for assessment of direct effects

Stakeholder comments

- 5.87 In its response to the Provisional Conclusions, Telefónica argued that the additional cost associated with the current 03 termination rates “*could have been employed to provide other benefits to customers such as investing in infrastructure and/or providing higher standards of service, thereby furthering end-to-end connectivity*”.¹⁸⁸ Telefónica also argued that it is neither economically viable nor efficient for rational CPs to forgo revenues without making changes to their pricing in response. In this respect, Telefónica presented the possibilities of taking 03 numbers out of bundle or raising retail prices for out-of-allowance calls,¹⁸⁹ although we note that because of the tariff principles for 03 numbers set out in the Numbering Plan such changes would have to apply to 01 and 02 calls as well as 03 calls.
- 5.88 Similarly, Three reiterated its view that because 03 retail prices are tied to the geographic retail rates, “[t]o accommodate high 03 termination rates, operators will eventually have to increase monthly charges, reduce the number of in-bundle minutes or take other actions to increase profitability”. It argued that “[t]hese changes are likely to be gradual and are unlikely to be observable in the short-term”, but that this “does not mean that the changes are immaterial or that the above cost wholesale termination rates will not be passed through to customers”.¹⁹⁰
- 5.89 EE, as previously, submitted that margins are tight in the mobile industry, and that termination costs are included in their financial modelling and are already taken into account in the setting of its new tariffs. EE highlighted Ofcom’s view that recent tariff changes have been driven by factors including the migration of calls from 08x to 03¹⁹¹ – and argued that this is not divorced from the issue of the level of 03 termination rates. EE also argued that Ofcom had placed disproportionate weight on direct price reactions to recent reductions in fixed termination charges and submitted that it is entirely plausible that cost savings in a competitive market may be passed through to consumers in ways other than direct price reductions for the affected services.¹⁹²

Ofcom’s assessment

- 5.90 We recognised in the Provisional Conclusions that pass-through of higher 03 termination charges (compared to the benchmark rate) into retail prices might occur in conjunction with other (potentially larger) effects. We also recognise that such effects might not occur immediately. In addition, we agree that evidence of causally-related non-price effects could be relevant to our assessment. However, the operators have not provided such evidence. Nor did any of the operators provide new evidence, in response to our Provisional Conclusions, relating to price effects.

¹⁸⁷ Three’s response of 7 November 2014 to the 1st section 191 notice, paragraph 23.

¹⁸⁸ Telefónica’s response to the Provisional Conclusions, 9 January 2015, paragraph 1.8.

¹⁸⁹ Telefónica’s response to the Provisional Conclusions, 9 January 2015, paragraphs 1.12 and 1.13.

¹⁹⁰ Three’s response to the Provisional Conclusions, 9 January 2015, paragraphs 40 and 41.

¹⁹¹ Provisional Conclusions, paragraph 4.49.

¹⁹² EE’s response to the Provisional Conclusions, 20 January 2015, footnote 7.

- 5.91 EE in its response argued that “*increases in costs to terminate 09 and 118 services would seem to be equally if not more relevant examples*”.¹⁹³ But it provided no supporting evidence that would allow Ofcom to assess how these cost changes affected pricing. If such evidence were provided, we can see that responses to the changes in the cost of termination to OCPs of calls to 09 and 118 could be relevant. However, we do not consider this evidence would be more relevant than OCPs’ responses to changes in the fixed geographic termination rate for calls to 01 and 02 numbers, whose retail prices are aligned with calls to 03 numbers.
- 5.92 Given the absence of new evidence, as in the Provisional Conclusions we note in this regard that we have seen no evidence that the cost decreases from the reduction in geographic termination charges had an impact on retail prices of geographically rated calls, or have so far been passed through in other ways to consumers. Whilst this cannot of itself be determinative in this case (and we do not suggest that it is), we do consider that this is a relevant consideration for us to take into account. This includes when considering whether any mandated reduction in BT’s rates would be likely in practice to be passed on to consumers (and hence address the concern that it would be intended to remedy).

