Commission for
Communications Regulation

Consultation

Market Analysis -Wholesale voice call termination on Hutchison 3G Ireland's mobile network

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All responses to this consultation should be clearly marked:-
"Reference: Submission re ComReg YY/NN" as indicated above, and sent by post, facsimile, e-mail or on-line at www.comreg.ie (current consultations), to arrive on or before 5.30 pm, Friday 23 February 2007 to:

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1 Executive Summary

1.1 Regulation 26 of the Framework Regulations[1] requires that ComReg, taking utmost account of the Recommendation[2] and of the *SMP Guidelines*, define relevant markets in accordance with the principles of competition law, including the geographical area within the State of such markets.

1.2 The European Commission recommends in the Recommendation, that NRAs should analyse the relevant wholesale national market for wholesale voice call termination on individual mobile networks.[3] In the Explanatory Memorandum to the Recommendation the Commission states that: "*Mobile call termination is an input both to the provision of mobile calls (that terminate on other mobile networks) but also to calls that are originated by callers on networks serving fixed locations that terminate on mobile networks.*"

1.3 In previous consultations (ComReg 03/126 & 04/62a) and SMP Decision D9/04, ComReg defined separate wholesale markets for the termination of mobile voice calls on the networks of each mobile network operator (MNO) in the Republic of Ireland: namely Vodafone, O2, Meteor and Hutchison 3G Ireland ('H3GI').[4] However, the Electronic Communications Appeals Panel ('ECAP') Decision 02/05, issued on 26 September, 2005, effectively resulted in H3GI not having SMP[5], ComReg is now undertaking a new market analysis of wholesale voice call termination on H3GI's network.

Termination Services

1.4 The services under examination in this review are those for the termination of voice calls on H3GI's mobile network. A terminating network is the network to which a customer who receives a call is directly connected. In Ireland, when a call is made to a mobile phone, whether from a fixed line or from a mobile on another network, the call passes from the originating operator to the terminating operator. The terminating operator charges a fee for connecting the call to its customers which is known as a termination charge. For the purposes of this consultation, the termination charge is a mobile termination rate ("MTR"). The MTR is paid by the originating operator and passed on to the caller in the retail price it pays for a call.

1.5 Having carried out a review of this market in accordance with its obligations under the Framework Regulations, for the reasons below, ComReg is of the preliminary

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[1] S.I. No. 307 of 2003 the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services.

[2] Commission Recommendation of 11/02/2003 On Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services.

[3] This market corresponds to that referred to in Annex I (2) of the Framework Directive.

[4] ComReg Documents 03/127a, Market Analysis: Wholesale Voice Call Termination on individual Mobile Networks and 04/62a, Market Analysis: Response to Consultation and Notification, Wholesale Voice Call Termination on Individual Mobile Networks, and Decision No.D9/04, ComReg Document 04/82.

[5] Hutchison 3G appealed the designation of SMP: ECAP 2004/01 and Decision No. 02/05.

view that there is a relevant product market for wholesale voice call termination on H3GI's mobile network in the geographic market of the Republic of Ireland.

1.6 The wholesale market for voice call termination on individual mobile networks has the following characteristics:

- The relevant market is an individual network market;
- Other mobile telephony services are not in the same market as voice termination services on H3GI's network; and
- Mobile voice call termination services are technology neutral, that is they include voice termination services over 2G and 3G networks.

1.7 ComReg proposes to define the associated retail market for voice calls terminating on an individual mobile network as having the following characteristics:

- The role of calling party pays principle ("CPP") is important in the market definition procedure;
- Consumers may have a overall knowledge of the cost of their bills but not necessarily of the exact cost of making specific types of calls;
- A caller would not substitute making a mobile to fixed call for a mobile to mobile call to a sufficient degree;
- A caller would not substitute making a mobile to mobile call for a fixed to mobile call to a sufficient degree;
- Substituting an on-net call for an off-net call or a call from a fixed phone would not act as a constraint on a MNO's mobile termination charges;
- Incentives for using multiple SIM cards do not exist given CPP principle and historic customer behaviour patterns;
- SMS is not substitutable to a sufficient degree for making a voice call;
- Shortening calls or requesting a call-back is not substitutable to a sufficient degree for making a voice call;
- Making a VoIP call is not substitutable to a sufficient degree for making a voice call on a mobile network;
- Called parties are not unduly concerned about the cost others have to pay to contact them and would not switch networks in response to an increase in termination rates; and
- Communities of interest would not act as a constraint on an MNO's mobile termination charges.

1.8 The geographic market is the Republic of Ireland.

1.9 Having analysed the competitive characteristics of the market, as defined above, ComReg is of the preliminary view that H3GI enjoys a position of single dominance in the market for wholesale voice call termination services on its mobile network. This is based on the following reasons:

- H3GI has one hundred percent share in the relevant market. There is no existing competition in this market and due to the high and non-transitory barriers to entry, derived from the market definition; there is consequently no prospect of potential competition over the period of this review.

- ComReg has carried out a detailed analysis of the recent economic framework as presented by Binmore & Harbord ('BH'). ComReg is of the view that the BH model makes a valuable contribution, particularly due to its emphasis on the bargaining dynamic, which ComReg has examined in detail. However, ComReg's principal reservation on the model is that its predicted outcomes and the arguments for eircom possessing sufficient CBP do not fit the empirical evidence. H3GI was not forced to accept rates that were the average of the 2G rates. The factual record shows H3GI obtaining prices well above the overall mobile market level, which is consistent with SMP.

- Furthermore, it appears that these rates are sustainable, there having been no move to re-negotiate these rates despite a mechanism in the interconnect agreement with eircom to review them and reductions in termination rates by the regulated mobile operators in Ireland.

- ComReg is of the preliminary view that the commercial incentives and regulatory obligations to engage in interconnect negotiations also potentially constrain eircom in the exercise of CBP and that given the importance of facilitating end to end connectivity for customers, it would be more constrained in any future set of negotiations when H3GI has an established subscriber base in place. While the impact of the dispute resolution procedure is uncertain, the evidence does not indicate that eircom used it to its advantage. Rather eircom appears to have been open to reaching an agreement with H3GI prior to its launch on the Irish market.

1.10 On balance based on an examination of the SMP criteria of relevance, ComReg's preliminary view is that there are high and non-transitory barriers to entry and the evidence does not indicate that there is sufficient CBP in this market. Accordingly, it is of the preliminary view that H3GI be designated as having significant market power in the market for wholesale voice call termination on its mobile network.

1.11 According to the *Guidelines* the purpose of imposing *ex ante* obligations on undertakings designated as having SMP is to ensure that undertakings cannot use their market power to restrict or distort competition in the relevant market, or to lever market power into an adjacent market.

1.12 The *Guidelines* make it clear that the designation of SMP, without imposing any regulatory obligations, is inconsistent with the provisions of the new regulatory framework, notably Article 27 (4) of the Framework Regulations.

1.13 ComReg has identified potential competition problems in the markets for wholesale voice call termination on H3GI's network associated with single market dominance. ComReg proposes that remedies are required to address these problems.

1.14 ComReg is obliged to impose obligations listed in Articles 9 to Article 13 inclusive of the Access Directive[6] which are as follows:

- Obligation of transparency
- Obligation of non-discrimination

[6] Article 8(2) of the Access Directive.

- Obligation of accounting separation
- Obligation of access to, and use of, specific network facilities
- Price control and cost accounting obligations

1.15 ComReg has identified a range of obligations which it proposes should be imposed on H3GI in the market defined in this review. These obligations are transparency, non-discrimination and price control. At this point, ComReg suggests that the range of obligations proposed are proportionate and justified and meet ComReg's objectives in terms of the promotion of competition, the development of the internal market and the promotion of the interests of end-users.

2 Introduction

Objectives under the Communications Regulation Act, 2002

2.1 Section 12 of the Communications Regulation Act 2002 outlines the objectives of ComReg in exercising its functions. In relation to the provision of electronic communications networks, electronic communications services and associated facilities these objectives are to:

(i) promote competition;

(ii) contribute to the development of the internal market; and

(iii) promote the interests of users within the European Union.

2.2 This review is in line with the objectives set out in the Communications Regulation Act, 2002, in particular, as ComReg seeks to promote competition and ensure that end-users derive the maximum benefit in terms of price, choice and quality.

Regulatory Framework

2.3 Four sets of Regulations,[7] which transpose into Irish law four European Community directives on electronic communications networks and services,[8] entered into force in Ireland on 25 July, 2003. The final element of the European electronic communications regulatory package, the Privacy and Electronic Communications Directive, was transposed into Irish law on 6 November, 2003.

2.4 The new communications regulatory framework requires that ComReg defines relevant markets appropriate to national circumstances, in particular relevant geographic markets within its territory, in accordance with the market definition procedure outlined in the Framework Regulations[9]. In addition, ComReg is required to conduct an analysis of the relevant markets to decide whether they are

[7] Namely, the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 (S.I. No. 307 of 2003), ("the Framework Regulations"); the European Communities (Electronic Communications) (Authorisation) Regulations, 2003 (S.I. No. 306 of 2003), ("the *Authorisation Regulations*"); the European Communities (Electronic Communications) (Access) Regulations 2003 (S.I. No. 305 of 2003), ("the *Access Regulations*"); the European Communities (European Communications) (Universal Service and Users' Rights) Regulations 2003 (S.I. No. 308 of 2003), ("the *Universal Service Regulations*").

[8] The new regulatory framework for electronic communications networks and services, comprising of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, ("the *Framework Directive*"), OJ 2002 L 108/33, and four other Directives (collectively referred to as "the *Specific Directives*"), namely: Directive 2002/20/EC of the European Parliament and of the Council on the authorisation of electronic communications networks and services, ("the *Authorisation Directive*"), OJ 2002 L 108/21; Directive 2002/19/EC of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and services, ("the *Access Directive*"), OJ 2002 L 108/7; Directive 2002/22/EC of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services, ("the *Universal Service Directive*"), OJ 2002 L 108/51; and the Directive 2002/58/EC of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector, ("*the Privacy and Electronic Communications Directive*"), OJ 2002 L 201/37.

[9] Regulation 26.

effectively competitive[10]. Where it concludes that the relevant market is not effectively competitive (*i.e.,* where there are one or more undertakings with significant market power ("SMP")), the Framework Regulations provide that it must identify the undertakings with SMP in that market and impose on such undertakings such specific regulatory obligations as it considers appropriate[11]. Alternatively, where it concludes that the relevant market is effectively competitive, the Framework Regulations oblige ComReg not to impose any new regulatory obligations on any undertaking in that relevant market. If ComReg has previously imposed sector-specific SMP obligations on undertakings in a market, the maintenance of existing obligations or creation of new SMP obligations on undertakings without SMP is inconsistent with the regulatory framework. It must withdraw such obligations and may not impose new obligations on those undertaking(s)[12].

2.5 The Framework Regulations further require that the market analysis procedure under Regulation 27 be carried out subsequent to ComReg defining a relevant market, which is to occur as soon as possible after the adoption, or subsequent revision, of the Recommendation by the European Commission[13]. In carrying out market definition and market analysis, ComReg must take the utmost account of the Recommendation and the European Commission's *Guidelines.*

2.6 In section 9 of the Recommendation the Commission lays down three criteria (to be applied cumulatively) for identifying relevant markets as susceptible to *ex ante* regulation. The Commission has applied the three criteria when defining the markets in the Recommendation. ComReg is obliged to follow the same basic criteria and principles when identifying markets other than those appearing in the Recommendation.

ComReg procedure

2.7 ComReg has collected market data from a variety of internal and external sources, including users and providers of electronic communications networks and services ("ECNS"), consumer surveys and other NRAs, in order to carry out thoroughly its respective market review procedures based on established economic and legal principles, and taking the utmost account of the Recommendation and the *Guidelines*.

Timeframe

2.8 The timeframe of this review is two years from the date of publication of the Decision.

Consultation

2.9 All comments to this public consultation are welcome. However, it would make the task of analysing responses easier if comments referenced the relevant question numbers in this document.

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[10] Regulation 27.

[11] Regulation 27(4).

[12] Regulation 27(3).

[13] Regulations 26 and 27.

2.10 The consultation period will run from Thursday 11 January 2007 to Friday 23 February 2007 during which time ComReg welcomes written comments on any of the issues raised in this paper.

2.11 As required by Regulation 20 of the Framework Regulations, any draft measure which ComReg proposes to adopt will be made accessible to the European Commission and the national regulatory authorities in other member states of the European Community prior to adopting the measure.

Structure of Consultation Document

2.12 The remainder of this consultation document is structured as follows:

- **Section 3** presents ComReg's preliminary conclusions in regard to the definition of the Irish wholesale market for voice call termination on Hutchison 3G Ireland's ("H3GI") network (market 16 of the Recommendation);
- **Section 4** presents ComReg's preliminary view on the presence or absence of dominance in this market,
- **Section 5** presents ComReg's preliminary view on the appropriate obligations to impose in this market;
- **Section 6** contains ComReg's regulatory impact assessment;
- **Section 7** contains instructions for submitting comments on this consultation;
- **Annex A** contains the draft decision instrument ;
- **Annex B** contains a list of consultation questions;
- **Annex C** includes a glossary of terms used in the document;
- **Annex D** provides a summary and analysis of the BH economic paper;
- **Annex E** provides a chronology of negotiations between H3GI and other operators;
- **Annex F** contains a list of the other SMP criteria; and
- **Annex G** contains a table of MTRs in three countries were those rates were unregulated & a diagram of indirect termination i.e. via a transit operator.

3 Relevant Market Definition

Introduction

3.1 Regulation 26 of the Framework Regulations requires that ComReg, taking utmost account of the Recommendation and of the *SMP Guidelines*, define relevant markets in accordance with the principles of competition law, including the geographical area within the State of such markets.

3.2 The European Commission recommends in the Recommendation, that NRAs should analyse the relevant wholesale national market for wholesale voice call termination on individual mobile networks.[14] In the Explanatory Memorandum to the Recommendation the Commission states that: "*Mobile call termination is an input both to the provision of mobile calls (that terminate on other mobile networks) but also to calls that are originated by callers on networks serving fixed locations that terminate on mobile networks.*"

3.3 In previous consultations (ComReg Documents 03/126 & 04/62a) and SMP Decision D9/04, July 2004, ComReg defined separate wholesale markets for the termination of mobile voice calls on the networks of each MNO in the Republic of Ireland: namely Vodafone, O2, Meteor and H3GI.15 However, ECAP Decision 02/05, issued on 26 September, 2005, effectively resulted in H3GI not having SMP[16]; ComReg is now undertaking a new market analysis of wholesale voice call termination on H3GI's network.

3.4 The Framework Regulations require that the market analysis procedure under Regulation 27 is carried out subsequent to ComReg defining a market. The definition of the relevant market concentrates on identifying constraints on the price-setting behaviour of operators. These constraints comprise demand substitution and supply substitution. ComReg takes into account a range of measures, in assessing demand and supply substitution for the purposes of defining the relevant market, including the SSNIP test where practicable.[17] The market definition exercise is concerned with the likely competitive response of a body of customers, which is not necessarily the majority of customers.[18] According to the

[14] This market corresponds to that referred to in Annex I(2) of the Framework Directive.

[15] ComReg Documents 03/126, Market Analysis: Wholesale Voice Call Termination on individual Mobile Networks and 04/62a, Market Analysis: Response to Consultation and Notification, Wholesale Voice Call Termination on Individual Mobile Networks, and Decision No. D9/04, ComReg Document 04/82.

