



Dispute between Mapesbury Communications and T-Mobile about mobile termination rates

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Determination and
statement

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Section 1

Summary

- 1.1 This dispute concerns the termination rate payable by T-Mobile (UK) Ltd (T-Mobile) to Mapesbury Communications Ltd (MCom) for calls originated on T-Mobile's network and terminated on MCom's network. These payments are known as mobile termination rates (MTR).
- 1.2 On 10 October 2008, we received a joint submission outlining a dispute between T-Mobile and MCom about the MTR charged to T-Mobile for the termination of calls on the MCom network. The joint submission requested that Ofcom handle, consider and determine the MTR payable by T-Mobile for the termination of calls on the MCom network.
- 1.3 MCom is currently building areas of contiguous GSM mobile phone coverage with a view to providing a mobile service in certain urban areas of the UK which have a high proportion of ethnic community residents. T-Mobile's main business activities include public mobile communications network operation and the provision of mobile network communications to the public.
- 1.4 MCom and T-Mobile do not interconnect directly. Each party has entered into a Standard Interconnection Agreement with BT under which BT provides transit services between the operators. In this respect, where a call originates on T-Mobile's network and is terminated on MCom's network, BT purchases termination from MCom and charges T-Mobile an amount equal to the MCom MTR plus an additional transit charge. The current MTR for the termination of calls on MCom's network agreed between MCom and BT is equal to 7.24 pence per minute (ppm).
- 1.5 Our powers and duties to resolve certain disputes are set out at sections 185-191 of the Communications Act 2003 ("the 2003 Act"). In accordance with Section 186(4) of the Act, on 21 November 2008 we decided that it was appropriate to resolve this dispute, informed the parties to the dispute of our decision and published a Competition Bulletin entry setting out the scope of the dispute¹.
- 1.6 In resolving this dispute, we have considered our general statutory duties and Community obligations under section 3 and 4 of the 2003 Act. In the context of this dispute, we have had particular regard to our primary duty under section 3(1)(b) of the 2003 Act to further the interests of consumers in relevant markets, where appropriate, by promoting competition.
- 1.7 We considered the six principles of pricing and cost recovery established by Ofcom as an appropriate basis for the framework to set a MTR which is reasonable as between the parties and satisfies our general statutory duties and Community obligations. We decided that it was appropriate to directly link MCom's MTR to a regulated rate. We considered which rate would be appropriate in this matter and decided, in the interests of cost minimisation, that it should be the lowest.
- 1.8 In summary, based on the submissions of the parties and the evidence gathered in this dispute, for the reasons set out in the draft determination and explanatory statement (referred to in this document as "the Consultation"), our provisional conclusion was that:

¹ See: http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_01000/.

- i) As from [the date of the final determination], the MTR charged by MCom for the termination of calls originated on the T-Mobile network and terminated on the MCom network may not exceed 4.4ppm (2006/07 prices), converted into nominal terms². This being the same as the (lowest) regulated MTR specified in the Competition Commission (CC) determination for 2009/10; and
- ii) In order to ensure the appropriate rate is applied as between MCom and T-Mobile in the absence of direct interconnection, as from [the date of the final determination], MCom shall make a payment to T-Mobile of an amount equal to the termination charge it receives from a transit operator less [4.4ppm (2006/07 prices), converted into nominal terms] for each minute of calls originated on the T-Mobile network and terminated on the MCom network.

- 1.9 On 13 February 2009, Ofcom issued to each of the parties in dispute and to 9 parties that asked to be considered as an interested party a non-confidential version of the Consultation and published the Consultation on its website.³ Ofcom asked for comments from all stakeholders by close of business on 27 February 2009.
- 1.10 Ofcom carefully considered stakeholders' responses and conducted some further analysis. For the reasons given in section 6, our conclusion remains as set out in the Consultation: until the implementation of the Competition Commission (CC) Price Control Determination (the CC Determination)⁴, the MTR charged by MCom for the termination of calls originated on T-Mobile's network and terminated on MCom's network may not exceed 4.71ppm, which is currently our best estimate of the TAC for Vodafone and O2 for 2009/2010, as specified in the CC Determination, converted into nominal terms. However, we recognise that, if the TAC for Vodafone and O2 resulting from the implementation of the CC Determination is different from our current best estimate of it (4.71ppm for 2009/2010) and the parties are unable to reach an agreement, they may refer a further dispute to us.
- 1.11 The background to this dispute is set out in section 2. The history of this dispute is set out in section 3. Section 4 sets out the statutory obligations and principles which apply in resolving the dispute. The analysis and reasoning underpinning our proposals for resolving the dispute in the Consultation are set out in section 5. We address stakeholders' comments to the Consultation and set out our responses in section 6.
- 1.12 Ofcom's determination, which takes effect on 20 March 2009, is set out at section 7.

² An adjustment is required in order to convert this option to nominal terms to account for three years of relevant inflation. See further at paragraphs 5.109 to 5.110.

³ http://www.ofcom.org.uk/consult/condocs/mapesbury_tmobile/draftdeter.pdf.

⁴ http://www.catribunal.org.uk/files/CC_Determination_1083_H3G_1085_BT_220109.pdf.

Section 2

Background

Mobile voice call termination

- 2.1 This dispute concerns the termination rate payable by T-Mobile (UK) Ltd (T-Mobile) to Mapesbury Communications Ltd (MCom) for calls originated on T-Mobile's network and terminated on MCom's network. These payments are known as mobile termination rates (MTR).
- 2.2 Not all originating networks and terminating networks have direct interconnection between themselves and, therefore, certain calls may be routed via a transit operator interposed between the originating network and the terminating network. In such case, the total charge payable to the transit operator by the originating network for transit and termination is an amount equal to the MTR plus a transit charge. The MTR is paid by the transit operator to the terminating network in those circumstances.
- 2.3 This dispute concerns the termination rate payable by T-Mobile for calls originated on T-Mobile's network and terminated on MCom's network.
- 2.4 MCom and T-Mobile do not currently have a direct interconnection agreement. They use BT as a transit operator to convey traffic between their switches such that the MCom MTR payable by T-Mobile is that agreed between MCom and BT. According to the information provided by the parties in the joint submission, when T-Mobile opened the number range in March 2007, MCom's MTRs contained in BT carrier price list were 6 / 4.5 / 4ppm (day/evening/weekend). MCom explained that when it was first listed on the BT carrier price list it was originally hosted by Magrathea Telecommunications Limited (Magrathea). MCom submitted that direct interconnection with BT at that time would have been uneconomic, given that it was not operating a service and thus had no subscribers to terminate a service to.
- 2.5 In early 2008, MCom terminated its arrangements with Magrathea and entered into a direct interconnection agreement with BT. MCom agreed with BT a higher MTR of 7.24ppm (across each time period), to be implemented on 2 September 2008. Having notice of this change in MCom's MTR, T-Mobile wrote to MCom on 30 May 2008 to challenge MCom's MTR directly with MCom. T-Mobile proposed that a reasonable MTR would be 1.2ppm (either across each time period, or average across time periods according to traffic distribution).

MCom's service

- 2.6 MCom's local mobile network uses the so-called DECT (Digital Enhanced Cordless Telecommunications) guard band spectrum which was awarded to MCom, alongside 11 others, following Ofcom's auction in May 2006. The Licence awarded to MCom following the auction permits it to utilise the frequencies 1781.7 - 1785MHz paired with 1876.7 – 1880 MHz.
- 2.7 Under its 1800 GSM Guardband licence, MCom has built concentrated areas of coverage, based on areas where its core target market live and work. Due to the limited power 1800 Guardband permits, and to maximise in-building coverage MCom have built a network of GSM base stations (BTSs) using pico cell BTSs 400m or so apart sited on rooftops of residential homes, public telephone boxes (operated by

Spectrum Telecoms), poles or advertising hoardings. The pico cells are, in general placed in line of site of each other so connectivity between them and back to the nodes is provided by daisy chaining 5.8GHz connections. Node pico cells are connected to the MCom core network and switching centre via Symmetric Digital Subscriber Line or 10MB Ethernet fixed connections.

- 2.8 All MCom mobile services are reliant on its own network coverage. MCom does not have, and is not using, any national roaming facilities for the provision of its mobile service outside the area of coverage of MCom's network. This means that there are geographic limits to the MCom service as that service will cease outside of the range of its network. The extent of MCom's current network coverage is discussed at paragraphs 2.9 - 2.11 below.
- 2.9 MCom is currently rolling out its network to certain urban areas of London where consumers for mobile subscriptions are typically from different ethnic communities whose interests, in MCom's view, are not currently being served by the UK mobile network operators (MNOs). MCom has submitted that the mobile market remains inefficient with regard to both costs incurred by consumers in using a mobile subscription for the purposes of making international calls and for the services offered by the existing mobile network operators to the different ethnic communities within the UK. MCom uses international roaming to connect international calls.
- 2.10 MCom is building areas of contiguous GSM mobile phone coverage with a view to providing a mobile service in certain urban areas of the UK which have a high proportion of ethnic community residents. MCom intends to provide low rate international calls and low rate local calls and texts from a geographically restricted service. MCom describes itself as a new entrant mobile operator, under the brand of UK01, and aims to become the provider of first choice for mobile services to certain communities for whom making mobile telephony calls to international destinations is a driver, but who still expect to receive competitive national mobile services with no reduction in quality of service.
- 2.11 MCom has recently become active in the London Borough of Newham. In its second phase of roll out, MCom plans to extend its coverage to the following boroughs of London: Dagenham & Barking; Redbridge, Tower Hamlets and Waltham Forest.
- 2.12 In light of the localised nature of the MCom's network, MCom expects that its customers are likely to continue to buy mobile services from the five UK incumbent MNOs providing national coverage, especially in the initial stage of the development of MCom's service. Nevertheless, MCom has entered into mobile number portability and commercial bilateral short messaging service (SMS) agreements with the MNOs.
- 2.13 Whilst MCom intends to offer a small range of mobile telephone handsets, it primarily offers its own SIM card for use in an existing mobile telephone handset.

MCom's competitors

- 2.14 Given the nature of the MCom service as a mobile service to particular customers who describe their telephone usage as being a mixture of mobile and international calls, MCom considers its competitors to be the MNOs but also the international calling card operators. MCom considers that its entry into these markets will have a positive impact on competition in both of these markets.

Description of T-Mobile

- 2.15 T-Mobile is the UK subsidiary of T-Mobile International AG, which in turn is owned by Deutsche Telecom.
- 2.16 T-Mobile's main business activities include public mobile communications network operation and the provision of mobile network communication services to the public.

Section 3

The dispute

History and referral of the dispute

- 3.1 On 10 October 2008, T-Mobile and MCom jointly referred a submission to us to handle, consider and determine a dispute (the joint submission).
- 3.2 As set out at paragraph 2.4 - 2.5 above, between March 2007 and September 2008, MCom's MTRs contained in BT carrier price list were 6 / 4.5 / 4ppm (day/evening/weekend). MCom subsequently agreed a higher MTR of 7.24ppm with BT (across each time period), to be implemented on 2 September 2008. Upon receiving notice of this change in MCom's MTR, T-Mobile sought to negotiate a lower MTR. Those negotiations have not led to agreement and as a result, the parties have raised the issue with Ofcom through the joint submission.
- 3.3 The joint submission set out the chronology of events and the attempts of the parties to resolve the matters in dispute through negotiation. The parties' submissions were supported by documentation, such as minutes of meetings and email correspondence provided in the joint submission or in response to subsequent information requests. Both parties agree that, despite efforts to resolve the dispute through negotiation, the points of difference were those of principle regarding the proper inputs and calculation of a MTR. On this basis, the parties agreed to submit a dispute to Ofcom on a joint basis.
- 3.4 Following receipt of the joint submission, we requested further information from both MCom and T-Mobile in order to fully understand the scope of the dispute. At the same time, we invited the parties' comments on how each of our duties (in particular under sections 3 and 4 of the 2003 Act) is relevant. We also conducted a site visit of certain aspects of the MCom network on 9 December 2008.
- 3.5 Having considered the joint submission and subsequent information obtained by the parties, we were satisfied that the dispute is a dispute between communications providers relating to network access, and that the matters in dispute would not be resolved through further negotiation between the parties. On 21 November 2008, we decided that it was appropriate for us to handle this dispute for resolution. We informed the parties of this decision and published details of the dispute on our website.

Scope of the dispute

- 3.6 The scope of the dispute was to determine the termination rate payable by T-Mobile for voice calls originating on T-Mobile's network and terminating on MCom's network.
- 3.7 In line with our standard procedures in disputes, we invited comments from stakeholders on the scope of the dispute as originally published. No comments were received.
- 3.8 This determination only applies to the scope of this dispute.

Stakeholders interested in the outcome of the dispute

- 3.9 Upon opening this dispute for resolution, we invited interested stakeholders to express an interest in the outcome of this matter. The following nine stakeholders expressed an interest in the outcome of this dispute:

Cable & Wireless

FleXtel Limited

Hay Systems Ltd

IV Response Limited

Magrathea Telecommunications

OnePhone UK Ltd

Stour Marine Limited

Telefónica O2 UK Limited



Information provided by the parties

- 3.10 After opening its investigation, on 8 December 2008, we sent T-Mobile a notice under section 191 of the 2003 Act requiring it to provide documents and information in connection with this dispute (this request was sent in draft on 2 December 2008). T-Mobile responded to Ofcom's notice on 12 December 2008. We requested information of MCom on 27 November 2008. We received this information on 4 November 2008. We held a meeting with MCom on 5 November 2008 and a telephone discussion on 28 November 2008.

The submissions of the parties before the Consultation

- 3.11 This section outlines the arguments put forward by the parties in the joint submission and in the course of our investigation before the Consultation. The submissions made in response to the Consultation are outlined in section 6.

T-Mobile's arguments

The regulatory framework

- 3.12 T-Mobile referred this dispute to us under sections 185(1) and/or 185(2) of the 2003 Act on the basis that the parties are each communications providers and are in dispute regarding the terms and conditions of network access in respect of the MCom network.

How a mobile termination rate ought to be calculated

- 3.13 T-Mobile submitted that the MCom MTR is unreasonable since it appears unrelated to a proper assessment of the likely costs of termination on a DECT Guard Band network by an efficient operator.

- 3.14 T-Mobile suggested also that a DECT Guard band operator is likely to have much lower costs than the established 2G/3G GSM network operators. The basis of this assessment is addressed in paragraphs 3.23 et seq. below.
- 3.15 T-Mobile contended that any departure from Ofcom's previous approach to the assessment and modelling of termination costs would be inconsistent and would require substantive justification. T-Mobile referred to the Competition Appeal Tribunal's ("CAT") judgment in *T-Mobile (UK Limited) and others v Office of Communications*⁵ ("the TRD Judgment") where it stated:
- "...consistency of approach is an important factor for Ofcom to bear in mind [...] Ofcom needs to consider whether its proposed action is consistent with its previous approach to issues such as cost modelling and its assessment of particular issues"⁶.
- 3.16 T-Mobile submitted that permitting a higher termination rate for MCom would breach Ofcom's duty not to discriminate between communications services or networks. The basis of this contention was that any assessment of an appropriate MTR that fails to take into account the costs of termination would be discriminatory and in breach of the fourth Community requirement.
- 3.17 T-Mobile has also outlined its view that to permit an MCom MTR substantially above the levels proposed by T-Mobile would fail to account for a number of Ofcom's wider duties. T-Mobile asserted that if DECT guard band operators were allowed to recover substantially more than other mobile network operators, this would distort competition and discourage further investment and innovation, while undermining regulatory certainty. T-Mobile added that at its widest, were the current MCom MTR to prevail, this would be in breach of Ofcom's duty to further the interests of citizens and consumers.

Relevant market analysis

- 3.18 T-Mobile referred to the European Commission's recommendation on Market Definition and Ofcom's previous analysis of Market 16⁷. T-Mobile observed that Ofcom's previous analysis ("the Calls to Mobile Statement")⁸ concluded that there are separate relevant markets for mobile call termination on each MNO's network, regardless of the technology used for termination; and, that all MNOs have 100 per cent share of the market for termination on their own network.

⁵ [2008] CAT 12, 20 May 2008, available at http://www.catribunal.org.uk/files/Judgment_TRDs_200508.pdf

⁶ See number 2 at (paragraph 189).

⁷ As provided for in the Framework Directive (Directive 2002/21/EC), the European Commission (the "Commission") has adopted a Recommendation on relevant products and services markets ("the Recommendation") which identifies markets within the electronic communications sector, the characteristics of which may be such as to justify the imposition of regulatory obligations. The Recommendation's Market 7 (former Market 16) is the market for voice call termination on individual mobile networks in the 2007 Recommendation: "Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services": http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_344/l_34420071228en00650069.pdf

⁸ Mobile call termination Statement, 27 March 2007: http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

- 3.19 T-Mobile submitted that it follows that each network, including MCom, prima facie enjoys significant market power (SMP) in respect of call termination on its network.

Benchmarking

- 3.20 T-Mobile submitted that the use of benchmarking would be inappropriate in circumstances where MCom and T-Mobile operate different technologies, and are at completely different stages in their market positions. T-Mobile considered that there were significant differences in cost between the two parties' networks and the relevant inputs to determining an appropriate MTR.
- 3.21 In the alternative, T-Mobile argued that in any event, even if benchmarking were appropriate, MCom's rates should properly have been set below the regulated rates of other networks, since these rates are for the national provision of 2G and 3G services (including a current regulatory coverage obligation on 3G services and an historic obligation on 2G services), whereas MCom's rates apply to an extremely localised service over 2G only, using substantially lower cost network assets.
- 3.22 T-Mobile considered that it follows that a more detailed assessment of MCom's actual costs is required than a benchmarking exercise permits, even though this assessment need not be comprehensive. However, according to T-Mobile, to be consistent with its duties and the Competition Appeal Tribunal's guidance as set out in the TRD Judgment, Ofcom must assess the costs associated with termination on the MCom network in determining a reasonable MTR.

Appropriate basis of assessment of MCom's mobile termination rate

- 3.23 T-Mobile argued that the current MCom MTR is too high and does not reflect the efficient termination of calls on the DECT guard band network. T-Mobile submitted that the costs of termination of the MCom network must be considered consistently with Ofcom's current methodology for the determination of the efficient costs of termination on other networks.
- 3.24 T-Mobile's preferred outcome to the resolution of this dispute is the application of the cost model used in the Calls to Mobile Statement (used by Ofcom to derive regulated MTRs for T-Mobile and other MNOs) on the basis of their assumption of MCom's costs. T-Mobile based its calculation on an assessment based on the following inputs, which currently form part of the T-Mobile regulated MTR:

Network costs

- 3.25 T-Mobile estimated that MCom's network rollout addresses a small number of targeted localised areas only. T-Mobile further contended that MCom has not invested, nor intends to invest, in a national network on the scale of the established UK GSM network operators. Significantly, according to T-Mobile, MCom has no coverage obligation.
- 3.26 T-Mobile drew a distinction between the level of coverage that its own network achieves compared to that of the MCom network. T-Mobile stated that its two national networks are currently used to provide coverage on 2G to around 98% of the UK population and 3G to around 80% of the UK population. This compares with T-Mobile's estimate that the DECT guard band network cover only around 1% of the UK population (assumes targeted coverage, e.g. target demographic / corporate campus).

- 3.27 T-Mobile asserted that the costs of network rollout at a local level for a DECT guard band network are not comparable to those of the mainstream MNOs using full power 2G/3G networks, even adjusting those comparisons for relevant scale/coverage etc. T-Mobile outlined that the relevant network costs include: site costs; equipment costs; backhaul; buildings; and RAN planning.

Spectrum licence costs associated with termination

- 3.28 T-Mobile observed that MCom has invested in a licence for DECT guard band spectrum. However, T-Mobile compared the cost of its spectrum licences that it currently uses to provide coverage: for 2G networks: Administered Incentive Pricing (AIP) of £16.3m per annum and the 3G network licence cost of £4.003bn with the average cost per licence of the DECT guard band of £316,000. T-Mobile observed that this licence was acquired at relatively little cost, and does not currently attract AIP.

Administrative costs associated with termination.

- 3.29 There are no particular circumstances known to T-Mobile that suggest that an administrative cost comparable to T-Mobile's would be inappropriate in the case of MCom.

Network externality surcharge.

- 3.30 T-Mobile and the other MNOs are currently granted the inclusion of a network externality surcharge within their regulated MTR. This surcharge aims to rectify the externality that occurs because of the social benefit that arise when individuals have a mobile phone and other people are able to contact them. Ofcom has explained that the main purpose of their network externality in the UK surcharge is now not to increase the penetration of mobile phones, but rather to help subsidise mobile phones for current subscribers who are unwilling to pay enough to renew their subscription.
- 3.31 T-Mobile understands that MCom are not aiming at increasing the number of mobile subscribers in the UK, but rather are aiming to provide a "parallel" service to existing mobile subscribers of alternative national operators, using a SIM to be inserted in a subscriber's existing handset. Accordingly target customers will already have some form of subscription with a mobile network and would then alternatively use their MCom SIM in their existing handset when they are in particular location within which MCom provides coverage. If this is the case, according to T-Mobile, there would be no social benefit in the form of a network effect that occurs when MCom increase their subscription base, as these customers are already contactable through their existing providers. T-Mobile therefore does not think the inclusion of a network externality surcharge is appropriate.

Summary of the appropriate basis of assessment of MCom's mobile termination rate

- 3.32 Using the above assessment of the likely cost of termination on the MCom network, T-Mobile's assessment of MCom's reasonable MTR is 1.2 ppm. The calculation of this rate is outlined at Table 1 below (and discussed in further detail in Annex 1).

Table 1: T-Mobile's detailed termination rate assessment

Termination rate breakdown (all in ppm)

T-Mobile Guard band

Network costs	3.08	0.5
Spectrum costs	1.45	0.00011455
Network externality	0.3	0
Admin costs	0.3	0.3
	<hr/>	<hr/>
	5.13	0.80011455
	50% uplift:	1.200171825
	T-Mobile offer	<u>1.2</u>

Manner of implementation

- 3.33 T-Mobile proposed that an adjusted mobile termination rate of MCom could be implemented via a change to the listed price on the BT carrier price list (in which case it would apply to all incoming calls to the MCom network) or bilaterally between the parties only, through BT targeted transit or direct interconnection.

MCom's arguments

MCom's submissions on its cost base

- 3.34 MCom submitted that the rate offered by T-Mobile was speculative and is one which would prevent MCom from entering the mobile market in the UK. MCom also considered the timing of the submission of the dispute to be significant to MCom as it comes at a time when MCom is on the verge of effecting MNP with all of the incumbent operators and thus on the verge of launching a commercial service.
- 3.35 MCom submitted that its agreed MTR with BT was the result of rational and pragmatic cost modelling. MCom recognised that cost should be a factor in determining a reasonable MTR, but argued that cost is not the only factor to be considered. In particular MCom outlined its status as a new entrant seeking to roll out a network through the use of previously non-commercialised spectrum.
- 3.36 MCom contended that its termination rate is closely aligned to its anticipated network costs, which have been calculated on the basis of both the capital cost and site operating expense for the core network and for the deployment of the radio sites.
- 3.37 MCom did not agree with T-Mobile's assertion that T-Mobile does not have countervailing buyer power to negate MCom's alleged SMP in respect of voice termination. MCom asserted that T-Mobile has the ability to unilaterally remove MCom's numbers from its switches and continues to threaten to do so, the effect of which would be to prevent some 24% of the nation's mobile subscribers from calling MCom's numbers.
- 3.38 MCom suggested that benchmarking is inappropriate given that MCom and T-Mobile operate different technologies and are at different stages in the market positions with MCom being a new entrant and T-Mobile an established national operator.

MCom's submissions on its impact on competition

- 3.39 MCom considered that it is well placed to improve the efficiency of the market by providing a service which affords consumers, particularly those from different ethnic communities within the UK, considerable savings on the price of international calls to specific countries, without charging customers higher prices for other, traditional mobile services including national calls (see paragraphs 2.7 2.14 for a description of

its current operations). MCom claims this increased efficiency will increase competition for mobile subscriptions in the UK and potentially benefit not only MCom customers but all consumers of mobile telephone subscriptions and thus further the interests of citizens in relation to communications matters.

- 3.40 MCom submitted to us that, by rolling out a network utilising its frequency, it is leading the way in providing low power mobile services which in turn it hopes will lead to others doing likewise and thus encourage further innovation and investment in the market for mobile services in the UK.

Section 4

Ofcom's dispute resolution powers, statutory obligations and regulatory principles

- 4.1 The starting point for the resolution of any dispute is for us to consider our dispute resolution powers, statutory obligations and regulatory principles. This section sets out those obligations and principles which are then taken into account in the resolution of this dispute in section 5.
- 4.2 Sections 185 to 191 of the 2003 Act set out our dispute resolution powers. They apply to disputes relating to the provision of network access and to other disputes relating to the rights and obligations conferred or imposed by or under Part 2 of the 2003 Act. Section 186 of the 2003 Act requires us to resolve a dispute referred which meets the requirements of section 185. Our powers to impose remedies to resolve disputes are set out in section 190 of the 2003 Act.
- 4.3 Our dispute resolution powers in the 2003 Act derive from the European Common Regulatory Framework, in particular, the Framework Directive and the Access Directive.⁹ In accordance with Article 5(4) of the Access Directive, Ofcom is required to resolve disputes in relation to access and interconnection in accordance with the policy objectives of Article 8 of the Framework Directive.
- 4.4 Article 5(4) of the Access Directive is implemented through the dispute resolution procedures set out in section 185 to 191 of the 2003 Act and Article 8 of the Framework Directive has been implemented in section 4 of the 2003 Act. Under section 4(2) of the Act, we are required to act in accordance with the six Community requirements when exercising our functions under the Act in relation to disputes referred to it under section 185. The six Community requirements set out in section 4(3) – (10) give effect, amongst other things, to the requirements of Article 8 of the Framework Directive and are to be read in accordance with them.
- 4.5 In summary, the Community requirements are requirements:
- to promote competition in communications markets.
 - to ensure that Ofcom contributes to the development of the European internal market;
 - to promote the interests of all European Union citizens;
 - to act in a manner which, so far as practicable, is technology-neutral;

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): http://eur-lex.europa.eu/pri/en/oj/dat/2002/l_108/l_10820020424en00330050.pdf; Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive): http://eur-lex.europa.eu/pri/en/oj/dat/2002/l_108/l_10820020424en00070020.pdf

- to encourage, to the extent Ofcom considers it appropriate, the provision of network access and service interoperability for the purposes of securing efficiency and sustainable competition in communications markets and the maximum benefit for the customers of communications network and services providers; and
- to encourage such compliance with certain international standards as is necessary for facilitating service interoperability and securing freedom of choice for the customers of communications providers.

4.6 In the context of this dispute, the following aspects of the policy objectives of Article 8 of the Framework Directive are of particular note:

- the promotion of competition is to be achieved by, *inter alia*, ensuring that users derive maximum benefit in terms of choice, price and quality and that there is no distortion or restriction of competition; and
- the contribution to the development of the internal market is to be achieved by, *inter alia*, ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services.