The size of the financial impact of 03 termination rates

Stakeholder comments

- 5.93 Three argued that Ofcom’s interpretation of the empirical evidence implies that Ofcom would act without empirical evidence if 03 termination rates were so high as to affect Three as much as the decline in fixed termination rates, and that this level of 03 termination rates would be extremely high – at more than three times the current rate.¹⁹⁴
- 5.94 Three appears to have reached this conclusion by noting that Ofcom has continued to regulate fixed termination rates, although in the current dispute we have not found empirical evidence that declines have been passed through to customers. It also submitted that “*Ofcom’s reluctance to act in this case without unequivocal evidence of consumer harm is strikingly different from the approach that it has taken in the 2014 03 Statement where it has made clarificatory modifications to the NTNP in relation to 03 numbers sooner rather than later without waiting for clearer evidence of actual consumer harm. Three considers that the latter approach is the right one.*”¹⁹⁵
- 5.95 EE also highlighted that Ofcom has considered the effect of higher termination rates on CPs’ pricing in its mobile call termination and fixed narrowband statements.
- 5.96 Building on the assumption that there exists a theoretical size of revenue impact, at which Ofcom would act without empirical evidence of an effect on customers, Three argued that the current impact is high. Three “*does not agree that a reduction of 14% represents a “slight” reduction. In any event though, Three assumes that even Ofcom*

¹⁹³ EE’s response to the Provisional Conclusions, 20 January 2015, footnote 7.

¹⁹⁴ Three’s response to the Provisional Conclusions, 9 January 2015, paragraph 46. Three noted that “*Ofcom says that Three saved £[><] per year from the reduction in fixed termination rates. Three spent approximately £[><] on all 03 termination in October 2014 (or £[><])*”.

¹⁹⁵ Three’s response to the Provisional Conclusions, 9 January 2015, paragraph 48.

would accept that a reduction of say, 30% or 50% is not a “slight” reduction.”¹⁹⁶
Related points were made by Telefónica and EE:

- 5.96.1 Telefónica argued that the gap in wholesale charges between 03 and geographic calls in October 2014, applied to annual volumes, implies an annual cost to Telefónica of £[<].¹⁹⁷ We consider that this is the wrong counterfactual. We consider that the appropriate benchmark is higher [<] – our benchmark takes into account the additional costs of conveyance and interconnect circuits that are incurred when terminating 03 calls.
- 5.96.2 EE argued that the impact of 03 termination rates is significant. It submitted that call-volumes evidence previously provided by EE and Three shows that 03 call volumes have already increased significantly and are likely to continue to do so. EE say that “[a]t the same time, the cost of termination to 01 and 02 calls has fallen dramatically. Logically (and consistent with the evidence provided to Ofcom by EE) this must mean that the costs of 03 termination represent an ever increasing proportion of the total cost to EE and Three to originate calls to 01, 02 and 03 within any bundle of such minutes offered / at any specified out-of-bundle retail rate.”¹⁹⁸
- 5.97 BT argued that the effect on EE and Three of current termination rates (compared to a charge-based or LRIC- based counterfactual) is small. It said that Ofcom’s estimate amounts to an incremental cost difference of between [<] pence per subscriber¹⁹⁹ per annum and that this is far too small to have any influence on retail pricing. BT claimed that this view is supported by Ofcom’s finding that there was no evidence that much larger savings from changes to FTRs had been passed on by OCPs to consumers.