[16] Hutchison 3G appealed the designation of SMP: ECAP 2004/01 and Decision No. 02/05.

[17] See the Commission Notice on Market Definition, the SMP Guidelines and ComReg's Market Data Information Notice for additional guidance. The SSNIP test, tries to ascertain whether customers purchasing a particular product or service would switch to readily available substitutes or to suppliers located elsewhere if a hypothetical monopoly supplier were to impose a small (in the range of 5% to 10%) but significant, non-transitory price increase above the competitive level. This would render such a rise in prices as being unprofitable.

[18] See, for example, Case 85/76, Hoffman-La Roche & Co. A. G. v. Commission, [1979] ECR 461, as well as Case 66/ 86, Ahmed Saeed Flugreisen v. Zentrale zur Bekämpfung unlauteren Weltbewerbs, [1989] ECR 803.

European Court of Justice[19] a relevant product market comprises all products or services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, their prices or their intended use but also in terms of the conditions of competition, common pricing constraints and/or the structure of supply and demand for the product in question.

3.5 A relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in which the conditions of competition are sufficiently homogeneous and distinguishable from neighbouring areas because the conditions of competition are appreciably different in those areas.

3.6 Any market review exercise has to consider both the current and prospective situation and ComReg has considered a forward-looking timeframe for this market review.

3.7 The Commission recommends, in its Recommendation, that NRAs should analyse the relevant market for "voice call termination on individual mobile networks."[20] The Commission has based its conclusion on several factors,[21] including:

- the role of the "calling-party-pays" ("CPP") principle;
- a lack of demand-side substitution at the retail and wholesale levels, including an analysis of the feasibility of re-routing possibilities, the possible internalisation of call externalities and / or the price sensitivity of mobile users;
- a lack of supply-side substitution at the wholesale level; and
- the inability of mobile operators to price discriminate between individual mobile terminals.

3.8 In reaching its conclusion on the relevant market the Commission also examined various other market definitions such as a national market for mobile call termination (over all national mobile networks in the aggregate)[22] or a linked market for mobile communications services.

The Irish mobile market structure

3.9 There are four mobile network operators in the mobile market in Ireland, namely, Vodafone, (previously Eircell); O_2, which launched in 1997 (previously Esat Digifone); Meteor, which launched in 2001; and, most recently, H3GI, which commercially launched 3G services in Ireland in September 2003 and in July 2005 offered a full suite of 3G services. The market shares of Vodafone, O_2 and Meteor

[19] See, for example, Case 322/81, Michelin v. Commission [1983] ECR 3461, as well as the Commission Notice on the definition of relevant markets for the purposes of Community competition law ("the Commission Notice on Market Definition"), OJ 1997 C 372/3, and the SMP Guidelines.

[20] This market corresponds to that referred to in Annex I (2) of the *Framework Directive*.

[21] Explanatory Memorandum to the *Relevant Markets Recommendation*.

[22] As occurred under the previous "ONP" regime, in which relevant "markets" were defined on the basis of end-to-end services and not necessarily according to competition law principles.

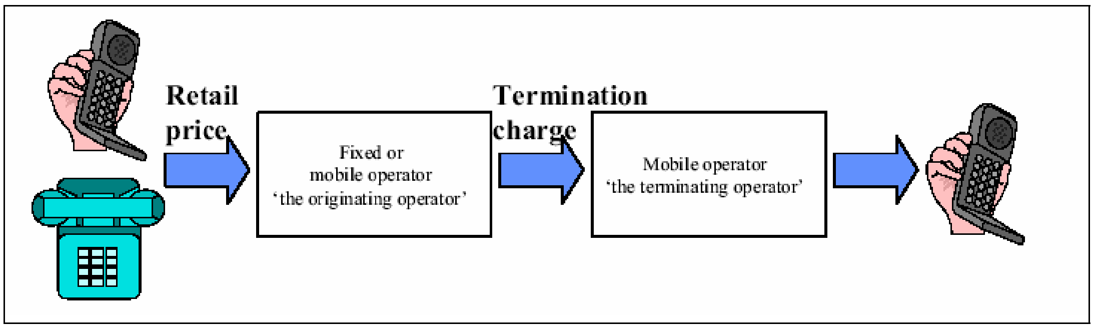
are 47.6 %, 36% and 16.5% respectively for retail mobile services, measured in terms of total subscribers.[23]

3.10 Since the introduction of Irish mobile services, the penetration rate has maintained a strong upward trend and now stands at 106%.

Termination Services

3.11 The services under examination in this review are those for the termination of voice calls on an individual mobile network. A terminating network is the network to which a consumer who receives a call is directly connected. In Ireland, as shown in the figure below, when a call is made to a mobile phone, whether from a fixed line or from a mobile on another network, the call passes from the originating operator to the terminating operator.[24] The terminating operator charges a fee for connecting the call to its subscribers; this is known as a termination charge. For the purposes of this consultation, the termination charge is a mobile termination rate ('MTR'). The MTR is paid by the originating operator and passed on to the caller in the retail price it pays for a call.

Figure 3.1: How a termination charge or MTR arises.



Issues relevant to market definition

3.12 In defining a relevant product market for wholesale call termination on an individual mobile network ComReg has looked at issues of both demand-side substitution and supply-side substitution at the wholesale level, detailed below.

- Is the market an individual network market?
- Is mobile voice call termination part of a wider mobile services market?
- Are mobile call termination services on 2G and 3G mobile networks in the same market?

[23] ComReg Document No. 06/68 – Irish Communications Market: Key Data Report, December 2006. At present the market data of H3GI is not publicly available as its parent company publish aggregate data for UK and Ireland only and hence the data for H3GI is commercially sensitive.

[24] See Annex G for an illustration of how this termination charge would arise if the call was routed via a transit operator.

Is the market an individual network market?

3.13 ComReg could define a very narrow product market based on each individual mobile number on a mobile network but is of the preliminary view this is not appropriate given the fact that mobile operators do not price discriminate between termination charges to different users on its network. As such ComReg is of the preliminary view that the proposed product market is more sensible as it sees similar conditions of competition for all numbers in the network. A common pricing constraint applies to voice call termination for all subscribers to an individual mobile network.

3.14 A purchaser of wholesale termination that is, an operator that wishes to terminate a call to a mobile number on a specific network will not have any available substitutes for the service. Any attempt to terminate the call on another MNO's network would currently result in the call being unsuccessful. While operators may have the option to terminate voice traffic on the mobile network either directly or indirectly via national and/or international transit (depending on interconnection agreements) the termination charge is identical. According to information received from H3GI, at present this is the case whether the originating operator is a fixed or mobile operator.

3.15 The current need to direct traffic to a specific mobile number ensures there is no demand-side substitute service available at the wholesale level to an operator that seeks to terminate its traffic on a mobile number situated on a specific mobile network.

3.16 On the supply-side substitution would occur when, in response to a rise in the price of a particular product or service, existing suppliers of other products or services could switch, without the need for significant new investments, to supplying the product whose price has risen within a reasonable timeframe (thereby rendering the price increase unprofitable). ComReg is of the preliminary view that the relevant timeframe is equivalent to a year, generally the appropriate timeframe under competition law. Consideration therefore, has been given to whether there are means by which supply-side substitution can occur (i.e., means by which a voice call could be terminated on a network other than that of a specific mobile network, that is, the network to which the called party subscribes for access and origination services).

3.17 ***Other Mobile Network Operators ('MNOs'):*** wholesale supply-side substitution could come most easily from other MNOs that have the necessary infrastructure and expertise in termination services. However, as ComReg understands, this would require handsets to be transferable between networks for termination purposes that is the mobile phone should automatically move from its home network onto the network on which the call will terminate. While 3G handsets roam across networks, it is currently not possible for the network originating a call to select the network on which the call will terminate because of technical difficulties in taking control of the handset and lack of access to handset/SIM details.

3.18 ***Mobile Virtual Network Operators ('MVNOs'):*** some of the technical difficulties with supply side substitution could be overcome by the routing of calls to a MVNO that provides termination to its customers directly and has an ability to select on which network to terminate calls based on the charges. At present there are no such MVNOs in Ireland, although under the terms of its 3G licence, H3GI is obliged to provide MVNO access to its network. Generally, calls to an MVNO's network are routed directly to the host MNO's network and the originating operators pay this MNO for termination (directly). A number of significant technical changes would be required in any case before an MVNO would be able to control the network to which its customers are connected at any time and to communicate with its customers' SIM cards (to change networks).

3.19 ***Wireless Networks (WiFi, WiMax):*** supply-side substitution could also conceivably arise from those operators developing services over wireless networks such as, WiFi or WiMax technologies.[25] These types of operators could provide voice calls in competition with the mobile operators and indirectly constrain to a degree mobile voice call termination charges, by offering an alternative service to mobile.

3.20 A drawback to this type of service is that although, availability of wireless network services in Ireland has grown in recent years the coverage of these operators tends to be limited geographically mainly to the larger cities of Dublin and Cork. Furthermore, WiFi coverage tends to be in isolated "hotspot" locations, such as hotels and airports, resulting in subscribers losing coverage when travelling between these hotspot locations**.** Recently, Irish Broadband announced that it would be launching some type of mobile WiMax service[26], however this was not expected to be available until sometime late 2007 or early 2008, at which stage it would introduce a data card for laptops. While it is clear that technological developments are taking place, some of which may not involve the levying of a termination charge (in its current form), ComReg is of the preliminary view that the evidence suggests that their widespread deployment in Ireland is far too speculative and their commercial impact is relatively uncertain during the period of this review. For example, Credit Suisse reports in 2005 and 2006, forecasted that such technologies would not have a mass market impact until 2008-2009 [27] and another report highlighted how even if calls could be routed over internet protocol ("IP") networks, it would still not avoid mobile termination charges if the particular call is to be terminated to a mobile number.[28]

3.21 A further limitation to other wireless network operators offering some form of supply substitution, is that it relies on the called party being sensitive to the price of inbound calls so they would be prepared to incur some cost to reduce the price of calling them, for example by purchasing a WiFi/cellular handset. As detailed later below, at the retail level, mobile users do not appear overly sensitive to the price of incoming calls. Based on the evidence presented above, ComReg is of the preliminary view that at present wireless networks offer portability but not mobility and would not be able to offer supply-side substitutability to voice termination of MNOs' calls within the timeframe of this review.

[25] A nomadic system that allows wireless users to connect to the network with mobility within a close range to a cell/hot-spot, but not as they move from location to location as in a mobile system. Wi-Fi is an example of a nomadic technology.

[26] Irish Broadband is the holder of Fixed Wireless Access Local Area (FWALA) licences, the terms of which are for the provision of fixed services only.

[27] Credit Suisse Equity Research, Sector Review: Battle for the Home, 26 September 2005 & Credit Suisse Fatphone, The threat of VoIP to mobile, 3 March 2006.

[28] Credit Suisse Equity Research, Analyst Report: Insights from Band X co-founder, 3 May 2006.

3.22 Having considered the factors above on a prospective basis, ComReg's preliminary view is that there is not likely to be any viable supply-side substitutes for mobile termination services within the timeframe of this review.

Conclusion

3.23 Based on the combination of no feasible demand or supply-side substitutes ComReg's preliminary view is that the relevant wholesale market for mobile termination services is an individual mobile network market and in this case is for wholesale call termination on H3GI's mobile network.

Is mobile termination part of a wider mobile services market?

3.24 ComReg considers it is appropriate to take as a starting point the fact that there are separate markets for wholesale voice call termination on individual mobile networks. However, respondents to ComReg's earlier market review, document 04/62a,[29] proposed that termination was part of a cluster market incorporating all mobile services. This could be the case if mobile operators competed on the price of a bundle of mobile services offered and not on the price of each single service. Under that scenario a MNO would not be able to raise the price of termination without reducing the price of other services in the bundle. Otherwise depending on the level of competition in the overall mobile market, consumers might switch to another operator in response to a rise in the price of the bundle of mobile services. ComReg considers such a wider market definition that encompassed all mobile services would only be viable if mobile subscribers were concerned about the cost of calling mobiles, which as is outlined further in the paragraphs below does not appear to be the case under the CPP. ComReg is of the preliminary view that MNOs do not compete for subscribers on the price of incoming calls to mobiles. This view is also consistent with the market definition exercise carried out for the first review of wholesale voice termination on individual mobile networks. In carrying out its market review, ComReg emphasises that the provision of voice call termination at the wholesale level is a product that is and can be, purchased on an individual basis and thus the appropriate market definition is not that of a cluster of mobile services.

3.25 ComReg recognises that the regulation of wholesale voice call termination services can affect other mobile services and will take this into consideration, both in terms of its assessment of whether the relevant market is effectively competitive, and in terms of any remedies proposed to be applied.

Conclusion

3.26 ComReg's preliminary view is that mobile voice call termination on an individual mobile network is a separate market from that of other mobile services.

Are voice calls terminated on a 3G network in the same market as voice calls terminated on a 2G network?

3.27 ComReg had previously defined the market for voice call termination on individual mobile networks as being technology neutral, therefore including both 2G and 3G

[29] ComReg document 04/62a: Response to Consultation: Wholesale Voice Call Termination on Individual Networks.

networks.[30] In this particular consultation, the market under review is for wholesale voice call termination on H3GI's mobile network, which is a 3G only network, although H3GI also has a national roaming agreement with Vodafone that provides its customers with 99.5% population coverage for voice and text services. While a subscriber to H3GI's network might inadvertently roam onto Vodafone's network as part of the national roaming agreement, the evidence provided to ComReg by H3GI to date suggests that it does not affect the termination rate paid by the originating operator that is the originating operator is billed at H3GI's termination rates.

3.28 In principle, and consistent with the principle of technology neutrality there should be no differences between voice calls terminated on a 3G network and voice calls terminated on a 2G network. An originating operator or the calling party would be unable to determine or dictate what type of network technology would terminate any given call and this results in a common pricing constraint. Therefore the scope of the review should encompass termination of voice calls on a 3G mobile network. To date, this view is similar to that of other European NRAs a majority of which have included termination on a 3G network as part of the market for wholesale voice call termination.[31]

3.29 Notwithstanding this, ComReg recognises that 3G technology is in an earlier stage of development and will consider this when deciding on the appropriateness and proportionality of any regulatory intervention in this market.

Conclusion

3.30 ComReg's preliminary view is that mobile voice call termination is technology neutral and that voice calls terminated on a 3G network are in the same market as voice calls terminated on a 2G network.

Preliminary conclusions on Wholesale Market Definition

3.31 ComReg's review of the commercial and economic evidence suggests that a relevant market can be identified for the wholesale provision of voice termination services on H3GI's network. ComReg's preliminary view is based on the following:

- The relevant market is an individual mobile network market;
- Other mobile telephony services are not in the same market as voice call termination services on an individual mobile network; and
- Mobile voice call termination services are technology neutral, that is they include voice termination services over 2G and 3G networks.

Retail level

3.32 To assess whether there are any demand-side substitutes that should be included in the relevant market it is useful to see how customers would react to an increase in

[30] ComReg document 04/62a, Market Analysis: Response to Consultation & Notification, Wholesale Voice Call Termination on Individual Mobile Networks pp.10-13.