4.7 Section 3 of the 2003 Act sets out our general statutory duties which must be taken into account in carrying out our dispute resolution function under Chapter 3 of Part 2 of the 2003 Act.

4.8 Section 3(1) of the 2003 Act sets out our principal duties to be taken into account in carrying out our functions:

“(a) to further the interests of citizens in relation to communications matters; and

(b) to further the interests of consumers in relevant markets, where appropriate, by promoting competition.”

4.9 The things which, by virtue of its principal obligations, we are required to secure in the carrying out of our functions include, according to section 3(2) of the 2003 Act:

“(a) the optimal use for wireless telegraphy of the electro-magnetic spectrum;

(b) the availability throughout the United Kingdom of a wide range of electronic communications services;

(c) the availability throughout the United Kingdom of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests;

(d) the maintenance of a sufficient plurality of providers of different television and radio services;

(e) the application, in the case of all television and radio services, of standards that provide adequate protection to members of the public from the inclusion of offensive and harmful material in such services; and

(f) the application, in the case of all television and radio services, of standards that provide adequate protection to members of the public and all other persons from both –

- (i) unfair treatment in programmes included in such services; and
- (ii) unwarranted infringements of privacy resulting from activities carried on for the purposes of such services.”

4.10 Section 3(3) of the 2003 Act provides that in performing our principal duties, we must have regard, in all cases, to:

“(a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and

(b) any other principles appearing to Ofcom to represent the best regulatory practice.”

4.11 Section 3(4) of the 2003 Act sets out a number of principles which we must have regard to in performing our principal duties where it appears to Ofcom that they are relevant, including the desirability of promoting competition in the relevant markets and the desirability of encouraging investment and innovation in the relevant markets.

4.12 In performing the principal duty of furthering the interests of consumers specifically, section 3(5) of the 2003 Act provides that Ofcom must have regard, in particular, to the interests of those consumers in respect of choice, price, quality of service and value for money.

4.13 Where it appears to us that any of our general duties under section 3 of the 2003 Act conflict in a particular case, we must secure that the conflict is resolved in the manner we consider best in the circumstances.¹⁰ Similarly, we must secure that any conflict between the Community requirements set out in section 4 of the 2003 Act is resolved in the manner we consider best in the circumstances.¹¹ Where it appears that a general duty under section 3 of the 2003 Act conflicts with one or more duties under section 4 of the 2003 Act, priority is given to the duties set out in section 4 of the 2003 Act.¹²

4.14 We also exercise our regulatory functions according to the following regulatory principles:¹³

- We will regulate with a clearly articulated and publicly reviewed annual plan, with stated policy objectives;
- We will intervene where there is a specific statutory duty to work towards a public policy goal which markets alone cannot achieve;
- We will operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required;

¹⁰ Section 3(7) of the 2003 Act.

¹¹ Section 4(11) of the 2003 Act.

¹² Section 3(6) of the 2003 Act.

¹³ http://www.ofcom.org.uk/consult/condocs/plan/annual_plan/regulatory_principles.pdf

- We will strive to ensure its interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome;
- We will always seek the least intrusive regulatory mechanisms to achieve its policy objectives;
- We will research markets constantly and will aim to remain at the forefront of technological understanding; and
- We will consult widely with all relevant stakeholders and assess the impact of regulatory action before imposing regulation upon a market.

Section 5

Ofcom's analysis and proposed decision in the Consultation

Introduction

- 5.1 After consideration of submissions received from the parties and evidence gathered during the dispute, Ofcom sent the Consultation to the parties to the dispute and to 9 interested parties on 13 February 2009 and published the Consultation on our website on the same date. The Consultation set out Ofcom's preliminary conclusions on resolution of the dispute together with Ofcom's analysis and reasoning in reaching its provisional conclusions.
- 5.2 For clarity, this section sets out the original analysis and reasoning underpinning Ofcom's draft determination (which also appeared at section 5 of the Consultation). Any subsequent changes to our analysis and reasoning are set out and explained in section 6.
- 5.3 Having taken account of representations from the parties and our duties as set out in the 2003 Act, we consider that the six principles of pricing and cost recovery and cost recovery established by Ofcom provide the appropriate basis for the framework to set a MTR which is reasonable as between the parties and satisfies our duties set out above. From that basis, we have also considered the extent to which any other factors may be relevant to the outcome of the dispute which would more adequately ensure our regulatory objectives. We have then considered the extent to which our proposed outcome is consistent with our statutory duties.

The six principles of pricing and cost recovery

- 5.4 The six principles of pricing and cost recovery were developed by Oftel in the context of number portability, endorsed by the Monopolies and Mergers Commission¹⁴ and have subsequently been used by Ofcom in analysing various pricing issues¹⁵, including setting charges for CPS¹⁶, the 2006 WLR charge setting exercise¹⁷ and the

¹⁴ Telephone Number Portability: A Report on a reference under s13 of the Telecommunications Act 1984 (MMC, 1995): http://www.competition-commission.org.uk/rep_pub/reports/1995/374telephone.htm#full

¹⁵ See for example: 'Determination under Section 190 of the Communications Act and Direction under Regulation 6(6) of the Telecommunications (Interconnection) regulations 1997 for resolving a dispute between Orange Personal Communications Services Ltd. ('Orange') and British Telecommunications plc ('BT') concerning the cost sharing arrangements for Customer Sited Interconnect ('CSI') links connection and rental charges', 19 November 2003:

http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_663/. See also 'Direction concerning ADSL Broadband Access Migration Services, 13 May 2004:

<http://www.ofcom.org.uk/consult/condocs/bam/statement/>; and a Determination to resolve a dispute between Tiscali, Thus and BT concerning ADSL Broadband Access Migration Services', 9 August 2004: <http://www.ofcom.org.uk/consult/condocs/bam/statement/>. Determination to resolve a dispute between Opal Telecom and British Telecommunications PLC (Openreach) about LLU bulk migration charges, 2 June 2006:

http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_889/determin/determination.pdf.

¹⁶ Final Determination on costs and charges for the provision of permanent carrier pre selection - 2 September 2002: <http://www.ofcom.org.uk/static/archive/oftel/publications/carrier/2002/pcps0902.htm>

resolution of a dispute between BT and Telewest about geographic call termination reciprocity agreement¹⁸.

5.5 The six principles of pricing and cost recovery are:

- i) *Cost causation*: costs should be recovered from those whose actions cause the costs to be incurred;
- ii) *Cost minimisation*: the mechanism for cost recovery should ensure that there are strong incentives to minimise costs;
- iii) *Effective competition*: the mechanism for cost recovery should not undermine or weaken the pressures for effective competition;
- iv) *Reciprocity*: where services are provided reciprocally, charges should also be reciprocal; and
- v) *Distribution of benefits*: costs should be recovered from the beneficiaries especially where there are externalities;
- vi) *Practicability*: the mechanism for cost recovery needs to be practicable and relatively easy to implement.

5.6 The application of any one of these principles to the relevant circumstances can sometimes point in a different direction to other principles. But the set of principles provides a framework to identify such trade-offs and to facilitate the use of judgement to strike an appropriate balance in reaching conclusions.

Other factors to be considered

5.7 We have also given consideration to the general guidance provided by the CAT in the TRD Judgment to determine a rate which is reasonable between the parties, in taking into account our statutory duties. We have therefore considered the following in reaching our provisional view:

- i) an analysis of each side's argument for a particular rate;
- ii) an assessment of costs; and
- iii) the relevance of any benchmarks.

5.8 Our approach, as set out below, provides an analysis of the arguments of MCom and T-Mobile for an MTR of 7.2ppm and 1.2ppm respectively. We also conducted an assessment of the relevant costs and considered whether there are any relevant benchmarks which apply in this case.

Assessment of Costs

¹⁷ *Wholesale Line Rental: Reviewing and setting charge ceilings for WLR services*, <http://www.ofcom.org.uk/consult/condocs/wlrcharge/statement/statement.pdf>

¹⁸ Final determination published on 16 June 2006: http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_890/determination.pdf

- 5.9 In assessing cost in this case, we have conducted an assessment of MCom's costs and of the likely efficient level of termination costs for a service provider with limited geographical network such as MCom's (see Annex 1).
- 5.10 The first part of this analysis took MCom's business plan as a starting point. This sets out MCom's projected operating and capital expenditure. However, to estimate MCom's termination costs over the period of the business plan, we altered some of the calculations MCom used in its estimation to more accurately reflect how Ofcom believes the cost components should be allocated to termination (see Annex 1).
- 5.11 In MCom's business plan, capital expenditure is depreciated on a straight line basis. This has the effect of making unit costs look relatively high in the early years of operation when volumes are low. As a consequence, using the accounting-based approach of straight-line depreciation, the resulting termination cost estimates ranged from 6.8ppm for year one to 2.9ppm for year five (both in 2008 prices).
- 5.12 In assessing the costs of termination for the regulated charges of the 5 incumbent MNOs, Ofcom used economic depreciation¹⁹, which provides a more stable termination cost per call minute over the lifetime of a network. This technique is difficult to apply to MCom's business plan, which covers a shorter period of time than the lifetime of the network. Therefore, for simplicity, to provide a rough proxy for the unit cost implied by MCom's business plan under the economic depreciation methodology, we derived the constant ppm rate over the five-year period of MCom's business plan (which, given the forecast volumes, is projected to recover the same amount of cost over the 5 years as the straight-line depreciation figures). This yields a cost figure of 3.4ppm. This is, however, sensitive to the assumptions underlying MCom's business plan. For example, if the volume forecasts used were optimistic (or pessimistic), actual unit costs could be significantly higher (or lower).
- 5.13 For a number of reasons, the cost figures based on MCom's business plan might not accurately represent the efficient cost of termination. First, MCom's business plan represents its view of projected expenditure before it has launched commercial services. Inevitably, such projections are subject to significant margin for error. Second, we cannot infer from this analysis whether there is a lower cost way of terminating calls on a small local network such as MCom's. Third, a full-blown economic depreciation calculation would also take account of years beyond the 5 years of MCom's business plan, in which its volumes and asset utilisation may be significantly higher (the "volume effect"). This would tend to reduce the unit cost by deferring cost recovery from years of lower utilisation to future years of higher utilisation. However, a full-blown economic depreciation calculation would also take into account expected reductions over time in modern equivalent asset prices and operating costs, which would tend to increase the unit cost in earlier years by bringing forward cost recovery (the "MEA effect"). These two effects are likely to operate in different directions and the net effect is uncertain. But, since MCom's business plan covers only the initial 5 years of its operation, it is possible that the overstatement caused by the volume effect might be more significant than the MEA effect.

¹⁹ The timing of cost recovery under economic depreciation generally varies from that under accounting depreciation: typically, accounting methods take the actual price paid for equipment (or its replacement cost) and divides this by the expected equipment life to reach a depreciation charge for the year. Economic depreciation seeks to smooth the path of an assets cost recovery over time by linking it to the use or extraction of value from that asset.

- 5.14 In the second part of our cost analysis we considered the cost evidence provided by T-Mobile. T-Mobile based its calculation of the cost of termination on MCom's network on a comparison with the components of its own termination rate, arriving at an estimate of 1.2ppm. Our evaluation of this methodology is outlined in Annex 1.
- 5.15 Based on our cost analysis, we concluded that it is likely that T-Mobile's estimate significantly underestimates the network component of MCom's termination costs. Since a small localised service such as MCom's will be unable to achieve the economies of scale or scope of a national operator, the efficient non-network costs for such a service may also be higher than that estimated by T-Mobile.
- 5.16 For the third stage of our cost analysis, we used the model of mobile termination costs which Ofcom has developed to set charge controls for the five incumbent MNOs (the MCT cost model). Our analysis involved disaggregation of Ofcom's MCT cost model by different types of geographical area, such as urban, suburban and rural ("geotypes"). This showed us the variation in the modeled costs of 2G termination, as between different geotypes, compared to the national average cost used in the derivation of the charge caps on the 5 incumbent MNOs. The purpose of this analysis was to inform our assessment of the efficient cost of call termination in urban areas, such as those in which MCom currently proposes to operate.
- 5.17 The analysis has a number of limitations in estimating the efficient costs of an operator such as MCom. The MCT cost model estimates the network costs of termination for an efficient MNO, and thus assumes access to identical technology as well as the economies of scale and scope obtained by MNOs. It is not clear to what extent these parameters or the general cost allocation assumptions, such as the mix between incoming and outgoing calls as well as the mix between data and voice calls which were designed to approximate the use of MNO's networks, apply to MCom's service. Additionally, the efficient non-network termination costs for a localised service may not be equal to those for a national service.
- 5.18 There are possible reasons why the result of this analysis, 2.9ppm,²⁰ could under- or overstate MCom's efficient termination cost. For example, the differences between the technology used by MCom and that used by the incumbent MNOs could give MCom a cost advantage or disadvantage. However, we consider it more likely that 2.9ppm provides a lower bound estimate of MCom's efficient termination cost. This is because 2.9ppm is an estimate of the cost of termination in urban areas specifically, given the efficient operation of an established national operator. Thus, the economies of scale and scope which national operators are able to achieve are implicit in this estimation, and it does not include the likely higher costs for start-up or small operators.
- 5.19 Each of the three sources of cost evidence considered in our analysis – MCom's business plan, T-Mobile's cost estimates, and the MCT cost model – has significant limitations in providing a robust cost estimate. Notwithstanding these limitations, on the basis of our cost analysis, we consider that the best evidence available suggests that the efficient cost of termination on MCom's service is between 2.9ppm and 3.4ppm. We recognise, however, that there is the potential for a significant margin for error.

²⁰ This figure is made up of the MCT estimate of the efficient network unit costs of termination within urban areas of the UK, 2.4ppm and the non-network cost allowance of 0.3ppm (both in 2006/7 prices), and the result has been inflated to 2008 prices (see Annex 1).

Benchmarks

5.20 As regards benchmarking, at paragraph 186 of the TRD Judgment the CAT stated that:

“Benchmarking is a useful tool and Ofcom should consider the value of comparisons put forward by the parties and what they show about the reasonableness of the charges or other terms and conditions being proposed.”²¹

5.21 The parties have provided their submissions on the usefulness or otherwise of other termination rates to be used as a benchmark.

5.22 As described at paragraphs 3.20 to 3.22, T-Mobile argued that benchmarking is inappropriate when comparing two companies that utilise different technologies and are at different stages of development. T-Mobile further contended that if benchmarking were appropriate, MCom’s MTR ought to be set below the regulated rates given its localised service and lower cost network assets.

5.23 MCom submitted that benchmarking would be inappropriate given that MCom and T-Mobile operate different technologies and are at completely different stages in their market positions (MCom being a new entrant, whereas T-Mobile is an established operator with substantial market share).

5.24 In order to resolve this dispute, we have nevertheless considered the relevance of benchmarks for the disputed termination charges. There are many different benchmarks for a MTR, both on a national basis and international basis.

i) National Benchmarks

5.25 We have considered whether a fixed termination rate would be a relevant benchmark. In this regard, we note that the MCom service offers mobility and uses a mobile technology which means its traffic-sensitive costs are likely to be higher than those of a fixed network. Whilst some of MCom’s services may be seen, and intended, as alternatives to fixed line services, this is also true of some services offered by the established MNOs. As a result, we do not consider a fixed termination rate to be a benchmark that would apply in this case due to the fundamental differences in the nature of the services offered.

5.26 We then considered the extent to which regulated MTRs may be a relevant benchmark in this case. On 27 March 2007, Ofcom published the Calls to Mobile Statement concluding a market review into mobile call termination charges which found that each of the 5 incumbent MNOs, namely Vodafone, Orange, T-Mobile, O2 and Hutchison 3G, had significant market power in the market for wholesale mobile voice call termination provided to other Communications Providers by the relevant MNO in the United Kingdom.

5.27 Within the Calls to Mobile Statement, we used a cost model to derive the cost to a network operator of providing voice termination services, using the cost standard of Long Run Incremental Cost plus mark-up to contribute to common costs recovery (“LRIC+”). We continue to hold the view that a LRIC+ methodology constitutes the most appropriate means of determining the efficient levels for charges on mobile voice call termination services. The primary objective of the model is to assess the

²¹ Ibid.

network costs to a single network operator of delivering voice services over 2G and/or 3G mobile networks.

- 5.28 We therefore imposed SMP conditions on each of the 5 incumbent MNOs, including charge controls on the supply of MCT by each of the MNOs as from 1 April 2007. Those charge controls provided for an annual target average charge (TAC) of 9.1 ppm for Hutchison 3G, 5.7 ppm for O2 and Vodafone, and 6.2 ppm for Orange and T-Mobile during the first year of operation of the controls. Annual TACs for subsequent years were to be reduced according to a glide path such that, by 2010/11, they would be equal to 5.9 ppm for Hutchison 3G and 5.1 ppm for each of O2, Vodafone, Orange and T-Mobile.²²
- 5.29 Ofcom concluded in the Calls to Mobile Statement that the 2G/3G MNOs should be required to reduce their charges in subsequent years in line with a smooth glide path of four equal percentage reductions, the steps to be calculated with reference to the applicable TAC for the final year of the charge control (2010/11), taking the headline level of the charge controls currently in force.
- 5.30 The Calls to Mobile Statement concluded that the appropriate MTR for H3G should be a substantial charge reduction in 2007/8 followed in subsequent years by a smooth 'glide path', such that charges in 2010/11 align with the cost-based target for that year. The conclusions of the Mobile Termination Statement for the 5 incumbent MNOs are shown in Figure 1.

Figure 1: Table of charge control conclusions following adjustment for notice period in the Mobile Termination Statement

	Average regulated charges in 2006/7	First year (2007/8) target charge (nominal)	Second year (2008/9) percentage reduction (i.e. X in RPI-X)	Third and fourth year (2009/10 and 2010/11) percentage reduction (i.e. X in RPI-X)	Final charge in 2010/11 (real 06/07 prices)
Vodafone and O2	5.6	5.7	3.2%	2.5%	5.1
T-Mobile and Orange	6.3	6.2	5.8%	5.3%	5.1
H3G	Not regulated	9.1	15.1%	11.8%	5.9

Source: *The Mobile Termination Statement 2007, Figure 9.6*

- 5.31 MCom's service is, within its area of coverage, a fully mobile service allowing its customers to make and receive calls while on the move in the same way as do the services offered by the five incumbent MNOs. In addition, the underlying technology of the MCom service is a cellular wireless technology like that of the other mobile services. MCom has obtained a spectrum licence, has been provided with a mobile number range, has undergone a mobile number portability process with the other

²² These charges for 2010/1 are expressed in real terms, 2006/7 prices.

MNOs and is regulated as a mobile network operator. In addition, the service is marketed to the consumer as a mobile service and calls are made and received on a mobile handset. We therefore consider that the regulated rates set by Ofcom for mobile termination are relevant benchmarks to be taken into account in deciding this dispute.

- 5.32 Given that both of the parties to this dispute supply a mobile termination service, we consider that the regulated rates set by Ofcom are relevant benchmarks to be taken into account in deciding this dispute.
- 5.33 We noted in this regard that the Calls to Mobile Statement is currently the subject of appeal proceedings before the CAT brought by Hutchison 3G and BT in May 2007.²³ We recognise therefore that caution must be applied when testing the regulated rates since, in the event that the current appeal proceedings are successful, the target average charges (TACs) may differ from those which Ofcom has determined.

The Competition Commission's price control determination

- 5.34 As part of the appeal proceedings concerning the Calls to Mobile Statement, the CAT referred the price control matters related to the appeals to the Competition Commission (CC) in accordance with section 193 of the 2003 Act.
- 5.35 On 22 January 2009, the CC issued the CC Determination in which it set out its own determination of the price controls for the four years from 1 April 2007²⁴. The CC determined that the TACs in 2010/11 should be 4.0ppm for O2, Orange, T-Mobile and Vodafone, and 4.4ppm for H3G in 2006/07 prices and for the preceding years as shown in Table 2.

Table 2: CC price determination revised charges (ppm in real terms, 2006/7 prices)

	2007/08	2008/09	2009/10	2010/11
Vodafone & O2 (900/1800 MHz operators)	5.2	4.7	4.4	4.0
T-Mobile & Orange (1800-MHz-only operators)	5.7	5.0	4.5	4.0
H3G (3G only operator)	8.9	6.8	5.5	4.4

Source: Table 16.1 of the CC's Determination.

- 5.36 We recognised that the CC Determination may be the subject of review by the CAT on judicial review grounds and will not be finalised until the end of the litigation process. However, in weighing up potential benchmarks, we considered that, for the purposes of determining the appropriate benchmark rate, the CC Determination represents the best estimate of the level of a regulated rate. Ofcom is required by statute to resolve the dispute within four months, a period during which it appears unlikely that the process is likely to be resolved definitively and we therefore consider

²³ Case 1083/3/3/07 and Case 1085/3/3/07.

²⁴ http://www.catribunal.org.uk/files/CC_Determination_1083_H3G_1085_BT_220109.pdf.

it appropriate in considering whether regulated rates are appropriate benchmarks to use the outcome of the CC Determination in resolving this dispute.

- 5.37 In light of our conclusion that a regulated MTR could be a relevant benchmark in this case, we have therefore considered which rate of the three regulated TACs – the 900/1800 MHz operators; 1800-MHz-only operators; or, a 3G only operator – is the most appropriate benchmark.
- 5.38 In its determination the CC allowed for differences for a later entrant, H3G, in terms of both costs (reflected in the difference in TACs in 2010/11) and a separate glide path. Whilst MCom is clearly a more recent entrant still, we believe that the CC's reasoning is consistent with the lower of the three rates being the most relevant benchmark in this case. This is principally because the current efficient cost of termination on MCom's network is likely to be below that of all five incumbent MNOs (see Annex 1).
- 5.39 The differences between the three glide paths reflected primarily differences in the level of charges at the start of the control and the desire to allow "sufficient time for operators and customers to adjust to new levels and structures of mobile charges and take these changes into account in their business plans and planned capital expenditure"²⁵. MCom has not yet commenced commercial operations, and so a charge at the level of the lower of the three rates does not create a risk of undue disruption.
- 5.40 Therefore, we believe that the most relevant benchmark is the lowest of the regulated rates, i.e. the TAC for the 900/1800 MHz operators (applying to Vodafone and O2). We assess whether this rate is in fact an appropriate rate to be applied in this case in the light of Ofcom's six principles of pricing and cost recovery, in paragraphs 5.45 onwards. Given the date when we expect to resolve this dispute, the most relevant TAC is that for 2009/10.
- 5.41 We have not identified any other national benchmarks which might apply in this case.
- ii) International Benchmarks
- 5.42 We considered whether any international benchmarks may be of relevance, in particular MTRs applied in other jurisdictions.
- 5.43 As discussed above, the parties submitted to us that no benchmarks were appropriate to the determination of this matter.
- 5.44 We conducted some research as to whether there are any relevant MNO operators in other jurisdictions utilising guard band spectrum in the same manner as MCom. As far as we are aware, there were no immediate comparisons available.
- 5.45 We considered whether there were any operators which utilised low power spectrum other than guard band spectrum. Whilst we were aware of isolated instances²⁶, it was not clear that their applications were of a similar nature such that their termination rates were a useful comparison of the MCom service.

²⁵ Op. cit paragraph 13.4b

²⁶ See, for example: <http://www.springmobil.se/english/default.asp>;

- 5.46 We have maintained awareness of other MTR regimes and MTRs in other jurisdictions through our work on the mobile sector assessment project.²⁷ There appear no immediate international comparisons which might be appropriate for this dispute. In the absence of a comparable mobile network in a country with characteristics similar to the UK, we do not consider that there are any relevant international benchmarks.
- 5.47 In light of the above, we have provisionally concluded that the most relevant benchmark in the present case is the regulated TAC for 2009/10 in the CC's determination which applies to Vodafone & O2. We have therefore considered this as one of the options for resolving the dispute.

Application of the six principles of pricing and cost recovery to this dispute

- 5.48 The following section applies the six principles of pricing and cost recovery to the four options that we have considered for setting MCom's termination rate in this dispute:
1. the current MCom termination rate as agreed with BT, equal to 7.2ppm;
 2. T-Mobile's estimation of MCom's termination cost, equal to 1.2ppm;
 3. our best available estimate of MCom's efficient termination cost, between 2.9ppm – 3.4ppm²⁸; and
 4. the benchmark of the CC's determination for 900/1800MHz operators in 2009/10 of 4.4ppm (2006/07 prices).
- 5.49 Options 1 and 2 are based on the parties' arguments which were discussed in section 3. In recognition of the limited coverage of MCom's service in comparison to that of T-Mobile, we considered whether the MCom termination charge should be set lower than that of the 5 incumbent MNO's, in order to reflect the fact that calls to MCom's network will only connect when their call recipients are in the relevant area. It could be argued that the appropriate level at which to set such a rate could be usefully informed by our best estimate of costs. Therefore, option 3 is based on consideration of MCom's termination costs. Option 4 is based on our view of the most appropriate benchmark. We will assess all four options against the six principles of pricing and cost recovery.

Cost causation

- 5.50 The cost causation principle states that costs should be recovered from those whose actions cause them to be incurred at the margin. Since it is generally efficient for charges to reflect costs, it is usual to give most weight to this principle unless there are good reasons for not doing so in a particular case. Additionally, the TRD Judgment stated that Ofcom should consider whether an analysis, however broad brush, of the relationship of prices to costs is necessary.²⁹
- 5.51 In Ofcom's "Determination to resolve a dispute between BT and Telewest about a geographic call termination reciprocity agreement" (June 2006), Ofcom stated:

²⁷ See further at: Mobile citizens, mobile consumers Adapting regulation for a mobile, wireless world, 28 August 2008: <http://www.ofcom.org.uk/consult/condocs/msa08/msa.pdf>

²⁸ As set out in paragraph 5.19 above.

²⁹ See number 2 at paragraph 184.

“In this context, BT, as the originating operator (calling party), is causing the costs of termination on Telewest’s network to be incurred, and thus should be the party responsible for bearing the costs”

- 5.52 Charges for termination which reflect the efficient level of costs incurred when a call is terminated on MCom’s network are likely to be consistent with this view of cost causation.
- 5.53 As set out at paragraph 5.19 above, we consider that the current termination rate, 7.2ppm, is likely to exceed MCom’s efficient costs, whereas the estimate put forward by T-Mobile, 1.2ppm, is likely to understate them. A rate based solely on our estimate of costs, most consistent with the cost causation criterion, would lie between 2.9ppm and 3.4ppm (in 2008 prices). However, as noted above, the lower and upper bounds of the range of cost estimates are likely to be sensitive to the assumptions of the MCT cost model and MCom’s business plan respectively and so should not be thought of as robust or precise.
- 5.54 Although the fourth option, benchmarking to a regulated termination rate of 4.4ppm (2006/07 prices), is also likely to exceed MCom’s efficient termination costs, it is likely to be closer than the current rate or the rate suggested by T-Mobile. This rate also bears a “broad brush” relationship to costs as it is itself based on the output of the MCT cost model. However, it reflects the estimated costs of an efficient operator with national coverage, rather than those of a smaller local operator such as MCom.
- 5.55 Due to the time pressures of the dispute resolution process and the unique nature of MCom’s service, we have not been able to conduct a detailed or robust analysis of MCom’s costs, nor of the likely efficient total cost of mobile termination for a localised service such as MCom’s. Furthermore, consistent we need to balance cost considerations with other factors when resolving a termination rate dispute consistent with our duties. Therefore, we have considered it prudent not to rely on this assessment of cost in isolation, and we have therefore considered a number of other relevant factors as described below in reaching our draft determination.