Ofcom’s assessment

- 5.98 We consider that there are relevant differences between the regulatory context for 03 termination rates and fixed geographic termination rates. For example, unlike fixed geographic termination, 03 call termination has not been subject to a finding of SMP, and is not subject to SMP regulation. We also acknowledge that our approach in resolving these Disputes differs to our approach in the context of the 03 revenue sharing statement. This is because we are acting under different powers with different thresholds for regulatory intervention.
- 5.99 As explained above, it is clear from the Supreme Court’s decision that, in using our dispute resolution powers in a situation such as this, Ofcom can only take action if it is necessary to achieve the Article 8 objectives or end-to-end connectivity. In contrast, in considering whether to modify the Numbering Plan in the 03 revenue sharing statement, we were acting under our powers in relation to telephone numbering, under which we are permitted to take action provided it was objectively justifiable, not unduly discriminatory, proportionate and transparent and provided such action was consistent with our duties.²⁰⁰

¹⁹⁶ Three’s response to the Provisional Conclusions, 9 January 2015, paragraph 8.

¹⁹⁷ Telefónica’s response to the Provisional Conclusions, 9 January 2015, paragraph 1.8.

¹⁹⁸ EE’s response to the Provisional Conclusions, 20 January 2015, page 5.

¹⁹⁹ Based on 83 million mobile subscribers at Q2 2014, Ofcom, Telecommunications Market Data, Page 19, Table 3.

²⁰⁰ See the 03 revenue sharing statement, in particular section 3 which sets out the relevant legal framework.

- 5.100 As already discussed, Three also argued that our calculation of the benchmark rate, and resulting calculation of financial impact, was inaccurate, so that the financial impacts are greater than outlined in our Provisional Conclusions. We outlined earlier our evidence and argument on why we think our estimates of traffic weights and the benchmark rate are appropriate. However, in any event we recognise that the benchmark rate is materially lower than BT's current 03 termination rate (and the use of the phrase "slightly lower" in paragraph 1.10 of the Provisional Conclusions was not intended to suggest otherwise or to suggest that the difference was immaterial).
- 5.101 We disagree with BT's view that the effect (in pence per subscriber per annum) of current termination rates is "too small" to affect retail pricing. We do not discount the potential for an impact of higher termination charges of this scale to have an impact on pricing. As we noted in the Provisional Conclusions, the effect of 03 termination charges may be considered by OCPs when designing their tariffs either on its own or along with many other factors. In addition, we noted that the overall total effect (in £) on consumers is relevant to our assessment of materiality, not just the amount per subscriber, as small proportionate effects in large markets, such as mobile origination, can have significant impacts on consumers (see paragraph 4.52 above).
- 5.102 Therefore, our conclusion on direct effects does not follow from the magnitude of the initial financial effect, but on the nature of the evidence on whether it leads to harm to consumers.

Final conclusions on direct effects

- 5.103 There is some evidence to suggest that BT's 03 termination charges could cause consumer harm, relative to the benchmark, arising from an increase in the retail prices of geographic and 03 calls (which we refer to as the direct effects). There is also some evidence consistent with the economic theory suggesting pass-through to consumers of 03 termination rates. If this harm occurred, we consider it is likely to be contrary to the objectives of Article 8 of the Framework Directive. However, whilst we recognise there is a risk of such harm, there is also a lack of evidence on actual pass-through to date to consumers of termination rate reductions for calls to geographic numbers (01 and 02) by EE and Three.

Indirect effects

- 5.104 We provisionally concluded that the evidence was inconclusive and unclear on the existence, extent and direction of changes in hosting charges as a result of 03 termination rates being above the benchmark rate.
- 5.105 Moreover, we noted that the intention of the 03 number range was for 03 termination rates to cover the cost of termination only, and not to cover hosting charges or other services provided by SPs. In line with the CAT's reasoning in the 08x numbers appeals, this suggested to us that we should, in any case, put little weight on the indirect benefits.