[31] European Commission- Information Society-Telecommunications, Communications and Services: http://forum.europa.eu.int/Public/irc/infso/ecctf/library

termination charges by the hypothetical monopolist and whether this would render any such price increase unprofitable. Of particular importance in this context is the Calling Party Pays ("CPP") principle, which ComReg stated earlier plays an important role in the market definition procedure. The CPP principle means that the party making the call, *i.e.*, the calling party, rather than the party receiving the call, *i.e.*, the called party, pays the entire cost of the call at the retail level. The mobile call termination charge is included in the originating operator's cost base and in the retail price charged by the originating operator to its subscribers. The calling party pays for the voice call, which typically includes the mobile voice termination charge, and the called party selects the terminating operator and therefore influences the level of the termination charge. That is the caller pays the termination rate, but the called party decided which mobile operator to subscribe to. Termination rates therefore do not directly raise costs to the customers of the operator that sets the rates rather they tend to raise costs to the originating operators who connect calls from their subscribers to that operator's customers.

3.33 As part of its investigation of the boundaries of competition for mobile termination services, ComReg has considered various aspects of consumer behaviour at the retail level because it is relevant to assess how consumers would respond to any change in retail prices resulting from higher wholesale mobile call termination charges. If callers reacted to a higher retail price for calling specific mobile networks by employing other means of communication to reach mobile subscribers this form of substitution could have the potential to act as an indirect competitive constraint on termination charges, depending on how much substitution took place. Bearing in mind the CPP principle, ComReg has examined in the remainder of this section both how the person making a call and how the person receiving a call might react to a change in mobile termination price that fed through to the retail price.

3.34 First, ComReg is of the view that the calling party should exhibit the following characteristics at the retail level:

- Be aware of when they are calling a mobile network and of the price of calling a particular network; and
- Be sensitive to changes in the prices of calling a specific network and adapt their behaviour accordingly.

3.35 In addition, for the callers to adapt their behaviour it would be necessary for them to be able to substitute calling a specific mobile number with another means of contact. ComReg examines in this consultation the following possible substitutes for making a mobile voice call at the retail level:

- Would callers substitute making a mobile to fixed call for making a mobile to mobile call;
- Would callers substitute making a mobile to mobile call for a fixed to mobile call;
- Would callers substitute making an on-net call for calling either an off-net mobile or a fixed phone;
- The use of multiple mobile phone subscriptions;
- SMS services;
- Shortening calls or requesting a call-back; and

- Making a Voice over Internet Protocol ('VoIP') call instead of a call over a mobile network.

3.36 Secondly, ComReg examines in this consultation the called party behaviour and is of the view that mobile subscribers should value incoming calls sufficiently that any rise in the costs of making incoming calls, resulting from an increase in termination rates, would prompt the called party to switch networks. ComReg examined the following issues in that context:

- Choice of network;
- Use of multiple SIM cards; and
- Communities of interest.

Are callers aware of when they are calling a mobile network and of the price of calls?

3.37 First, as stated above, ComReg is of the view that, in order for callers to be price sensitive, it must be possible for them to know that they are calling mobile numbers and to be able to identify the networks of the called parties via these numbers. According to evidence from consumer research carried out in 2006[32] eighty per cent of respondents claimed to be "always" or "usually aware" of whether they were calling a fixed phone or a mobile phone from a fixed network. When calling a mobile phone from a fixed network, sixty three per cent of respondents claimed that they "always know" or "usually know" what mobile network they were calling. When making a call from a mobile phone to another mobile phone, sixty six per cent of respondents claimed that they "always" or "usually know" whether they were calling a mobile on the same network.

3.38 Overall, evidence suggests users have a reasonably high awareness of the type of calls they are making. However, mobile number portability is likely to have an adverse affect on users' ability to identify the called mobile network as the prefix to a mobile number will no longer provide information about the network called. By the end of quarter 3, 2006, 689,800 customers had ported their numbers since its introduction in June 2003.[33]

3.39 ComReg is of the preliminary view that the evidence suggests that users are likely to have an awareness of the overall cost of their regular mobile bill or the relevant cost of calls but that the evidence for awareness of actual prices for a specific call is more mixed. This view is informed by research carried out in 2005 that provides evidence that users are aware of the global cost of their bills. Only nine per cent of mobile users didn't know or refused to say how much they had spent on their mobile phone in the previous month.[34] In relation to the actual cost of calls, in recent consumer research carried out by ComReg in 2006, fifty one percent of fixed phone users claimed they had some idea of the cost of calling a mobile phone from a landline during peak times on a weekday, with six percent of these claiming to know exactly how much it cost. However, when the same respondents were asked directly the exact price of calling a mobile from a landline during peak times

[32] ComReg Document 06/22a, ComReg Trends Report Q1 2006.

[33] ComReg Document 06/68- Irish Communications Market-Key Data Report, Q3 2006, December 2006.

[34] ComReg Document 06/57a ComReg Trends Report Q2 2006, July 2006, prepared by Amárach.

on a weekday, the average amount cited was 44.52 cent, significantly above the actual cost.[35]

Conclusion

3.40 On balance, ComReg's preliminary view is that there is evidence that consumers have a global knowledge of the cost of their bills but not of the exact costs of making individual calls but if substitutes were available consumers might be able to use the "global" information to respond accordingly to any change in termination rates. However, such knowledge would not be sufficient if appropriate substitutes are not available. As outlined earlier, ComReg examines in the next sections whether there are substitutes available if consumers wish to switch away from making voice calls to mobiles and whether this has any material impact on the provision of termination services.

Alternative services-consumers adapting behaviour

3.41 In order for consumers to be able to act as a competitive constraint on mobile termination rates, it will be necessary that they can adapt their behaviour by selecting alternative means of communication, so that the mobile operator loses revenue if it attempts to raise termination charges. ComReg examines below a range of possible options that are available at the retail level as a substitute for making different types of calls.

Making a mobile to fixed call instead of a mobile to mobile call?

3.42 As some people have both a mobile phone and a fixed phone subscription the option is always available to make a call to the fixed phone instead of a mobile. At the retail level a caller could substitute making a call to a fixed phone for making a call to a mobile. However, this option would ignore the fundamentally different nature of fixed and mobile telephony whereby mobile numbers are associated with individuals on the move and not necessarily fixed locations. For example, consumer research carried out in 2005 found that over five in ten respondents did not consider the fixed phone as a substitute for a mobile phone.[36] The survey also reported that seventy six percent of mobile users believed that problems would arise if they were not contactable. In addition, consumer research carried out in 2006[37] asked respondents how they would contact a friend/family member during the day on a weekday for two minutes, when at home/work or either, assuming that the family/friend were contactable by mobile phone, landline and e-mail. The research showed that forty nine percent of the respondents preferred to contact the family/friend on their mobile phone. This number fell when the call duration increased with forty one percent preferring to contact a family/friend member on their mobile if the call was for five minutes. Coupled with this is research showing that approximately 30 percent of households do not have a fixed line, these types of households would clearly not be able to avail of this type of substitution.[38] Again,

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[35] ComReg Document 06/22a, ComReg Trends Report Q1 2006.

[36] ComReg Document 06/08a ComReg Trends Report Q4 2005, December 2005, prepared by Amárach.

[37] ComReg Document 06/22a, ComReg Trends Survey Q1 2006.

[38] ComReg Document 06/57a, ComReg Trends Report Q2 2006.

perhaps more fundamentally, for this type of substitution to be a viable option, the caller would need to know that the person in question was at their fixed phone

Conclusion

3.43 ComReg' preliminary view is that at the retail level a caller would not at present substitute making a mobile to fixed call for a mobile to mobile call.

Making a mobile to mobile call instead of a fixed to mobile call?

3.44 A fixed phone subscriber that also owned a mobile phone could choose to call a mobile subscriber from their mobile phone rather than their fixed phone. However, this would have little effect on mobile termination revenue as based on published wholesale tariffs mobile operators do not currently discriminate on prices charged to mobile and fixed originating operators. However, for completeness, it is useful to look at this issue in more detail.

3.45 In general, the retail price of a mobile call outside of H3GI's bundled tariffs is higher than a fixed to mobile call, which would be a driver in why a mobile to mobile call would not be substitutable for a fixed to mobile call. For H3GI's post-paid retail packages the price for a mobile to mobile call (irrespective of the network called and time of day) is 30 cent per minute (VAT inclusive). In respect of a call for H3GI's pre-paid subscribers, the price for an on-net call is 18 cent per minute and 35 cent per minute to other mobiles. On the other hand a review of the standard tariffs offered by eircom[39] for a fixed call to H3GI's network reveals a retail price to call a H3GI subscriber ranging from 29.19 cent peak, 19.46 cent off-peak and 15.23 cent weekend (VAT inclusive).

3.46 It is possible that subscribers with bundles of mobile minutes would make calls to a mobile instead of a fixed line however consumer research carried out in 2005[40] reported that just sixteen percent of respondents reported to use their mobile instead of their landline to call a mobile when at home. Generally, while in the home, respondents chose a fixed line call when it was available rather than use a mobile. In addition, 79 percent of respondents to the latest trends survey[41] claimed that making a fixed line call instead of a mobile call saves money.

Conclusion

3.47 On balance, ComReg's preliminary view is that a mobile to mobile call would not at present be substitutable for a fixed to mobile call. Irrespective of the latter any substitution would not affect a mobile operator's revenue from providing termination services as the mobile operator controls the termination for a call originated on a fixed or mobile network and at present this is the same for both types of network.

Is making an on-net mobile to mobile call a substitute for making an off-net mobile call or a fixed to mobile call?

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[39] eircom's retail pricing, customer dialled calls:

http://www.eircom.ie/About/Activities/Sn1_pt2.pdf

[40] ComReg Document 06/08a ComReg Trends Report Q4 2005, December 2005, prepared by Amárach.

[41] ComReg Document (06/64), ComReg Trends Report Q4 2006, December 2006.

3.48 Another possibility is for callers to only make calls to subscribers on the same network as them (on-net calls). This would mean that on-net calls could be a substitute for both fixed to mobile calls and mobile to mobile off-net calls. Traditionally, mobile on-net calls were generally cheaper than mobile off-net calls and comparable to, if not cheaper than, fixed-to-mobile retail charges. However, in the case of H3GI, its post paid retail tariff plans do not appear to distinguish between on-net calls or off-net calls. The bundle of minutes included in any price plan is for making calls to all Irish mobiles and to landlines. Furthermore, excluding the bundle of free minutes per subscription package, all calls to mobile (both on-net and off-net) are charged at a retail rate of 30 cent per minute.[42] This retail pricing trend is becoming more evident as Irish mobile operators are now offering subscription packages inclusive of bundled minutes that continue to have one set retail rate outside of this, irrespective of the called network.[43]

3.49 However, there are mobile users such as pre-paid mobile users and other post paid mobile subscribers on legacy subscription packages, that have a price differential between making an on-net and off-net call, as evidenced by the difference in H3GI's on-net and off-net calls shown in paragraph 3.45 above. ComReg's preliminary view is that the widespread use of on-net calls will be restricted by the fact that mobile users are distributed across several mobile networks, suggesting that the extent of substitution of mobile on-net calls for either fixed to mobile calls or mobile to mobile off-net calls will be limited. In addition, on-net pricing can have the effect of separating out price sensitive consumers from those less sensitive by influencing a consumer's choice of network and arguably preserves the level of termination charges. This type of substitution could be assisted if either the calling party or the called party used multiple SIM cards and switched network provider each time it made/received a call to avail of on-net pricing. For the reasons outlined in the paragraphs below ComReg does not consider this a viable possibility at present.

Conclusion

3.50 ComReg's preliminary view is that this type of substitution towards on-net calls would not act as a constraint on mobile termination charges. Notwithstanding this, the provision of lower on-net tariffs would not necessarily constrain mobile call termination charges at the wholesale level but arguably preserves the level of those charges (by influencing a consumer's choice of mobile operator while at the same time taking advantage of any price sensitivity for termination on other networks).

Using multiple mobile subscriptions/SIM Cards

3.51 If the calling party used more than one SIM card (mobile subscription) to make outbound calls rather than the one to which they subscribe for receiving inbound calls, this could put some pressure on mobile voice termination charges. Likewise the called party could have more than one mobile subscription for which they distinguished between making outbound and receiving inbound calls. A mobile

[42] "3"'s tariff plan 2006: http://www.3ireland.ie/ireland/iexplore/ihowmuch/ipriceplans/index.omp

[43] See MNOs websites for tariff plan details: www.3ireland.ie, www.vodafone.ie, www.o2.ie, www.meteor.ie

user could therefore manually substitute one SIM card for another to avail of the retail pricing of a network with cheaper termination charges or on-net pricing. To exert some pricing pressure on mobile termination charges the subscriber should be, by default on the network with cheap voice call termination charges and only switch to the other network to make cheap outbound calls. The called party would also have to be aware that the calling party is trying to/ about to make a call to them so that they would insert an alternative SIM card into their handset. ComReg's preliminary view is that this type of substitution is not a viable alternative for mobile users at present. Evidence from consumer research reported that just seven percent of mobile users with a mobile phone use more than one subscription or account. Earlier consumer research indicated that the majority of these with more than one account were the result of having a work and a personal subscription. Furthermore mobile respondents did not cite cheaper calls on other networks as a reason for using more than one mobile subscription.[44]

Conclusion

3.52 Based on the evidence to date, it is not evident to ComReg that an incentive currently exists under the CPP arrangement and historical customer behaviour patterns under that arrangement for mobile users to use more than one SIM card in an effort to avail of cheaper termination of calls.

Are SMS services a substitute for making a voice call?

3.53 In certain circumstances, it's possible that sending a text message via SMS is a substitute for a voice call, particularly for short voice calls. However, only a limited number of characters can be conveyed by text and it is not a real time service but can be stored and forwarded, thereby opening up the potential for delay. ComReg does not have evidence to suggest that consumers consider SMS a substitute for voice calls in many circumstances due to the lack of an immediate response or the need to speak directly to someone.

3.54 Consumer research carried out in 2006 reported that just sixteen percent of respondents would choose to send a text message to a friend/family member to communicate for two minutes during the day on a weekday when at home or at work, assuming that the friend/family member were contactable by mobile, fixed phone and e-mail. This proportion fell to twelve percent of respondents when the call duration increased to five minutes. ComReg is of the view that evidence to date suggests that SMS would not act as an adequate substitute for voice calls of longer duration. Furthermore, ComReg is of the preliminary view that as mobile operators offer both SMS and voice termination services they have the ability to set charges for SMS termination in such a way as to avoid any competitive pressure on its charges for voice termination.

Conclusion

3.55 ComReg's preliminary view is that SMS is not substitutable for a voice call to a sufficient degree.

[44] ComReg Document (06/57a), ComReg Trends Report Q2 2006 and ComReg Document 06/22a, ComReg Trends Report Q1 2006

Shortening calls or requesting call-back

3.56 Another possibility for substitution is to make calls of shorter duration, thus cutting down on spending and by extension the amount of termination revenue generated. This is also relevant in the context of making a short call to request a call-back. To date ComReg does not have any evidence that a call-back service would act as a constraint on mobile termination charges. Consumer research carried out in 2006 reported that just one percent of respondents claimed to use call back as a means of communicating with a friend/family member (assuming they were contactable by mobile phone, landline and e-mail) for either a two minute or five minute call during the day on a weekday when at home or work. Its use would also have to occur in sufficient volume and it would have to be the case that outgoing revenue generated was lower than revenue received to have an impact on mobile operators. ComReg also does not have evidence that consumers view shortening calls altogether as a genuine alternative to voice calls.

Conclusion

3.57 ComReg's preliminary view is that shortening calls or requesting a call-back is not an adequate substitute for making a voice call.

Is making a call over Voice over IP (VoIP) a substitute for a mobile voice call?