Cost minimisation

- 5.56 In the context of this dispute, the principle of cost minimisation implies that the termination rate set should facilitate productive efficiency by providing an incentive for costs to be minimised.
- 5.57 We believe that, because we are unable to ascertain the exact level of MCom’s costs, there is a risk of a trade-off between static and dynamic efficiency in determining a solution to this dispute.³⁰ Setting a rate higher than efficient costs could risk encouraging entry by operators whose costs are higher than those of (efficient) existing operators (which would reduce static efficiency). On the other hand, setting a rate that is lower than efficient costs could risk discouraging entry by operators whose costs are efficient (which would reduce dynamic efficiency). In addition, if there are entry barriers, entry may not occur even if charges are above efficient costs.

³⁰ Static efficiency refers to maximising output with a given amount of resources, while dynamic efficiency allows consideration of the potential for increasing resources over the long term through innovation and investment. A competitive market is more likely to encourage investment and innovation, thus there is a relationship between increases in competitive pressure and increases in dynamic efficiency.

- 5.58 Furthermore, if a new entrant (or established firm) is able to charge the industry regulated rate regardless of the technology and business strategy it chooses to adopt, it will benefit if it is able to lower its costs below those of its competitors. This allows participants in regulated markets to retain an incentive to carry out the investment, innovation and market research, and adopt new technology, that could result in long-term industry cost reductions and product improvements. The importance of retaining these incentives was highlighted in the TRD Judgment:

*"It is important therefore not to allow benchmarking against actual or proposed price controls to be used in a way which deprives the undertakings of the benefits of cost reductions and other efficiency savings which such controls were intended to encourage."*³¹

- 5.59 Therefore, it could be argued that setting a new entrant's (or existing firm's) charges equal to their costs, even when their costs are lower than that of other operators, might deter investment, innovation and creativity in serving consumers. Consequently, even if we were able to remove the risk that our analysis had underestimated MCom's termination costs, it might be undesirable from a cost minimisation perspective to set MCom's charges equal to its costs. We therefore do not consider that, even if our modelling of MCom's costs could be considered sufficiently robust, setting the MTR at a rate equal to this figure would ensure cost minimisation in the longer term.
- 5.60 As outlined earlier, we believe that MCom's current termination rate, 7.2ppm, is significantly above the efficient cost of termination on MCom's network. Therefore, this rate might not provide a sufficient price signal to ensure that new entrants only enter the market if they are able to provide termination services at equal or lower cost than existing firms.
- 5.61 Since T-Mobile's cost estimate, 1.2ppm, is likely to be below the efficient cost of termination on MCom's network, this rate would not provide a sufficient price signal to encourage firms who are able to provide termination services at lower cost than existing firms to enter the market. Additionally, this rate would not allow firms such as MCom to benefit from cost reductions it might be able to achieve relative to its competitors due to adopting a different technology or business strategy.
- 5.62 The fourth option set out above, is to set MCom's termination charge equal to the CC Determination for 900/1800MHz operators in 2009/10, 4.4ppm (2006/07 prices). This would provide MCom with an incentive to minimise termination costs and allow it to retain any relative benefit resulting from its choice to adopt cheaper technology and to differentiate its service.

Effective competition

- 5.63 Consistency with this principle requires that the mobile termination rate set does not undermine the pressure for effective competition. Our analysis addressed a number of competition considerations.

New entry

- 5.64 MCom's local mobile network uses DECT guard band spectrum which was awarded to MCom, alongside 11 others, following Ofcom's auction in May 2006. In its submission, MCom states that:

³¹ See number 4 at paragraph 186.

its ‘...status as a new entrant seeking to roll out a network through the use of previously non-commercialised spectrum is of particular relevance to the UK mobile market’.

5.65 Our attitude to competitive entry through the auction of DECT guard band spectrum reflects the principles of Ofcom’s “Awards Programme Approach”³². Our general approach is to allow the market to determine how spectrum is used, taking account of the benefits of competition and the development of innovative services.

5.66 In general, we consider that there is scope for benefits to consumers from further competition in mobile services (recognising the extent of competition that already exists). The entry of MCom is one possible example of such further competition.

5.67 In its submission, MCom argues that:

‘the mobile market remains inefficient with regard to both costs incurred by consumers in using a mobile subscription for the purposes of making international calls and for the services offered by the existing mobile network operators to the different ethnic communities within the UK.’

5.68 We have not investigated this claim in detail, nor reached a conclusion on it. But, if it is the case, the introduction of MCom’s service could increase the services offered to, and decrease the prices paid by, its target customers and, through increasing competition, could impact the prices paid for international calls from pre-paid phones more generally.

5.69 In the section on cost minimisation, we discussed how the level of the determined rate will affect the prospects for entry. In general, a rate sufficient to allow efficient entry will also promote effective competition. However, as rates are raised above this level, the risk of also allowing inefficient entry increases. In this section we consider whether this could result in a distortion to competition.

Potential distortion of competition through non- cost reflective charges

5.70 T-Mobile argues that the current MCom MTR does not reflect the efficient costs of termination of calls for a DECT guard band network operator and thus would potentially distort competition in the retail market.

5.71 In carrying out our analysis, we have considered the potential competition effects of setting a termination rate for MCom that is significantly different to its efficient costs. In retail mobile markets, operators typically compete by offering relatively low subscription prices which may be financed by termination rates which are above cost.³³ If an operator is able to charge a termination rate significantly higher than its costs of termination and in doing so earns larger profits on termination than its competitors, it could profitably undercut them on prices in the retail market. This could distort competition, to the extent that the ability to offer lower retail prices reflects a termination charge above cost rather than competition on the merits (such as more efficient costs for providing a similar service). Therefore we are mindful of the fact that, in general, setting a termination rate as close as possible to the efficient costs of termination would minimise the potential for distortion of competition.

³² <http://www.ofcom.org.uk/radiocomms/spectrumawards/awardsapproach/>

³³ The interaction between the two sides of the market for mobile calls will generally lead any excess termination profits to be competed away in the retail mobile market through, for example, lowering prices to attract more mobile customers. This phenomenon is referred to as the waterbed effect.

- 5.72 In the context of this dispute, we considered two main sources of competitive distortions that could arise if MCom's termination rate were set significantly above its efficient costs. First, we considered the possibility of distortion in the retail mobile market between MCom and incumbent MNOs (and other mobile service competitors). Second, we considered whether there could be a distortion to competition between MCom and international calling card operators.

Competition with MNOs

- 5.73 We considered whether setting MCom's termination rate above its efficient costs would give rise to any distortions of competition in the retail mobile market between MCom and other mobile service providers through the potential for "cherry picking". In general, cherry picking occurs when new entrant operators choose to compete against incumbents, who are constrained to offer uniform national tariffs, only in (generally urban) areas which can be served at relatively low cost. By cherry-picking these areas, they can undercut incumbents' national tariffs, which are likely to reflect national average costs, without necessarily being more efficient.
- 5.74 In this case, the possibility of "cherry picking" arises because T-Mobile's and other MNOs' average termination cost are higher than MCom's due to the fact that their national networks includes rural areas, which are more costly to serve than the urban area covered by MCom (see Annex 1). As T-Mobile receives a uniform termination rate in all areas, this is set on the basis of national average cost. So in low cost areas the revenue from termination exceeds the cost incurred in those areas, but this is offset by the shortfall of revenue from termination compared to the cost in high cost areas. The potential concern is that, if MCom were to receive the same national average rate, it would be able to "cherry pick" by operating only in low cost areas and using the resulting profits earned on termination to finance lower retail subscription prices or outgoing call charges. But "cherry picking" is only a concern in circumstances where it could have anti-competitive results – in other words, if the ability of one firm to "cherry pick" could lead to a significant distortion of competition such as because of limits on the ability of incumbents to respond and compete effectively with entrants.
- 5.75 T-Mobile and other incumbent MNOs are free to offer geographically restricted call services and to price outgoing calls as they choose. It is technically possible for an MNO to charge different, lower call prices for calls within a limited geographic area. In addition, the marginal profit which an incumbent MNO would earn from terminating an additional call made within the MCom coverage area is equal to the difference between its own regulated termination rate and its own, lower than average costs of termination in that area. Therefore, should they choose to, the MNOs have the ability to put themselves in a similar position to MCom, by offering a geographically restricted service. Even short of matching MCom's service, the incumbent MNOs have the ability to respond to competition from MCom, such as through using price discrimination – for example, offering packages with low international call rates to specific countries – or through targeting their marketing activities, to attract a similar customer base as MCom intends to serve.
- 5.76 The ability of the MNOs to match or otherwise respond to MCom's service, if they and MCom receive a similar termination rate, substantially reduces the potential concern about cherry picking.³⁴ In addition, incumbent MNOs may have advantages

³⁴ The ability to match is an important feature that distinguishes the circumstances in this dispute from some other considerations of the effects on competition of above-cost termination charges, such as in relation to H3G.

over new entrants, including large installed customer bases relative to MCom. Overall, we consider that the risk of an anti-competitive distortion of competition through cherry picking in such circumstances would be low.

- 5.77 Indeed, this reasoning suggests that MCom could be disadvantaged relative to T-Mobile and the other MNOs in serving its targeted customer base, were we to set MCom's termination rate according to option 3, i.e. our best estimate of MCom's efficient termination cost, which is below the MTRs of the incumbent MNOs. This is because, if the incumbent MNOs matched or otherwise responded to MCom's service in (lower cost) urban areas, they would be receiving a higher termination rate than MCom. It might enable them to profitably offer retail prices that MCom would be unable to match, not because of inferior performance but because of the disparity in termination rates. Overall, we consider that the risk of a distortion of competition against MCom under option 3 is at least as high as the risk of a distortion of competition in favour of MCom and against the incumbent MNOs under option 4.
- 5.78 Additionally, we consider it highly likely that, as a new entrant in an effectively competitive market, MCom will pass on any cost savings it is able to achieve to its customers in the form of lower prices. Therefore, in this case, we consider that the potential for customer benefit outweighs the risk of detriment to competition from "cherry picking".

Competition with calling card operators

- 5.79 As MCom intends to provide low rate international calls and low rate local calls and texts from a geographically restricted service, it will primarily target existing users of international calling cards, such as the ethnic minority communities residing in the areas where MCom is rolling out its network. Therefore, in our assessment against the 'effective competition' principle, we also considered possible competitive concerns between MCom's proposed service and calling card operators.
- 5.80 If MCom receives a termination rate in excess of its efficient costs, it could use such termination profits to offer lower prices in competition with calling card operators. Calling card operators would not be in a position to match this use of termination profits. However, they are likely to benefit from lower traffic-sensitive costs on fixed networks compared to mobile networks. Furthermore, a potential advantage of mobile services – the attraction to consumers of mobility – is limited in the case of MCom, given its current operations. Overall, the extent of the risk of anti-competitive distortion against calling card operators is unproven.
- 5.81 Furthermore, because their barriers to entry are low, we expect that, even if some calling card operators left the market, we expect any attempt by MCom to raise prices would provoke entry or re-entry by calling card operators. That is, to the extent that calling cards are substitutes for MCom's service, they will act as a constraint on MCom's retail prices. On balance, whilst we recognise that MCom might compete directly with calling card operators, we consider the risk of consumer detriment of any distortion of competition caused by allowing MCom a termination rate above its efficient costs to be relatively low.

Summary of competitive effects of the four options

- 5.82 Effective competition requires that the rate should be sufficient to allow efficient entry but should not lead to a distortion of competition. The current rate of 7.2ppm is both likely to be above MCom's efficient costs and the future regulated MTRs of the

incumbent MNOs. As such it would likely allow inefficient as well as efficient entry and runs a risk of some distortion of competition in mobile markets.

- 5.83 We are also concerned about the distortion of competition that could result if we were to set MCom's termination rate at 1.2ppm, which is likely to be a significant underestimation of its efficient costs. This outcome could cause detriment to consumers by forcing MCom to charge higher retail prices than it otherwise would have or deter MCom's entry into the market altogether. Setting MCom's termination rate at the rate suggested by T-Mobile would not therefore be consistent with the promotion of effective competition.
- 5.84 Option 3 - our best estimate of MCom's efficient costs - gives rise to a risk of a distortion of competition against MCom. Option 4 - the benchmark of the CC Determination for 900/1800MHz operators in 2009/10 – runs a risk of a distortion of competition in favour of MCom and against the incumbent MNOs (and other mobile service providers) and/or against calling card operators. However, we consider that risk to be low, given respectively the ability of the MNOs to match or otherwise respond to MCom's service and calling card operators' likely costs and ability to re-enter. On balance, we consider that option 4 gives rise to the lowest risk of a distortion of competition.

Reciprocity

- 5.85 The principle of reciprocity requires that where services are provided reciprocally, charges should also be reciprocal. For the reasons set out by Ofcom in the 2006 Telewest decision, when charges are based on each operators own costs rather than on reciprocity, higher cost operators are effectively subsidised by lower cost providers. This is because the costs of the inefficient network would be passed to the subscribers of the lower cost network when they call subscribers of the former.
- 5.86 While both parties to this dispute supply a mobile service, there is a marked difference in geographic reach between the two networks. If MCom's service is considered to be materially different from T-Mobile's service, it could be argued that the relevance of the reciprocity principle might be limited, relative to the other principles, in solving this dispute.
- 5.87 However, we consider there to be a number of reasons why reciprocal call termination rates would be desirable in this case. First, in our discussions with MCom we were informed that its service is intended to target a customer base that has a tendency to receive most of its phone calls in the localised urban areas where they live. Should any of the MNOs serve this relatively static customer base, they will benefit from the differential between their call termination rates and the efficient costs of termination in urban areas. As noted above, were we to set MCom's termination rate at its current efficient termination cost, it would be disadvantaged relative to T-Mobile and the other MNOs in serving its targeted customer base.
- 5.88 Secondly, MCom's lower estimated efficient costs result from a certain component of its current business strategy, namely operating only in urban areas. The MNO's MTRs are set to reflect the 'average efficient operator' and are not impacted by their various commercial strategies, even if these strategies should lead to cost differentials between operators.
- 5.89 In general, it seems desirable for the termination rate to be independent of the operator's business strategy. If MCom's termination rate is based, as under option 3, on the efficient costs of running its service according to its current business strategy,

it would need to negotiate a change in terms (or enter into a dispute) as a consequence of altering its business strategy in a way that increased its efficient termination costs. For example, MCom might wish in the future to expand its network into higher cost non-urban areas or expand effective coverage by negotiating a roaming agreement. This could cause MCom to lose profits, through a lag between any change in its strategy and the change in its termination rate, potentially deterring MCom from making efficient investment decisions and/or expanding its business.

- 5.90 We are aware that, historically, there have not always been reciprocal termination charges for mobile termination. On the other hand, we stated in the Mobile Call Termination Statement³⁵ that, without fettering our discretion, in the event of imposing price controls for new entrants, we are of the view that it is desirable for new entrants' MCT charges to be aligned with those of incumbent suppliers. We further noted in the statement that we would anticipate further convergence in MNOs' mobile termination rates.

Distribution of benefits

- 5.91 If, as asserted by T-Mobile and indicated by our cost analysis, MCom's costs are lower than its current termination charges as well as T-Mobile's costs, there is a question of how the benefits from these lower costs should be distributed. In arriving at our proposed determination, we considered the likely impact of adjusting MCom's MTR in accordance with our four options on the distribution of benefits between T-Mobile, MCom and their respective customers:
- Option 4, which would provide MCom with the benchmark termination rate (4.4ppm, 2006/07 prices), will distribute all the benefits to MCom of any cost differential between its termination cost and the termination cost of its competitors, who receive the same rate.
 - Option 1, which would provide the highest termination rate for MCom of the four options (7.2ppm), will distribute all the benefits of MCom's lower termination cost to MCom and its customers. However, as this rate is above the MNO's termination rates, it will also lead to some redistribution of profits to MCom from the operators purchasing termination from MCom, which includes its competitors.
 - MCom, as a new entrant in an effectively competitive market, is likely to use higher termination profits to offer lower retail prices to its customers. Therefore, the higher termination rate options (4.4ppm (2006/07 prices) and 7.2ppm) will ultimately distribute the benefits from MCom's lower cost structure to MCom's customers.
 - Option 3, which would provide MCom with a termination rate equal to our best estimate of its efficient termination cost, would distribute all of the benefits of MCom's lower cost structure to T-Mobile and the other operators purchasing termination from MCom (assuming our cost estimate was correct).
 - Option 2, which would provide MCom with the lowest termination rate of the four options (1.2ppm), would also distribute all of the benefits of MCom's lower cost structure to T-Mobile and the other operators purchasing termination. However, as this rate is below MCom's termination cost, it will also lead to some redistribution of profits from MCom to such operators, which include its competitors.

³⁵ http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf, at page 158.

- To the extent that T-Mobile and the other operators will pass the lower termination rates they pay to MCom under options 2, 3 and 4 onto their customers, in the form of lower retail prices for calls to MCom, these options will distribute the benefits from MCom's lower cost structure to callers to MCom. It is also possible that T-Mobile and other operators would pass these benefits on to their customers in ways other than reducing the cost of calls to MCom customers. To the extent that T-Mobile and the other operators will not pass on lower termination rates into lower prices, they will benefit rather than consumers.

In summary, higher termination rates for MCom are likely to benefit MCom's customers, but may result in higher prices for callers to MCom. Using the benchmark (the rate in the CC Determination for O2 and Vodafone, i.e. option 4) would allow MCom's customers to benefit from its lower costs and would avoid callers to MCom paying more than to call other mobile networks (to the extent that originating operators reflect relative termination rates in their retail prices for calls). Lower, cost-based termination rates (option 3) could alter this distribution of benefits, increasing them to callers to MCom (to the extent that originating operators reflect lower MCom termination rates in lower retail call prices) and reducing the benefits to MCom's own customers.

Practicability

5.92 Consistency with the final pricing principle requires that the termination rate determined is practicable and relatively easy to implement. In arriving at our proposed determination, we considered the practicality of implementing the four options for MCom's termination rate:

- Retaining MCom's current termination rate, 7.2ppm, would be practicable to determine and the easiest of all the options to implement as it would simply involve retaining the status quo.
- Setting MCom's termination rate to the cost estimated by T-Mobile, 1.2ppm, would be practicable to determine and reasonably simple to implement. However, it would require changes to current arrangements and some initial implementation issues, due to the indirect interconnection between T-Mobile and MCom.
- Setting MCom's termination rate to the benchmark of one of the regulated rates determined by the CC would be practicable to determine and reasonably simple to implement. However, given that the appeal process regarding the five incumbent MNOs' MTRs is currently incomplete, a possible change to this rate could add complexity to the implementation of this option. This option would also require changes to current arrangements and cause some initial implementation issues, due to the fact that there is no direct interconnection between MCom and T-Mobile.
- Mainly due to the practical difficulties in deriving a robust estimate of MCom's efficient cost, setting MCom's termination rate equal to its costs is the least practicable to determine and most difficult option to implement. Additionally, as explained above, this option is not robust to changes in MCom's strategy, as the basis for the cost calculation would fall away should MCom expand its business into non-urban markets. We consider a solution that necessitates re-determining and/or re-negotiating a termination rate every time an operator changes its business strategy to have significant practical disadvantages.

Summary of the application of Ofcom's pricing principles

5.93 The outcome of our analysis, which applied the six pricing principles to four options for setting MCom's termination rate in this dispute, is summarised below.

Option 1: The current MCom termination rate as agreed with BT, 7.2ppm

5.94 MCom's current charge, as agreed with BT, is likely to significantly exceed MCom's efficient costs (and so is not supported by the principle of cost causation). As this rate is higher than those of MCom's competitors, it entails the highest risk of inefficient entry and distortion of competition in favour of MCom (and is therefore contrary to the principles of cost minimisation, effective competition and reciprocity). However, it would be practical to implement (practicability).

5.95 This rate would result in distribution of all the benefits of MCom's lower termination cost to MCom and its customers, as well some redistribution of profits to MCom from purchaser of termination from MCom, including its competitors (distribution of benefits).

Option 2: T-Mobile's estimation of MCom's termination cost, 1.2ppm.

5.96 It is likely that T-Mobile's suggested rate significantly underestimates the network component of MCom's efficient termination costs (and so is not supported by the principle of cost causation). This rate is also lower than all MCom's competitors MTRs (contrary to the principle of reciprocity). The implementation of a rate below the efficient cost of termination on MCom's network would not provide a sufficient price signal to encourage firms who are able to provide termination services at lower cost than existing firms to enter the market (contrary to the principles of cost minimisation and effective competition).

5.97 Setting MCom's rate at such a low level would distribute all of the benefits of MCom's lower cost structure to T-Mobile and the other operators purchasing termination and could cause detriment to consumers by forcing MCom to charge higher retail prices or deterring MCom's entry into the market altogether (distribution of benefits, effective competition).

Option 3: Our best available estimate of MCom's efficient termination cost, between 2.9ppm – 3.4ppm.

5.98 This option would reflect the more limited geographical coverage of the termination service for callers to MCom (compared to the incumbent MNOs) in a lower termination charge. In theory it would send the most cost reflective price signals and is the most consistent with Ofcom's cost causation principle.

5.99 However, each of the three sources of cost evidence considered in our analysis – MCom's business plan, T-Mobile's cost estimates, and the MCT cost model – has significant limitations in providing a robust cost estimate. Therefore, the theoretical support for this option from the principle of cost causation is less strong in practice and faces significant concerns about practicability.

5.100 Furthermore, setting a new entrant's (or existing firm's) charges equal to their costs, even when their costs are lower than that of other operators, might deter investment, innovation and creativity in serving consumers (which would be counter to cost minimisation).

- 5.101 Setting MCom's termination rate equal to cost would (assuming our cost estimate to be correct) distribute all of the benefits of MCom's lower cost structure to T-Mobile and other operators, and callers to MCom to the extent that such operators passed on lower termination rates into lower retail prices.
- 5.102 As there is significant room for error in our cost analysis and this potential for error could be in either direction, setting MCom's termination rate equal to our estimate of costs has uncertain consequences for competition (effective competition). Even if we could be sure that our estimate of MCom's efficient termination costs is accurate, setting MCom's MTR lower than those of all the incumbent MNOs would allow such competitors an advantage when serving the same customer base, for which they would incur similar termination costs as MCom but receive a higher termination charge (raising concerns about effective competition and reciprocity). Additionally, this option is not robust to changes in MCom's business strategy (practicability, reciprocity, effective competition).

Option 4: The 2009/10 Vodafone and O2 MTR as determined by the CC, 4.4ppm (2006/07 prices)

- 5.103 Although this rate seems to be closer to MCom's efficient termination costs than the current rate agreed with BT or the rate suggested by T-Mobile, it is likely to exceed these costs (cost causation).
- 5.104 This option would distribute all the benefits of MCom's lower termination cost to MCom and its customers (distribution of benefits). As a result it would reward MCom by allowing it to retain any relative benefit resulting from its lower costs (cost minimisation).
- 5.105 A lower termination rate than under this option might allow callers to MCom to benefit as well from MCom's lower costs, to the extent that originating operators reflected a lower termination rate in a lower retail price for calls to MCom. But, under this option, the termination rate would not cause callers to MCom to pay more than for calls to other mobile networks.
- 5.106 A termination rate above efficient costs could create a potential risk of distorting competition in favour of MCom. However, as discussed, incumbent MNOs have the ability to match or otherwise respond to MCom's service and calling card operators might have lower network costs and should be able to re-enter. Therefore, we consider the risk of a distortion of competition in favour of MCom against either incumbent MNOs or calling card operators to be low.
- 5.107 This option reduces the risk of distortion of competition against MCom, as it does not allow competing operators a higher termination rate than MCom for serving the same (lower cost) customer base (effective competition). It would also avoid disincentives to MCom to alter its business strategy, differentiate its service and expand its business (reciprocity).

The preferred option

- 5.108 We consider that determining a rate between MCom and T-Mobile for termination on MCom's network equal to the benchmark of the CC Determination for 900/1800MHz operators in 2009/10 of 4.4ppm (2006/07 prices) would be reasonable and fair as between the parties. On balance, we believe that the interests of consumers are better served overall by this option compared to others (such as option 3, our best available estimate of MCom's efficient termination cost).

- It furthers the interests of consumers through the promotion of competition and the availability of a wide range of electronic communications services by facilitating MCom's ability to compete in both (i) the mobile voice call markets and (ii) the international calling card markets.
- It allows MCom's customers to benefit from its likely lower costs of termination. As regards callers to MCom, the termination rate would not cause them to pay more than for calls to other mobile networks.
- It reduces the risk that either party is placed at a competitive disadvantage. There is potential for the choice of termination rate to distort competition either in favour of MCom (through a rate above its efficient costs) or against MCom (through a rate below those of the incumbent MNOs). On balance, we believe that the risk of distorting competition in favour of MCom under our preferred option is smaller than the risk of distorting competition against MCom, which would arise under the options with lower termination rates.

5.109 Ofcom therefore proposed to resolve the dispute by determining the MTR applicable between MCom and T-Mobile to be an amount of 4.4ppm (2006/07 prices), converted into nominal terms.

5.110 The preferred option was currently stated in 2006/07 prices. An adjustment is required in order to convert this option to nominal terms to account for three years of relevant inflation. The methodology for this conversion will follow the methodology used in Ofcom's implementation of the CC Determination (subject to any changes through the current CAT processes).³⁶

Assessment of the preferred option against Ofcom's statutory duties and Community requirements

5.111 We have carefully considered the powers, obligations and duties detailed in section 4 in deciding on the appropriate means of resolving this dispute. In particular, we have considered the relevance of our primary duties and of the Community requirements to this dispute.

5.112 We considered that the following duties are of relevance to this dispute:

(i) the duty to further the interests of citizens (i.e., all members of the public in the United Kingdom) in relation to communication matters (section 3(1)(a));

(ii) the duty to further the interests of consumers in the relevant markets, where appropriate by promoting competition (section 3(1)(b));

(iii) the duty to secure the availability throughout the United Kingdom of a wide range of electronic communications services (section 3(2)(b));

(iv) the duty to have regard to the desirability of promoting competition in relevant markets (section 3(4)(b));

(v) the duty to have regard to the different interests of persons in the different parts of the United Kingdom, of the different ethnic communities within the United Kingdom and of persons living in rural and in urban areas (section 3(4)(l));

³⁶ See 16.47(c) at

http://www.catribunal.org.uk/files/CC_Determination_1083_H3G_1085_BT_220109.pdf

(vi) the duty to have regard, in particular, to the interests of consumers in respect of choice, price, quality of service and value for money (section 3(5));

(vii) the duty to promote competition (section 4(3), setting out the first Community requirement).