Stakeholder comments on indirect effects and Ofcom's analysis

- 5.106 Three, EE and Gamma made comments relating to our provisional view on indirect effects, and in particular to effects on hosting charges.
- 5.107 Three agreed with Ofcom's approach of disregarding "*the alleged indirect benefit given that there was little evidence to support the existence, size or direction of the*

*indirect effect and given also that the purpose of the 03 number range was not to subsidise SPs or provide them with a revenue stream”.*²⁰¹

- 5.108 EE also emphasised Ofcom’s policy preference for not using termination rates to subsidise hosting charges, but noted that *“at least one respondent SP has admitted that current 03 termination rates are enabling it to provide its 03 hosting services entirely free of charge”*.²⁰² It also noted the fact that BT has said lower termination charges would lead to higher hosting charges for SPs,²⁰³ and that *“[b]y implication, BT must be using some of the current 03 termination charges paid by EE to subsidise its 03 hosting services in violation of Ofcom’s policy for the 03 range”*.²⁰⁴
- 5.109 Ofcom has recently clarified the rules that prohibit revenue sharing on the 03 number range. We will consider in due course whether it is appropriate to exercise our enforcement powers in relation to potential breaches of those rules. It is open to any CP to make a complaint in accordance with our guidelines and provide Ofcom with evidence of ongoing revenue sharing arrangements on the 03 number range if they consider such arrangements are causing difficulties.
- 5.110 Gamma submitted that there are indirect benefits to service providers from the current 03 termination rates. It stated that *“the waterbed effect in the value chain between terminating network and Service Provider (and by extension their costs to be recovered from their customers) is clear, regardless of how the charges between entities in that value chain are constructed – it’s the magnitude of the effect, not its existence, that is relevant”*.²⁰⁵
- 5.111 Gamma provided no new evidence to support its view that there are indirect benefits from current 03 termination rates.

Final conclusions on indirect effects

- 5.112 In light of our view on the comments from Three, EE and Gamma, we maintain the analysis on indirect effects that we set out in the Provisional Conclusions and summarised at paragraphs 5.104 and 5.105 above. We do not, therefore, consider that BT’s current rates are inconsistent with the objectives in Article 8 of the Framework Directive, or put at risk end-to-end connectivity, in this regard.

Effects on competition

- 5.113 We provisionally concluded that we had seen no evidence to suggest that BT’s 03 termination charges are distorting competition.

Stakeholder comments

- 5.114 Gamma and Magrathea commented on the effects on competition.

²⁰¹ Three’s response to the Provisional Conclusions, 9 January 2015, paragraph 45.

²⁰² EE referred to paragraph 4.67 of the Provisional Conclusions. EE’s response to the Provisional Conclusions, 20 January 2015, page 5.

²⁰³ See paragraph 4.74 of the Provisional Conclusions.

²⁰⁴ EE’s response to the Provisional Conclusions, 20 January 2015, pages 5 and 6.

²⁰⁵ Gamma’s response to the Provisional Conclusions, 6 January 2015, page 4.

- 5.115 Gamma appeared to agree in principle with EE's concern (as noted in our Provisional Conclusions)²⁰⁶ that 03 termination rates may deter service providers from using 080/116 numbers, but argued that other counteracting distortions are also present. It claimed that while at present the wholesale costs of 03 are "*tipped in favour of 03 for a Service Provider wanting to minimise its costs, the fact that the MNOs can charge up to 40 pence per minute for 080 calls today is a far more relevant and material factor in considering such distortions, such that it would overshadow any wholesale effects*".²⁰⁷ Gamma also noted that while upcoming changes to 080 numbers, making them free-to-caller from mobiles, are likely to increase the average cost of providing 080 numbers by increasing the proportion of calls from mobile numbers (where termination rates are higher²⁰⁸), this will be counteracted by the fall in origination charges resulting from a recent dispute.
- 5.116 Magrathea agreed with our position that there was no evidence of BT's current termination rates distorting competition in the market, stating that "*[t]he amounts concerned in terms of additional revenue to BT are not material in the overall market*".²⁰⁹

Final conclusions on effects on competition

- 5.117 None of the responses to the Provisional Conclusions provided any new evidence to suggest that BT's current termination charges are distorting competition. We therefore remain of the view that BT's current charges are not distorting competition, and so are not inconsistent with the objectives in Article 8 of the Framework Directive, or put at risk end-to-end connectivity, in this regard.