3.58 There are also emerging services that have the potential at least to become alternatives to mobile voice calls. Such technologies include voice over internet protocol ("VoIP").[45] A subset of VoIP type services are known as voice over licensed wireless (VoLW) the latter would include services offered over a wireless licensed network such as a 3G network or where available a WiFi network. However, the potential take-up of these in Ireland services is uncertain at this time and there is a lack of market evidence to assess their impact on H3GI's mobile call termination charges. Again, survey research[46] reported that just eight percent of all respondents had heard of VoIP, while 42 percent of internet users claimed to have heard of VoIP and just 23 of the latter claimed to have used VoIP to make a call over the internet. Awareness of VoIP was slightly higher among the business community but just ten percent of companies claimed to use it, with the level of usage being five times higher among corporate users.[47]

3.59 A report by Credit Suisse[48] examined the threat of VoLW to mobile operators in Europe and found that it could start to have an impact on mobile market share in 2008-2010 as WiFi enabled handsets become available to a mass market. In

[45] VoIP (voice over IP) is an IP telephony term for a set of facilities used to manage the delivery of voice information over the internet. VoIP involves sending voice information in digital form in discrete packets rather than by using the traditional circuit-committed protocols of the PSTN network. A sub-set of this is voice over internet (VoI), which refers to voice calls on the public Internet, accessible through installing software on a computer and are available on a limited customer basis. Another subset is voice over licensed wireless (VoLW), which would include services offered over a wireless network such as a 3G network.

[46] ComReg Document 06/57a ComReg Trends Report Q2 2006, June 2006, prepared by Amárach.

[47] ComReg Document (06/34), Business Telecommunications Survey, Wave 1, 2006.

[48] Credit Suisse, Fatphone, the threat of VoIP to mobile, 3 March 2006.

respect of VoLW over handsets on mobile networks, particularly as mobile operators begin to offer data packages bundled with providers such as Skype[49], the report found that mobile data pricing was set too high to make VoLW an attractive proposition for all but a small number of networks. In addition, quality of service issues and extra interconnect for calling non Skype users would also undermine the commercial appeal of such a service. Likewise, for voice over WiFi, quality of service issues and limited handset availability would be likely to slow down adoption of such a service. In addition in many cases a VoIP call can be terminated only if both sender and receiver are on-line simultaneously which may not be the case as the receiver is normally charged for time he/she is on-line. So if a called party has the option to receive a call using either VoIP or the more common technology it is likely that it would opt for the latter as at present there is no charge for receiving a call. Operators appear to view VoLW services as a growth area[50] but the data on the use of such services is not sufficient at this time to establish whether these potential substitutes could be considered realistic alternatives to calling a mobile phone within the period of this review.

Conclusion

3.60 ComReg's preliminary view is that making a VoIP type call is not a substitute for making a voice call over a mobile network during the timeframe of this review. ComReg's preliminary view is that on a prospective basis other technological developments will not provide substitutability to a sufficient degree for making a voice call over the timeframe of this review.

Called Party Behaviour

3.61 The paragraphs above examined the behaviour of the calling party but the behaviour of the called party may also change in response to an increase in termination rates, for example by switching networks. For this type of substitution to be viable a mobile user would have to be price sensitive to inbound mobile voice calls. If consumers are not concerned about the cost others pay to contact them then there is little incentive for mobile operators to reduce termination charges. If users derive a benefit from being called then this could place a constraint on termination rates, as a termination rate increase would result in a reduction in the volume of calls received potentially prompting users to switch networks.

Choice of Network

3.62 Evidence from consumer surveys show that when selecting a mobile package, the price which other people pay to call them is not one of the most important factors for subscribers. Recent consumer research ranked that factor sixth out of seven in terms of importance when choosing a mobile service.[51] To the extent that consumers do rank being on the same network as family and friends as an important factor it may be more likely, given the CPP principle, to be important to them in the context of making cheaper outbound calls. When asked in consumer

[49] In the UK, Hutchison announced a new pricing model, the X-series that offers, among other things, unlimited Skype calls with any Skype PC user and other Skype 3 mobile customer as well as unlimited mobile Internet access and IM for a flat fee. The offer is only available on HSPDA enabled handsets.

[50] Operator Submissions to Market Analysis qualitative questionnaire 2005.

[51] ComReg Document 06/22a, ComReg Trends Report Q1 2006.

research carried out in 2004, whether they had ever changed mobile network to be on the same mobile network with someone to whom they often speak, only six per cent of respondents reported to have chosen a mobile network or changed to a new network for this reason.[52] In a survey carried out by the UK regulator, Ofcom, only 11 per cent of mobile subscribers found put how much it would cost others to call them when choosing provider. When prompted only 2 percent reported to have considered whether the network was cheaper for others to call them, when choosing a mobile provider.[53]

Conclusion

3.63 ComReg's preliminary view is that given CPP, called parties are not likely to switch networks in response to a rise in the cost of calling them.

Communities of Interest/Closed User Groups

3.64 There may be some groups of people whose members are concerned about the costs of incoming calls, for example, mobile subscribers such as families or business users. These are referred to as communities of interest or closed user groups. These types of users may choose to subscribe to the same network to avail of cheaper on-net calls however, as stated above there may be less incentive to connect to the same network to take advantage of low on-net charges, if these lower rates are not relevant for example for post-paid users of H3GI's network. Business users are the group most likely to be concerned with the costs of incoming calls but in general mobile operators can target these groups of more price sensitive consumers. Mobile operators do this by offering special tariffs to business users or other types of services such as virtual private networks or GSM gateways for larger business users that allow integration of office phones and mobile phones. ComReg is of the preliminary view that there is little evidence to suggest that mobile users select their networks based on communities of interest or closed user groups. However, to the extent that a minority of mobile subscribers are sensitive to the cost of incoming calls, MNOs could neutralise this pressure by offering such users more favourable terms in the form of differential retail tariffs.

Conclusion

3.65 ComReg's preliminary view is that communities of interest or closed user groups do not act as a constraint on MNOs pricing behaviour.

Using multiple mobile subscriptions/SIM Cards

3.66 As mentioned in the paragraphs above, the called party could also use multiple mobile subscriptions or SIM cards to receive calls at a lower cost to the calling party. ComReg proposes that this is not a feasible substitute at present as it is cumbersome to implement and called parties are not sufficiently concerned about the cost of receiving incoming calls.

Conclusion

[52] ComReg Document 04/80: Residential Telecommunications Survey, Quarterly Report January 2004, prepared by TNS mrbi.

[53] Ofcom Wholesale Mobile Voice Call Termination Markets-a proposal to modify the charge control conditions, 7 June 2005. Carried out by MORI, January and April 2005.

3.67 ComReg's preliminary view is that using multiple mobile subscriptions or SIM cards is not likely to be a feasible option for the called party, in particular given the CPP principle.

Preliminary conclusion on retail market definition

3.68 From an analysis of these possible substitutes and the options available to consumers to alter their behaviour, ComReg is of the preliminary view that current alternative means of communicating between a caller and a mobile number are insufficient over the timeframe of this review to be able to constrain H3GI's mobile termination charges at the wholesale level. ComReg's preliminary view is based on the following:

- The role of CPP is important in the market definition procedure;
- Consumers may have a overall knowledge of the cost of their bills but not necessarily of the exact cost of making specific types of calls;
- A caller would not substitute making a mobile to fixed call for a mobile to mobile call to a sufficient degree;
- A caller would not substitute making a mobile to mobile call for a fixed to mobile call to a sufficient degree;
- Substituting an on-net mobile call for an off-net call or a call from a fixed phone would not act as a constraint on H3GI's mobile termination charges;
- Incentives for using multiple SIM cards do not exist given the CPP principle and historic customer behaviour patterns;
- SMS is not substitutable to a sufficient degree for making a voice call;
- Shortening calls or requesting a call-back is not substitutable to a sufficient degree for making a voice call;
- Making a VoIP call is not at present an adequate substitute for making a voice call on a mobile network;
- Called parties are not unduly concerned about the cost others have to pay to contact them and would not switch networks in response to an increase in termination rates; and
- Communities of interest/closed user groups would not act as an effective constraint on H3GI's voice termination charges.

3.69 ComReg's preliminary view is that there are currently no effective retail demand or supply side substitutes on the part of either the calling party or the called party nor is this situation likely to change on a prospective basis.

Relevant Product Market

3.70 Therefore taking into consideration the wholesale and retail level, ComReg is of the preliminary view that the relevant product market under review in this consultation is for wholesale voice call termination on H3GI's individual mobile network.

Consultation question 1

1. **Do you agree with the above preliminary conclusions on the definition of the relevant product market for provision of voice termination services? Please provide a reasoned response and support your view with empirical and/or technical & economic evidence.**

The relevant geographic market

3.71 A relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous, and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.[54] Furthermore, the SMP Guidelines note that in the electronic communications sector, the geographical scope of the relevant market has traditionally been defined with reference to two main criteria, (a) the area covered by the network and (b) the existence of legal and any other regulatory instruments.[55] The Guidelines also make reference to case law[56], according to which, in practise mobile networks will be deemed national in scope due to the fact that they can only provide services in the areas they are authorised to and network architecture reflects the geographical dimension of the licence.

3.72 Based on the product market definition, ComReg's preliminary view is that the relevant geographic market for the provision of mobile termination services is Ireland. This view is based primarily on the fact that as mobile networks are considered a separate product market for the provision of voice call termination services, the geographic scope reflects the extent of the physical coverage that characterises each mobile network. Furthermore, mobile licenses are on a national basis, MNOs have roll-out requirements in their licences and offer geographically uniform termination rates. ComReg's preliminary view is that the relevant geographic market for the provision of mobile voice call termination services is the Republic of Ireland.

3.73 While ComReg is aware that mobile operators, including H3GI have introduced island of Ireland tariffs, these tariffs are at the retail level, while the relevant geographic market discussed in this section is at the wholesale level.

Conclusion

[54] See the Commission Notice on Market Definition, SMP Guidelines, ComReg Document No 02/117 - Information Notice on Market Analysis and Data Collection and United Brands v. Commission, [1978] ECR 207, for additional guidance.

[55] SMP Guidelines, paragraph 59.

[56] See Case IV/M.1439-Telia/Telenor, paragraph 124, Case IV/M.1430-Vodafone/Airtouch, paragraphs 13-17, Case COMP/JV.17-Mannesmann/Bell Atlantic/Omnitel, paragraph 15.

3.74 ComReg's preliminary view is that the relevant geographic market is the Republic of Ireland, due to the similarities of competitive conditions across the country. All operators have national licences, have national coverage requirements and offer geographically uniform termination rates.

Consultation question 2

2. **Do you agree that the relevant geographic market for the wholesale provision of mobile voice call termination services is on H3GI's individual mobile network in the Republic of Ireland? Please provide a reasoned response and support your view with empirical and/or technical & economic evidence.**

4 Relevant Market Analysis

Background

4.1 Having first identified a relevant market relating to voice call termination on individual mobile telephone networks, in the Republic of Ireland, ComReg is required to conduct an analysis of whether the market is effectively competitive by reference to whether any given undertaking or undertakings is/are deemed to hold SMP in that market. ComReg is obliged under the Framework Regulations to assess SMP in accordance with European Community law and in doing so, to take utmost account of the SMP Guidelines.[57]

4.2 ComReg had conducted a market analysis of all mobile operators in Ireland, including H3GI and ComReg had designated H3GI with SMP in Decision No.D9/04, however, as discussed below H3GI successfully appealed that decision and the appeal raised a number of issues that are also relevant to the background to this review. The SMP analysis in this document therefore, relates only to the market for wholesale call termination on H3GI's mobile network.

ECAP Decision

4.3 ECAP Decision number 02/05[58] annulled that part of ComReg's Decision D9/04[59] that designated Hutchison with SMP. In respect of ComReg Decision D9/04 it found that ComReg had failed to carry out a sufficiently thorough analysis of certain economic characteristics which had a crucial bearing on the determination of whether H3GI had significant market power. In particular the ECAP highlighted that in its opinion ComReg had failed to identify important factors relevant to H3GI that could have a bearing on the issue of countervailing buyer power (CBP). As a result of the Panel's decision, ComReg is now undertaking a new market analysis, at face value, of the relevant market for wholesale voice call termination on H3GI's network.

4.4 The ECAP Decision Number 02/05 found that there was no real controversy in respect of the use of market share as a significant indicator of dominance. However the ECAP did find that, ComReg may have over-relied on market share to the exclusion of other key factors in the previous market review. ComReg takes as its starting point the assumption that having one hundred percent market share is not determinative of the issue of SMP but rather is one factor which is necessary for ComReg to consider with other relevant factors. The assessment of SMP therefore requires a holistic assessment of a number of factors.

4.5 The SMP criteria considered to be the most relevant[60] to an analysis of the market in question and which are examined in the analysis below are the following:

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[57] Regulation 25(2).

[58] ECAP 2004/01: Hutchison 3G Ireland Limited and Commission for Communications Regulation.

[59] ComReg Document 04/82: Decision Notice D9/04 Market Analysis-Wholesale Voice Call Termination on Individual Mobile Networks.

http://www.comreg.ie/_fileupload/publications/ComReg0482.pdf

[60] Annex F contains a summary of the other SMP criteria contained in the SMP Guidelines and an explanation for why ComReg considered them less relevant in the context of this market review.

- Market Share;
- Existing Competition;
- Barriers to Entry and Potential Competition; and
- Countervailing Buyer Power.

Market Structure

Market Share

4.6 H3GI has one hundred percent market share of the relevant market, a high and non-transitory market share. ComReg is obliged under the Framework Regulations to assess SMP in accordance with European Community law and to take the "utmost account" of the SMP Guidelines.[61] The SMP Guidelines state that the existence of a dominant position cannot be established solely on the basis of large market shares, and that NRAs should undertake a thorough and overall analysis of the economic characteristics of the relevant market before coming to a conclusion as to the existence of significant market power.[62] The SMP Guidelines also state that according to established case-law, very large market shares – in excess of 50% - are in themselves save in exceptional circumstances, evidence of the existence of a dominant position.

4.7 Although H3GI has one hundred percent market share in the relevant product market, according to the Panel, no assumption of dominance can be made until ComReg carries out a thorough analysis of the key economic characteristics of the relevant market. ComReg takes as its starting point the assumption that having one hundred percent market share is not determinative of the issue of SMP but rather is one factor which it is necessary for ComReg to examine with other relevant factors. However, it is apparent that the one hundred percent market share is likely to persist over the timeframe of this review, indicating that this is a sustainable and non-transient position.

Existing Competition

4.8 ComReg is of the preliminary view that existing competition would not provide an effective competitive constraint on the relevant wholesale markets for voice call termination on its mobile network in the Republic of Ireland. This is mainly for the reasons outlined in the section on market definition[63], where the analysis showed that there are no feasible substitutes for termination to end users on H3GI's network within the timeframe of this review. For example, at present, any attempt to terminate the call on another MNO's network would currently result in the call to a H3GI subscriber being unsuccessful. There are no wholesale supply or demand side substitutes or retail constraints over the period of this review.

Preliminary Conclusion on Existing Market Structure

4.9 ComReg is of the preliminary view, given the lack of alternative infrastructure for terminating calls on H3GI's network, which results in a one hundred percent market share; there is an absence of existing competition in the relevant market for

[61] Regulation 25 (2).

[62] SMP Guidelines, Paragraph 78.

[63] Market Definition Section pages 9-28.

wholesale mobile voice call termination on H3GI's network, which is likely to persist over the period of this review.