(viii) the duty to secure that Ofcom's activities contribute to the development of the European internal market (section 4(4));

(ix) the duty to promote the interests of all persons who are citizens of the European Union (section 4(5));

(x) the duty to ensure technology neutrality (section 4(6)).

5.113 We considered that the duties set out at (ii), (iii), (iv), (vi), (vii) and (x) are of particular relevance for resolving this dispute since both the parties have recognised that the resolution of this dispute would have an impact on competition and, therefore, on the offer of electronic communications services to consumers in terms of choice, price, quality of service and value for money. The preferred option allows MCom and its customers to benefit from its lower costs. Callers to mobile would pay no more than for calls to other mobile networks (to the extent that originating operators set retail prices for calls to MCom in a similar way as for calls to other mobile networks).

5.114 In developing our approach, we have also taken into account the extent to which our approach is competitively neutral to ensure a level playing field for the provision of services whilst ensuring that our approach actively promotes competition through the development of new and innovative services. MCom's local mobile network uses DECT guard band spectrum which was awarded to MCom, alongside 11 others, following Ofcom's auction in May 2006. We have an interest in ensuring that the determination in this matter does not deter the use of the recently auctioned guard band spectrum through efficient and innovative entry into the market.

5.115 MCom described itself as a new entrant mobile operator, with a service offering for the purposes of making international calls and a mobile service to the different ethnic communities within the UK. As discussed above in greater detail, we considered that the new entry such as by MCom could potentially have a positive impact on competition and consumers in the mobile market.

5.116 We considered that setting a termination rate at too low a level could deter efficient entry (and thus eliminate the potential consumer benefits from increased competition), particularly in the presence of incomplete cost information. Therefore in provisionally determining a solution for this dispute it might be necessary to concede a small risk of allowing inefficient entry in order to avoid deterring efficient entry.

5.117 As discussed above in greater detail, our preferred option gives rise to a low risk of distorting competition in favour of MCom against either incumbent MNOs (through "cherry-picking") or calling card operators. This option also reduces the risk of a distortion of competition against MCom, unlike options involving lower termination rates.

5.118 We have also sought to adopt a technology neutral approach which does not favour the use of any particular technology (whether that used in T-Mobile's network or MCom's network). In doing so, we have ensured, to the greatest extent possible, that our approach does not favour the technology of either MCom or T-Mobile. We have

approached the resolution of this dispute from the perspective of consumers with respect to the services being offered rather than the underlying technologies.

- 5.119 We considered the duties set out at (i), (v) and (ix) are also of significant relevance for resolving this dispute since the end-users of MCom's service will be persons residing in certain areas of London which have a high proportion of ethnic community residents. Further, MCom submitted that its service will benefit not only those different ethnic communities within the UK but also all consumers of mobile telephone subscriptions, furthering the interests of citizens in relation to communications matters. Whilst the duties set out in the preceding paragraph may ensure that those interests are protected, we have nevertheless considered the extent to which its determination will secure the objectives of its duties in relation to the promotion of the interests of civilians, particularly those from ethnic minorities in the present case. We consider that our approach will enhance the ability of individuals within areas with high ethnic minority populations to access communications services of particular interest to them, namely lower price international phone calls from mobile handsets. This is of particular interest to ethnic minority populations who may be more likely than the broader population to make regular use of international calls.
- 5.120 We further regarded that the duty set out at (viii) above will also be fulfilled in this case since our approach firstly may encourage new entry into markets in the United Kingdom which, potentially could allow operators from other Member States to enter the UK market. In addition, our approach may encourage the making of international calls where rates for such services are reduced, thus promoting the European internal market. This position also fulfils the duty set out at (ix) above in that it may facilitate the making of voice calls by citizens of the European Union between themselves through the use of lower rate international calling.
- 5.121 In addition, we considered that the duties set out in section 4(7) and (8) of the 2003 Act is also relevant, namely the duty to encourage the provision of network access and service interoperability for the purposes of securing efficiency and sustainable competition in communications markets and the maximum benefit for the customers of communications network and services providers. We consider this duty to be of relevance for resolving this dispute since this dispute concerns the service of call termination, which is essential for encouraging interoperability between different networks, so that the customers of one network can call, and receive calls from, the customers of other networks. Further, given that the service of call termination facilitates the development of communications between customers of different network, we consider it relevant also for the purpose of development of the European internal market.
- 5.122 We also considered that our duties set out in sections 3(2)(a), 3(4)(d), 3(4)(f) and 4(6) of the 2003 Act may be relevant to the resolution of this dispute, namely those to:
- (i) secure the optimal use for wireless telegraphy of the electromagnetic spectrum (section 3(2)(a));
 - (ii) have regard to the desirability of encouraging investment and innovation in relevant markets (section 3(4)(d)); and
 - (iii) have regard to the different needs and interest, so far as the use of the electromagnetic spectrum for wireless telegraphy is concerned, of all persons who may wish to make use of it (section 3(4)(f)).

- 5.123 We considered these duties to be of relevance for resolving this dispute since MCom is in the process of investing in the development of a network to offer mobile services by using the DECT guard band spectrum licence granted by Ofcom in May 2006. Our approach ensures that operators holding a DECT guard band spectrum licence will not suffer from disincentives to enter the market by rolling out networks thus ensuring that their interests are supported. As a result, those holding licences will be encouraged to make use of those licences ensuring optimal use of the spectrum. This in turn will encourage investment and innovation as operators roll out network in competition with existing networks.
- 5.124 Finally, we considered our duties set out in section 3(3) of the 2003 Act to be relevant, namely to have regard to the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed, as well as any other principles appearing to us to represent the best regulatory practice. In developing our approach, we have considered all relevant previous decisions made by Ofcom, the CAT and other relevant bodies in order to ensure that the proposed approach is consistent with previous regulatory practice.
- 5.125 Ofcom considers that this document clearly sets out the parties' arguments and Ofcom's reasoning that leads to this proposed conclusion, and notes that the parties had an opportunity to comment on Ofcom's proposals, and that this supports Ofcom's duty to ensure that its regulatory activities are transparent, accountable, proportionate, consistent and targeted. Our resolution is targeted in that it seeks to resolve the dispute as between the parties only (indeed Ofcom's powers in dispute resolution may not go beyond this).
- 5.126 We do not consider that the duties set out in the following sections are of relevance to the resolution of this dispute since they relate to matters which are not covered by this dispute:
- (i) sections 3(2)(c) to (f);
 - (ii) sections 3(4)(a), (c), (e), (g) to (k) and (m); and
 - (iii) section 4(9).

How to implement the proposed outcome

- 5.127 Ofcom's powers in order to resolve disputes are set out under section 190 of the 2003 Act and include a power to make a declaration setting out the rights and obligations of the parties to the dispute and to direct the parties to enter into a transaction between themselves on such terms and conditions as Ofcom may fix.
- 5.128 As has been previously noted, MCom and T-Mobile do not interconnect directly. Each of them have entered into a Standard Interconnection Agreement with BT pursuant to which calls are conveyed between the MCom and T-Mobile networks by use of BT's transit service. In the course of our investigation, it has become apparent that the parties do not have an interest in direct interconnection since this would unnecessarily incur costs.
- 5.129 Ofcom's powers to resolve disputes are limited to imposing obligations on the parties to the disputes only. Ofcom therefore considers it appropriate to make a declaration setting out that MCom is not entitled to charge a price of more than 4.4ppm (2006/07

prices) for the termination of calls on its network which are originated on T-Mobile's network.

- 5.130 In the past, in relation to price controls, we have opted to reduce termination charges through a glide path where we thought a sudden decrease in a mobile operator's termination revenue would not be in the longer term interests of consumers (for example, if such a reduction presents a material risk to further investment in mobile services).³⁷ MCom may have some business plans in the expectation of receiving a higher termination rate. But we regard this as being of limited relevance as MCom has only very recently begun operations, and therefore should be able rapidly to adjust its plans. Consequently we do not consider it necessary to set a glide path in determining this matter. Additionally, because our evidence suggests that the proposed rate of 4.4ppm (2006/07 prices) is itself above the current (actual and likely efficient) cost of termination on MCom's network, we do not think that it is appropriate to postpone a reduction in MCom's termination rate to the level of its competitors.
- 5.131 However, given that the parties do not have direct interconnection and charges for termination are levied by MCom on BT, Ofcom does not consider that such a position is sufficient to resolve the dispute. Further, Ofcom does not consider that it could resolve the dispute by determining the MTR applicable between BT and MCom, since BT is not a party to the dispute. Indeed, such an approach would go beyond the scope of the dispute as it would mean that the MTR determined by Ofcom would apply not only in respect of calls originated on T-Mobile's network but also on any other network using BT as a transit provider, including BT itself.
- 5.132 Ofcom has therefore considered how to ensure that the resolution of this dispute is limited to a resolution between the parties in circumstances where they do not directly interconnect. In reaching its proposed determination, Ofcom has considered the following factors:
- (i) the parties are interested in neither direct interconnection nor "targeted" transit;
 - (ii) since the parties use BT as "transit" provider, MCom cannot distinguish between the traffic terminated on its network originating on T-Mobile's network and the traffic originating on other networks; and
 - (iii) Ofcom cannot impose any obligations on BT through this dispute since it is not a party to the dispute.
- 5.133 In the light of these considerations, we propose to use Ofcom's powers under Section 190(2)(c) of the 2003 Act to give a direction imposing on MCom an obligation to make a repayment to T-Mobile of a pence per minute amount equal to the termination charge it receives from BT (i.e. the amount stated in the Carrier Price List from time to time) less the relevant regulated rate. Ofcom considers that this approach will ensure that the amounts payable to T-Mobile will ensure that the effective amount which it pays for termination on MCom's network will not exceed the regulated rate.
- 5.134 In determining the dispute, we will also need to decide the date from which the final determination should apply. We consider it appropriate in this case for the determination to apply as from the date on which it is made. MCom's service has been operational for a very short space of time and very little traffic has passed

³⁷ See 9.185 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

between MCom and T-Mobile. If Ofcom were to determine the MTR as from a date in the past, this would therefore have little meaning in absolute terms.

Proposed resolution

5.135 Based on the analysis set out at in this section, our proposed resolution was:

- a) To make a declaration that MCom shall not charge an amount in excess of 4.4ppm (2006/07 prices), converted into nominal terms, for voice calls originated on T-Mobile's network and terminated on MCom's network;
- b) To impose an obligation on MCom to make a payment to T-Mobile of an amount equal to the price for termination on MCom's network contained in the Carrier Price List less 4.4ppm (2006/07 prices), converted into nominal terms, in respect of each minute of traffic originated on T-Mobile's network and terminated on MCom's network; and
- c) That this resolution shall apply from the date of the final determination.

5.136 Ofcom proposed to adopt the draft determination that accompanied the Consultation by the statutory deadline for resolving this dispute which is 20 March 2009.

Section 6

Consideration of responses to the draft determination

6.1 Ofcom received 8 responses to the Consultation, from:

- C&W;
- Federation of Communication Services;
- H3G;
- MCom;
- O2;
- T-Mobile; and
- two respondents (✂) who asked not to be named.

6.2 In this section, we first address stakeholders' comments to the Consultation and set out our responses. Then, in the light of that discussion, we set out our conclusions.

Fairness as between the parties.

In Ofcom's role as a commercial arbitrator, Ofcom should not consider the efficient costs of termination

MCom's arguments

6.3 MCom have stated in response to the Consultation that they do not consider that it would be for Ofcom in its role as commercial arbitrator to look at costs beyond its investigations of their likely accuracy. The efficiency of those costs should be a matter for Ofcom to consider as the regulator bound by its statutory obligations and the Community requirements.

Ofcom's response

6.4 The TRD Judgment clearly considers that Ofcom carries out its dispute resolution function as a regulator, not as a purely commercial arbitrator³⁸ (see further on Ofcom's role in resolving regulatory disputes at paragraphs 6.7 - 6.8 below). Therefore, we consider that our starting point for the resolution of any dispute is for us to consider our dispute resolution powers, statutory obligations and regulatory

³⁸ See paragraph 181 of the TRD Judgment: "This confirms the point that was stressed by the Tribunal (...) that OFCOM carries out its dispute resolution function as a regulator and not as a third party arbitrator. The Tribunal did not mean by this that nothing in OFCOM's role in dispute resolution should be regarded as akin to the role of a commercial arbitrator, simply that that was not OFCOM's only role. The fact that (...) part of OFCOM's role is to determine a rate which is fair and reasonable as between the parties does not mean that OFCOM is transformed into a commercial arbitrator; this factor is combined with a requirement that it determine a rate which also accords with its regulatory objectives."

principles. We have considered what is fair and reasonable between the parties through our analytical framework of the six principles of pricing and cost recovery, an approach with which MCom did not disagree (these principles are considered further at paragraphs 6.82 - 6.129 below).

- 6.5 We do not agree with MCom's contention that we should not look at costs beyond an investigation of their likely accuracy. We need to consider and take a view on such costs (including for example, their effect on distribution of benefits, as set out in section 5 above) because our role as a sectoral regulator is not limited to considering the remedies proposed by the parties in resolving a dispute. Because we are a regulator bound by our statutory duties and the Community requirements, we approached this dispute in order to determine an MTR which would be fair as between the parties and reasonable for the purposes of ensuring that our statutory objectives and Community requirements are achieved (see, in particular, the "Assessment of the preferred option against Ofcom's statutory duties and Community requirements", as contained in paragraphs 5.111 - 5.126 of the Consultation.) Our role is also to consider in each case whether there are grounds to intervene on the basis of any other of its regulatory powers as a sectoral regulator.

Ofcom did not outline what it considered to be fair and reasonable between the parties

MCom's arguments

- 6.6 MCom contended that there is only one instance in the Consultation where Ofcom actually refers to the term "fair as between the parties". MCom argued that Ofcom should have set out its findings as to what MTR, or range of MTRs, was fair as between the parties, even though MCom recognised that Ofcom may then have gone on in the course of its consideration of those findings as the regulator to overturn them. In particular, MCom considered that a logical point for Ofcom in resolving this dispute would be to determine where in the range 1.2ppm to 7.24ppm the fair balance between the parties would lie.

Ofcom's response

- 6.7 Bearing in mind our duties, we analysed the parties' arguments, assessed the relevant costs and considered relevant benchmarks. Against this background, we considered in detail four options to resolve this dispute in the Consultation. We assessed these four options against the six principles of pricing and cost recovery in order to determine the option which would strike the most fair and reasonable balance between the parties. Finally, we further assessed our preferred option against our statutory duties and Community requirements in order to ensure that our proposed outcome would be consistent with them.
- 6.8 We regarded the MTR proposed in our Consultation as being fair and reasonable as between the parties and, in the circumstances of this case, did not consider that there were other considerations to overturn this. The reasons were described at paragraphs 5.108 - 5.126 of the Consultation and are repeated below:
- i) It reduces the risk that either party would suffer detriment from being placed at a competitive disadvantage. We considered whether competitive distortions would arise from each of the four options considered for determining MCom's termination rate; either in favour of MCom or against MCom. On balance, we believe that the risk of detriment from distorting competition under our preferred option is smaller than under the other options considered.

- ii) It furthers the interests of consumers through the promotion of competition and the availability of a wide range of electronic communications services by allowing MCom to enter the market to compete in both (i) the mobile voice call markets (by receiving the same rate for termination of mobile calls as that received by the incumbent MNOs) and (ii) the international calling card markets.
- iii) Should MCom's costs of termination be lower than the proposed MTR, it is likely that MCom's customers will benefit from them. With regard to callers to MCom, the termination rate would not cause them to pay more than for calls to all other mobile networks for which, as part of the price for the call, they pay the mobile termination rate (to the extent that termination charges are passed on into retail markets).

6.9 We did not consider it appropriate, or pragmatic, to resolve this dispute with a range of MTRs as invited by MCom because it would leave the parties with uncertainty about the effective MTR which MCom is allowed to charge.

Ofcom should allow MCom to gain a profit from termination

MCom's arguments

6.10 MCom referred to the matters set out in paragraph 118 of the TRD Judgment³⁹ and inferred that those circumstances described in that paragraph of the TRD Judgement apply to the current dispute. In summary, MCom considered that it is reasonable for them to make a profit on call termination where T-Mobile makes a substantial profit from conveying calls originated on its network to MCom's network for termination.

Ofcom's response

6.11 The paragraph of the TRD Judgment in question refers to profitability in the context of the applicability or otherwise of the "gains from trade" test, which we contend is not relevant to this dispute as that test was applied by Ofcom when it considered BT's end-to-end connectivity obligations, an obligation which neither of the parties to the current dispute have. Ofcom does not seek to apply that "gains from trade" test here. The paragraph also deals with the calculation of profitability in the context of a back

³⁹ Paragraph 118 of the TRD Judgment in full is as follows: "The Tribunal's conclusion is that the gains from trade test is seriously flawed and should not have been used by OFCOM in resolving these disputes. It is not an appropriate methodology to adopt in order to arrive at a result which is reasonable in either of the senses which we have held constitute the test under the dispute resolution procedure, namely reasonable as between the parties and reasonable from OFCOM's perspective as the regulator. It does not assist in arriving at a price which is fair as between the parties because it focuses entirely on the question whether BT makes any profit, in the sense of a contribution in excess of their long run incremental costs, and does not consider whether the MNOs are making an excessive profit at BT's expense (or at the expense of BT's customers). This is demonstrated most starkly by how OFCOM proposed to deal with the backdating of the award it made in favour of H3G. In both the draft determinations and the final version OFCOM calculated what was the price at which BT would break even on doing the relevant part of its business with H3G and ordered them in effect to transfer all of the revenue in excess of long-run incremental costs ("LRIC") received on this aspect of their business over to H3G. This was without any consideration of whether H3G had already been making a contribution to profit from the charges levied before the proposed price increase. There was no discussion as to why it was fair that BT should receive no contribution or a considerably reduced contribution from this contract regardless of how much profit H3G was making. This cannot be described as striking a reasonable balance between the parties. In the Tribunal's judgment a price which results in one party only breaking even on a significant part of its business while the other party may be making a substantial contribution to profit on the contract cannot ordinarily be described as a "reasonable" price."

payment, which, again, is not applicable in this matter. Additionally, MCom seems to be making a comparison between the profit it can make on wholesale termination and the profit T-Mobile might make on the retail charges for the phone calls made by its customers to MCom's customers. The issue of whether or not T-Mobile makes profits on calls made by its customers to MCom is outside the scope of this dispute. As the retail market for mobile phone calls has been determined as being effectively competitive, we do not regulate retail charges. All operators, including MCom and T-Mobile, are free to set their retail charges as they choose. Because of these reasons, having regard to the specific circumstances of this case, we think that the considerations outlined by the CAT in paragraph 118 of the TRD Judgement with regard to the "gains from trade" test are not directly applicable to the resolution of this dispute.

- 6.12 Further, we infer from MCom's argument in response to the Consultation that MCom considers our provisional conclusion will not allow them to make a profit on termination, which implies that their actual costs are higher than the lowest regulated rate.
- 6.13 As discussed in the draft determination, in considering the cost causation element of determining termination charges, we do not believe it appropriate to set each termination rate with the objective of ensuring that all individual operators can make a profit on termination, given their incurred costs. To do so risks encouraging inefficient entry by operators whose costs are higher than those of the benchmark based on efficient costs. To the extent that costs are relevant, it is the efficient level of costs that should be taken into account.
- 6.14 This is consistent with our earlier analysis (see paragraph 5.53) and the approach in Ofcom's 2006 "Determination to resolve a dispute between BT and Telewest about geographic call termination reciprocity agreement". In that decision, we said:
- "Ofcom considers that...if all call termination charges were based strictly on incurred costs, there would be a distortion of competition. If one CP, through being more efficient, were able to deliver calls more cheaply than another, the CP benefiting from this efficiency and lower cost would not be the more efficient CP which has reduced termination costs, but the less efficient CP since it is buying the cheaper call termination service. The less efficient CP would therefore gain a competitive advantage, in the sense that it would make smaller outpayments to the more efficient CP and would be able to offer its own customers cheaper calls (than if its prices were based only on its own network costs)".
- 6.15 Based on the best evidence available to us at the time of the Consultation, we considered that the efficient cost of termination of calls on MCom's network was likely to be between 2.9ppm and 3.4ppm. However, we also noted that all of the sources of cost evidence considered in our analysis had significant limitations in providing a robust cost estimate. This is one of the reasons we deemed it inappropriate to rely exclusively on cost estimates when proposing our draft determination in this matter (see Annex 1 of the Consultation).
- 6.16 With its response to the Consultation, MCom submitted a revised business plan, which takes into account the additional experience MCom has had in setting up its mobile service since preparing its original dispute submission. Based on this revised

business plan, our best estimate of MCom's incurred costs has increased from 3.4ppm to 5.1ppm⁴⁰ (see Table A2 of Annex 2).

- 6.17 Therefore, as a result of this revised analysis, we have two separate and very different estimates of the costs of termination on the MCom service: (i) 2.9ppm (2008 prices), the estimate of the efficient cost of termination in urban areas as estimated by Ofcom's MCT cost model disaggregated by 'geotypes' (see Annex 1 of the Consultation document) and (ii) the estimate of MCom's incurred cost arising from our analysis of MCom's revised business plan, 5.1ppm (in 2008 prices). Both estimates of cost include a profit margin, by allowing for a reasonable return on investment.
- 6.18 As discussed in the Consultation (see Annex 1), there are possible reasons why the output of the MCT cost model for urban areas, 2.9ppm, could under- or overstate MCom's efficient termination cost (see paragraph 5.18). For example, the differences between the technology used by MCom and that used by the incumbent MNOs could give MCom a cost advantage or disadvantage. However, we consider it more likely that 2.9ppm provides a lower bound estimate of MCom's efficient termination cost. This is because 2.9ppm is an estimate of the cost of termination in urban areas specifically, given the efficient operation of an established national operator. Thus, this estimate reflects the economies of scope between areas which national operators are able to achieve, which even efficient localised operators may be unable to obtain.
- 6.19 It is unclear that 5.1ppm, our revised estimate of MCom's incurred cost, represents the most efficient way of supplying a mobile service in a limited urban area. Based on the revised information provided by MCom (discussed below), the changes to the estimate of MCom's incurred cost since the Consultation include both an increase in MCom's capital costs and a reduction in call volumes. MCom's revised information implies that it is spending more to service a smaller volume of customers. It is unclear whether these changes reflect efficient costs and efficient loading of the network. Furthermore, the estimate is sensitive to these changes (e.g. making the other changes but retaining the higher call volumes as in the Consultation, the estimate of incurred cost would fall to 4.1ppm – see Annex 2). For these reasons we do not rely on the estimate of MCom's *incurred* costs, using MCom's revised business plan, as providing a robust estimate of its *efficient* costs.
- 6.20 Although not designed to be used to estimate costs in small local areas in isolation, our cost analysis in the Consultation using Ofcom's MCT model for an efficient national operator (see Annex 1) showed that the efficient cost of termination in urban areas (estimated to be 2.9ppm) is likely to be significantly lower than the average efficient cost of termination for national coverage (estimated to be 4.3ppm in 2008 prices).
- 6.21 The adapted MCT cost model suggests that the non-geographic component of unit costs of termination makes up just 1.1ppm of the average network unit costs (see paragraph A1.31). It might be the case that an efficient localised network, such as MCom, might be unable to achieve the same extent of economies of scope between areas, potentially causing these non-geographic and non-network network costs to be higher on a ppm basis than they are for a national operator. However, given the extent of the unit cost difference in the MCT cost model between urban areas and the

⁴⁰ This figure represents our estimate of MCom's incurred termination costs, as a result of our assessment of MCom's revised business plan. MCom's own view of its incurred termination cost, ranges from 5.1ppm in year 5, to 9.6ppm in year 1 (see Annex 2).

national average, it seems unlikely that they would be a sufficient amount higher to bring the efficient costs of a localised urban network higher than those of a national operator. Our approach to economies of scale due to late market entry is set out at paragraphs 6.147 to 6.149)

- 6.22 Therefore, the evidence available to us suggests that our proposal to resolve the dispute is likely to allow MCom to make a profit relative to its efficient costs. First, the measure of costs includes a reasonable return on investment and so already provides for a profit margin. Second, MCom's efficient costs for a localised urban network are unlikely to be higher than the average efficient costs of a national operator.
- 6.23 However, the significant change caused by MCom's revision of its business plan further highlights the danger of relying on our cost analysis alone in determining this dispute. As indicated in the Consultation, we recognise that there is the potential for a significant margin for error in our cost analysis. In consideration of this risk of error as well as in consideration of our duty to balance cost considerations with other factors when resolving a termination rate dispute, we considered it prudent not to rely on our assessment of cost in isolation. We continue to regard it as important that we consider a number of other relevant factors in addition to a preliminary analysis of costs in reaching our determination.

We should consider the MTR that T-Mobile is willing to pay

MCom's argument

- 6.24 In its response to the Consultation, MCom stated that it is unaware of the extent to which Ofcom examined the amount that T-Mobile is willing to pay for MCT. In support of its contention, MCom identified an instance where T-Mobile is willing to pay an MTR of up to 9.6ppm for terminating calls to certain mobile numbers.

Ofcom's response

- 6.25 The scope of this dispute is to determine the termination rate payable by T-Mobile for voice calls originating on T-Mobile's network and terminating on MCom's network. We consider that an assessment of commercial agreements between T-Mobile and third parties to be outside the scope of this dispute. There may be a myriad range of reasons why T-Mobile pays higher termination rates to providers other than MCom.
- 6.26 In any event, were we to consider whether 9.6ppm was a relevant benchmark (which we do not accept), we do not consider that such a benchmark, which is likely to significantly exceed MCom's efficient costs, to be appropriate in this matter (see further at paragraphs 6.130 - 6.132 below).

MCom's proposed adjustments to its cost estimates

The MCom business plan

- 6.27 MCom submitted that, with the benefits of hindsight, some elements of its business plan have not survived the "test of reality". Therefore, MCom submitted an updated business plan, with the following suggested amendments:
- 6.27.1 MCom has implemented a subscriber disconnect rate (✂) and has reduced its expected number of new subscribers in later years of the business plan to reflect the maturing of the market.

- 6.27.2 MCom has increased its mobile switching centre (MSC) costs by (£) in total which is broken down by (£) for year 1, (£) for year 2 and (£) in years 3-5. In addition, MCom have added (£) per month for secure data management facility and data centre back-up costs.
- 6.27.3 MCom has increased the cost of its BTS site maintenance, on average over the 5 year plan, by (£) per year based on their experience to date.
- 6.27.4 On the basis of its promotion dual SIM handsets, MCom has now included the Network Externality Surcharge (NES) of 0.3ppm.
- 6.28 We considered whether to revise our best estimate of MCom's likely cost of termination in light of these amendments below.