Arbitrage and AIT

- 5.118 Arbitrage and AIT may take place where the revenues that can be earned from an activity materially exceed the costs of that activity. Higher charges paid to TCPs (which may be above the costs incurred in providing the termination service) could create the opportunity for arbitrage activity. AIT is one type of arbitrage activity – it is essentially telephony traffic which is fraudulent or has no apparent legitimate commercial purpose.
- 5.119 Telefónica, Three, EE, BT and Gamma provided comments on our Provisional Conclusions in relation to arbitrage and AIT.
- 5.120 EE, Three and Telefónica all indicated that arbitrage was occurring on 03 numbers and that Ofcom had failed to properly consider the impact of consumer harm arising from arbitrage/AIT. BT and Gamma argued that there were already mechanisms to deal with these issues.

²⁰⁶ See paragraph 4.98 of the Provisional Conclusions.

²⁰⁷ Gamma's response to the Provisional Conclusions, 6 January 2015, page 3.

²⁰⁸ Gamma noted Ofcom's decision in: *Dispute between BT and each of Vodafone, Telefónica and Three relating to forward looking call origination charges for 080 numbers* statement, 21 August 2014: http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01126/Final_Determination_and_Statement.pdf.

²⁰⁹ Magrathea's response to the Provisional Conclusions, 11 January 2015, page 1.

Arbitrage on BT's 03 numbers and measures for dealing with it

Stakeholder comments

- 5.121 EE and Three disagreed with the position set out by Ofcom in the Provisional Conclusions that there was no evidence of arbitrage taking place on 03 numbers allocated to BT. EE and Three submitted evidence in relation to service providers that they believe are carrying out AIT or arbitrage activities, who had been sub-allocated numbers by BT or who had their 03 numbers hosted on BT's network.²¹⁰
- 5.122 EE stated that Ofcom "*has no reason to believe that BT and the SPs it hosts on its ranges are uniquely immune from the incentives to engage in such activities otherwise found to be created by the current level of 03 termination rates charged equally by BT and other terminating communications providers*".²¹¹ Three agreed with EE.²¹²
- 5.123 Telefónica argued that it was irrelevant as to whether or not arbitrage was occurring on BT's 03 number ranges. Telefónica claimed that arbitrage would persist while 03 termination charges are based on FAC, and will cause consumer harm.²¹³
- 5.124 BT and Gamma argued that Ofcom has the power to enforce the current prohibition on revenue sharing on 03 calls, referring to the clarification introduced in the 03 revenue sharing statement that all types of revenue-sharing with callers are prohibited on the 03 number range. Gamma additionally noted that the SIA provides a mechanism by which OCPs can deal with AIT. Gamma suggested that seeking "*to implement such wide-ranging competition policy outcomes through a change to a termination rate is a highly dubious proposition*".²¹⁴
- 5.125 Telefónica did not think that the clarification of GC17 in the 03 revenue sharing statement would be sufficient to address its concerns around arbitrage. Telefónica claimed that the only way to deal with the problems caused by AIT/arbitrage using 03 numbers, is to remove the incentive to carry it out by pricing the 03 charges at a pure LRIC cost.²¹⁵

Ofcom's assessment

- 5.126 In the Provisional Conclusions we took the view that there was no clear evidence that arbitrage was taking place on BT's 03 numbers after BT told us that it had not blocked access to any 03 numbers for any reason since 2011. We note the responses from EE and Three on this point and, although we are not in a position to be able to confirm whether the specific examples that they have referred to amount to AIT or not, we acknowledge that it is possible that there may be arbitrage occurring on 03 numbers that have been allocated to BT.
- 5.127 The fact that BT's current 03 termination rates may allow for arbitrage opportunities does not, in and of itself, mean that the termination rates are inconsistent with the objectives in Article 8 of the Framework Directive or that they put at risk end-to-end

²¹⁰ EE's response to the Provisional Conclusions, 20 January 2015, pages 8 and 9. Three's response to the Provisional Conclusions, 9 January 2015, paragraphs 49 to 57.