Barriers to Entry and Potential Competition

4.10 The threat of market entry, either on a long-term or "hit and run" basis, is one of the main potential competitive constraints on incumbent firms in a relevant market, at least where such entry can be shown to be highly probable, timely and appreciable. ComReg is of the preliminary view that there are absolute barriers to entry based on the definition of the relevant market. As stated in the market definition section above[64], there are no potential supply or demand side substitutes to termination on an individual mobile network foreseeable within the timeframe of the review. For example on the supply side, irrespective of whether a new entrant entered the overall mobile market, as may arise from the award of a fourth 3G licence, new technologies or the possibility of MVNO entry, it would still not be technically possible for these operators to replace termination of voice calls to H3GI's subscribers. ComReg reached the preliminary conclusion in section 3 that the relevant market for this review is the voice call termination market and that potential technological developments will not provide an effective constraint on H3GI's termination rates over the period of this review. In this respect, the infrastructure required to enable other providers to terminate calls on H3GI's network is not available or not easily replicated over the period of this review.

Preliminary Conclusion on Barriers to Entry and Potential Competition

4.11 ComReg is of the preliminary view, that potential competition will not provide an effective competitive constraint in the relevant market for wholesale mobile voice call termination over the period of this review. This is because there is a lack of alternative infrastructure for terminating calls on H3GI's network and the absolute and non-transitory nature of this barrier to entry results in a one hundred percent market share.

Countervailing Buying Power

4.12 It is now confirmed by the ECAP Decision, referred to earlier, that ComReg must ensure that it does not place undue reliance on the one hundred percent market share that exists in this market, but must thoroughly assess whether there are other factors, that taken into account as a whole would be determinative of the issue of SMP. Nor would it appear that the CPP principle of itself disposes of the need for a full competitive assessment. In summary, the ECAP decision mentioned a number of issues that ComReg should have considered more thoroughly in its analysis of CBP to have a thorough and overall analysis of the economic characteristics relevant to the market:

- The role of economic theory, namely the "bargaining theory" and the "access pricing theory";
- Factors such as whether the being a new entrant made a difference to bargaining power, the effect of possible delay of entry to the market and the effect of market saturation on the bargaining dynamic.

[64] Part 3, pages 11-15 of this document.

- How the interconnect obligation affected the bargaining dynamic and how the obligation might have had a different effect when an MNO was a new market entrant.

4.13 Therefore it is necessary to consider whether there are other factors such as CBP that taken into account with the one hundred per cent market share and barriers to entry could be determinative of SMP. CBP exists where large customers have the ability within a reasonable timeframe to resort to credible alternatives if the supplier decides to increase prices or to deteriorate the conditions of delivery. An operator is not dominant where sufficient CBP exists to constrain it charging prices above competitive levels. In principle, such buyer power exists where the purchaser has an alternative source of supply, can provide the service itself, or can simply refuse to purchase the service if the cost of the good is too high. So, for example, if an originating operator (such as eircom or other FNOs/MNOs) had sufficient CBP to constrain H3GI's pricing behaviour.

4.14 The following section aims to evaluate the likelihood of and/or existence of CBP in the market for wholesale voice call termination on H3GI's network and to identify the circumstances under which this could potentially be exercised.

4.15 In order to encapsulate a complete review of the factors inherent in the exercise of CBP ComReg will first provide an overview of the economic framework both the traditional approach and the bargaining approach. Secondly we assess the evidence from the actual negotiations between H3GI and its interconnect partners, eircom and BT Ireland. Thirdly, ComReg's assessment for evidence of the exercise of CBP then includes an examination of the relative bargaining positions of the buyer and seller of termination in light of the economic framework, the evidence from the negotiations and any relevant regulatory factors that need to be taken into consideration in the analysis under a modified Greenfield approach[65].

1) Overview of Economic Framework

4.16 The ECAP decision stated that, in respect of economic arguments on the correct approach to modelling the market in question it was not its role to choose between competing models. Rather, its focus would lie on whether ComReg, in concluding that H3GI had SMP, had made a significant error, factual or legal, in coming to its conclusion. To do this, the Panel stated it must look at the key economic issues that have a bearing on the decision and assess whether they have been sufficiently and properly analysed. It should be noted that this was particularly the case as the ECAP expert, Professor Muthoo, had pointed out that there was no established model or theory which could directly apply to this situation.[66] ComReg outlines below the various literature on the issue of call termination on networks to provide an economic context for the analysis of the evidence from the negotiations between H3GI and its interconnect partners.

[65] "A modified Greenfield approach takes account of non-SMP regulation and of SMP-related regulation originating in markets which are not a component of the value chain under review." A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to *ex ante* Regulation An independent report by M. Cave, U. Stumpf, T. Valletti, July 2006.

[66] Electronic Communications Appeals Panel: Decision No. 02/05, 6.47 p. 56.

4.17 There has been considerable economic analysis of the issue of call termination on networks.[67] The majority of this literature has focussed on whether unregulated markets will lead to a socially optimal outcome (for the purposes of this consultation paper we will term this the traditional approach). This consultation paper focuses on the issue of whether the terminating network (in this case H3GI) has sufficient market power to raise the price above the competitive level. If such market power is there, then there may be a case for *ex ante* regulatory intervention to correct any negative effects of such market power.

4.18 In the traditional approach mobile termination rates have been studied as part of a more general class of access problems. The network operator terminating calls is analysed as making a take-it-or leave-it-offer (TIOLO) to operators who wish to terminate calls on its network. In the context of fixed to mobile termination rates, this usually leads to the conclusion that in the absence of regulation a mobile network operator would in effect behave like a monopolist bottleneck supplier and set the monopoly price or higher for terminating calls. This is particularly the case where callers pay for calls and termination tariffs are determined based on usage. In some situations this monopoly charge could be extremely high.

4.19 A further exposition of the access problem is in Wright[68]. Under this scenario there were a number of competing mobile operators that first set their fixed to mobile termination rates and then chose their retail prices. At the same time a fixed network operator selected a fixed to mobile retail rate (second stage). This characterisation was intended to capture the strategic aspects associated with setting termination payments and the strategic reaction of the fixed operator. Under a number of assumptions, Wright considered two cases, one where the fixed network operator discriminated its retail fixed to mobile prices across the different MNOs and the second where the fixed network operator offered a uniform fixed to mobile retail price for calls to all mobile operators. Under the former scenario, the predicted outcome was that the MNOs chose the fixed to mobile termination rate that would be chosen by a monopoly MNO or the rate that maximised the subscriber profit of termination. In the latter case, it was predicted the MNOs chose a termination rate above the monopoly outcome of the first case. In equilibrium therefore the fixed to mobile rate would be above the monopoly rate.

4.20 Another variant of this framework based on the access pricing approach has suggested that in fact the monopoly pricing outcome is also more likely the smaller the mobile network (as measured by its subscriber base). One approach found that smaller operators will charge higher termination rates than larger operators as a small operator's impact on the weighted average price is relatively small so it can increase its prices significantly without a significant effect on the quantity of off-net calls demanded.[69] This is assuming that consumers are ignorant and base their calling decisions on average prices that is, consumers are not always aware what mobile operator they are calling. This approach is summarised in Dewenter and

[67] See Armstrong (2002), "Theory of Access Pricing & Interconnection," Chapter 8 in Handbook of Telecommunications Economics, eds Cave M., S. Majumdar & I. Vogelsang, for a summary of this literature.

[68] Wright J. "Access Pricing Under Competition: An Application to Cellular Networks." *Journal of Industrial Economics*. 50, 289–315, 2002.

[69] Economic Literature suggests an MNO with a smaller subscriber share will have a higher percentage of off-net calls per average subscriber than an MNO with a larger subscriber share. Laffont et al (1998), Rand Journal of Economics. Network Competition: II Price Discrimination.

Haucap[70], which presents empirical evidence based on data on mobile termination rates and the subscriber base of 48 different mobile operators from 17 European countries. Their analysis found that an operator's market share tended to have a statistically significant impact on its termination rate that is smaller operators (as measured by subscriber base) tended to have significantly higher mobile termination rates. The analysis also found that downward regulation of the larger operators' rates tended to have the effect of increasing the rates of unregulated (or smaller) operators.[71]

4.21 As can be seen, the standard analysis, based on the terminating party having one hundred percent market share, usually predicts a monopoly outcome. Indeed, the outcome may be above the monopoly level and the incentive to have high termination rates may be greater for smaller operators, depending on the level of consumer ignorance of networks called and the associated prices.[72] All of this literature, although focussed mainly on the issue of whether and how regulation can improve matters, seems to lead to the conclusion that the terminating operator has market power.

4.22 On the other hand there is the paper by Binmore & Harbord[73] (BH) introduced by H3GI by its expert witnesses that focuses more on the application of bargaining theory. In summary, the bargaining framework as outlined by BH put forward the solution that termination rates negotiated between H3GI and eircom would likely be lower than the average of other mobile operators' rates. When accounting for the threat of regulatory intervention the BH model resulted in a solution for termination rates negotiated between H3GI and eircom that was still below, albeit by a smaller proportion, the average of other mobile operator's termination rates. ComReg has included below, a summary of the economic bargaining framework proposed by BH below. A formal assessment of the BH paper is contained in Annex D of this document.

4.23 The basic BH model used a bargaining model where there were two firms: H3GI and eircom, who bargained over the price that H3GI would charge eircom to terminate calls on its network. The BH model was based on a market structure of bi-lateral monopoly, where there is a single buyer and a single seller. This was because a) it assumed there was a requirement for H3GI to interconnect with eircom and b) whatever interconnection agreement H3GI reached with eircom it would be available to all other operators because the other operators would have the option of routing traffic to H3GI's subscribers via eircom's network. BH also

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[70] Dewenter, R., and J. Haucap., "Mobile Termination with Asymmetric Networks", *Discussion Paper No. 23*, *University of Federal Armed Forces Hamburg*, *Department of Economics*, October 2003.

[71] See Annex G for a table on mobile termination rates in three unregulated markets, that would suggest unregulated operators with smaller subscriber market share can charge rates that are in excess of the average of the fixed to mobile termination rates of other operators in the market.

[72] Gans J. & S. King (2000) Mobile Network Competition, customer ignorance and fixed to mobile call prices, *Information Economics and Policy*, 12.

[73] Binmore K. & Harbord D., Bargaining over Fixed to Mobile Termination Rates: Countervailing Buyer Power as a Constraint on Monopoly Power, Journal of Competition Law and Economics, Volume 1 (3) 2005.

assumed that each firm had the same approximate 'power' in the bargaining game, which can be interpreted as saying no side had a particular advantage in bargaining – BH justified this by suggesting that eircom had an interconnectivity requirement which ensured it could not refuse to bargain, while H3GI had a requirement to get its network functional.

4.24 BH specified the potential benefits eircom and H3GI would gain from any bargain, and what were known as their 'status quo' payoffs (what they would obtain if the bargain did not take place). They initially posited that H3GI's status quo was zero, while its gains from a successful bargain would simply be the total revenue obtained (the termination rate multiplied by the number of calls) minus the total costs of termination. The values for eircom would depend upon whether there was what BH called a 'saturated' market or not. A saturated market is one where there is no possibility for further expansion of the number of consumers, and any new entrant such as H3GI would take customers from current market participants.

4.25 The prediction of their model was that the actual termination rate would not exceed the average of the termination rates paid to other mobile phone operators. The key driver of this result was the saturated market assumption; it implied that in order for eircom to have been persuaded to allow its customers to terminate on H3GI's network, it must have been offered a better rate than it currently obtained from other operators. This is because, given the number of total users was fixed, H3GI was forced to bid lower than the amount paid to existing operators.

4.26 BH then explored the case of a non-saturated market, where none of H3GI's customers previously subscribed to other mobile networks. They suggested that this situation seemed less realistic than the saturated case. In this equilibrium of the model the termination price was found to be roughly half-way between the monopoly outcome and the efficient charge level. It should be noted that the price could be substantially above H3GI's costs.

4.27 BH went on to examine what effect H3GI being a new entrant would have on the outcome. The authors assumed that it would make it more risk averse and impatient and hence decrease its bargaining power and share of the surplus being bargained over. BH also considered how this framework would be affected by the presence of the regulator. The paper explicitly acknowledged the idea of dispute resolution and analysed how this would affect the actual negotiations. The paper found that the key issue in determining what rates would be set is the rate the regulator would set. The paper considered two scenarios - the cost of termination for H3GI or the average of the other operators' mobile termination rates. In either of the latter cases the paper predicted the most likely outcome was where the agreed rate would be around the average of the other operators' rates.

4.28 For completeness, in the next section ComReg will examine the evidence for the exercise of CBP taking into account the economic framework as detailed above and formally assessed in Annex D.

2) Evidence from the Actual Negotiations

a) Introduction

4.29 The following paragraphs summarise ComReg's understanding, based on information provided by the relevant operators, of the negotiation process for the signing of the interconnect agreements between H3GI and the two largest fixed operators, the incumbent, eircom and another fixed line operator, BT Ireland, and the outcome of its negotiations with those operators in respect of termination rates.

This is to assist in determining the actual bargaining dynamic between those operators and what the outcome of any future negotiation between the parties might be more likely to approximate to. A full chronology of the negotiations between the parties is contained in Annex E of this document.

b) Summary of Actual Negotiations between H3GI and fixed operators

4.30 [•]

4.31 [•]

4.32 [•]

4.33 [•]

4.34 [•]

4.35 [•]

4.36 [•]

4.37 [•]

4.38 [•]

4.39 ComReg is of the preliminary view that it is evident that BT had insufficient CBP in respect of H3GI. This may have been because BT had incentives to achieve wholesale revenues as well as end to end connectivity for its subscribers. In respect of eircom, ComReg discusses the evidence further in the section below.

c) Evidence from Negotiations

4.40 In this section, ComReg examines the evidence for the proposal that there is sufficient CBP to constrain H3GI from acting to an appreciable extent independently from its customers. ComReg has carried out this assessment in the context of the bargaining framework and bearing in mind the predictions of the model proposed by BH, contained in Annex D and summarised in sub-section 1 above.

4.41 As evidenced by the negotiations, the rates that H3GI and eircom finally agreed on are above the rates in the overall mobile market. The key prediction of the BH paper was that, in a saturated market, the rates achieved by H3GI would likely be lower than the average of other operators' rates. This is incorrect, as illustrated in table 4.5 below, H3GI's termination rates are in excess of those of Vodafone and O2 and are at present the highest termination rates in the Irish market.

Table 4.5: Mobile operator termination rates in Ireland 2007

Termination Rate	Vodafone	O2	Meteor	Hutchison	% Difference above Vodafone	% Difference above O2	% Difference above Meteor
Peak	12.26	11.25	15.90	17.78	45 %	58 %	12 %
Off peak	8.15	7.99	10.71	11.43	40 %	43 %	7 %
Weekend	5.00	7.99	8.32	8.89	78 %	11 %	7 %

Source: eircom switched transit and routing price list version 54 8-12-06, Table 101

4.42 From the above table it can be seen that the actual outcome is one where in fact H3GI's rates can be up to sixty or seventy percent higher than termination rates set by other mobile operators in the Irish mobile market for 2007. In this key area, the BH model did not seem to offer an accurate prediction nor does it suggest sufficient CBP for eircom. Indeed as H3GI's rates have effectively been in the market since 2003 (for interconnection via BT) the disparity in rates has widened since that time and is likely to widen further as the trend in MTRs for SMP MNOs in Ireland is downwards[74]. While H3GI asserted in the appeal that it had been forced to bring its rates down to levels below its original proposal, ComReg is of the preliminary view that the operator was not constrained to offer the average of the 2G price level. Instead it achieved rates that were above the level in the overall mobile market and likely to remain so, which indicates that eircom had insufficient CBP to constrain H3GI to an appreciable extent at that time and by extension during the period of this review.