The revised MCom business plan⁴¹

- 6.29 MCom also argued that some of the assumptions used in the treatment of its business plan for the Consultation should be reconsidered. MCom also expressed concern that Ofcom used the business plan in its cost analysis even after acknowledging "the potential for a significant margin of error".

Ofcom's response

- 6.30 We consider below under each relevant subheading whether to reconsider our best estimate of MCom's likely cost of termination and address the specific amendments submitted by MCom below. At the conclusion of this assessment, we consider the resulting change to our estimate of MCom's cost.

Lack of economies of scale and scope of MCom

MCom's arguments

- 6.31 MCom submitted that Ofcom should have considered MCom as a new entrant with its associated lack of economies of scale and/or scope. MCom added that, as a result of its position as a new entrant, the same termination rate applied to the incumbent MNOs should not be applied to it.
- 6.32 MCom added that it was a limitation of Ofcom's analysis that it appears to have focused only on its first phase of network rollout. MCom put to us that it would be appropriate for Ofcom to take into consideration when setting a cost based MTR that MCom is seeking to expand its geographic market beyond certain urban areas over time in order to compete effectively with the incumbent MNOs and should have made allowances for this.

Ofcom's response

- 6.33 We referred to MCom's new entrant status and its associated lack of economies of scale and scope at various stages of our analysis for the consultation (see for example paragraphs 5.13 – 5.16, and in the Annex at A1.20). As discussed above, along with our concerns about the estimate's reliability, in interpreting the results of the MCT cost model we have taken into account the potential inability of even efficient localised operators to match the economies of scope between areas of a

⁴¹ The revised MCom business plan is an estimate of the incurred cost of termination, using MCom's call volumes and cost estimates in a manner that more closely matches Ofcom's cost allocation assumptions for termination (see further at Annex 1).

national operator. In relation to MCom's arguments as to new market entry, please see paragraphs 6.141 - 6.149 below.

- 6.34 We consider that our proposed solution in this matter does allow for further network rollout by MCom. The regulated rate is based on an estimate of the average efficient cost of termination for termination in all areas, including both urban and rural areas. As discussed in the consultation (see paragraphs 5.86 and 5.99) we consider it important that the determined rate be robust to both changes in MCom's business strategy and to subsequent phases of network rollout. This is in fact one of the relative strengths of the option of benchmarking to the CC Determination for 900/1800MHz operators in 2009/10 of 4.4ppm (2006/07 prices) over the setting of rates based on MCom's costs.

Length of time of the business plan

MCom's arguments

- 6.35 MCom submitted to us that it was unaware that Ofcom would rely on the MCom business plan over a 5 year period. As a result, MCom did not highlight the deficiencies of its business plan over this time frame in its original submission. MCom considers that Ofcom ought not to have implied that the information within the MCom business plan would be as accurate in year five as in year one. MCom submitted that we should consider only the unit cost results stemming from the first two years of their business plan.

Ofcom's response

- 6.36 In making our assessment in this matter, we sought to use all the relevant information available to us in order to make an informed decision. Although MCom's business plan is based on projections and is therefore subject to error, it is the best evidence of MCom's incurred costs available to us. We believe the use of five years of projected data would provide us with a clearer understanding of the nature of MCom's business going forward, and provide us with a more robust estimate of MCom's likely costs, than would the use of only the first two years. This is especially the case, because the relevant depreciation methodology we have generally used in assessing termination costs is economic depreciation (as in the MCT cost model). One of the key advantages of economic depreciation is that it reduces the potential for estimates of unit costs to be overstated in the early years of a network, when network utilisation may be much lower than in the long run. We consider it very likely that there would be such an upward bias in the cost estimates, if we were to consider only the first two years of MCom's business plan.

Weighted average cost of capital

MCom's arguments

- 6.37 MCom submitted that its weighted average cost of capital (WACC) is substantially higher than that of any of the established MNOs.⁴² According to MCom, this is because MCom's WACC is tilted towards equity rather than debt and notwithstanding that debt financing is not available to MCom in the current economic climate. MCom invited Ofcom not to apply the same WACC based on the standard capital asset

⁴² A firm's cost of capital is the weighted average of its costs of debt and equity finance, and is referred to as a company's weighted average cost of capital.

pricing model (CAPM) that was appropriate for the incumbent MNOs in 2007 to our analysis of MCom's termination costs and to revise our cost estimates accordingly.

- 6.38 In addition, MCom highlighted the variability of the WACC figures used by European regulators throughout Europe.⁴³ The differing WACC of 7 selected regulators ranged from 10.6%-16.3%.

Ofcom's response

- 6.39 We note that our WACC level of 11.5% is within the range used by the 7 selected European regulators (which also included a previous measure of the UK) and the two highest measures in this report (France at 15.0% and Greece 16.3%) use sources dating from December 2004 and are therefore somewhat out of date.
- 6.40 We have described above our cost estimate using MCom's business plan as our estimate of MCom's incurred cost. But, the relevant consideration to inform appropriate regulated rates is the efficient cost. Therefore, in considering MCom's termination costs, we sought to consider 'efficiently incurred' costs where relevant information was available. In this context we consider that it is appropriate to maintain the 11.5% figure that was used to calculate the cost of capital in the Calls to Mobile Statement, which in our view represents the efficient cost of capital for mobile network operators in the UK.
- 6.41 We consider that allowing a higher WACC than the estimated efficient level, to account for an individual investor or business's higher risk profile, would not represent consideration of efficient costs and reliance on the resulting cost estimates would risk providing a reward for inefficiency and thus increase costs to consumers.

Asset lives

MCom's arguments

- 6.42 MCom submitted that Ofcom's treatment of depreciation for certain assets ought to be revised downward from the 10 year depreciation lifespan. MCom pointed to treatment of depreciation by other operators who use pico cell technology to indicate that the industry practice of depreciating pico cell base stations is closer to 5 years. MCom also indicated that the real lifespan of its pico cells is likely to be shorter given that the base stations are deployed externally and subject to weather and other elements and that there may be churn on the sites where there is a change of ownership of a property that contains a pico cell base station.

Ofcom's response

- 6.43 Given the additional information that we have received in relation to the assets employed in MCom's business, for the purposes of this dispute, we agree that it is appropriate to adopt a 5 year lifespan and we have adjusted our estimates of MCom's incurred costs accordingly.

Use of economic depreciation rather than straight-line depreciation

MCom's arguments

⁴³ MCom quoted the "Final report for Vodafone Australia Review of WIK's mobile network cost model", 6 August 2007, Exhibit 1.3, page 16, at:
<http://www.accc.gov.au/content/item.phtml?itemId=794815&nodeId=c9ea2743c20fc4bad5b7ce8246fe26ac&fn=Vodafone%20Submission%20-%20Annex%20A%20Analysys%20Report.pdf>

- 6.44 MCom contended that the use of straight-line depreciation, rather than economic depreciation, is appropriate in this case (see paragraphs 5.11 - 5.13 for a description of these methodologies).⁴⁴ This is because it is practically impossible for a start up new entrant to predict the change in economic value assets over time such that it amounts to a speculative exercise. MCom also suggested that an alternative approach by calculating the second-hand value of each base station would not be of assistance as MCom suggested that the second hand value of these units would be negligible.

Ofcom's response

- 6.45 In the Consultation, we acknowledged the difficulty of an application of economic depreciation to the MCom business plan where it covers a shorter period of time than the lifetime of its network (see paragraph 5.12).
- 6.46 Straight line depreciation tends to yield very high and upwardly biased estimates of unit costs in the early years of the plan when volumes are low. Use of full-blown economic depreciation would address this distortion (as noted above), but it is not practical to use it here. Therefore, as in the Consultation we derived a constant rate expressed in pence per minute over the five-year period of MCom's business plan, which given the forecast volumes would recover the same amount of cost over the 5 years, in NPV terms, as setting the resulting separate unit cost estimates in each year using straight-line depreciation (see Annex 2). As in the Consultation, we regard this as providing a rough proxy of the unit costs under economic depreciation. As such, it is subject to a significant margin for error. But we consider that it is clearly preferable to the upwardly biased cost estimates derived for the early years if straight line depreciation is used.

Impact of adjustments

- 6.47 Based on MCom's updated business plan, we have recalculated our estimate of MCom's incurred cost of termination. Our new estimate of MCom's incurred costs incorporates the following changes from the estimate included in the draft determination:
- a decrease in MCom's projected customer numbers;
 - the addition of the specific costs (£) for secure data management facilities and data centre back-up costs, (£) per year increase to the cost of maintaining BTS sites and an increase in MSC costs by (£); and
 - a reduction in the assumed life of MCom's fixed assets from 10 years to 5 years.
- 6.48 As a result of these adjustments, our revised best estimate of MCom's constant unit incurred cost of termination has increased from 3.4ppm to 5.1ppm.

⁴⁴ See further <http://www.ofcom.org.uk/static/archive/oftel/publications/mobile/depr0901.htm> for a detailed explanation of economic depreciation and its implementation in the previous Calls to Mobile market review.

Third party suggested amendment to MCom's business plan

Transit costs

Anonymous third party argument

6.49 A third party response to the Consultation (✂) stated that we ought to include the dual tandem transit costs which arise (through lack of a direct interconnection agreement). The submission explained that a typical new entrant necessarily incurs dual tandem transit costs, whereas the large incumbent operators have the benefit of direct interconnects.

Ofcom's response

6.50 We do not consider this cost is within the scope of the dispute as it relates to a distinct and separate service which is not part of a mobile termination service and which is not component of an MTR.

6.51 In any event, any transit charges are paid by the originator operator (T-Mobile in this case) for calls to mobile operators. As a result, we do not consider that any adjustment is required.

The MCT cost model

6.52 In this section we consider the comments received on our use of the MCT cost model. We firstly outline submissions received from MCom, secondly we set out submissions received from T-Mobile, thirdly we outline comments received by third parties and finally, we address all of these received comments.

MCom's submissions

6.53 MCom submitted that Ofcom – being aware that MCom is unlikely to have the same economies of scale and costs as those obtained by the incumbent MNOs – ought to have erred on the side of caution when considering the application of the MCT cost model to MCom.

6.54 Additionally, MCom suggested that Ofcom did not consider fully the effect of only relying on the urban geographic market in which MCom is initially launching its network, nor considering, or making allowances for, the expected further roll out of the service to non-urban areas.

6.55 Accordingly MCom contended that Ofcom ought not to have imposed an efficient cost based price on MCom at its current stage of development and invited Ofcom to reconsider its application of both of the MCT cost model in general and the restriction of its geographic market to urban areas.

T-Mobile's submissions

6.56 T-Mobile submitted that the MCT cost model should be used by Ofcom as it provides a readily available assessment of the likely efficient costs of termination for a particular type of geographic coverage and is therefore a simple means of assessing the appropriate rate for termination. T-Mobile argued that such an approach will enable Ofcom to ensure a non-discriminatory and transparent approach is applied and that operators were able to compete in the market absent the distortions created by inefficient charges and pricing mechanism based on cross subsidisation.

- 6.57 T-Mobile submitted to us that, given that Ofcom has invested substantial resources in the development of its MCT cost model, there is no difficulty in applying this to MCom.

Third party submissions

- 6.58 A third party (X) suggested that, as Ofcom's draft determination is based on a significant number of assumptions derived from business models not applicable to MCom and that it might not even be a reasonable and lawful decision.

Ofcom's response

- 6.59 In the Consultation we set out the limitations of the disaggregated results of the model upon which we are relying. The analysis that we undertook with the MCT cost model was to disaggregate the results by different types of geographical area, such as urban, suburban and rural ("geotypes"). The resulting figures – which ranged from 2.3ppm for "Suburban 1" to 49.6ppm for "Rural 4" – can be viewed at Figure A1 in Annex 1. The purpose of this analysis was to inform our assessment of the efficient cost of call termination in urban areas, such as those in which MCom currently proposes to operate.
- 6.60 We highlighted in the Consultation that the analysis has its limitations when applied to the particular facts of this dispute. The MCT cost model estimates the network costs of termination for an efficient national MNO, and thus assumes access to identical technology as well as the economies of scale and scope obtained by MNOs. It is not clear to what extent these parameters or the general cost allocation assumptions, such as the mix between incoming and outgoing calls as well as the mix between data and voice calls, which were designed to approximate the use of MNO's networks, apply to MCom's service.
- 6.61 In our view, T-Mobile's claim that there is no difficulty in applying the MCT cost model fails to place sufficient weight on the significant limitations of the MCT cost model output when de-averaged by geo-type. The MCT cost model was not designed to produce estimates by geo-type and is not as reliable when it is used this way. The MCT model, while providing a robust estimate of the efficient national average cost of termination for an MNO in aggregate, was not designed to calculate with precision the cost of termination in specific geo-type areas.
- 6.62 As can be seen from Figure A1 in Annex 1, the MCT cost model output on a disaggregated basis for different geographical areas increases as the geographic type become "more" rural. We are aware that MCom plans to expand its service beyond the urban geotype at some stage in the future. Our proposed option is robust enough to remain appropriate should MCom carry out its plans to develop into other geographical areas.
- 6.63 MCom contended that we ought to err on the side of caution when applying the MCT cost model and a third party suggested the assumptions we had used were not applicable. As explained in the discussion above of whether MCom would gain a profit from termination, we have not relied mechanically on the disaggregated result of the MCT cost model, but taken into account reasons why it may understate MCom's efficient costs.
- 6.64 In relation to MCom's argument that we should not impose an efficient cost based price on it, please see paragraphs 6.141 - 6.149 below.

The rationale for benchmarking MCom's rate with a regulated rate

6.65 In this section we consider the comments received on our use of benchmarking. We firstly outline submissions received from T-Mobile, secondly we set out submissions received from MCom, thirdly we outline comments received by third parties and finally, we address all of these received comments.

T-Mobile's arguments on benchmarking

6.66 Firstly, in its response to the Consultation, T-Mobile is critical of Ofcom's rationale for benchmarking MCom's rate against a regulated price control cap. T-Mobile argued that we have drawn unjustified conclusions from the quotation of the TRD Judgment contained in paragraph 5.55 of the Consultation, because, according to T-Mobile, the CAT's observation on benchmarks (paragraph 186⁴⁵) was:

- i) prefaced by a warning: "Nevertheless, the Tribunal considers that benchmarking against a price control cap set as an SMP condition needs to be approached with caution";
- ii) that benchmarks should not be relied on because they are likely to lead to charges for call termination being set in excess of the real cost of call termination; and
- iii) that efficiencies are encouraged by setting charges at the level of cost.

6.67 T-Mobile submitted also that, ultimately, if it is Ofcom's concern to ensure that terminating operators retain an incentive to reduce costs, then this is met by setting a rate that provides MCom with its appropriate urban geo-type cost as calculated by the MCT cost model. T-Mobile argued that given any benchmark rate is independent of MCom's costs, so the MCT cost model estimate of 2.9ppm gives MCom an incentive to make cost savings as well as the 4.4ppm.

6.68 Second, T-Mobile considers that Ofcom is distorting the application of technology neutrality through favouring a particular technology over another. According to T-Mobile, technological neutrality is particularly useful when considering service equivalence; however, as a principle it struggles when applied to the issue of efficient costs, as costs are normally intrinsic to the technology employed. T-Mobile points to the CC Determination as a specific example of how the technology deployed cannot be ignored in some efficient costing and pricing problems. As such, T-Mobile considers that benchmarking cannot be bluntly applied to this case, which fundamentally relates to the efficiency of the technology deployed.

⁴⁵ "Benchmarking is a useful tool and Ofcom should consider the value of comparisons put forward by the parties and what they show about the reasonableness of the charges or other terms and conditions being proposed. Nevertheless, the Tribunal considers that benchmarking against a price control cap set as an SMP condition needs to be approached with caution. Price controls are set on the basis of information about costs available at the start of a period to be covered by a market review and such controls will extend over a number of years. The regulatory intention is that such controls encourage undertakings bound by them to reduce their costs over the period so as to maximise profits. Any such reductions in costs will then be taken into account when the controls are reviewed and revised for a subsequent period of years. It is important therefore not to allow benchmarking against actual or proposed price controls to be used in a way which deprives the undertakings of the benefits of cost reductions and other efficiency savings which such controls were intended to encourage."

- 6.69 Thirdly, T-Mobile noted in response to the Consultation, that the application of benchmarking to national termination rates and the apparently technology-neutral approach directly results in the payment to MCom of a significant margin over its likely costs of termination which will be used to subsidise retail charges to its customers. T-Mobile concludes that a consequence of the draft determination is that originating networks directly subsidise a competitor's retail origination charges.
- 6.70 Finally, T-Mobile claimed that Ofcom has assumed that MNOs earn profits on urban termination that are available for cross-subsidisation of special tariffs aimed at urban residents, whereas T-Mobile argued that this assumption ignores the cost of rural termination.

MCom's response

- 6.71 MCom is critical of Ofcom's conclusion in the Consultation on the basis that it flows from the analysis of the MCom business plan and the application of the MCT cost model. MCom considered that the result is the application of an inappropriate benchmark, which would have the result of disadvantaging MCom against the incumbent MNOs.

H3G's response

- 6.72 In H3G's response to the Consultation, it agreed that the application of the benchmark was appropriate in the circumstances, given the overall logic of Ofcom's SMP regime (which H3G disputes), as being the only consistent approach which Ofcom could take in the current circumstances. However, H3G suggested that Ofcom should resolve the dispute by applying the CC Determination's TAC of 4ppm in 2010/2011 to MCom in 2009/10 pending the outcome of any market review of MCom.

Ofcom's response

The relevance of benchmarking

- 6.73 In the evaluation of a particular benchmark, we considered very carefully the possible effects on competition and ensured that MCom would retain incentives to reduce its costs.
- 6.74 We do not agree with T-Mobile's interpretation of paragraph 186 of the TRD Judgment that benchmarks should not be relied upon because they are likely to lead to charges for call termination being set in excess of the real cost of call termination. Rather, we believe that, according to general guidance provided by the CAT in the TRD Judgment, the relevance of any benchmark is one of the factors for us to consider in determining a rate which is reasonable between the parties, taking into account our statutory duties.
- 6.75 In resolving this dispute, we noted that the regulated rates may be an appropriate benchmark, since they are based on a robust estimate of the efficient cost of mobile call termination. Further, although the geographic range of MCom's service is limited to certain localised areas, we considered MCom's service to be a mobile service because of the reasons explained under paragraphs 5.29 above. Also, in deciding to use the lowest regulated rate as the relevant benchmark, we have considered that the lowest regulated rate would provide MCom with an incentive to minimise termination costs and allow it retain any relative benefits resulting from its choice to adopt cheaper technology and to differentiate its service (see paragraph 5.59 above).

- 6.76 We do not agree with MCom's argument that we have arrived at an inappropriate benchmark as a result of our analysis of MCom's business model and the MCT cost model. On the basis of our analysis of the average efficient cost of termination of a national operator, as estimated by the MCT cost model, we consider that a rate of 7.24ppm for MCom is likely to be above MCom's efficient costs.
- 6.77 We do not agree with H3G's argument that we should resolve the dispute by applying the CC Determination's TAC of 4ppm in 2010/2011 to MCom in 2009/10 pending the outcome of any market review of MCom. Were we to adopt such a proposal, it could disadvantage MCom relative to T-Mobile and the other MNOs in serving its targeted customer base which may risk a distortion of competition against MCom (see further at paragraph 6.119).

Technological neutrality

- 6.78 In the Consultation, we considered the extent to which our approach is technologically neutral to ensure a level playing field for the provision of services whilst ensuring that our approach promotes competition through the development of new and innovative services. We considered that the entry into the market by MCom could potentially have a positive impact on competition and consumer in the mobile market (see paragraphs 5.114 and 5.118).
- 6.79 We outlined in the Consultation that our approach to this dispute is from the perspective of the consumers who are being offered this service rather than an assessment of the underlying technologies (see paragraphs 5.31 and 5.118). We ensured, to the greatest extent possible, that our approach does not favour the technology of either MCom or T-Mobile.
- 6.80 In particular, we considered the effect of our proposed option on competition in the Consultation and at paragraphs 6.105 to 6.123 below. We concluded that it gave rise to the lowest risk of a detrimental distortion of competition. As such, we disagree that our approach favours one particular technology over another or distorts the application of technology neutrality. Furthermore, to the extent that an assessment of costs and efficiency is relevant to the determination of this dispute, we have undertaken this assessment.

Subsidisation

- 6.81 We address T-Mobile's arguments about subsidisation at paragraphs 6.113 - 6.119 below.

The six principles of pricing and cost recovery

Use of the principles

- 6.82 T-Mobile did not consider that the application of the six principles of pricing and cost recovery is appropriate generally in the determination of termination rates. T-Mobile submitted that the purpose of termination rates is to recover the appropriate costs of call termination from the originating network, whereas the purpose of the six principles of pricing and cost recovery is to determine how costs should be allocated between parties (i) where there is common infrastructure and costs, (ii) enjoying the same service and (iii) both parties are using common infrastructure. In T-Mobile's view, this dispute was a wholly different scenario.

- 6.83 We do not agree with T-Mobile that the six principles of pricing and cost recovery are only appropriate in circumstances where there is common infrastructure or service equivalence. Rather, they are a robust framework which can be used to analyse a number of situations in accordance with our dispute resolution powers, statutory obligations and regulatory principles.
- 6.84 In fact, the six principles of pricing and cost recovery have, in the past, been applied by Ofcom to a diverse range of subject matters: telephone number portability; fixed call termination; customer sited interconnect links connection and rental charges; asymmetric digital subscriber line broadband migration services; local loop unbundling bulk migration charges; carrier pre selection; wholesale line rental; and, donor conveyance charges. We consider that the previous utilisation of these six principles of pricing and cost recovery indicate that they are adaptable and can be deployed to consider a range of situations.
- 6.85 In this matter, we decided that the six principles of pricing and cost recovery established by Ofcom were an appropriate framework for consideration of our statutory duties and resolving this dispute. We considered that these principles would facilitate our analysis to adequately ensure our regulatory objectives by accurately weighing up a number of factors, including costs, distribution of benefits and competitive effects. These factors are relevant for us to set a MTR that is reasonable as between the parties and satisfies our duties.
- 6.86 In particular, we noted that these are important factors to be considered in order to ensure that our determination will further the interests of citizens in relation to communication matters, as well as the interests of consumers in the relevant markets, where appropriate by promoting competition. Furthermore, we noted that the six principles of pricing and cost recovery provided for an appropriate set of objective criteria against which we could comparatively assess the possible options that we had identified to determine this dispute, including the MTRs suggested by T-Mobile and MCom respectively. Finally, we also considered that the six principles attach some importance to practicability, which is also a relevant factor for us in order to meet our statutory duty to resolve this dispute within 4 months and determine an outcome which is easy to implement as between the parties.

Substance of the principles

- 6.87 T-Mobile further submitted that, even were the application of the six principles of pricing and cost recovery appropriate, we have misapplied them. We shall view each principle in turn.

Cost causation

T-Mobile's arguments

- 6.88 T-Mobile considers that the only outcome consistent with Ofcom's previous decisions and the decisions or determinations of the CAT and CC is for networks to recover their efficient costs of termination, but not more. T-Mobile concludes that Ofcom is not hindered in making an accurate determination by the timescales associated with dispute resolution because it has already developed the tool (the MCT cost model) and acquired the inputs (from MNOs as adjusted by the CC) necessary to derive the efficient costs of termination on mobile networks in the geographic areas targeted by MCom.

- 6.89 On the basis of T-Mobile's argument, this would suggest that, for a particular network roll-out, the appropriate MTR would be to match the area of development with the appropriate geo-type contained within the MCT cost model measure.

Ofcom's response

- 6.90 We do not agree that Ofcom's previous decisions, or those of the CAT and the CC, mean that MCom's termination charges should necessarily be set to recover its (estimated) efficient termination costs. In particular, the CAT, in resolving the TRD disputes, made clear that a number of factors in addition to costs may be taken into account in determining a price that is reasonable as between the parties to a dispute. As set out in paragraph 6.4, our proposed resolution of this dispute is consistent with the approach adopted by the CAT. In addition, in the TRD decision, our previous decisions and the CC Determination, rates were set on a geographical average basis and did not deal with the question, which is key to this dispute, of competition between a localised urban operator and national operators.
- 6.91 We have already considered above the limitations in placing reliance on the disaggregated output of the MCT cost model (see paragraphs 6.61 - 6.63 above) as a measure of MCom's efficient costs.
- 6.92 One rationale for termination rates to reflect efficient costs relates to the effects on competition, which we addressed in the Consultation and consider further below under the discussion of the principle of effective competition.
- 6.93 Another rationale relates to the appropriateness of the prices paid by callers to mobile customers. In this respect, it is important to recognise that our proposed approach would only represent a continuation of the current situation. Currently all the operators, including T-Mobile, receive the same termination rate, reflecting (efficient) national average costs, whether the call terminates in an urban or a rural area. This follows from having geographically averaged termination rates. Therefore, the price currently paid by a caller to (for example) a T-Mobile customer in an urban area reflects a termination rate which is higher than the efficient cost of termination in urban areas, as estimated by the MCT model.
- 6.94 So, if T-Mobile's argument is that callers to MCom should pay no more than the efficient cost of termination in urban areas, this logic could equally be extended to all other mobile operators. In theory, in a similar way to T-Mobile's proposal for MCom, the termination rates charged by the incumbent MNOs could be required to vary depending on the efficient cost in the type of area in which the call is terminated. Such rates would be significantly lower in urban areas and significantly higher in rural areas. Such an approach would mean that termination rates provided a better reflection of the efficient costs of termination.
- 6.95 However, such an approach of multiple, geographically deaveraged termination rates is clearly not the regulatory regime in place on the incumbent MNOs. Given this, imposing geographically disaggregated rates on one mobile operator, MCom, but not others, raises the concerns about distortion of competition against that operator, which we set out in the Consultation.
- 6.96 In addition, we consider that our proposed option of directly linking MCom's MTR with that of a regulated rate provides an allowance for MCom's further expansion of its network, without allowing it to charge more than its competitors, regardless of where it rolls out its network. Therefore, the option proposed in the Consultation allows for

changes in MCom's commercial strategy without the need to recalculate an appropriate MTR.