²¹¹ EE's response to the Provisional Conclusions, 20 January 2015, page 6.

²¹² Three's response to the Provisional Conclusions, 9 January 2015, paragraphs 49 and 52.

²¹³ Telefónica's response to the Provisional Conclusions, 9 January 2015, paragraph 1.9.

²¹⁴ Gamma's response to the Provisional Conclusions, 6 January 2015, page 4.

²¹⁵ Telefónica's response to the Provisional Conclusions, 9 January 2015, paragraph 1.18.

connectivity. Rather, it would be necessary to show that arbitrage is actually occurring (or that it is likely to) and that the effect of the arbitrage would be to result in consumer harm inconsistent with the Article 8 objectives or put end-to-end connectivity at risk.

5.128 As we discuss below in paragraph 5.133, EE, Three and Telefónica identified three main types of effects that may arise from arbitrage on BT's 03 numbers. These effects align with those we have set out in the 03 revenue sharing statement²¹⁶ as the potential harmful effects which may manifest from arbitrage. We therefore accept that arbitrage and AIT activity on BT's network could be potentially inconsistent with the Article 8 objectives. However, in order to justify intervention we must also be satisfied that this risk is occurring, or is likely to occur and that there are not already alternative means for us to deal with the activities in question.

5.129 It would appear that most (if not all) of the specific examples of arbitrage that EE and Three claim is taking place on BT's network involve conduct that they believe takes the form of AIT and/or revenue sharing. As we explained in the Provisional Conclusions, we consider that there are already measures in place in relation to those types of activities:

5.129.1 The 03 revenue sharing statement made clear that revenue sharing, either with end users or callers, is prohibited on 03 numbers. We are in the process of considering the most appropriate approach to dealing with any TCPs that continue to offer revenue sharing on 03 numbers, including whether it is appropriate to take enforcement action.

5.129.2 The SIA contains provisions that enable OCPs to withhold revenue where they believe AIT is taking place.

5.130 Telefónica claimed that existing regulatory and contractual measures would not be sufficient to deal with problems caused by AIT or arbitrage. We also recognised in the Provisional Conclusions that it is possible that some arbitrage activity which is not in the interests of consumers may persist due to 03 termination rates, even with the recent clarification to the prohibition on revenue sharing on the 03 number range (see paragraph 4.117 above).

5.131 We therefore consider below the points made by EE, Three and Telefónica about the type of harm that might arise from arbitrage.

Harm arising from arbitrage: stakeholder comments and Ofcom's assessment

5.132 BT argued that reducing 03 termination rates would not solve the issue of arbitrage. BT claimed that *"a proportion of the CPs that benefit from arbitrage do not actually use a network to convey calls. Instead they interconnect at a switch and then use other methods – e.g. VOIP – to deliver calls to foreign countries. In other words, some AIT exploiters are not providing a real service and have no network costs. Consequently, these CPs would still have an opportunity to make profits from arbitrage, even if BT's termination rates were priced at LRIC, and there is no reason to think that such activities would cease if a reduction in termination rates were to be imposed."*²¹⁷

²¹⁶ 03 revenue sharing statement, paragraph 4.6.

²¹⁷ BT's response to the Provisional Conclusions, 9 January 2015, paragraph 10.

- 5.133 EE, Three and Telefónica identified three main types of harm arising from arbitrage/AIT:
- 5.133.1 A threat to the economic viability of the bundles offered by OCPs resulting from the difference in the termination charges for geographic and 03 calls, coupled with the requirement to set retail charges for these calls at the same level and include 03 calls in bundles with geographic calls;
 - 5.133.2 A compromise in network reliability and capacity arising from arbitrage generating increases in traffic volumes, which would harm the ability of OCPs to provide genuine services; and
 - 5.133.3 Damage to the reputation of the 03 number range as consumers associate 03 numbers with revenue sharing or end-to-end connectivity problems if OCPs block access to numbers on which AIT is occurring.