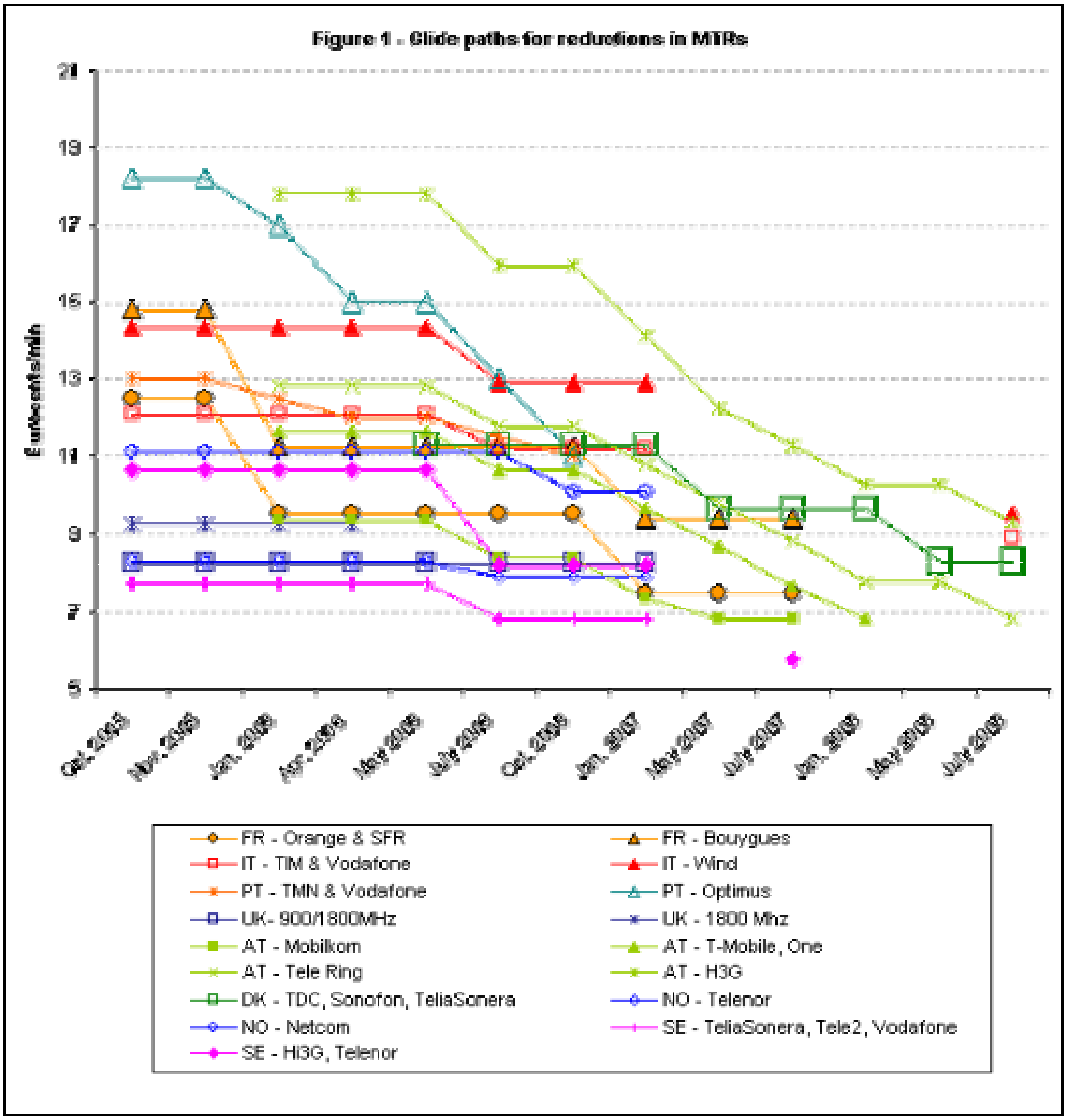
4.43 As the rates of SMP MNOs' in Ireland decline because of regulation, ComReg is of the preliminary view that there is little incentive or impetus for H3GI to decrease its rates in tandem towards the benchmark levels in the overall mobile market.[75] Furthermore, ComReg notes that the majority of the other NRAs that examined this market, set glide paths with target rates to be reached by 2007 or 2008 in the range of 6-9 cent per minute, as illustrated in figure 4.1 below.[76] Again, this would indicate that H3GI has managed to achieve rates that are above what could be described as benchmark efficient levels elsewhere in Europe.

[74] There have been two reductions in mobile termination rates by SMP MNOs in the period 2006-2007.

[75] For example, absent regulation in the past the 2G MNOs rates remained above efficient levels.

[76] Cullen International, Cross Country Analysis, Mobile Call Termination (Market 16). http://www.cullen-international.com/documents/cullen/prindex.cfm

Figure 4.1: Mobile Call Termination market 16, Glide Path for reduction in MTRs



Source: Cullen International 2006

4.44 Furthermore, in this consultation paper, ComReg is assessing whether H3GI has SMP in a situation where it is already an existing market player. As such, H3GI's perceived disadvantage as a new entrant and the assessment of the BH model is no longer as appropriate as it might have been. It is likely to be the case that the requirement for H3GI to provide its potential subscribers with the ability to receive calls from eircom was more important for it to launch a commercially viable service than would be the converse situation for eircom. However, as discussed further in part (d) below, ComReg is of the preliminary view that all operators, including eircom wish to provide subscribers with the ability to make and receive calls to all other operators in the Irish market and this provides incentives for interconnection. This is supported by the fact that being a new entrant did not prevent H3GI from setting rates unilaterally vis a vis BT, the operator that terminated the bulk of H3GI's traffic via transit.

4.45 ComReg is of the preliminary view that what is clear is that in the position of a new entrant and in the absence of any certainty as to what the precise outcome of a regulatory intervention would be, H3GI managed to negotiate favourable terms from eircom. This would indicate to ComReg that H3GI is likely to be able to, at least, sustain its current rates for the immediate future. Given the current contractual situation, for an amendment of rates to occur, H3GI would need to reach agreement with eircom over any change in rates. The contractual arrangements agreed between eircom and H3GI specified **[•].** So far, neither has done so and when ComReg posed that question it was informed by H3GI that no negotiations had since taken place with eircom to urge H3GI to revise these rates downwards. Based on an analysis of the history of negotiations, whenever any future negotiations over rates takes place, it seems probable that, with an existing subscriber base and the ability to make end to end calls being of importance to consumers, H3GI would be in an even stronger bargaining position than it was when about to enter the market. ComReg is of the preliminary view that there would be insufficient incentives for H3GI to lower its rates even in an environment where other MNOs' rates are falling.

4.46 It is possible that eircom could still wish to achieve lower termination rates and seek to have these termination rates reviewed by referring a dispute to ComReg. ComReg does not have strong evidence to support this as a likely course of action given that eircom already agreed to the termination rates detailed in table 4.4, despite its knowledge that ComReg had decided not to intervene when H3GI referred the dispute to ComReg. In fact, it was H3GI that appeared to leverage the possibility that ComReg would favour it in any determination in the proposal it made to eircom as detailed in paragraph 4.35 above.

4.47 Therefore, on a forward-looking basis ComReg' preliminary view is that the evidence suggests H3GI would be able to negotiate rates that are at least as high as the current level and that there would be insufficient CBP to exert downward pressure on these rates over the period of this review.

d) Relative Bargaining Strengths of Buyer and Seller As Evidenced By Negotiations

4.48 The EU Commission Independent Report[77] proposed a number of bargaining tools that are potentially available to buyers when engaging in negotiations with sellers. These include the potential for buyers to refuse to interconnect or to purchase and/or to impose a reciprocal increase in the termination rate. The following paragraphs examine, however, to what extent eircom did, or could in fact, credibly threaten to refuse to purchase or delay negotiations with H3GI and to what extent other factors such as regulatory intervention would influence the relative bargaining strengths of the operators in question.

4.49 **Threat of Possible Refusal to Purchase or Delay**: In respect of a buyer's option not to purchase this would be more credible where there would be no disturbances to outgoing (and incoming) connections for the buying operator and its customers. ComReg is of the preliminary view that this would not be credible in the case of eircom. Apart from the requirement to ensure end-to-end connectivity, there are other reasons why eircom would not refuse to purchase termination from H3GI. A large proportion of calls terminate outside the network in which they originated. For example, 44 percent of fixed retail voice traffic is to

[77] A review of certain markets in the Commission Recommendation on relevant markets subject to *ex ante* regulation, An Independent Report, by Cave M., Valletti T., and Stumpf U., July 2006.

calls other than domestic fixed minutes.[78] Bearing in mind that there is no viable substitute or alternative means of supply of termination on H3GI's network. This means that network operators are often not able to provide a full service unless they purchase call termination services from other networks. Multiple networks coexist and these networks need to connect to facilitate off net calling. This is a point emphasised by the ECAP expert, Professor Muthoo, when he stated that in a post-launch scenario, eircom's buyer power would be weakened if there was also pressure coming from eircom's own customers to ensure they had the ability to make calls to subscribers on H3GI's network.[79] It is also possible that fixed operators would be concerned that not providing their subscribers with the ability to make calls to subscribers of mobile phones would increase the possibility of fixed mobile substitution and damage their reputation. Further, it may also be commercially important for eircom to interconnect with all operators, including H3GI to maintain its central position in the interconnection market.

4.50 The ability to threaten not to interconnect or to delay can potentially be influenced by the size of the undertaking in question as measured by its subscriber base. In this case, H3GI's ability not to interconnect with eircom could impose a greater cost on H3GI than vice versa, given eircom's subscriber base. However, in terms of traffic terminated, it appears from information provided by H3GI that **[•]**. Thus, it is conceivable that it could have initially entered the market based on interconnection with BT and the other MNOs, thereby conferring some further bargaining power on H3GI in the negotiations. This would appear to be further supported by the fact that **[•]**. **[•]**.

4.51 This issue of relative size may have been more relevant to the situation where H3GI was seeking entry to the mobile market, as eircom could threaten to delay that launch. However, as examined in part (c) above on the evidence from the negotiations to date, ComReg is of the preliminary view that this perceived disadvantage did not prevent H3GI from extracting high prices for termination in the agreement with eircom indeed eircom seemed keen to reach agreement with H3GI in advance of its launch.

4.52 In general, ComReg does not have evidence that fixed operators position themselves to offer calling services to consumers that did not enable those consumers to call specific mobile operators. Furthermore, the threat of delay is no longer as relevant, given the existing contracts in place between the operators and the defined steps to proceed to re-negotiation of rates or severing of relations within those contracts. Therefore in light of the evidence from the previous negotiations, the commercial realities and the existing contract between H3GI and eircom it does not seem that eircom used this to advantage its position in the past nor is it commercially feasible that either party would refuse to interconnect going forward.

4.53 **Buyer as an Important Outlet for the Seller**: The credibility of any refusal to interconnect or to purchase can be enhanced depending on the importance of the buyer to the seller. It would be important for any new entrant to have an agreement with any originating operator of significant size, in this case eircom, so their

[78] ComReg Document 06/68: Irish Communications Market, Quarterly Key Data Report, December 2006.

[79] Transcript 21 July 2005; the Electronic Communications Appeal Panel, Hutchison 3G Ireland and Commission for Communications Regulation pps. 8-9.

customers can make and receive calls from eircom subscribers. However, as outlined above, all operators need to interconnect to facilitate off-net calling and provide a full service, not just the new entrant.

4.54 A factor that might have a bearing on this is the issue H3GI also raised of bi-lateral monopoly.[80] This would mean that H3GI would not have the ability to play off the various originating operators against each other in any bargaining situation as (a) there was an interconnectivity obligation on H3GI and (b) arbitrage would ensure that if one operator struck a good deal, that offer would be available to other operators. Thus, for instance, if, say, BT got a deal of 12 cents per minute to terminate, then there would be no way to deny eircom or Vodafone from getting such a deal as well, as they could simply interconnect with BT and thus obtain very close to the same deal. BH also went on to argue that this showed that there was a bilateral monopoly between negotiating operators, and that the traditional pricing framework of one seller and a number of buyers did not apply. Hence, H3GI proposed that eircom was essentially the only buyer of its termination services.

4.55 ComReg is of the preliminary view that there is considerable force to this argument. However, a world of costless arbitrage is probably not an accurate reflection of reality either. In theory, almost any pricing situation could be resolved by any buyer and seller bargaining over prices but most often, the seller does make take it or leave it offers. There are fewer players here, but assuming costless arbitrage and an automatic bilateral monopoly does not seem fully accurate for the reasons set out below.

4.56 As detailed earlier in this consultation in paragraphs 4.49-4.52, if eircom refuse to interconnect or delay, H3GI has the option to interconnect (directly and indirectly) with multiple other FNOs and MNOs. For example, at the time of commercial launch H3GI had concluded a direct interconnection agreement with BT Ireland[81] and continued to use such an agreement with BT to deliver terminating traffic, including eircom's traffic[82], to the H3GI network. Again, it should be noted that the traffic terminating on H3GI's network **[•]**. Alternative interconnection partners provide H3GI with the opportunity to receive calls from other operators, such as the mobile operators, irrespective of any termination deal with the incumbent fixed operator, which clearly has implications for H3GI's relative bargaining position. Indeed, H3GI has been able to expand its portfolio of terminating revenues with BT Ireland operating as a transit interconnect for video calling services between H3GI and Vodafone.

4.57 Therefore, from the pool of potential interconnection partners, it is possible for H3GI to launch a business offering data services, mobile to mobile (M2M) services, and mobile to fixed services (M2F) without directly connecting with eircom for the purposes of terminating the latter's fixed to mobile traffic. It is clear that the possibility of making outgoing calls is not affected by any F2M termination agreement. It is also important to note that H3GI could negotiate with other MNOs

[80] A situation where there is a sole buyer of H3GI's termination services, in this case eircom.

[81] 3 had an interconnect agreement in place with BT from December 2004.

[82] **[•]**.

with respect to termination of a number of services other than voice.[83] By contrast, eircom or alternative fixed operators could only terminate fixed voice originating traffic, again reducing their potential leverage on termination markets. Also, there is likely to be a reduced need for transit due to self build by mobile operators' enlargement of their own network. H3GI's 3G video service coverage is now 80% of total population. Though clearly the ability to receive calls from subscribers to eircom's network is likely to be an important consideration for consumers when choosing to subscribe to H3GI's network, ComReg is of the preliminary view that the evidence suggests that H3GI's operations are not wholly dependent on establishing interconnection exclusively with eircom. This would be likely to strengthen H3GI's negotiating position.

4.58 On balance, ComReg is of the preliminary view, that it could be argued that H3GI must have an interconnection agreement with eircom to have a viable commercial business and certainly if this is the case, the bilateral monopoly argument has considerable force. However, in practice, the arbitrage argument used is not likely to operate with the same speed or to incur zero transaction costs. In terms of the BH model, this suggests that there may be some ability for H3GI to play one firm against the other and introduce competition among buyers, which would have assigned it more bargaining power. ComReg's preliminary view is that while a TIOLO approach is not fully realistic, the bargaining approach also has some flaws and the seller (H3GI) may have more market power than the BH model assigned them.