Cost minimisation

T-Mobile's arguments

- 6.97 T-Mobile argued that, in its original form, the principle of cost minimisation was applied in order to ensure that a party that caused costs to be incurred was incentivised to reduce these through being required to pass on their share of the costs of the relevant infrastructure/service, but that in this matter Ofcom has only applied this principle in so far as MCom may wish to pursue profit maximisation through cost minimisation in call termination on its own network. T-Mobile states that Ofcom's adjustment to the application of this principle has resulted in Ofcom concluding that it is undesirable to set charges at cost because this deters cost minimisation.
- 6.98 T-Mobile also submitted to us in response to the Consultation that, even were Ofcom to establish that the principle of cost minimisation could be fulfilled by MCom successfully pursuing profit maximisation to reduce costs, Ofcom justifies profit maximisation on call termination revenues as a legitimate means to fund investment, innovation and market research, on the basis that these will lead to long term cost reductions and produce improvements. However, according to T-Mobile, this conclusion:
- i) distorts the purpose of call termination charges, which is fundamentally primarily (if not exclusively) to recover efficiently incurred costs;
 - ii) assumes that MCom will invest profits in such investment, innovation and market research, but Ofcom neither seeks to substantiate this assertion nor reconcile it with Ofcom's parallel conclusion that the benefit of such profits will in fact be passed on to MCom customers in the form of lower retail charges;
 - iii) implies that the MCom network is not efficient and that, despite being a welcome new entrant using innovative techniques, recently available spectrum and presumably the latest network equipment, MCom must still be able to improve its service;
 - iv) assumes that it is MCom's competitors that should fund MCom's future improvements; and
 - v) ignores that the appropriate incentive to invest in lower cost technology in a competitive retail market: where an operator has lower technology costs this allows them to better compete for customers, which benefit through the lower costs of call origination from that network.
- 6.99 T-Mobile submits also that Ofcom's approach and its application of the cost minimisation principle lacks justification and is contrary to established practice.
- 6.100 In the alternative, T-Mobile argued that, even were Ofcom correct in its application of the cost minimisation principle, it is in fact irrelevant to the resolution of the dispute and determination of an appropriate call termination rate, since all firms face the same incentive to lower their costs below those of their competitors and there is nothing to distinguish MCom from T-Mobile in the extent of this incentive.

Ofcom's response

6.101 T-Mobile submitted that Ofcom has altered this principle as it was originally used in the MMC Report.⁴⁶ We compared the wording used in both the MMC Report and as stated in the Consultation determination:

6.101.1 MMC Report:

i) *Cost minimisation*: those who could affect the size of the costs should face strong incentives to minimize costs.

6.101.2 The Consultation:

ii) *Cost minimisation*: the mechanism for cost recovery should ensure that there are strong incentives to minimise costs.

6.102 The only difference between these two definitions of this principle is that the definition contained in the MMC Report refers to “those who could affect the size of the costs”, which is omitted in the definition contained in the Consultation. We do not agree that this changes the meaning of the definition. The purpose of considering this principle remains to ensure that the cost recovery mechanism retains an incentive for parties to minimize costs.

6.103 We consider that it is likely that MCom's current termination rate, 7.24ppm, is significantly above the likely efficient cost of termination on MCom's network.

6.104 As discussed in the Consultation, if a new entrant (or established firm) is able to charge the industry regulated rate regardless of the technology and business strategy it chooses to adopt, it will benefit if it is able to lower its costs below those of its competitors. This allows participants in regulated markets to retain an incentive to carry out the investment, innovation and market research, and adopt new technology, that could result in long-term industry cost reductions and product improvements. This does not imply, as suggested by T-Mobile, that we think of ‘profit maximisation on call termination revenues as a legitimate means to fund investment, innovation and market research’. Rather, we believe that, in order to retain the incentive to fund investment, innovation and market research, an operator should be able to benefit from the cost reductions it is able to achieve.

Effective competition

T-Mobile's arguments

6.105 T-Mobile submitted that the substance of Ofcom's conclusions is that MCom should be provided a profit margin on its call termination charges in order to cross subsidise its retail offer and thereby compete with the established MNOs and calling card operators. T-Mobile disagreed with Ofcom's findings because of three main reasons, summarised below.

Competition for international calls

6.106 Firstly, T-Mobile contended that Ofcom in substance adopted MCom's submissions that the current market does not serve international calling or ethnic segments well. T-Mobile claimed that MCom did not provide evidence to substantiate the assertion,

⁴⁶ http://www.competition-commission.org.uk/rep_pub/reports/1995/374telephone.htm#full.

nor has Ofcom investigated the claim nor come to a conclusion on its veracity. In T-Mobile's view, Ofcom adopted this conclusion through its finding that MCom's entry would be in the interests of consumers and the common market.

Subsidisation

6.107 Secondly, according to T-Mobile, Ofcom's conclusions are premised on the idea that a national operator such as T-Mobile use their income from termination charges to subsidise their retail offer (generally) and generate significant excess revenues in urban areas (specifically) that could be in turn be used to cross subsidise a competing retail offer to MCom's.

6.108 However, T-Mobile considers that Ofcom has completely misunderstood the mobile market and the use of call termination revenues by the established MNOs by ignoring the fact that these fund termination costs, and relate to the costs of a national, not specifically urban, network. According to T-Mobile, this is a substantial flaw in the rationale of Ofcom's decision.

"Cherry picking"

6.109 Thirdly, T-Mobile submitted that Ofcom attached too great an importance to the idea of "cherry picking" and its effect on competition. T-Mobile contended that regulation should be competitively neutral and nor should it foster regulatory arbitrage opportunities by allowing regulated rates for particular operators that do not match their costs of supplying the service.

6.110 T-Mobile added that while Ofcom may consider that the approach it takes to a small player such as MCom will not raise significant concerns in this particular instance, the history of regulation (such as international tromboning of calls and 870 numbers) shows that where regulation gives rise to arbitrage opportunities, it is possible that whole business segments carrying large inefficiencies can arise.

6.111 T-Mobile further contended that the proposed MCom MTR is inconsistent with the approach that Ofcom has previously taken to setting MTRs in that it will lead to a distorted pricing structure. In particular, T-Mobile submitted that MCom will use its excess profits on termination to finance lower outgoing call prices or subscription charges, that is, the "waterbed effect" will operate to create a distortion of competition. In support of its contention, T-Mobile outlined one of the possible detrimental impacts on consumers of excessive termination rates: "consumers would face too high a price for calling a mobile...whilst mobile retail services would be priced too cheaply".⁴⁷

Ofcom's response

Competition for international calls

6.112 In the Consultation, we presented MCom's argument that the mobile market is inefficient for consumers making international calls and the services offered by the MNOs to the different ethnic communities within the UK.⁴⁸ As stated in the Consultation, we have not investigated this claim in detail, nor reached a conclusion on it because it is not necessary for the purposes of this dispute (see paragraph 5.68).

⁴⁷ See page 101 of the Calls to Mobile Statement.

⁴⁸ See paragraph 5.64 of the Consultation.

Subsidisation

- 6.113 We should distinguish between: (i) whether termination revenues cover termination costs, and (ii) the waterbed effect, i.e. that termination charges above (or below) cost are likely to lead to lower (higher) retail prices to mobile customers.
- 6.114 Our proposed approach does not change T-Mobile's termination rate, nor the feature that it is currently geographically averaged and so likely to be above cost in urban areas and below cost in rural areas.⁴⁹ Therefore, T-Mobile's termination revenues will continue to be sufficient to fund their termination costs.
- 6.115 The issue at hand relates to the potential for a differential waterbed effect in urban and rural areas, through the process of competition. That is, profits from termination rates above cost in urban areas may be competed away through lower prices to mobile customers in those areas, initiated by MCom and then responded to by other MNOs. If this effect is sufficiently material, there could also be a corresponding effect in the opposite direction in rural areas.
- 6.116 The first condition for this to occur is that MCom's termination rate is above its *incurred* costs. Otherwise, MCom would not be able to subsidise lower retail prices to mobile customers, funded by termination profits. The limited evidence that we have on MCom's incurred costs suggests that this condition may not apply. Although we do not regard it as robust, our best estimate of MCom's incurred cost, based on its revised business plan, is 5.1ppm (see paragraph 6.16). This is in fact higher, not lower than the termination rate in our proposed approach.
- 6.117 Nevertheless, we consider that our proposed approach would allow MCom to earn a profit on termination relative to its *efficient* cost (see paragraph 6.22), although, because of the limitations in our cost estimates, we cannot ascertain what this margin would be. This means that, there is the potential for a differential waterbed effect, even though it is not certain that it will occur. The size of any differential waterbed effect would depend on the extent to which MCom's efficient costs were below its termination rate and the scale of its impact in the market, such as the volume of mobile customers it attracts, and the extent to which it elicited a competitive response from other MNOs.
- 6.118 We acknowledge that all the options available to us carry some disadvantages. However, we have had to weigh up the risks of alternative options in relation to the circumstances in this particular case.
- 6.119 For example, as discussed in the consultation, we also consider that MCom could be disadvantaged relative to T-Mobile and the other MNOs in serving its targeted customer base, were we to set MCom's termination rate below the MTRs of the incumbent MNOs. At the margin, T-Mobile receives a rate in excess of its costs in urban areas. It might enable them to profitably offer retail prices that MCom would be unable to match, not because of inferior performance but because of the disparity in termination rates. Therefore, if T-Mobile's proposal for a deaveraged termination rate to be applied to MCom was adopted, this risk of a distortion of competition against MCom would be present. This is because in the current regulatory regime for other MNOs (which is beyond the scope of this dispute) the termination rates of MNOs against whom MCom might be competing are not also deaveraged geographically.

⁴⁹ For simplicity, we refer in this discussion to "rural areas", which should be interpreted as relating to the areas in which the termination rate is below cost.

Cherry picking

- 6.120 It is generally the case that geographically uniform tariffs can be difficult to sustain if costs are not also uniform and entry in local areas is possible. But this does not mean that regulation should try to prevent such entry. Rather, the best approach is likely to be to allow incumbents to respond to competition, as is the case here.
- 6.121 In relation to T-Mobile's concerns about past instances where regulation has given rise to arbitrage opportunities, we considered that there are significant differences between the cases raised by T-Mobile and the current dispute. The "arbitrage" discussed in the 0870 dispute takes the form of artificial inflation of traffic in order to benefit from termination payments (and revenue sharing) on the 0870 number range and confers no benefit on consumers. A key part of the 0870 policy is to enable BT to re-establish the link between retail prices for 0870 and geographic calls, for example by including calls to 0870 numbers in its inclusive call packages. It is this which creates the possibility of arbitrage since outgoing calls are then free at the margin. If the 0870 termination rate were set at a level which allowed such arbitrage to be profitable, providers would be less likely to include 0870 calls in retail packages, thereby placing the sustainability of retail call packages at risk. This would (as we argue in the context of that dispute) be inconsistent with Ofcom's duties to promote the consumer interest (amongst others).
- 6.122 We therefore do not consider that an artificial inflation of traffic is an issue in this dispute in the same way as in the 0870 case, and the same considerations do not arise. We have however considered the possibility of inefficient entry and have taken this into account in our proposed determination.

Conclusions

- 6.123 This section has considered a number of arguments put forward by T-Mobile that our provisional conclusions were contrary to the principle of effective competition. While we agree that there is merit in some of T-Mobile's concerns, our role in determining this dispute necessarily involved weighing up the costs and benefits of each of the four possible options that we had identified to resolve this dispute in recognition of the fact that none of the options available to us are entirely risk free. On balance, taking account of the range of possible effects, we consider that our proposed approach gives rise to the lowest risk of a detrimental distortion of competition given the specific circumstances of this case.

Reciprocity

T-Mobile's arguments

- 6.124 T-Mobile submitted that we have widened the interpretation of this principle from its original application. T-Mobile contended that the service between itself and MCom is neither reciprocal nor equivalent to properly be considered parallel to that of T-Mobile. T-Mobile concluded that Ofcom's distortion of the principle is apparent in the manner that Ofcom, rather than apply the principle, described why it would like the charges for the MCom service to be reciprocal.
- 6.125 T-Mobile submitted that it is plain that itself and MCom do not provide a service in reciprocity to each other and that the call termination service that they each provide to the other is far from equivalent. According to T-Mobile, call termination on a network is not equivalent to having an MNP agreement and the MCom network does

not provide a national cellular mobile service that can be properly considered parallel to that of the T-Mobile network(s).

Ofcom's response

- 6.126 We acknowledge that there is a difference between the geographic reach of the networks of the two parties to the dispute. Therefore, although we consider it desirable for a number of reasons to link MCom's termination rate to the regulated rate of incumbent MNOs, reciprocity – in the sense of absolute equivalence of termination services - was not one of the main reasons to support our proposed solution in the consultation, and this remains the case in our final determination of this matter.
- 6.127 Additionally, we stated in the Calls to Mobile Statement that, without fettering our discretion, in the event of imposing price controls for new entrants, we are of the view that it is desirable for new entrants' MCT charges to be aligned with those of incumbent suppliers.⁵⁰ We further noted in the Calls to Mobile Statement that we would anticipate further convergence in MNOs' mobile termination rates (see paragraph 6.161 for a description of expected future by Ofcom in the context of the MSA).

Distribution of benefits

- 6.128 T-Mobile observed that Ofcom makes several references in the Consultation to the fact that the UK retail market for mobile services is competitive. T-Mobile submitted that, in the context of a competitive market, consideration of the distribution of benefits between competitors is prima facie irrelevant, since the benefits will be distributed to the consumer in any event. T-Mobile considered that Ofcom's provisional conclusion would distort the market by deliberately ensuring that the benefits go to a narrow base of consumers (MCom's) rather than to the wider base of consumers to which the benefits would naturally flow under competitive conditions if Ofcom applied the primary (if not only) relevant principle of cost causation.
- 6.129 We do not agree with this contention. We regard that a consideration of the distribution of benefits is consistent with determining a rate that is fair and reasonable between the parties and as per our statutory obligations and regulatory principles. An assessment of the distribution of benefits principle supports option 4 as the preferred option as it balances out any benefits that would flow to MCom customers from any lower costs and would avoid callers to MCom paying more than to call other mobile networks (to the extent that originating operators reflect relative termination rates in their retail prices for calls).

MCom submit that the appropriate manner to resolve this dispute with an MTR of 7.24ppm

- 6.130 MCom concludes in its response to the Consultation that a reasonable efficient cost based price to MCom at this stage of its development is its current MTR of 7.24ppm.
- 6.131 Based on our analysis of costs (e.g. see paragraphs 6.17 - 6.23), we consider that a rate of 7.24ppm for MCom is likely to be above MCom's efficient costs (and it is also higher than our estimate of MCom's incurred costs). This rate is also above the future regulated MTRs of the incumbent MNOs, as determined by the CC. As such, it could allow inefficient entry and risks distorting competition and may require callers to pay

⁵⁰ See the Mobile call termination Statement, at page 158.

higher prices for calls to MCom than to other MNOs (to the extent that differences in termination rates are reflected in retail prices charged to callers).

- 6.132 On the basis of the above considerations, we do not consider that an MTR for MCom on 7.24ppm is an appropriate way to determine this matter.

Likely effect of the determination on MCom

MCom arguments

- 6.133 MCom argued that if the Consultation were to be confirmed, that (✂).
- 6.134 MCom also contended that a likely effect of confirming the Consultation is that all other operators would lodge similar disputes against MCom to Ofcom where it would be expected that Ofcom would follow its decision in this matter.
- 6.135 MCom also submitted that it considered an effect of the Consultation, if confirmed, as effectively regulating its MTR in the absence of a market review, or sufficient analysis of costs and in accordance with its statutory obligations and Community.

Ofcom's response

- 6.136 The termination charge paid to MCom by operators other than T-Mobile are outside the scope of the dispute. However, we acknowledge that the logic of our analysis in resolving this dispute is likely also to apply to other originating operators.
- 6.137 Our determination of this dispute, by directly linking MCom's MTR with that of a national regulated rate, allows MCom the efficient termination rate for a service with national coverage. As discussed in paragraph 6.22, we consider it unlikely that the efficient costs of termination for a localised operator in urban areas are higher than the average efficient cost of termination of a national operator. We concluded that the evidence available to us suggests that our proposal to resolve the dispute should allow MCom to make a profit on termination relative to its efficient costs.
- 6.138 This dispute is not, and has not attempted to be a market review and no determination as to the finding of SMP or otherwise has been undertaken. It was not necessary or feasible to conduct such an exercise within the 4 month timeframe of the consideration of this dispute. Section 186 of the 2003 Act requires us to resolve a dispute referred which meets the requirements of section 185 once we have decided in accordance with section 186(2) to handle the dispute. Accordingly, as requested by the parties' joint submission, we have resolved this dispute by setting a termination rate payable by T-Mobile for calls originating on T-Mobile's network and terminating on MCom's network.

Implementation issues

- 6.139 O2 stated that the proposed method of implementing the revised termination rate for MCom, whereby MCom reimburses T-Mobile the difference between the termination rates the latter pays to BT as the transit operator and the proposed rate is likely to be administratively burdensome. O2 suggests instead that the new rate should apply to all customers of MCom's voice call termination services, including BT.
- 6.140 The scope of the dispute between MCom and T-Mobile is to determine the termination rate payable by T-Mobile for voice calls originating on T-Mobile's network and terminating on MCom's network. Therefore rates for other operators are outside

the scope of this dispute. We are therefore unable to implement the methodology proposed by O2. However, as noted above, we acknowledge that the logic of our analysis in resolving this dispute is likely also to apply to other originating operators.

Assisting entry / asymmetry of MTRs for new entrants

Submissions received

- 6.141 MCom stated in its response to the Consultation that it would have expected that Ofcom would have made a decision that was consistent with its treatment of H3G when it was a new entrant.
- 6.142 MCom in particular stated that Ofcom ought to have broadly aligned itself with the position of the European Regulators Group (ERG) on asymmetry in mobile termination rates.⁵¹
- 6.143 A number of other respondents also argued that there are certain circumstances when asymmetric termination rates were justified, particularly to encourage the growth of a new market entrant which does not benefit from economies of scale and where the promotion of competition is required.
- 6.144 C&W argued that asymmetric termination rates in the short term increase profit of the new market entrant leading to stronger competition and consumer benefit in the longer term.
- 6.145 In its response to the Consultation, the Federation of Communication Services (the FCS) also discussed the ERG position and advocated for the asymmetry of termination rates as a method to assist to market entry. The FCS added that Ofcom appeared to be treating companies with significant asymmetry in a similar manner.
- 6.146 A third party (☒) submitted that Ofcom should not have chosen the proposed rate. They feel that this in general is too low and undervalues the business model of small new entrants and as a result makes it significantly harder to compete against the established mobile market players.

Ofcom's response

- 6.147 We note that the ERG's 'Common position on symmetry of fixed call termination rates and symmetry of mobile call termination rates' states that asymmetric termination rates may be justified in some situations:
- i) 'to take into account differentiated conditions of spectrum allocation';
 - ii) to encourage the development of a new entrant on the market, which suffers from a lack of scale due to late market entry. Indeed, this allows higher expected profits in the short term and induces a more intense competition in the long term to the benefit of end users. In other words, a regulator may allow asymmetric rates for a limited time period – thus trading off short-term inefficiency for long-term objectives (i.e. dynamic efficiency).'
- 6.148 However, the ERG also states that asymmetric regulation is only sustainable for a short period of time as it contains a number of potential detriments, including: the risk

⁵¹ See ERG(07) 83 final 080312 – ERG's Common Position on symmetry of fixed call termination rates and symmetry of mobile call termination rates.

of inefficient entry, the possible increase of off-net tariffs of incumbent operators and lower incentives on the new entrant to invent and innovate.

6.149 In addition, we do not believe that either of these conditions apply to this case because:

- i) the DECT guard band spectrum used by MCom was bought at a lower cost than the spectrum used by their competitors; and
- ii) the UK mobile market is sufficiently competitive so as not to require entry assistance in order to promote dynamic efficiency.

6.150 This is consistent with our approach to the regulation of termination charges for H3G. The rationale for our regulation of H3G was not to provide entry assistance (see, for example, paragraphs 7.56 and A15.61-62 of the MCT Statement). See also the discussion of glide paths below.

Use of a glide path over a certain period for a market entrant

6.151 Several respondents stated that it would be appropriate to use a glide path to arrive at the determined price in order to allow MCom to establish its business before it is made to charge the efficient price for termination on its network.

6.152 Our rationale for a glide path in the MCT Statement for H3G was not to provide entry assistance or the fact of H3G's later market entry into an already established market. Rather it was to balance the objective of moving to efficient cost based charges rapidly with the objective of avoiding unacceptable disruption to consumers and operators, such as through adverse effects on investment (see paragraphs 9.172-9.173 of the MCT Statement). The differences between the glide paths of the MNOs in Ofcom's Statement (and the CC Determination) reflected primarily differences in the level of charges at the start of the control and the desire to allow "sufficient time for operators and customers to adjust to new levels and structures of mobile charges and take these changes into account in their business plans and planned capital expenditure".⁵²

6.153 MCom has only recently commenced commercial operations, and so our proposed charge should not create a risk of undue disruption. We recognise that it might require some revisions of current business plans, but we consider this appropriate to the extent that previous plans were based on unreasonably high termination rates.

6.154 Additionally, as we believe that the current efficient cost of termination on MCom's network is unlikely to be higher than the average efficient costs of a national operator (see paragraphs 6.21 to 6.22), we consider that setting a glide path from a rate above this level would be a form of entry assistance in this case, which would not be appropriate in the circumstances of the UK mobile market.(see paragraphs 6.147 - 6.150 above).

Specific rate given uncertainty of CC Determination

6.155 MCom stated in its response to the Consultation that it was unreasonable for Ofcom to make a determination based on Option 4 before confirmation of the CC Determination, given that it is currently subject to judicial review. MCom contended that there is a risk that the CC Determination could be overturned, and if this were to

⁵² MCT Statement, paragraph 9.172.

be the case, Ofcom would have applied an inappropriate benchmark for MCom's own termination rate. MCom concluded that such a circumstance would disadvantage MCom against the incumbent MNOs.

- 6.156 We recognise that the CC Determination will not be finalised until the end of its litigation process. However, in considering relevant benchmarks, we consider that, for the purposes of determining the appropriate benchmark rate, the CC Determination represents the best estimate of the level of a regulated rate. Ofcom is required by statute to resolve the dispute within four months. As of the date of this determination, the outcome of the CC Determination has not yet been resolved definitively. Once the CC Determination has been implemented following the ongoing litigation, we would expect the parties to apply the final TAC for Vodafone and O2 and make any necessary adjustment. However, we also recognise that, if the TAC for Vodafone and O2 resulting from the implementation of the CC Determination is different from our current best estimate of it (4.71ppm for 2009/2010) and the parties are unable to reach an agreement, they may refer a further dispute to us.

A market review would be appropriate

- 6.157 MCom viewed the provisional conclusion of the Consultation as regulation of MCom in the absence of a market review or sufficient analysis of its costs as is required with Ofcom's statutory obligations and the Community requirements.
- 6.158 In its response to the Consultation, H3G stated that it believes there is significant regulatory and commercial uncertainty in relation to Ofcom's policy with respect to the provision of MCT services by new entrant operators who are currently charging unregulated termination rates.
- 6.159 To the extent that H3G's own SMP designation remains, however, H3G remains of the view that the issue of new entrant MCT and the appropriate regulation thereof should be dealt with by means of a market review (and notes that H3G was subject to a market review less than a year after commencing operations).

Ofcom's response

- 6.160 As already stated, Ofcom has a statutory obligation under section 188 of the 2003 Act to resolve disputes that it accepts within four months. This does not allow enough time for a market review. However, if in the future Ofcom deems it appropriate to undertake a market review, then it will consider this matter at that time.
- 6.161 Ofcom is conducting an assessment of Ofcom's overall approach to regulation of the mobile sector in the medium term. In addition, Ofcom is currently planning to publish a preliminary consultation on Mobile Call Termination during Q2, 2009, as a precursor for a Market Review covering mobile termination for the period beyond 2011.

Summary of our response to T-Mobile's revised proposal

- 6.162 T-Mobile submitted that MCom's termination rate should be set equal to the efficient costs of termination on mobile networks in the geographic areas targeted by MCom, namely urban areas, as estimated by Ofcom's MCT model. This would mean setting MCom's termination rate equal to 2.9ppm (in 2008 prices).

6.163 We have not accepted this proposal as the appropriate way to determine this dispute. We do not consider that it is reasonable and fair as between the parties for the following main reasons:

- (i) We consider that there is a risk that MCom would not be able to earn a reasonable profit relative to its efficient costs. This is because we are not confident that the efficient costs of termination on mobile networks in urban areas, as estimated by the MCT model is a sufficiently robust estimate of MCom's efficient costs:
 - The output of the MCT model is less robust when disaggregated by geotype than when used for its intended purpose, estimating average termination costs for a national operator (see paragraph 6.20).
 - Therefore, the output of the MCT cost model could under- or overstate MCom's efficient termination costs (see paragraph 5.18).
 - However, as discussed at paragraph 5.18, we consider it more likely that 2.9ppm provides a lower bound estimate of MCom's efficient termination cost.
- (ii) Currently all operators, including T-Mobile, receive a termination rate in urban areas which is higher than the efficient cost of termination in urban areas, as estimated by the MCT model. In our opinion, setting geographically disaggregated rates for one mobile operator without setting them for its competitors is likely to be discriminatory, because of the risk that it would deter efficient entry and distort competition against MCom.
- (iii) This risk would be present, because in the current regulatory regime for other MNOs, including T-Mobile (which is beyond the scope of this dispute) the termination rates of MNOs, against whom MCom might be competing, are not deaveraged geographically. Therefore, at the margin, T-Mobile and other MNOs receive a rate for terminating calls in urban areas in excess of their efficient costs in urban areas. This might enable them to profitably offer retail prices that MCom would be unable to match, not because of inferior performance but because of the disparity in termination rates in the areas in which MCom is operating.
- (iv) T-Mobile's approach would not be robust to changes in MCom's commercial strategy.

Summary of our response to MCom's proposal

6.164 MCOM argues in its response to the Consultation that a reasonable efficient cost based price to MCom at this stage of its development is its current MTR of 7.24ppm.

6.165 We have not accepted this proposal as the appropriate way to determine this dispute. We do not consider that it is reasonable and fair as between the parties for the following main reasons:

- (i) We consider that MCom's efficient costs of termination for a localised urban network are unlikely to be higher than the average efficient costs of a national operator (see paragraph 6.21). Therefore, even allowing a significant margin for error we consider that a rate of 7.24ppm for MCom is likely to be significantly above MCom's efficient costs. This rate is also significantly above our estimate of MCom's incurred cost.

- (ii) To the extent that the retail prices for calls to MCom reflect the termination rate, a rate of 7.24ppm would cause the prices paid by such callers to be unreasonably high.
- (iii) This rate is above the future regulated MTRs of the incumbent MNOs, as determined by the CC. As such, it could allow inefficient entry and it risks distorting competition.

Summary of the rationale for our final determination

6.166 We believe that the appropriate manner in which to determine this dispute is to set the MTR charged by MCom for the termination of calls originated on the T-Mobile network and terminated on the MCom network equal to our current best estimate of the (lowest) regulated MTR specified in the CC Determination (i.e. 4.71ppm), until the implementation of the CC Determination (see also paragraph 6.172 below).