Economic viability of bundles

- 5.134 As discussed above, both EE and Three have argued that arbitrage and AIT is causing significant increases in traffic volumes and that this factors in to the pricing of their call packages. We have considered this potential harm above when assessing the direct effects.

Network capacity

- 5.135 Telefónica submitted that “*in order to prevent users free-riding on network capacity and to maintain service levels and connectivity for their other users, the only commercial option for rational CPs is to block access to number ranges suspected of being used for arbitrage / AIT*”.²¹⁸ Telefónica explained that in light of this, OCPs such as itself have suspended connections and/or blocked access to 03 numbers which are suspected of arbitrage/AIT, and that this has harmed end-to-end connectivity and therefore consumers.
- 5.136 In theory, were arbitrage to drive a significant increase in 03 traffic, it may cause network capacity problems for OCPs and hamper their ability to offer other communications services.
- 5.137 Although referring to the potential for this issue to arise, EE, Three and Telefónica have not suggested that they are experiencing network capacity issues at current volumes of 03 calls or that they are likely to experience problems in the near future if volumes continue to increase at current rates.

Reputation of 03 numbers

- 5.138 Telefónica also argued that the reputation of the 03 number range is harmed by the incentive for AIT/arbitrage, because operators that carry out AIT/arbitrage do not have an incentive to consider the impact of their behaviour on the reputation of the 03 range. Telefónica submitted that there is also a risk that this will also harm other number ranges.²¹⁹

²¹⁸ Telefónica’s response to the Provisional Conclusions, 9 January 2015, paragraph 1.15.

²¹⁹ Telefónica’s response to the Provisional Conclusions, 9 January 2015, paragraph 1.16.

- 5.139 EE submitted that “[i]f services that take advantage of arbitrage become popularly associated with the 03 number range, this could result in consumer confusion as to the purpose of the range”.²²⁰ It asserted that arbitrage continues to occur on the 03 number range despite the recent clarification on revenue sharing. This view was supported by Three and Telefónica.
- 5.140 One of the reasons for Ofcom introducing the 03 number range and imposing rules that prohibit revenue sharing on it was to help restore consumer trust in non-geographic numbering. We would therefore be concerned if arbitrage arising from BT’s 03 termination rates was to jeopardise the reputation of the 03 number range.
- 5.141 The reputation of the 03 number range could be jeopardised in a number of different ways including, but not limited to, the following:
- 5.141.1 Arbitrage could encourage revenue sharing services to be offered on 03 numbers. This could harm the reputation of the range by causing consumers to doubt that they were only paying for the cost of the call, rather than the service that was provided by the called party.
 - 5.141.2 OCPs may respond to services based on arbitrage by blocking access to those numbers. If consumers are unable to access services on 03 numbers because access to them has been blocked, this may damage the reputation of the 03 number range and other services offered on that range.
- 5.142 In relation to the blocking of access to 03 numbers, we would remind OCPs of their obligations under General Condition 20 to “ensure, where technically and economically feasible” that all end users are able to access and use non-geographic numbers that they have adopted. Any measures taken to restrict access to 03 numbers must therefore be consistent with the requirements of General Condition 20. Similarly, General Condition 17 places an obligation on all OCPs that calls to 03 numbers must be “charged at up to the same rate the customer would pay to call a UK Geographic Number”. Calls to 03 numbers must be included in “inclusive call minutes if the customer has remaining inclusive minutes to UK Geographic Numbers, and included in any discount structures that apply to UK Geographic Numbers”.²²¹
- 5.143 We acknowledge that there is a risk that arbitrage could emerge on BT’s network and harm the reputation of the 03 number range. However, we do not believe this risk to be sufficiently certain to warrant intervention at this point in time.

Final conclusions on arbitrage and AIT

- 5.144 Given the regulatory and contractual measures that are available to address harm arising from revenue sharing and AIT, we consider that there is insufficient evidence for us to conclude that any arbitrage that is taking place on BT’s 03 numbers, as a result of BT’s current 03 termination charge, is resulting in an outcome that is inconsistent with the objectives in Article 8 of the Framework Directive or threatens end-to-end connectivity, such that we should be taking action in these Disputes.