4.59 In summary, eircom is likely to be an important purchaser of H3GI's termination services but equally all operators need to interconnect to enable their customers to make and receive calls to all other operators, fixed and mobile. In addition, ComReg is of the preliminary view that there may have been some options open to H3GI to engender competition among buyers and irrespective of this, it does not appear to ComReg that the importance of eircom as a buyer prevented H3GI from extracting high termination rates from the negotiation with eircom. Again, ComReg would highlight that H3GI is in any event no longer a new entrant; it has a subscriber base and would as a result have enhanced bargaining power as eircom would have more to lose in any future negotiations.

4.60 **H3GI as a New Entrant:** The ECAP suggested that ComReg had not sufficiently considered factors specific to H3GI, such as that it was a new entrant, as to whether that would have had an impact at the time of the negotiations. BH for example, predicted that H3GI's pay-off if it failed to reach an agreement would be zero. This was primarily under the assumption that H3GI must provide its potential subscribers with the ability to receive calls from eircom to launch a commercially viable service than would be the converse for eircom, so the cost of any delay in reaching an agreement would be more significant to H3GI.

4.61 ComReg has thoroughly examined this issue in paragraphs 4.44 and 4.49-4.59. ComReg is of the preliminary view that there were options open to H3GI in the event it had not managed to reach an agreement with eircom. While this effect may not be very strong, it is possible to directly factor it into the bargaining dynamic between the two operators by allowing H3GI's payoffs in the event it failed to reach an agreement with eircom to be greater than zero. This indeed

[83] Mobile operators are more reliant on interconnection agreements between mobile operators in respect of terminating revenues for services other than voice, e.g., SMS, MMS.

would give it more bargaining power if negotiations broke down or were delayed significantly, thus allowing it to have obtained a higher termination rate, which seems to have been the case. A formal assessment of this issue is contained in Annex D of this document.

4.62 **Relevance of a Saturated or Non-Saturated Market:** A further issue that ComReg examined is whether there would be any effect on bargaining between the two parties depending on whether the market was saturated or not. A formal analysis of this point is included in Annex D and summarised here below. The BH paper had asserted that the saturated market was the most likely case, which would have the effect of somewhat weakening H3GI's bargaining position. It is not evident to ComReg why it should be assumed that the market is saturated (that is whether the total number of subscribers would rise as a result of H3GI's entry). While there may be a high penetration rate in terms of subscriber numbers[84] consumers may wish to subscribe to H3GI for reasons of product differentiation[85] and there is always scope for an increase in revenues generated in the market.

4.63 On balance, exclusively assuming either a saturated or a non-saturated market is not likely to fully reflect reality – a new entrant to the market would both create new subscribers and take some customers from existing operators. ComReg is of the preliminary view based on the history of negotiations before it, that when reaching a deal, eircom appeared to be coming from a position where if no deal was made, it would obtain zero and H3GI close to zero. While eircom was reluctant to enter into a commercial agreement at the rates originally proposed by H3GI, there does not seem to be significant evidence that eircom considered it would be losing revenue from its existing fixed customers by negotiating an interconnect arrangement with H3GI.[86]

4.64 ComReg is of the view that of the various versions of the BH model the outcome predicted in a non-saturated market, seems to have most congruence with the empirical data. This is not to say that the assumption that the market is non-saturated is completely accurate. However, the prediction – that H3GI would achieve a rate half-way between the monopoly rate and the overall mobile market level – seems to have most congruence with empirical data, and with the actual pattern of bargaining that occurred

4.65 This seems to ComReg to be evidence of significant market power – it is true the outcome is not the monopoly outcome, but the BH model has shown H3GI's ability to set price considerably higher than the competitive price. This is essentially what SMP (or dominance) is: the ability to act, to an appreciable extent, independently of other market participants and your customers. The empirical evidence does not support the contention that eircom had sufficient CBP to restrict H3GI from raising the price above the overall mobile market level.

4.66 **Importance of the regulatory background**: ComReg has identified two relevant areas of regulation that it may be appropriate to review in the context of a

[84] The latest penetration rate for the Irish market is 106 percent, below the EU average, of 108 percent, ComReg document 06/68: Irish Communications Market: Quarterly Key Data Report December 2006.
http://www.comreg.ie/_fileupload/publications/ComReg0615.pdf

[85] This seems particularly likely given that Hutchison offers 3G services, such as video services and higher bandwidth for internet access.

[86] ComReg notes again that eircom requested that H3GI have a direct interconnect agreement in place with it before its commercial launch.

modified Greenfield approach and in an assessment of the relative bargaining strengths of operators. First, to date, eircom has been regulated in the markets for interconnection, the standard form documentation of the reference interconnect offer ('RIO') is the standard agreement between eircom and other operators, and requires that eircom must offer equivalent terms and conditions to operators in equivalent circumstances. In respect of negotiating termination rates, eircom is not in a position to offer more advantageous terms or conditions or termination rates to one operator over another, thus removing one potentially very significant source of bargaining strength. That is eircom cannot retaliate to unreasonable termination rates proposed by other operators by a reciprocal increase in its own rates. In addition, all operators are required to negotiate interconnection in order to ensure end to end connectivity.

4.67 For fixed to mobile calls, the mobile rates of other SMP MNOs are regulated[87] albeit to date the cost orientation of rates has been effected on a voluntary basis. H3GI is not currently subject to any regulatory obligations in respect of its mobile termination rates and there has been no evidence of self-regulation of its rates either.

4.68 The second regulatory factor that could be of relevance is dispute resolution. As discussed fully in Annex D, the issues in relation to dispute resolution are very hypothetical and case specific. For the reasons detailed in Annex D, ComReg has reached the preliminary conclusion that dispute resolution is not a factor to which it can attach very considerable weight in assessing whether or not eircom has sufficient CBP and as to whether H3GI has SMP or that it is of itself a singularly significant factor bearing on these issues. This is not least because the CAT in the UK stated that a potentially regulated entity can not say that it does not have SMP based on the threat of regulation means that it does not have the necessary market power. The threat of regulation might be taken as meaning the threat of SMP regulation. However there would appear to be no obvious reason for saying that the comments of the CAT do not equally apply to other varieties of regulation e.g. a determination on foot of a dispute resolution. It should also be noted that the CAT stated that it did not consider that the mechanism for dispute resolution under an interconnection agreement "*has any material effect on the question of whether H3G had or has SMP*."

4.69 Fundamentally, the question at issue is whether there exists sufficient CBP and to some extent, whether an economic model can reasonably capture this. If it is valid to ask whether dispute resolution affects CBP, it appears that one would in fact be requiring ComReg in this instance to know in advance what H3GI thinks would be the likely outcome of dispute resolution. Such an exercise would seem to be artificial and contrived and it is difficult to see how it could be invested with any accuracy or reliability. Notwithstanding the above discussion, ComReg has attempted in Annex D to carry out a somewhat speculative assessment on the issue summarised below.

4.70 In the case of H3GI, if its expectation was that ComReg would favour it in any price determination it made, that would make it more confident in its negotiations and vice versa for eircom. That might be the case for example, if H3GI expected that ComReg would allow it to set the prices it chose. On the other hand, H3GI could also have expected that the regulatory intervention would be less favourable

[87] ComReg Document 05/78: Market Analysis-Decision on SMP obligations-Wholesale Voice Call Termination on Individual Mobile Networks.

to it, making it less confident in its negotiations with eircom. ComReg has not to date issued a price determination under the relevant dispute resolution powers and therefore H3GI has no prior experience to refer to in this regard. It should be noted that in assessing whether H3GI has or does not have SMP, it would be entirely inappropriate for ComReg to suggest or factor in, that ComReg itself would be predisposed to favour either of the possible outcomes. To do so would be tantamount to predetermining the matter with respect to possible future disputes but moreover (and worse) leave ComReg open to a charge of bias.

4.71 In reality, operators might anticipate that the outcome to dispute resolution would lie somewhere between the two extremes of favouring one party entirely over the other. It is not practical or possible for ComReg to anticipate either the exact outcome or its exact policy with respect to intervention in a specific case[88].

4.72 However, while there are many uncertainties regarding dispute resolution, it seems likely that ComReg would have to adopt lighter touch regulation with respect to setting an MTR in respect a non-SMP operator, relative to the MTR applicable to SMP operators. In this regard, it is clear that if ComReg were called upon to adjudicate a dispute, it could not set a cost oriented MTR under Articles 9-13 of the Access Directive. This is because ComReg would be addressing the dispute in the absence of H3GI having SMP. The obligation to offer cost oriented MTRs can only be imposed on operators having SMP[89].

4.73 In these circumstances, H3GI would not have SMP and would not be subject to a cost orientation obligation. In this regard, the Access Directive Article 8 (3) provides that:

"*…national regulatory authorities shall not impose the obligations set out in Articles 9 to 13 on operators that have not been designated in accordance with paragraph 2*."

4.74 H3GI would not be a SMP operator "*designated in accordance with paragraph 2*" and it could not therefore be subject to any of the obligations set out under Articles 9 – 13. One of the obligations that may be imposed under Articles 9 – 13 is that of "*price controls, including obligations for cost orientation of prices…*" as provided for under Article 13.

4.75 While ComReg is not able to (and can not be expected to) predict the actual price that would be imposed in the context of a dispute, it is clear (because of the limits of ComReg's legal powers) that the price would not be the same or better than a cost oriented rate.

4.76 Given that ComReg could not impose a cost oriented rate under Articles 9-13, in respect of H3GI's MTR this would likely improve H3GI's bargaining position.

[88] ComReg is for example likely to take into account the need to be proportionate and the effect that any decision would have on competition and consumers in the market place.

[89] ComReg notes the provisions of Article 5 (1) of the Access Directive, which enable obligations to be imposed on undertakings that control access to end-users, to the extent that it is necessary to ensure end-to-end connectivity. The obligations include, in justified cases the obligation to interconnect their networks, where this is not already the case. Given that these provisions are exceptional, they should be narrowly construed. The criteria for their application would also need to be first present. Even if it were (a) permissible and (b) appropriate to impose price related obligations pursuant to this provision and (c) given the discretionary nature of the provision, Article 5 (1) would and could not oblige ComReg to require an operator to offer cost oriented MTRs.

This, ComReg believes is the only significant conclusion which can be drawn from an assessment of dispute resolution. If it is a valid conclusion, it is one that in fact favours the view that there is insufficient CBP in the market.

4.77 Overall, however because it would be inappropriate for ComReg to suggest or factor in, that ComReg itself would be predisposed to favour any possible outcome in advance of a particular dispute, ComReg is not convinced that an explicit analysis of potential regulatory intervention is necessarily helpful in assessing the sufficiency of CBP. The recent Independent Report on the relevant markets recommendation[90] also discussed this issue it stated amongst other things, that if the possibility of dispute resolution is part of the picture and affects the very same price under consideration in the analysis, this could introduce a circular reasoning.

4.78 However, what is more clear from the evidence is that H3GI appears to have used the prospect of dispute resolution to its advantage in the actual negotiations that took place, where it referred to the possibility that eircom would be adversely affected financially in the event that ComReg ruled in H3GI's favour, when making its third pricing proposal. This suggests that H3GI anticipated an outcome favourable to its position. This would appear to be further supported by the fact that it was H3GI that referred the dispute to ComReg and not eircom. Based on the foregoing evidence it is therefore by no means clear how the prospect of dispute resolution would have favoured eircom's position and it is certainly not clear that eircom anticipated this to be the case. ComReg does not have evidence at this time to suggest that eircom used the prospect of dispute resolution as a means of improving its bargaining position. Rather the evidence suggests H3GI used it as a means to strengthen its own bargaining position.

4.79 Furthermore, this is a possibility acknowledged by BH, whereby the extra bargaining power attributed from the threat of regulatory intervention would allow H3GI to achieve rates close to the average rate of other mobile operators. ComReg would note that the predicted outcome of the BH model remains incorrect, even in the case of regulatory intervention as H3GI has actually obtained rates above those of the average of other mobile operators.

4.80 **Costs:** BH also suggested that H3GI was likely to have a higher cost of capital than eircom which would disadvantage it in any bargain. ComReg is of the preliminary view that this has no real evidence to support it. The market value of the parent company of H3GI is greater than the market value of eircom,[91] thus ComReg questions the suggestion that H3GI is financially constrained, or is likely to be particularly risk-averse. Moreover, H3GI have successfully entered markets in other jurisdictions, including the UK. Under these circumstances, it seems legitimate to factor out any such suggestions, unless there was strong empirical evidence to the contrary, in particular as H3GI is now an established market operator with an on-going relationship with eircom.

4.81 ComReg is aware that BH also argued that it is probable that H3GI has a much higher cost than the other operators, which could lead to the implication that

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[90] A review of certain markets in the Commission Recommendation on relevant markets subject to ex ante regulation, An Independent Report, by Cave M., Valletti T., and Stumpf U., July 2006.

[91] Hutchison Whampoa Group had a market capitalisation of 315,702 million Hong Kong $ (approximately €30 million , Lehman Brothers, August 25 2006. *eircom* group plc had a market capitalisation of €2,275 million, Irish Stock Exchange, April 7 2006.

H3GI's higher rates, discussed above, are due to high costs, and that they may in fact be achieving a rate below cost. ComReg is sceptical of this argument for a number of reasons.

4.82 Firstly, costs are not necessarily a vital factor in an assessment of SMP. As the recent judgment of the Competition Appeal Tribunal (CAT) in the UK made clear, a firm may be pricing close to cost and still have SMP.

> *"we consider that it was not necessary for OFCOM to conduct the exercise or exercises that H3G says should have been carried out. The existence of a power to behave independently of competitors, customers and consumers may, in some cases, result in excessive prices, but that is not necessarily the case. It is perfectly possible to have SMP and not charge excessive prices either at the time the position is being tested or in the future. Excessive prices are not an inevitable manifestation of SMP. .... SMP in the present case turns on the power or ability to behave independently of customers or others. That does not require that present or future pricing be investigated."*[92]

4.83 The important factor is the ability to act to an appreciable extent independently of competitors or customers, or the ability to raise price above the competitive level.

4.84 Secondly, the core argument of BH (that H3GI would be forced to agree a rate below the average of other operators) has nothing to do with costs. If H3GI's costs were above the level of other operators' rates, by the logic of the BH model, eircom would not have done a deal with H3GI or H3GI would have a struck a deal with eircom that was below its costs, as the fact that H3GI had high costs had no relevance for eircom. This has not happened; H3GI achieved a rate above the average of other operators within the mobile market in Ireland.

4.85 Thirdly, ComReg is of the view that there is no requirement for a regulator to determine costs before imposing any *ex ante* regulation; given that such regulation frequently involves assessing costs, it would seem unreasonable to first expect costs to be calculated in order to have the ability to regulate.[93]

3) Preliminary Conclusion on CBP

4.86 In conclusion, ComReg has carried out a detailed analysis of the recent economic framework proposed by BH, the relevant regulatory backdrop and the actual negotiations that took place between the parties in question. In that regard ComReg assessed the consistency of the empirical evidence with results posited by the bargaining model as presented by BH and uses this empirical evidence to further substantiate its finding that eircom is not in a position to exert sufficient

[92] Hutchison 3 G (UK) Limited v the Office of Communications [2005] CAT 39 at paragraph 66.

[93] However, mindful of the ECAP exhortation that a thorough and overall analysis of all relevant characteristics should be carried out, ComReg did conduct a benchmark exercise, for corroborative purposes only that indicated that H3GI's costs are likely to be below the prices H3GI has achieved. ComReg did not carry out any further examination of the issue of H3GI's costs than this as it was not relied upon for the preliminary finding of SMP that is it is not a dispositive of the issue of SMP or a determining factor necessary for a finding of SMP.