6.167 We consider that it is reasonable and fair as between the parties for the following main reasons:

- (i) It furthers the interests of consumers through the promotion of competition and the availability of a wide range of electronic communications services by allowing MCom to enter the market to compete in both (i) the mobile voice call and (ii) the international calling card markets.
- (ii) It allows MCom to retain and pass onto its customers any relative benefit resulting from its choice to adopt cheaper technology and to differentiate its service.
- (iii) The termination rate would not cause callers to MCom to pay more than they would for calling other mobile services in the areas in which MCom operates (with the precise outcome for callers depending on the way in which originating operators sets retail prices).
- (iv) Based on our analysis of costs, we consider that this rate should allow MCom to earn a profit on termination relative to its efficient costs. MCom's efficient costs of termination are unlikely to be higher than this rate and the measure of cost we are using already includes a reasonable return on investment. The efficient costs may be lower, but, we are not certain about the size of any such gap, given the limitations in the available evidence.
- (v) Since this approach provides MCom with the efficient termination rate for a service with national coverage, it is robust to changes in MCom's business strategy and to subsequent phases of network rollout.
- (vi) The approach does not change T-Mobile's termination rate, nor the feature that it is currently geographically averaged and so likely to be above cost in urban areas and below cost in rural areas. Therefore, T-Mobile's termination revenues will continue to be sufficient to fund their termination costs (even if there were a differential waterbed effect as between urban and rural areas).
- (vii) We do not believe that there is likely to be a resulting detrimental distortion to competition against T-Mobile (or other MNOs) from determining this rate, even to the extent that it allows MCom a margin above its efficient cost of termination. In particular, this is because T-Mobile and other MNOs, against whom MCom may be competing, would also receive the same (or higher) rate for terminating calls

in the areas in which MCom operates. We believe that the risk of detriment from distorting competition under our preferred option is smaller than under the other options considered.

Ofcom's conclusion on the preferred option

- 6.168 Having considered stakeholders' comments on the Consultation, we conclude that the preferred option is to determine that the MTR charged by MCom for the termination of calls originated on the T-Mobile network and terminated on the MCom's network may not exceed the Target Average Charge (TAC) for Vodafone and O2, this being the lowest regulated MTR.
- 6.169 As explained in paragraph 5.36 above, we recognise that the TAC for Vodafone and O2, as set out in the CC Determination, may be the subject of review by the CAT on judicial review grounds and will not be finalised until the end of the litigation process. However, since we are required by statute to resolve this dispute within four months, we have referred to the MTRs set out in the CC Determination as our current best estimate of the regulated MTRs.
- 6.170 In particular, we noted that the TAC for Vodafone and O2 in 2009/10, as specified in the CC Determination, is 4.4ppm (in 2006/07 prices).

Conversion of MTR from real prices to nominal prices

- 6.171 An adjustment was required to convert this option into nominal terms to account for three years of relevant inflation. We consider that the methodology for converting the regulated MTRs into nominal terms should follow that used in implementing the CC Determination. Our indicative calculations are attached at Annex 3.⁵³ This shows that 4.4ppm (in 2006/07 prices) converts into 4.71ppm in nominal terms. Therefore, we have decided to resolve the dispute by determining the MTR applicable between MCom and T-Mobile to be our current best estimate of the lowest regulated rate, which is 4.71ppm.
- 6.172 Once the CC Determination has been implemented following the ongoing litigation, we would expect the parties to apply the final TAC for Vodafone and O2 and make any necessary adjustment. However, we also recognise that, if the TAC for Vodafone and O2 resulting from the implementation of the CC Determination is different from our current best estimate of it (4.71ppm for 2009/2010) and the parties are unable to reach an agreement, they may refer a further dispute to us.

Ofcom's determination

- 6.173 Ofcom concludes that, based on the submissions of the parties, the evidence gathered in this dispute and the responses received to the Consultation, our conclusion is that:
- i) As from 20 March 2009 and until the implementation of the CC Determination, the MTR charged by MCom for the termination of calls originated on T-Mobile's network and terminated on MCom's may not exceed 4.71ppm, which is our current best estimate of the TAC for Vodafone and O2 for 2009/2010 as specified in the CC Determination, converted into nominal terms;

⁵³ See Annex 3 for "Indicative calculations requested by the Tribunal at CMC on 2 February 2009".

- ii) In order to ensure that the appropriate rate is applied as between MCom and T-Mobile in the absence of direct interconnection, as from 20 March 2009 and until the implementation of the CC Determination, MCom shall pay to T-Mobile an amount equal to the pence per minute charge for termination on MCom's network contained in the Carrier Price List less 4.71ppm (being currently our best estimate of the lowest regulated MTR) in respect of each minute of traffic originated on T-Mobile's network and terminated on MCom's network.

How to implement Ofcom's determination

- 6.174 Ofcom's powers in order to resolve disputes are set out under section 190 of the 2003 Act and include a power to make a declaration setting out the rights and obligations of the parties to the dispute and to direct the parties to enter into a transaction between themselves on such terms and conditions as Ofcom may fix.
- 6.175 As has been previously noted, MCom and T-Mobile do not interconnect directly. Each of them have entered into a Standard Interconnection Agreement with BT pursuant to which calls are conveyed between the MCom and T-Mobile networks by use of BT's transit service. In the course of our investigation, it has become apparent that the parties do not have an interest in direct interconnection since this would unnecessarily incur costs.
- 6.176 Ofcom's powers to resolve disputes are limited to imposing obligations on the parties to the disputes only. Ofcom therefore considers it appropriate to make a declaration setting out that the MTR charged by MCom for the termination of calls originated on T-Mobile's network and terminated on MCom's may not exceed 4.71ppm, being our current best estimate of the target average charge (TAC) for Vodafone and O2 (ie, the lowest regulated MTR) until the implementation of the CC Determination following the ongoing litigation. Once the CC Determination has been implemented following the ongoing litigation, we would expect the parties to apply the final TAC for Vodafone and O2 and make any necessary adjustment. However, we also recognise that, if the TAC for Vodafone and O2 resulting from the implementation of the CC Determination is different from our current best estimate of it (4.71ppm for 2009/2010) and the parties are unable to reach an agreement, they may refer a further dispute to us.
- 6.177 In the past, in relation to price controls, we have opted to reduce termination charges through a glide path where we thought a sudden decrease in a mobile operator's termination revenue would not be in the longer term interests of consumers (for example, if such a reduction presents a material risk to further investment in mobile services).⁵⁴ However, as discussed at 6.152, our rationale for a glide path in the MCT Statement is not applicable to this case. The differences between the glide paths of the MNOs in Ofcom's Statement (and the CC Determination) reflected primarily differences in the level of charges at the start of the control and the desire to allow "sufficient time for operators and customers to adjust to new levels and structures of mobile charges and take these changes into account in their business plans and planned capital expenditure".⁵⁵
- 6.178 MCom has only recently commenced commercial operations, and so our proposed charge should not create a risk of undue disruption. We recognise that it might require some revisions of current business plans, but we consider this appropriate to the extent that previous plans were based on unreasonably high termination rates.

⁵⁴ See 9.185 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

⁵⁵ MCT Statement, paragraph 9.172.

Additionally, as we believe that the current efficient cost of termination on MCom's network is unlikely to be higher than the average efficient costs of a national operator (see paragraphs 6.21 to 6.22), we consider that setting a glide path from a rate above this level would be a form of entry assistance in this case, which would not be appropriate in the circumstances of the UK mobile market (see paragraphs 6.147 - 6.150 above).

- 6.179 However, given that the parties do not have direct interconnection and charges for termination are levied by MCom on BT, Ofcom does not consider that such a position is sufficient to resolve the dispute. Further, Ofcom does not consider that it could resolve the dispute by determining the MTR applicable between BT and MCom, since BT is not a party to the dispute. Indeed, such an approach would go beyond the scope of the dispute as it would mean that the MTR determined by Ofcom would apply not only in respect of calls originated on T-Mobile's network but also on any other network using BT as a transit provider, including BT itself.
- 6.180 Ofcom has therefore considered how to ensure that the resolution of this dispute is limited to a resolution between the parties in circumstances where they do not directly interconnect. In reaching its proposed determination, Ofcom has considered the following factors:
- (i) the parties are interested in neither direct interconnection nor "targeted" transit;
 - (ii) since the parties use BT as "transit" provider, MCom cannot distinguish between the traffic terminated on its network originating on T-Mobile's network and the traffic originating on other networks; and
 - (iii) Ofcom cannot impose any obligations on BT through this dispute since it is not a party to the dispute.
- 6.181 In the light of these considerations, we use Ofcom's powers under Section 190(2)(c) of the 2003 Act to give a direction that, as from 20 March 2009, MCom shall pay to T-Mobile an amount equal to the pence per minute charge for termination on MCom's network contained in the Carrier Price List less 4.71ppm (being our current best estimate of the TAC for Vodafone and O2) in respect of each minute of traffic originated on T-Mobile's network and terminated on MCom's network, until the implementation of the CC Determination following the ongoing litigation.
- 6.182 Ofcom's determination is at Section 7 below and takes effect on 20 March 2009

.Section 7

The Determination

Determination under sections 188 and 190 of the Communications Act 2003 (“the 2003 Act”) for resolving a dispute between Mapesbury Communications Ltd (“MCom”) and T-Mobile (UK) Ltd (“T-Mobile”) concerning the termination rate payable by T-Mobile for calls originated on T-Mobile’s network and terminated on MCom’s network.

WHEREAS

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

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

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

(C) on 10 October 2008 the parties to the dispute jointly submitted a dispute for resolution;

(D) on 21 November 2008, after requesting and obtaining further information from the parties to fully understand the scope of the dispute, Ofcom decided that it was appropriate for it to handle the dispute, and informed the parties of this decision;

(E) on 21 November 2008 Ofcom published details of the dispute on its website and invited comments from stakeholders on the scope of the dispute;

(F) on 21 November 2008 Ofcom set the scope of the dispute to be resolved as being to determine the termination rate payable by T-Mobile for voice calls originating on T-Mobile's network and terminating on MCom's network;

(G) a non-confidential draft determination was sent to the parties on 13 February 2009 January 2009 and published on Ofcom's website on the same date;

(H) in order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 of, and the six Community requirements set out in section 4 of the 2003 Act;

(I) a fuller explanation of the background to the dispute and Ofcom's reasons for making this determination are set out in the explanatory statement accompanying this determination; and

NOW, therefore, Ofcom makes, for the reasons set out in the accompanying explanatory statement, this determination for resolving this dispute:

Declaration of rights and obligations, etc

- 1 As from 20 March 2009 and until the implementation of the CC Determination, MCom is not entitled to charge an amount in excess of 4.71ppm, which is our current best estimate of the TAC for Vodafone and O2 for 2009/2010, as specified in the CC Determination, converted into nominal terms, in respect of each minute of traffic originated on T-Mobile's network and terminated on MCom's network;
- 2 In order to ensure the appropriate rate is applied as between MCom and T-Mobile in the absence of direct interconnection, as from 20 March 2009 and until the implementation of the CC Determination, MCom shall pay to T-Mobile an amount equal to the pence per minute charge for termination on MCom's network contained in the Carrier Price List less 4.71ppm (which is our current best estimate of the TAC for Vodafone and O2 for 2009/2010, as specified in the CC Determination, converted into nominal terms), in respect of each minute of traffic originated on T-Mobile's network and terminated on MCom's network.

Binding nature and effective date

- 3 This determination is binding on MCom and T-Mobile in accordance with section 190(8) of the 2003 Act;
- 4 This determination takes effect on the date of the final determination;

Interpretation

- 5 For the purpose of interpreting this Determination—
 - a) headings and titles shall be disregarded; and
 - b) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.
- 6 In this Determination:
 - a) '**2003 Act**' means the Communications Act 2003 (c.21);

- b) **'Carrier Price List'** means the document entitled Carrier Price list published by British Telecommunications plc as amended from time to time;
- c) **'MCom'** means Mapesbury Communications Ltd whose registered company number is 04553934, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989;
- d) **'T-Mobile'** means T-Mobile (UK) Ltd 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 736 of the Companies Act 1985, as amended by the Companies Act 1989;
- e) **'Ofcom'** means the Office of Communications.

Neil Buckley

Director of Investigations

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2003

20 March 2009

Annex 1

Cost Annex

Assessment of MCom's costs

- A1.1 For clarity this annex sets out the original analysis and reasoning underpinning Ofcom's draft determination (which also appeared at Annex 1 of the Consultation). Where this analysis and reasoning has changed as a result of responses received to the Consultation, this is contained at in the Revised Cost Annex (see Annex 2).
- A1.2 To gain a better understanding of the costs MCom incurs when a call is terminated on its network, we completed a high level assessment of termination cost based on MCom's business plan. We also assessed the evidence on MCom's costs submitted by T-Mobile. In addition to this, we considered what the efficient cost of termination in urban areas, such as those serviced by MCom, is likely to be by considering output from the MCT cost model, disaggregated on a geographical basis. Below we describe the following:
- a) The estimate of the costs of termination arrived at by MCom in its business plan;
 - b) A revised estimate of the cost of termination, using MCom's call volume and cost estimates in a manner that more closely matches Ofcom's cost allocation assumptions for termination;
 - c) Evaluation of the cost evidence submitted by T-Mobile; and
 - d) An adaptation of the MCT cost model to produce unit costs for different "geotypes" within the model.

Estimated cost of termination on MCom's Network

- A1.3 Table A1 contains two estimates of MCom's termination cost. The first is the estimate provided by MCom, the second is a revised estimate produced by varying the cost allocation assumptions to more closely reflect Ofcom's view of how expenses should be allocated in estimating termination costs.

Table A1: Estimated cost of termination (ppm)⁵⁶

	Notes	Year 1	Year 2	Year 3	Year 4	Year 5	Constant rate ¹
<i>MCom Opex estimate</i>		(X)	(X)	(X)	(X)	(X)	(X)
Revised Opex estimate	2	(X)	(X)	(X)	(X)	(X)	(X)
<i>MCom depreciation estimate</i>		(X)	(X)	(X)	(X)	(X)	(X)
Revised depreciation estimate	3	(X)	(X)	(X)	(X)	(X)	(X)
<i>MCom cost of capital estimate</i>		(X)	(X)	(X)	(X)	(X)	(X)
Revised cost of capital estimate	4,5	(X)	(X)	(X)	(X)	(X)	(X)
<i>MCom Network costs estimate</i>		(X)	(X)	(X)	(X)	(X)	(X)
Revised Network costs estimate	6	(X)	(X)	(X)	(X)	(X)	(X)
<i>MCom non-network cost estimate</i>		(X)	(X)	(X)	(X)	(X)	(X)
Revised non-network cost estimate	7	(X)	(X)	(X)	(X)	(X)	(X)
Spectrum cost estimate	8	(X)	(X)	(X)	(X)	(X)	(X)
Network externality surcharge	9	(X)	(X)	(X)	(X)	(X)	(X)
MCom cost estimate (ppm)		12.4	6.8	5.9	5.4	4.9	5.8
Revised cost estimate (ppm)		6.8	3.8	3.4	3.1	2.9	3.4

1. To provide a rough proxy for the unit cost implied by MCom's business plan under the economic depreciation methodology, we derived the constant ppm rate over the five-year period of MCom's business plan (which, given the forecast volumes, is projected to recover the same amount of cost over the 5 years as the straight-line depreciation figures in NPV terms).

2. MCom included site rental fee plus cost of free service, Communications back haul, Network Software and Hardware Maintenance and sim-card costs in its Infrastructure Opex estimation. However, as sim-card expenditure is a subscriber-driven cost we do not consider it to be relevant in the analysis of termination costs. Therefore the cost of SIM cards has been removed from this figure.

3. MCom has depreciated Network site capex and all other assets over 5 years. The CTM methodology provides for a variety of asset lives for over 60 assets. MCom's balance sheet is not disaggregated to this level. However, it is likely that the majority of MCom's asset types would fit into categories that the CTM methodology would depreciate over at least 10 years. Therefore, this figure has been re-calculated assuming 10 year asset lives instead of 5.

4. This figure has been recalculated to reflect the CTM allocation of 25% of network costs to voice termination⁵⁷ (MCom's methodology attributed 33%) and the CTM allowance of 11.5% for cost of capital (MCom's methodology allowed 14%)⁵⁸

5. The cost of capital is also affected by the change in the depreciation rate from 5 to 10%, as this change results in higher book values for network assets.

6. The CTM allocates 25% of network costs to voice termination (MCom's methodology attributed 33%)

7. This has been altered to reflect the 12.5% allocation of total Administration costs to termination by the CTM model (MCom's methodology allocates 23%).⁵⁹

8. This figure is very close to zero due to the low average price of spectrum sold at the 2006 auction. The allocation for the 2G spectrum cost in the incumbent 2G/3G MNO's costs of 2G termination is 0.16 ppm.

⁵⁶ Cost and call volume estimates are based on MCom's business plan. All amounts are expressed in 2008 prices.

⁵⁷ See A14.69 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

⁵⁸ See A18.71 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

⁵⁹ See A15.105 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

9. The network externality charge was not added to either estimate.

- A1.4 We emphasise that care is required with the interpretation of these figures. In particular, these results are underpinned by MCom's projection of demand for their service (which assumes that MCom customers will receive an average of (x) calls per month, and an addition of (x) customers per month for the first (x) years of operation). Given that MCom has recently launched its service, we cannot determine the accuracy of these projections. Clearly, variation of these call volume estimates will result in different termination cost results.⁶⁰
- A1.5 In calculating the above cost estimates, we used a number of assumptions based on Ofcom's view of the termination costs of MNOs. It is unclear whether these assumptions are appropriate in estimating the cost of termination on MCom's network. For example, because MCom is not yet operational, it is unclear how well the general cost allocation assumptions, such as the mix between incoming and outgoing calls as well as the mix between data and voice calls, which were designed to approximate the use of MNO's networks, will apply to MCom's service.⁶¹
- A1.6 On the basis of the above reservations, we suggest that it would be prudent not to rely on the above estimates as an exact measure of MCom's costs.
- A1.7 Through our investigation of MCom's business strategy, including a site visit, we became aware that the planning, and pre-installation phases for MCom's network were highly detailed, significantly customised and might not be fully incorporated in the costs for setting up the network. The main sources of costs that we became aware of are:
- 1) **Preplanning and signal propagation testing:** MCom needed to gain an understanding of the propagation properties of the low power 1800 Guard band spectrum before any planning could be carried out. To do this MCom did bench testing and also tested their custom pico cells in the field, using 'cherry pickers' to mimic rooftop installations, in order to understand how the signal would interact with the high density housing found in Newham.
 - 2) **Site location:** MCom could not decide on pico site location on the basis of optimum network configuration alone, as it also needed to consider where site installation was possible. In order to cover the Newham area, over 200 locations needed to be identified and deployed. These included phone boxes, advertising hoardings and the roof-tops of residential housing. MCom needed to submit over 160 planning applications with Newham council, and leafleted almost every house in the area asking for permission to access the roof tops. This approach was necessary, but very labour intensive and customised. In comparison, a full power GSM operator probably covers an area the size of Newham with between 2 - 4 cell sites, and does not need to directly interact with general public to seek base station locations. In addition, multiple individual contracts and payments have had to be arranged with each home owner when a rooftop installation has been deployed.

⁶⁰ For example, if the projected number of calls terminating on MCom's network were halved the revised constant estimate would come out at (x) (assuming a decrease in call volume will not decrease total costs), while if the projected number of calls were to be increased by 50% the resulting revised constant estimate would fall to (x) (assuming an increase in call volume will not increase total costs).

⁶¹ See A15.108 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

- 3) **Pico cell specifications:** The pico cells needed to be customised from standard pico cells in two ways: firstly, they need to have a 5.4GHz transmitter added so they were able to 'daisy chain' back to the fixed nodes, and secondly they needed to be made very weather proof and have fixings added suitable for rooftop and telephone box installation. This required the assembly of custom metal fixing.

A1.8 Overall, the evidence we have gathered through our investigation of MCom's business strategy, site visit and cost analysis does not suggest that MCom has overstated its actual costs. However, we do not have sufficient information to comment on whether all of these costs have been/will be incurred efficiently.

Evaluation of cost evidence submitted by T-Mobile

A1.9 T-Mobile submitted the following estimate of MCom's costs.

Table A2: T-Mobile's detailed termination rate assessment

Termination rate breakdown
(all in ppm)

	T-Mobile	Guard band
Network costs	3.08	0.5
Spectrum costs	1.45	0.00011455
Network externality	0.3	0
Admin costs	0.3	0.3
	<hr/>	<hr/>
	5.13	0.80011455
	50% uplift:	1.200171825
	T-Mobile offer	<u>1.2</u>

A1.10 T-Mobile based its calculation on a comparison with the components of its own termination rate. Our evaluation of this methodology is outlined below.

Network costs

A1.11 MCom's network rollout covers a small number of targeted urban areas. T-Mobile believe that MCom's network costs would be significantly lower than its own because it has not invested in a national network on the scale of the established UK GSM network operators.

A1.12 T-Mobile's submission outlines that the relevant network costs, including; site costs, equipment costs, backhaul, buildings and RAN planning would all be significantly lower for MCom than that of full power 2G/3G networks, even accounting for scale/coverage:

- **Site costs:** T-Mobile argues that a DECT guard band network does not rely heavily on the acquisition of expensive rooftop or greenfield plots. Rather, almost all RAN equipment can be mounted as street furniture and because of restrictions on mast height is not subject to planning permission (an expensive and time consuming process).
 - However, MCom informed us that they have in fact had to apply for planning permission approximately 140 times in order to employ their network in the Newham area alone. In addition MCom informed us they have had to, often

in partnership with others, build sites in such diverse locations as phone boxes, advertising hoarding or on the roofs of residential housing. Additionally there were no opportunities for co-location as is often the case with established GSM operators.

- **Equipment costs:** T-Mobile state that, as only localised short distance coverage is envisaged, using a single carrier, at low power, equipment costs are not the equivalent of those encountered by T-Mobile.
 - We have little data on the comparable costs of equipment. However MCom must deploy approximately 100 pico cell sites for every Macro cell site T-Mobile must deploy for the same area of coverage. Therefore, it is possible that these costs are comparable.
- **Backhaul:** In their submission T-Mobile argue that MCom's backhaul '*...can be provided using standard or relatively low capacity BT lines, since the volumes of traffic do not necessitate investment in expensive leased lines, Ethernet access, microwave links etc. while antenna location means that these are only required over short distances.*'
 - MCom requires Symmetric Digital Subscriber Line (SDSL) connectivity to link node cells back to their switch. Although these are lower cost than the BES / WES solutions a national network may use it is unclear how the CAPEX / OPEX costs compare to the microwave connectivity T-Mobile utilises extensively in their network.
- **Buildings:** T-Mobile states that no significant buildings or cabinets are required to be constructed, installed or maintained in order to house extensive network equipment. To the extent any such installations are necessary, these are significantly less expensive than those required by T-Mobile as part of its network infrastructure.
 - MCom informed us that the process of finding, commissioning and maintaining approximately 200 installation sites in the Newham area has been time consuming and expensive. Site locations include phone boxes, advertising hoardings and the roof-tops of residential housing. In the case of roof-top installation, individual contracts and payments have had to be arranged with each home owner, including ongoing site rental payments. Additionally, the cells deployed by MCom needed to be customised from standard pico cells in two ways: Firstly they need to have a 5.4GHZ transmitter added so they were able to 'daisy chain' back to the fixed nodes, and secondly they needed to be made weather proof and have fixings added suitable for rooftop and telephone box installation. This required customer metal fixing to be made and assembled.
- **RAN planning:** T-Mobile argues that, owing to its limited and localised rollout, MCom requires no significant investment in RAN planning on an initial or ongoing basis.
 - Significant work was required for MCom to ensure that its cells work together and cross over effectively. The site map MCom have shown us showed the significant complexity in MCom's planning process. Due to the unique nature of the MCom network, much of this work had to be done from first principles, involving on site testing of different network deployments in order to optimise design.

- A1.13 T-Mobile estimates that the equipment costs of a local DECT guard band network would be 0.25ppm but their submission does not disaggregate this estimate between the components of network costs. T-Mobile adds 0.25ppm for the BT single tandem charge (their estimate of MCom's backhaul cost) to get a final network cost estimate of 0.5ppm.
- A1.14 As indicated above, we believe that T-Mobile has understated the cost of some of the components of MCom's network that were discussed in its submission. Additionally, our cost analysis indicates that MCom's network costs are likely to be significantly higher than the 0.5ppm estimated by T-Mobile (see table A1 and figure A1). However, our analysis does indicate that MCom's network costs are likely to be lower than T-Mobile's (and the other MNOs).

Spectrum licence costs

- A1.15 T-Mobile point out that MCom's GSM licence for DECT guard band spectrum was acquired at relatively little cost and does not currently attract administered incentive pricing (i.e. a methodology to set licence fees based on opportunity costs).
- A1.16 T-Mobile's own termination cost estimate includes 1.45ppm for spectrum costs. T-Mobile estimates the spectrum component of MCom's termination rate to be 0.0001 – by multiplying its own spectrum ppm cost by the ratio of the cost of its spectrum licence (£4 billion) to the average rate paid for a DECT guard band licence in the 2006 auction (£316 000).
- A1.17 Hence, T-Mobile's methodology applies the same call volume and allocation assumptions to MCom's spectrum costs as it applies to its own. Given the likely differences in call volumes between MCom and T-Mobile, it is not clear that it is appropriate to calculate MCom's spectrum costs under these assumptions.
- A1.18 However, even if we allocate the entire spectrum cost (i.e. the average rate paid for a DECT guard band license in the 2006 auction) across MCom's projection of the number of calls that will be terminated on its network (and therefore do not allocate any of the costs to outgoing calls) over the 5 year period of its business plan, the resulting number is less than 0.001. Therefore we use an allocation of 0.0ppm for spectrum costs, in our estimation of MCom's ppm termination cost.
- A1.19 We note that in its analysis of 3G spectrum costs, the CC argued that in a competitive market one would not expect the sum of network costs and spectrum costs to be different for services that are essentially homogeneous⁶². Therefore one possibility is to assume a ppm allocation for MCom's spectrum costs equal to the 2G spectrum cost included in the 2G/3G incumbent MNOs termination rates. However, due to the difference in network reach, we have only included an estimate of MCom's spectrum costs based on the market price of a DECT guard band license specifically.

Administrative costs

- A1.20 T-Mobile states that it is not aware of any reason that an administrative cost comparable to T-Mobile's would be inappropriate in the case of MCom. Therefore T-Mobile's methodology allocates an administration cost equal to its own (0.3ppm) to its estimation of MCom's termination rate.

⁶² See 2.3.3 at http://www.catribunal.org.uk/files/CC_Determination_1083_H3G_1085_BT_220109.pdf

- A1.21 Due to the existence of economies of scope and scale in the provision of mobile services, it is unlikely that the efficient administration (or non-network) termination costs for a small localised service would be equal to those for a national service.
- A1.22 Our analysis shows that the nature of MCom's service (localised in urban areas) is likely to allow it lower efficient network costs than an operator with national coverage. However, these characteristics also necessarily imply that MCom's service will be unable to achieve the economies of scale or economies of scope of a national operator. In other words, some of the network cost savings achieved by a service which operates only in lower cost areas may be balanced by higher efficient non-network costs. However, the magnitude of this difference is not clear.⁶³

Network externality surcharge ("NES")

- A1.23 T-Mobile state in their submission that MCom's target customers will already have a subscription with one of the established UK mobile operators offering national coverage and would use their MCom SIM card in their existing handset to utilise MCom's service. Therefore, T-Mobile argue that there would be no network externality when MCom increase their subscription base, and thus does not include a network externality surcharge in its estimation of MCom's termination costs.
- A1.24 As the recent CC price determination recommends the removal of the NES from MNO termination rates, we have not considered this issue here. We have also not included a NES in our estimation of the cost of termination on MCom's network.