²²⁰ EE’s response to the Provisional Conclusions, 20 January 2015, page 6.

²²¹ “Raising confidence in telephone numbers” statement, 13 February 2007.

Overall final conclusions

- 5.145 Having considered the arguments of the Parties, the evidence before us and the responses to the Provisional Conclusions, we do not consider that BT's current 03 termination rates are no longer consistent with the objectives in Article 8 of the Framework Directive or threaten end-to-end connectivity at this point in time, such that it is necessary to vary them.
- 5.146 As regards direct effects, in theory, at least, it seems likely that the current level of BT's termination rates could be putting upward pressure on EE and Three's retail prices, and we have some evidence which is consistent with this. However, we note that although termination rates have affected retail prices generally, in relation to the most comparable recent change – the recent reduction in geographic termination rates – EE and Three have not provided evidence of this reduction being passed through in any discernible benefits for consumers to date.
- 5.147 Therefore we do not, on balance, believe that we currently have sufficient evidence to intervene on the basis of direct effects (regardless of whether we use either a LRIC-based benchmark or a charge-based benchmark).
- 5.148 We have little evidence to support the existence, size or direction of the indirect effect and believe, in any case, it is inappropriate to put much weight on this, given the purpose of the 03 number range was not to subsidise SPs or provide them with a revenue stream.
- 5.149 We have seen no evidence to suggest that BT's current 03 termination rates are distorting competition.
- 5.150 We are concerned that 03 termination rates across the wider industry may encourage arbitrage activity, leading to a significant volume of 03 traffic, particularly if this means that in future there is a greater risk of OCPs increasing the prices of their geographically-rated calls. These concerns are reinforced where termination rates are above cost. However, we believe these concerns raise issues which are broader than those considered in these Disputes and other regulatory and contractual measures are available which might mitigate these concerns.
- 5.151 In resolving disputes, we have discretion whether to exercise our remedial powers. In exercising that discretion we take account of the nature of the evidence available, including the extent to which there is conflicting evidence or a lack of evidence. Based on the arguments and evidence before us in these Disputes, we do not consider that it would be appropriate for us to determine in these Disputes that BT's current 03 termination rates are inconsistent with the objectives in Article 8 of the Framework Directive or threaten end-to-end connectivity, such that we should decide to exercise our powers under section 190(2) of the 2003 Act to require BT to reduce those rates.
- 5.152 We do however consider that some of the matters raised in these Disputes may give some wider cause for concern in relation to the 03 number range, its use and termination charges. We therefore intend to consider separately whether there is other regulatory action that it would be appropriate for us to take in light of the potential concerns identified. Any such action by Ofcom would of course be subject to any applicable legislative provisions and processes, and interested stakeholders would have opportunities to comment and engage on it in the usual way.

Assessment of consistency of Ofcom's Final Determination with our statutory duties and Community obligations

- 5.153 For all of the reasons given above, we have decided not to exercise any of our powers under section 190 of the 2003 Act in determining the Disputes. We consider that this Final Determination is consistent with our general duties set out in section 3 of the 2003 Act, the six "Community requirements" set out in section 4 of the 2003 Act, which give effect, among other things, to the requirements of Article 8 of the Framework Directive and the requirement under section 190(2A) in respect of disputes falling within section 185(1). In particular, our analytical framework is based on an assessment of whether or not BT's charges are consistent with the Article 8 objectives. Given that Article 8 forms the basis of our duties in sections 3 and 4 of the 2003 Act, we consider that by resolving the Disputes in a manner that is consistent with Article 8 we are acting in a manner that is consistent with our duties.
- 5.154 In producing our Final Determination, we have also kept in mind our duty under subsection 3(3)(a) of the 2003 Act to ensure that our regulatory activities are, among other things, transparent, accountable, proportionate and targeted only at cases where action is needed and to other principles of best regulatory practice.