T-Mobile's final estimate

- A1.25 The sum of all inputs as estimated by T-Mobile is 0.8001ppm. This estimation was multiplied by 1.5 '*to counter any inaccuracies in T-Mobile's estimation*', leading to a final estimate of 1.2ppm.
- A1.26 Our analysis indicates that the cost of termination on MCom's network is likely to be significantly higher than 1.2ppm (see table A1 and figure A1).

Ofcom's mobile call termination cost model⁶⁴

- A1.27 As a cross-check on the cost estimates from the parties to the dispute, we adapted Ofcom's mobile call termination cost model to produce unit costs for different "geotypes"⁶⁵ within the model. While the specific levels should be treated with some caution, this analysis is useful in terms of estimating the magnitude of unit cost differences between specific geotypes.
- A1.28 We started with the network asset deployment of a national 2G/3G operator using 1800MHz spectrum, as per T-Mobile or Orange. In doing so, this analysis fully captures the economies of scale of a national mobile network.

⁶³ The revised estimates presented in table A.1 above provides an estimate for MCom's non-network termination costs of (£). However, Ofcom has insufficient information to comment on whether these costs are efficiently incurred.

⁶⁴ The MCT cost model uses 2006/07 as its base year, therefore all numbers in this section are expressed in 2006/07 amounts and need to be inflated to 2008 numbers for comparison with the results from MCom's business plan.

⁶⁵ "Geotypes" is a term used to describe categories of UK areas with broadly similar population densities and/or other relevant characteristics.

A1.29 From this basis, we established unit costs of termination for each individual geotype by:

- extracting:
 - the lifetime capital and operating costs of assets deployed within that geotype category (e.g. urban areas); and
 - the lifetime service volumes for all services within that geotype category; and then
- Using the MCT cost model to calculate a long run path of unit costs for that geotype, based on "Original economic depreciation "⁶⁶

A1.30 The overall level of termination unit costs for this is based on Ofcom's medium traffic scenario and excludes 3G costs and call volumes. This approach is consistent with MCom's service, which uses a 2G network.

A1.31 The results of this analysis should be treated with some caution. The level of detail that is necessary to model geotype-specific costs is greater than that required for an accurate estimate of MCT costs overall (for which the MCT cost model was developed). Importantly, while the model was calibrated to key data from MNOs (e.g. asset counts, Gross Book Values, aggregate operating expenses) at an aggregate level, no such calibration was ever conducted at the geotype-specific level.

A1.32 Nonetheless, the adapted MCT cost model suggests that the non-geographic component of unit costs of termination makes up just 1.1ppm of the average network unit costs of 3.7ppm⁶⁷. The remainder of network unit costs can be attributed to specific geotypes. These geotype-specific unit costs vary considerably.

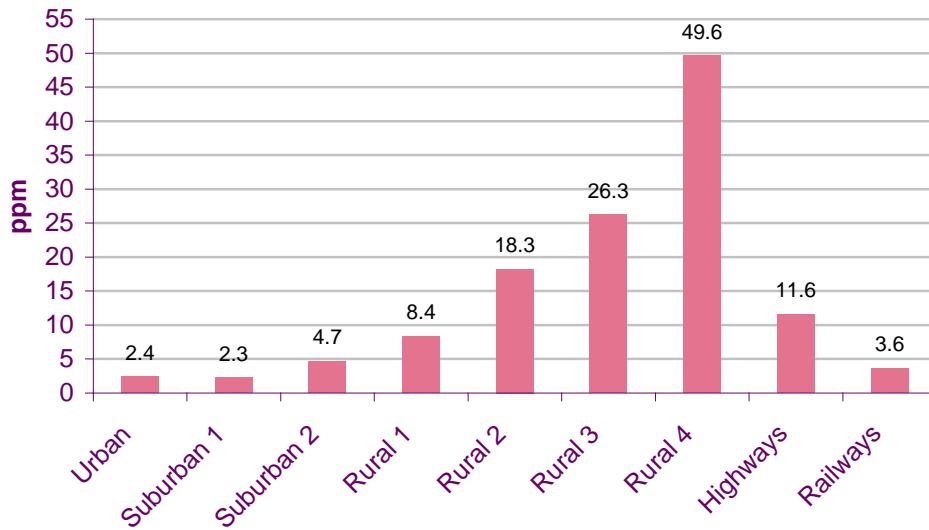
A1.33 Figure A1 below suggests that efficient network unit costs of termination within the most densely populated areas of the UK are in the region of 2.3-2.4 ppm.⁶⁸

⁶⁶ See A5.194-202 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/

⁶⁷ These figures refer to network costs only. An additional allowance would also be made for non-network costs in order to be consistent with the MCT charge control. We used a mark-up for non-network costs of 0.3ppm for 2G/3G operators in the charge control. Therefore, the estimated efficient total termination cost for 2G/3G MNOs is 4.0ppm (in 2006/07 prices) or 4.3ppm in 2008 prices.

⁶⁸ Ofcom notes that these costs are estimated for an efficient MNO, and thus assume access to identical technology as well as the economies of scale and scope obtained by MNOs. It is not clear to what extent these costs are applicable to MCom, given the size of its network and the differences in technology employed.

Figure A1: Estimated efficient network cost of termination (ppm)



A1.34 The call termination costs by geotype graphed above include network costs only. If we want to comment on the total efficient costs of a provider who operates in urban areas only, we would need to add a suitable estimate for the non-network costs of such a service. As noted above, it is unlikely that the efficient non-network termination costs for a localised service would be equal to those for a national service. Therefore, given the limited information available to us, Ofcom is unable to determine with any certainty what this figure should be for a localised service such as MCom's.

Comparison of Ofcom's cost estimates⁶⁹

A1.35 Adding the MNO non-network cost allowance of 0.3ppm (0.3ppm in 2006/07 prices) yields a cost estimate for 2G termination by MNOs in urban areas of 2.9ppm (2.7ppm in 2006/07 prices) which is 0.5ppm lower than our estimate of MCom's costs using MCom's business plan – 3.4ppm.

A1.36 We note that the network cost components of both figures are similar, while the non-network component of the estimate of termination costs using MCom's business plan (3.4) is significantly higher than the MNO non-network cost allowance of 0.3ppm.

⁶⁹ The numbers in this section are expressed in 2008 prices.

Annex 2

Revised estimated cost of termination on MCom's Network

Assessment of MCom's costs

- A2.1 This annex contains the adjustments to estimates of MCom's incurred termination cost. These costs were discussed at paragraphs 6.27 - 6.48 above). Table A2 contains two revised estimates of MCom's incurred termination cost. The first is the revised estimate provided by MCom in its response to our draft determination; the second is an estimate we produced based on the revised business plan provided to us by MCom on 3 March 2009.
- A2.2 The only differences between the two estimates are i) our revised estimate employs the efficient industry cost of capital, 11.5%, while MCom applied a cost of capital which they believe better reflects their specific risk profile, 14%⁷⁰ and ii) MCom included a Network externality surcharge (NES) of 0.3ppm in their estimate, while, because the CC removed this surcharge from their recent determination of MNO termination rates, we have not included the NES in our revised estimate. These differences make relatively little difference to the final constant ppm unit cost.
- A2.3 However, both estimates are different from the unit cost estimates included in our draft determination. The constant unit estimate of MCom's incurred costs, using their view of cost of capital and NES, has reduced from 5.8ppm to 5.5ppm, while our constant unit incurred cost estimate has increased from 3.4ppm to 5.1ppm. The main sources of the increases to our estimates are:
- a decrease in MCom's projected customer numbers, leading to a projected decrease in almost (⌘) call minutes terminated over the five years.
 - an increase MCom's projected expenditure on capital and infrastructure maintenance: including a projected increase of (⌘) for secure data management facilities and data centre back-up costs, an increase to the cost of maintaining BTS sites by an average of (⌘) per year, over the five years, and an increase in projected MSC costs by (⌘) over the five years.
 - a change to the depreciation rate assumption from the original draft: we have adopted an average five year asset life for our estimation – to take account of the types of assets, namely pico cells, employed in MCom's service – which is a departure from the 10 year asset life assumption we used in the draft determination.
- A2.4 MCom's estimate has decreased due to their adoption of some of Ofcom's allocation assumptions: namely attributing 25% of network costs to voice termination – MCom's methodology in the draft determination attributed 33% – and attributing 12.5% of total Administration costs to termination – MCom's methodology

⁷⁰ MCom have suggested that we should use a 14% cost of capital, rather than the 11.5% we used to calculate cost of capital in the CTM statement, as it more accurately reflects the costs they face being a new entrant in unfavourable economic times. However we consider it inappropriate to use a higher WACC than the estimated efficient level in calculating termination costs, as it is undesirable to increase costs to consumers to account for an investor's higher risk profile.

in the draft determination allocated 23%. All revisions to the cost estimates since the draft are explained in greater detail in the notes to table A2 below.

- A2.5 As in the Consultation, the results are particularly sensitive to MCom's projected call volumes. For example, if we incorporated MCom's revised costs into our estimation but retained the projected customer numbers that were used for our estimates in the Consultation our revised estimate would be 4.1ppm rather than 5.1ppm.

Table A2: Revised estimated incurred cost of termination with MCom revisions (ppm)⁷¹

	Notes	Year 1	Year 2	Year 3	Year 4	Year 5	Constant rate ¹
<i>MCom Opex estimate</i>	2	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Ofcom Opex estimate		(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
<i>MCom depreciation estimate</i>	3	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Ofcom depreciation estimate		(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
<i>MCom cost of capital estimate</i>	4	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Ofcom cost of capital estimate		(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
<i>MCom Network costs estimate</i>		(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Ofcom Network costs estimate	5	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
<i>MCom non-network cost estimate</i>		(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Ofcom non-network cost estimate	6	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Spectrum cost estimate	7	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
MCom Network externality surcharge	8	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
Ofcom Network externality surcharge		(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
MCom cost estimate (ppm)		9.6	5.9	5.2	5.1	5.1	5.5
Revised cost estimate (ppm)		9.0	5.5	4.8	4.7	4.7	5.1

1. We believe it is more helpful to have a single estimate for the unit cost implied by the five years of MCom's business plan rather than using five separate numbers. Therefore we derived a constant ppm rate over the five-year period of MCom's business plan, which given the forecast volumes would recover the same amount of cost over the 5 years, in NPV terms, as setting the resulting separate annual unit cost estimates.

2. MCom's revised estimate includes an increase of (~~⊗~~) for secure data management facilities and data centre back-up costs and an increase to the cost of maintaining BTS sites by an average of (~~⊗~~) per year. We have adopted their new figures in our cost estimate.

3. MCom have used a 5 year depreciation rate to more accurately reflect the types of assets used in their business, including the use of pico cells which have a shorter asset life than macro cells. We have also adopted an average five year asset life for our estimation (this is a departure from the 10 year asset life assumption we used in the draft determination) MCom's business plan employs the straight-line method of depreciation, therefore all resulting unit cost estimates are based on straight line depreciation. This is inconsistent with the CTM methodology, which employed economic depreciation.

4. MCom's revised business plan includes increased projected expenditure on capital, such as an increase in MSC costs by (~~⊗~~) over the five years. Our revised estimate employs the efficient industry cost of capital, 11.5%, while MCom applied a cost of capital which they believe better reflects their specific risk profile, 14%)⁷²

5. MCom's estimate and our estimate attributed 25% of network costs to voice termination (MCom's methodology in the draft determination attributed 33%)

6. MCom's estimate and our estimate employed the assumption of a 12.5% allocation of total Administration costs to termination (MCom's methodology in the draft determination allocated 23%).⁷³

7. This figure remains unchanged from the draft determination.

⁷¹ Cost and call volume estimates are based on MCom's revised business plan sent to us on 3 March 2009. All amounts are expressed in 2008 prices.

⁷² See A18.71 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

⁷³ See A15.105 at http://www.ofcom.org.uk/consult/condocs/mobile_call_term/statement/statement.pdf

8. MCom included a network externality charge to account for their 'strategy of promoting the most modern dual SIM handsets'. Since the CC removed this surcharge from their recent determination of MNO termination rates, we did not think it was appropriate to add this figure to our estimate.

- A2.6 We note that the increase in MCom's projected costs and decrease in projected call volumes in the revised business plan they provided imply that MCom expects to spend more to service less customers. This raises the question of whether this new estimate is based on an efficient loading of MCom's network and an efficient level of capital expenditure.
- A2.7 We understand that the changes to MCom's business plan arise from increased experience of the true costs of installing and maintaining the necessary infrastructure for provision of the MCom service. However, it is unclear to us whether these additional costs have been efficiently incurred.

Annex 3

Indicative calculations requested by the Tribunal at CMC on 2 February 2009

- A3.1 This annex contains Ofcom's methodology for converting the regulated MTRs into nominal terms, as was requested by the CAT at the case management conference on 2 February 2009 relating to the implementation of the CC Determination. Our indicative calculations follow below. This shows that 4.4ppm (2006/07 prices) converts into 4.71ppm in nominal terms.

The CC's Determination

- A3.2 The Competition Commission (CC) states in paragraph 16.47 of its Determination that:

"We have instead determined that Ofcom should make such changes as are necessary to SMP Conditions MA3.4 and MA4.4 and to the definition of 'Controlling Percentage' in Schedule 1 to Annex 20 of the MCT Statement to generate TACs for each year of the price control period that are consistent with our views on the glide path as set out above and the approach underpinning the approximations in Table 16.1. In our view this means that:

(a) For the 2G/3G MNOs:

(i) The glide paths should start at the level of headline regulated 2G rates in 2006/07.

(ii) The TACs should descend in annual reductions of equal percentage each year from the starting points of the glide paths to arrive at the levels specified in paragraph 16.45 above in 2010/11.

(iii) The TACs for the first year of the price control period should be adjusted so as to take into account the absence of 60 days' notice.

(b) For H3G:

(i) The pre-adjusted TAC for the first year of the price control period should be 8.5ppm in 2006/07 prices.

(ii) The TACs should descend in annual reductions of equal percentage each year from the pre-adjusted first year TAC to arrive at the level specified in paragraph 16.45 above in 2010/11.

(iii) The pre-adjusted TAC for the first year of the price control period should be adjusted so as to take into account the absence of 60 days' notice.

(c) In each case, the adjustments to take into account the absence of 60 days' notice, the calculation of nominal figures (where such

calculation is required), the approach taken to rounding and the methodology for deriving the controlling percentages should be carried out consistently with Ofcom's original methodology."

Overview of the revisions to the SMP Conditions

A3.3 Given the above Determination, and in particular paragraph 16.47(c), we have repeated the calculation underpinning the SMP conditions originally stated in the March 2007 MCT Statement, but with the critical difference of first having substituted TACs in 2010/11 (in 2006/07 prices) of:

- 4.0ppm instead of 5.1ppm for O2, Orange, T-Mobile and Vodafone; and
- 4.4ppm instead of 5.9ppm for H3G.

A3.4 This calculation results in the following changes to the SMP Conditions:

- revised nominal TACs for year 1 (2007/8) – SMP Conditions MA3.4 and MA4.4; and
- revised controlling percentages for years 2, 3 and 4 (2008/9, 2009/10 and 2010/11) – definition of Controlling Percentage.

A3.5 A summary of this charge control specification was stated at Figure 9.6 in the March 2007 Statement and is reproduced as Figure 1 below.

Figure 1: Table of charge control conclusions following adjustment for notice period in Ofcom's March 2007 Statement

	Current average regulated charges	First year target charge (nominal)	Second year percentage reduction (i.e. X in RPI-X)	Third and fourth year percentage reduction (i.e. X in RPI-X)	Final charge in 2010/11 (real 06/07 prices)
Vodafone and O2	5.6	5.7	3.2%	2.5%	5.1
T-Mobile and Orange	6.3	6.2	5.8%	5.3%	5.1
H3G	Not regulated	9.1	15.1%	11.8%	5.9

A3.6 As a result of the revisions to the final charge in 2010/11, set out in the CC's Determination, we have revised the charge control specification as specified in Figure 2 below. The changes are highlighted in bold. The Annex also shows these changes in the form of the changes to the definition of Controlling Percentage, MA3.4 and MA4.4 in the SMP Conditions.

Figure 2: Revised table of charge control conclusions following adjustment for notice period reflecting CC's Determination of January 2009

	Current average regulated charges	First year target charge (nominal)	Second year percentage reduction (i.e. X in RPI-X)	Third and fourth year percentage reduction (i.e. X in RPI-X)	Final charge in 2010/11 (real 06/07 prices)
Vodafone and O2	5.6	5.4	9.7%	8.4%	4.0
T-Mobile and Orange	6.3	5.9	12.6%	11.1%	4.0
H3G	Not regulated	9.1	23.3%	20.3%	4.4

A3.7 An explanation of the derivation of these revised figures is set out below.

(a) the 2G/3G MNOs

(i) Glide paths start at regulated 2G rates in 2006/07

A3.8 Consistent with paragraph 16.47(a)(i) of the CC's Determination, the starting point for the 2G/3G MNOs' glide paths are the headline regulated 2G rates in 2006/07. The inputs to the calculation are therefore 5.63ppm (in 2006/07 prices) for O2 and Vodafone, and 6.31ppm (in 2006/07 prices) for Orange and T-Mobile.

(ii) Annual reductions of equal percentage: values of X in years 3 and 4 (2009/10 and 2010/11)

A3.9 There are four equal percentage reductions to be implemented from the starting charges of 5.63ppm (O2 / Vodafone) and 6.31ppm (Orange / T-Mobile) to 4.00ppm (in 2006/07 prices). A real annual percentage reduction of 8.2% (O2 / Vodafone) and 10.8% (Orange / T-Mobile) is required to achieve this year on year, over the four years.

A3.10 However, the real percentage reductions derived in the previous paragraph result from a calculation undertaken exclusively in real 2006/07 prices. When these prices are stated in nominal terms, inflation must be accounted for and is treated as a geometric term – i.e. as a multiplicative factor. In contrast, the controlling percentages, which make use of a RPI-X formulation, treat inflation as an arithmetic term – i.e. as an additive factor. For this reason, the X in the controlling percentage (RPI-X) is not exactly equal to the real percentage reduction and a small adjustment factor is applied ("the geometric adjustment"). Instead X is equal to the real percentage reduction multiplied by (1+RPI). As stated in paragraph A18.42 of the March 2007 Statement, we used an expected inflation assumption of 2.8% for RPI. Therefore, multiplying the real percentage reductions of 8.2% and 10.8% by (1+2.8%) gives a value of X in the controlling percentage of 8.4% and 11.1% for O2 / Vodafone and Orange / T-Mobile respectively, prior to making any adjustments to recognise the absence of 60 days' notice.

A3.11 It is these percentages, rounded to 1 decimal place, of 8.4% (O2 / Vodafone) and 11.1% (Orange / T-Mobile) which should therefore be stated in the revised definition

of the controlling percentages for the third and fourth years of the charge control. The controlling percentage for the second year is modified to take account of the absence of 60 days' notice.

(iii) Adjustment for absence of 60 days' notice: nominal TAC in year 1 (2007/8) and values of X in year 2 (2008/9)

- A3.12 Consistent with paragraph 16.47(a)(iii) of the CC's Determination, the TACs for the first year of the price control period should be adjusted so as to take into account the absence of 60 days' notice.
- A3.13 As for the original charge control specification in March 2007 (see paragraph 9.182 of the Statement), the adjusted TAC in 2006/07 prices for year 1 is calculated as the weighted average of the 2006/07 headline 2G rates (5.63ppm / 6.31ppm) and the first year target rate (5.17ppm / 5.63ppm) – which results from applying a single real percentage reduction of 8.2% / 10.8% – applying a weighting of 2/12 and 10/12 respectively. This results in a weighted average TAC for year 1 of 5.25ppm (O2 / Vodafone) and 5.74ppm (Orange / T-Mobile) in 2006/07 prices. However, the TAC for year 1 is specified in the SMP conditions as a nominal ppm TAC, rounded to 1 decimal place. As stated in footnote 118 to paragraph 9.239 of the Statement (and described more fully in footnote 269 at paragraph A18.42), we used an inflation forecast of 3.1% for 2007/08 to convert the year 1 TAC in 2006/07 prices into nominal terms. Applying the same methodology for the redetermination results in a year 1 nominal TAC of 5.4ppm (O2 / Vodafone) and 5.9ppm (Orange / T-Mobile).
- A3.14 The remaining step is to specify the value of X for the second year, given the above adjustment to the first year TAC for the absence of 60 days' notice. This is the difference between the year 1 and year 2 TACs, both expressed in 2006/7 prices. The year 1 TACs in 2006/7 prices can be calculated by deflating the year 1 nominal TACs (rounded to 1 decimal place) by the inflation figure of 3.1%. This results in year 1 TACs of 5.24ppm (O2 / Vodafone) and 5.72ppm (Orange / T-Mobile) in 2006/07 prices⁷⁴. The year 2 TACs in 2006/7 prices are 4.75ppm (O2 / Vodafone) and 5.02ppm (Orange / T-Mobile) as derived by applying two real percentage reductions of 8.2% / 10.8% to the 2006/07 headline 2G rates of 5.63ppm / 6.31ppm. The difference between the year 1 and year 2 TACs, i.e. the real percentage reduction required in the second year, is therefore 9.4% for O2 / Vodafone (5.24ppm down to 4.75ppm) and 12.2% for Orange / T-Mobile (5.72ppm down to 5.02ppm). Finally, to derive the X in the controlling percentage we apply the geometric adjustment factor, i.e. multiplying by (1+2.8%). This results in X for the second year controlling percentage, rounded to 1 decimal place, of 9.7% (O2 / Vodafone) and 12.6% (Orange / T-Mobile).

(a) H3G

(i) Pre-adjusted TAC for the first year (prior to adjustment for 60 days' notice)

- A3.15 As in the original charge control specification in March 2007 (see paragraph 9.190 of the Statement), the pre-adjusted TAC in 2006/07 prices for year 1 is 8.5ppm.

⁷⁴ Note that the year 1 TACs in 2006/07 prices of 5.24ppm and 5.72ppm differ from the figures of 5.25ppm and 5.74ppm stated in paragraph 10. This difference reflects the fact that the year 1 TACs are specified in nominal terms rounded to 1 decimal place, and hence the corresponding figures in 2006/07 prices should also reflect that rounding to 1 decimal place, and will not necessarily equal the earlier figures in the calculation prior to deriving the rounded nominal year 1 TACs.

(ii) Annual reductions of equal percentage: value of X in years 3 and 4

- A3.16 There are three equal percentage reductions to be implemented from the first year pre-adjusted TAC of 8.50ppm (in 2006/07 prices) to reach the final year TAC of 4.40ppm (in 2006/07 prices). A real annual percentage reduction of 19.7% is required to achieve this year on year, over the three years.
- A3.17 As described in paragraph A3.10 above, the geometric adjustment of (1+2.8%) should be applied to this real annual percentage reduction of 19.7% to derive the X in the RPI-X controlling percentage. This gives a value of X in the controlling percentage of 20.3%.
- A3.18 It is this percentage, rounded to 1 decimal place, of 20.3% which should therefore be stated in the revised definition of the controlling percentages for the third and fourth years of the charge control. The controlling percentage for the second year is modified to take account of the absence of 60 days' notice.

(iii) Adjustment for absence of 60 days' notice: nominal TAC in year 1 (2007/8) and value of X in year 2 (2008/9)

- A3.19 Consistent with paragraph 16.47(b)(iii) of the CC's Determination, the TACs for the first year of the price control period should be adjusted so as to take into account the absence of 60 days' notice.
- A3.20 As for the 2G/3G operators, the adjusted TAC in 2006/07 prices for year 1 is calculated as the weighted average of the 2006/07 rate of 10.70ppm and the first year target rate of 8.50ppm, applying a weighting of 2/12 and 10/12 respectively. This results in a weighted average TAC for year 1 of 8.87ppm in 2006/07 prices. Inflating this figure at 3.1% for 2007/08 results in a year 1 nominal TAC, rounded to 1 decimal place, of 9.1ppm.
- A3.21 The remaining step is to specify the controlling percentage for the second year, given the above adjustment to the first year TAC, using the steps described at paragraph A3.14. The year 1 TAC in 2006/07 prices is 8.83ppm, derived by deflating the nominal TAC (rounded to 1 decimal place) of 9.1ppm by inflation of 3.1%. The year 2 TAC in 2006/7 prices is 6.82ppm as derived by applying a single real percentage reduction of 19.7% to the pre-adjusted year 1 TAC of 8.50ppm in 2006/07 prices. The real percentage reduction required in the second year is therefore 22.7% (8.83ppm down to 6.82ppm). Finally, the geometric adjustment factor of (1+2.8%) is applied to derive the X in the controlling percentage. This results in X for the second year controlling percentage, rounded to 1 decimal place, of 23.3%.

Calculation of TACs in nominal prices

- A3.22 Compliance with the charge control requires identifying the nominal TAC in each relevant year, given the specification in MA3 and MA4 (see Annex), which is summarised in Figure 1 (for the original March 2007 Statement) and Figure 2 (for the redetermination).
- A3.23 For example, in the case of the redetermination for O2 / Vodafone:
- The nominal TAC in year 1 is stated directly as 5.40ppm.

- The nominal TAC in year 2 is calculated by multiplying 5.40ppm by (1+RPI 9.7%) which, with the corresponding actual RPI equal to 4.0%, equals 5.09ppm.
- The nominal TAC in year 3 is calculated by multiplying 5.10ppm by (1+RPI-8.4%) which, with the corresponding actual RPI equal to 0.9%, equals 4.71ppm.
- The nominal TAC in year 4 is calculated by multiplying 4.71ppm by (1+RPI-8.4%) which, with an estimate of RPI equal to 2.8%, equals 4.45ppm⁷⁵.

A3.24 The TACs in nominal prices calculated in this way are summarised in Figure 3 (for the original March 2007 Statement) and Figure 4 (for the redetermination) below.

Figure 3: Table of TACs in nominal pence per minute prices implied by Ofcom's March 2007 Statement

	First year	Second year	Third year	Fourth year
Vodafone and O2	5.70	5.75	5.65	5.67
T-Mobile and Orange	6.20	6.09	5.82	5.67
H3G	9.10	8.09	7.21	6.56

Figure 4: Revised table of TACs in nominal pence per minute prices reflecting CC's Determination of January 2009

	First year	Second year	Third year	Fourth year
Vodafone and O2	5.40	5.09	4.71	4.45
T-Mobile and Orange	5.90	5.39	4.84	4.44
H3G	9.10	7.34	5.92	4.88

⁷⁵ Note that this equates to a final year TAC of 4.00ppm in 2006/07 prices deflating the nominal rate using an inflation measure of 3.1%, 4.0%, 0.9% and 2.8% in each of the four years.