CBP such as to constrain H3GI from charging termination rates above the competitive level.

1) Economic Framework

4.87 ComReg's principal reservation on the BH model is that its predicted outcomes do not fit the empirical evidence. The BH model predicted that H3GI would achieve termination rates equal to the average of the lowest termination rates in the market, this has not happened, as H3GI's rates are above the levels in the overall mobile market. In the non-saturated case, the BH model predicted termination rates that were half-way between the monopoly and the efficient charge level. The latter case would seem to be evidence of SMP, it is true the outcome is not the monopoly outcome but the BH model has shown H3GI's ability to set prices considerably higher than the competitive price. This is essentially what SMP is, the ability to act to an appreciable extent, independently of other market participants and your customers.

4.88 The BH model also predicted that in a situation of regulatory intervention stemming from the interconnectivity obligation and dispute resolution that H3GI's bargaining power would be increased but that termination rates would remain around the average of the 2G operator rates. Again, this has not happened, H3GI's rates are above the level in the overall mobile market, which would not support the contention that eircom had sufficient CBP to constrain H3GI from acting to an appreciable extent independently of its customers, competitors and consumers. Furthermore, as the rates of the other SMP MNOs decrease due to regulatory intervention, this disparity between H3GI's rates and the level in the overall mobile market is likely to become greater.

4.89 ComReg considers the BH model raises interesting questions and makes a valuable contribution to the theory of setting mobile termination rates, in particular as regards its emphasis on the actual bargaining dynamic which is something ComReg has examined in detail. The BH model is different from the more traditional literature to date in its predicted outcomes, although reasonable versions of the model do predict that H3GI will have the ability to set prices above the efficient level. However, it is also possible to use the more traditional approach to examine the issue as that approach could also fit the observed facts. Therefore, ComReg is of the preliminary view that there are a number of economic models capable of being used to produce plausible predictions of termination rate levels under a given set of assumptions. In the case of the BH model, ComReg's principal reservation is that its predicted outcomes do not fit the empirical evidence.

2) Evidence from the Negotiations and Relative Bargaining Strengths

4.90 While interconnection with eircom is clearly of importance for H3GI, it is likely that eircom's customers similarly expect end to end connectivity with all available networks. The evidence shows that eircom appears to have been keen to begin the negotiation process with H3GI, asking it for a commitment to enter into a direct interconnect agreement at least three months prior to commercial launch. In addition, H3GI might have had some more weight added to its bargaining position given the opportunity to initially enter the market (whether that was in a more limited form) based on interconnection agreements with other operators, including BT Ireland. In any case, the fact that it now has an existing subscriber base and the ability to make end to end calls being of importance to consumers, suggests that it is in an even stronger bargaining position now than when it was about to enter the market initially. Moreover, the evidence further shows that, irrespective of any difference in size of subscriber bases, H3GI was still successful in obtaining termination rates above the overall level in the market from both eircom and BT and there has been no obvious downward trend in these rates since that time. With an existing subscriber base now in place, ComReg' preliminary view on a forward-looking basis is that H3GI would be able to negotiate rates that are at least as high as the current level and that there would be insufficient downward pressure on these rates in the future.[94]

4.91 Furthermore, the threat of delay is no longer as relevant, given the existing contracts in place between the operators and the defined steps to proceed to re-negotiation of rates or severing of relations within the contract. Therefore in light of the evidence from the previous negotiations, the commercial realities and the existing contract between H3GI and eircom it does not seem that eircom used this to advantage its position in the past nor is it commercially feasible that either party would refuse to interconnect going forward. Indeed, eircom has not sought to re-negotiate lower rates in the meantime, despite the trend for lower rates from the SMP MNOs.

4.92 ComReg is also of the view that the fact eircom could not respond to H3GI's requests for high termination rates by threatening to raise its own termination rates (as it must terminate all traffic, including mobile traffic originating on H3GI's network, on a non-discriminatory cost-oriented basis), removes a potentially very significant source of bargaining power on eircom's part. While H3GI has argued previously that this is not as significant in the case where it is a new entrant, it is certainly likely to be of more significance in the future.

4.93 Furthermore, while the potential for either party to refer any impasse in negotiations to ComReg exists, in the absence of any precedent on the matter it is by no means clear what the outcome of any such dispute resolution procedure would be nor what the parties would expect that outcome to be. However, the empirical evidence would seem to suggest that H3GI used the prospect of dispute resolution to its advantage in the negotiations, where it referred to the possibility that eircom would be adversely affected financially in the event that ComReg ruled in its favour, when making its third pricing proposal. This suggests that H3GI anticipated an outcome favourable to its position. This would appear to be further supported by the fact that it was H3GI that referred the dispute to ComReg and not eircom. ComReg does not have evidence at this time to suggest that eircom used the prospect of dispute resolution as a means of improving its bargaining position. Rather the evidence shows H3GI used it as a means to strengthen its own bargaining position.

4.94 In respect of CBP, ComReg has therefore reached the preliminary conclusion that the empirical evidence, while it indicates that H3GI was not able to extract a 'super-monopoly' price, does show that H3GI has the ability to obtain termination rates well above the competitive level in the overall mobile market. The evidence shows further that eircom was limited in the previous set of negotiations in its ability to negotiate this price towards the average of the 2G rates. Given the importance of facilitating end-to end connectivity for its customers, eircom would appear even more constrained in any next round of negotiations where H3GI will have a subscriber base in place. While there are arguments contained in economic models for and against H3GI's ability to achieve high prices, the fact remains that

[94] Absent regulation in the past, ComReg notes that the termination rates of the 2G operators remained above efficient levels.

H3GI was successful in achieving rates above the overall mobile market level which to a degree is consistent with the findings of the more traditional literature described in part 1 above (page 31). Further, there is no obvious reason why H3GI could not sustain these high termination rates over the timeframe of this review. ComReg is of the preliminary view that the evidence presented in the analysis would indicate there is insufficient CBP to constrain H3GI's price setting behaviour in the market on a forward-looking basis.

Excessive Pricing

4.95 While it is clear from the ECAP decision[95] that ComReg may use excessive pricing as a corroborative factor in finding SMP, ComReg considers that a finding of SMP does not require an examination of H3GI's costs or whether its prices are excessive. The finding of SMP can be based on its ability to act to an appreciable extent independently of competitors and customers stemming from its one hundred percent market share, the lack of potential competition and the lack of countervailing buyer power in the relevant market. According to the Competition Authority Tribunal[96] in the UK, the existence of a power to behave independently of competitors and customers may, in some cases, result in excessive prices, but that is not necessarily the case. It is perfectly possible to have SMP and not charge excessive prices either at the time the position is being tested or in the future. Excessive prices are not an inevitable manifestation of SMP. Indeed, the SMP Guidelines[97] state that:

> "*The starting point for carrying out a market analysis for the purpose of Article 15 of the Framework Directive is not…an alleged abuse of dominance within the scope of Article 82 EC Treaty, but is based on an overall forward-looking assessment of the structure and the functioning of the market under examination*."

4.96 While Footnote 73 at paragraph 73 of the SMP Guidelines states unequivocally that:

> *"It should be noted that NRAs do not have to find an abuse of a dominant position in order to designate an undertaking as having SMP."*

4.97 ComReg is obliged to take the utmost account of the SMP Guidelines and there seems no doubt that ComReg need not prove that H3GI has abused its SMP in order to sustain a finding of SMP. A finding of abuse under Article 82 cases is never a prerequisite to establishing dominance, although there have been cases where evidence of actual abuse has been accepted as being an indicator of dominance. Indeed the whole point of a finding of SMP is to permit, where appropriate, *ex ante* regulation. By its very nature, *ex ante* regulation is not

[95] ECAP Decision No. 02/05: Hutchison 3G Ireland Limited v Commission for Communications Regulation, 26th September 2005.

[96] Hutchison 3 G (UK) Limited v the Office of Communications [2005] CAT 39 at paragraph 61.

[97] Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services.

remedying pre-existing abusive behaviour (such as excessive pricing) but is pre-emptive in nature with a view to preventing such behaviour occurring in the future.

4.98 However, ComReg notes that H3GI has achieved termination rates that are higher than any other mobile termination rates in the market. If an operator has the ability to set higher than market rates, with an apparent ability to sustain these rates over the period of this review, despite a trend for lower termination rates, in the Irish market and elsewhere, as suggested by figure 4.1 above, this would prompt regulatory concerns. High prices, coupled with insufficient CBP in this market would be suggestive that H3GI's rates are unlikely to tend to competitive levels over the period of this review.

Preliminary Conclusions on Market Analysis

4.99 Based on the analysis as outlined above, ComReg is of the preliminary view that the evidence suggests that H3GI's position affords it the independence that is necessary to find dominance on the market for wholesale termination services, notwithstanding its total mobile market share. The principle reasons for this finding are the following:

- H3GI has one hundred percent share in the relevant market. There is no existing competition in this market and due to the high and non-transitory barriers to entry, derived from the market definition, there is no consequently no prospect of potential competition over the period of this review.

- ComReg has carried out a detailed analysis of the most recent economic framework as presented by BH. ComReg is of the view that the BH model makes a valuable contribution, particularly due to its emphasis on the bargaining dynamic, which ComReg has examined in detail. However, ComReg's principal reservation on the model is that its predicted outcomes and the arguments for eircom possessing sufficient CBP do not fit the empirical evidence. H3GI was not forced to accept rates that were the average of the 2G rates. The factual record shows H3GI obtaining prices well above the overall mobile market level, which is consistent with SMP.

- Furthermore, it appears that these rates are sustainable, there having been no move to re-negotiate these rates despite a mechanism in the interconnect agreement with eircom to review them and reductions in termination rates by the regulated mobile operators in Ireland.

- ComReg is of the preliminary view that the commercial incentives and regulatory obligations to engage in interconnect negotiations also potentially constrain eircom in the exercise of CBP. Given the importance of facilitating end to end connectivity for customers, eircom would be more constrained in any future set of negotiations when H3GI has an established subscriber base in place. While the impact of the dispute resolution procedure is uncertain, the evidence does not indicate that eircom used it to its advantage. Rather eircom appears to have been open to reaching an agreement with H3GI prior to its launch on the Irish market.

4.100 On balance, then and based on an examination of the SMP criteria of relevance, ComReg's preliminary view is that there are high and non-transitory barriers to entry and the evidence does not indicate that there is sufficient CBP in this market. Accordingly, it is of the preliminary view that H3GI has significant market power in the market for wholesale voice call termination on its mobile network.

Consultation Questions 3 and 4

3. **Do you agree with ComReg's preliminary analysis of the relevant individual SMP criteria and that the appropriate relevant SMP criteria have been sufficiently examined? Please provide a reasoned response supported by empirical and/or technical and economic evidence.**

4. **Do you agree with the above preliminary conclusions of the market analysis? Please provide a reasoned response supported by economic/technical and/or other evidence.**

5 Proposed SMP Obligations

Regulatory Background

5.1 If an operator is designated as having SMP under Regulation 27 of the Framework Regulations, ComReg is obliged to impose on such an operator at least one of the obligations set out in Regulations 10 to 14 of the *Access Regulations (*as ComReg considers appropriate).

5.2 In determining the appropriateness of SMP obligations, ComReg is guided by the objectives set out in Section 12 of the Communications Regulation Act, 2002 and the principles set out in Regulations 6 and 9 of the *Access Regulations*.

Proposed Competition Problems

5.1 H3GI, as the terminating operator has control over the termination of calls on its own network. Therefore, it has the ability to excessively charge other operators to terminate calls on its own network by setting mobile termination rates in excess of an efficient charge.

5.2 ComReg notes that H3GI's current termination rates are significantly higher than other operators in the overall mobile market. It could potentially charge excessive prices for its mobile call termination services which would have a negative impact on consumers (in particular consumers of other network providers).

5.3 A direct consequence of high termination charges is that they potentially raise the costs of competing operators which may in turn cause the costs of competing retail services to rise. This issue will become more pertinent when H3GI build up a significant market share and competing operators terminate more calls on its network.

5.4 Given these competition problems, ComReg is of the preliminary view that forbearance or simply monitoring the trend in termination charges is not sufficient to address the potential underlying competition problems. Such an approach could potentially lead to prices being maintained above efficient levels for a longer period to the disadvantage of the market and ultimately end users. In addition, when a designation of SMP is made in a relevant market, ComReg is obliged under the Framework Regulations to impose an appropriate obligation or remedies.

Consultation Question 5

5. Do you agree with ComReg's view that forbearance is not a suitable option to address the competition problems in this market?

Proposed Price Control Obligation

5.5 As outlined above, ComReg is of the preliminary view that the main potential competition problem is the potential for H3GI to earn excess returns by charging an excessively high mobile termination rate. When considering how to address this competition problem, ComReg must also be mindful of the need to promote competition and innovation in the market, encourage investment by H3GI in its network and ensure that overall consumer welfare is maximised.

5.6 ComReg is of the preliminary view that over time H3GI's mobile termination rates should tend towards an efficient level. ComReg is cognisant of the fact that H3GI currently has a small market share. There may be a degree of uncertainty in the market and it may not be in position to avail of economies of scale like the established operators until such time as it builds up a significant market share. In the evaluation of various forms of price control, ComReg examined the option of a price control based on current costs and volumes. ComReg was of the preliminary view that this option would be of little benefit in establishing an efficient mobile termination charge. Such an approach would probably be inconsistent with H3GI's own business planning and development over the medium term as it would not take account of any forward looking projections in H3GI's revenues, costs and market share etc. It may also lead to greater volatility in the market as H3GI's mobile termination rates would initially be set at high rates, and progressively fall as they build up market share.

Consultation Question 6

6. Do you agree with ComReg's preliminary view that (i) H3GI's mobile termination rates should tend towards an efficient level and (ii) a price control based on current costs and volumes of H3GI would be of little benefit in establishing an efficient mobile termination charge?

5.7 ComReg is of the preliminary view that the determination of efficient prices is a complex and lengthy task, and that ongoing reductions in mobile termination rates would reduce the need for early regulatory intervention. ComReg recognises that there may be a need to use some form of glide path and/or a possible once off adjustment followed by a glide path for the charges of H3GI to reach an efficient level so as not to cause undue disruption in the market.

5.8 ComReg recognises that an immediate adjustment downward of H3GI's mobile voice call termination charges to the 'efficient charge' level could cause disproportionate problems for it and may also destabilise competition in the overall mobile market. ComReg will give careful consideration to balancing the objectives of ensuring that H3GI reaches a target efficient charge level in a timely manner in order to deliver benefits to the market and end-users; and at the same time allow sufficient time for H3GI, if appropriate, to adjust to the new voice call termination charges.

Consultation Question 7

7. Do you agree with ComReg's preliminary view that a glide path, (however determined) is a suitable approach for H3GI to bring mobile termination rates to an efficient level?

5.9 Another possible approach would be to set a price control based on forward looking costs and volumes of H3GI. This would involve ComReg taking a forecast view of future costs, volumes, market shares and volume growth etc over a relevant time-period.

5.10 Mobile telecommunications are characterised by strong economies of scale. As operators have licence requirements to provide national coverage, a high proportion of network costs are fixed irrespective of traffic carried on the network. This results in an operator with less traffic on its network having higher unit costs (until such time as the volume of traffic on its network increases). As a result, in assessing the efficient level of unit costs on a forward looking basis, ComReg will have to take a view on the future market share, and hence volume of traffic, of H3GI in the medium to long term.

5.11 While ComReg recognises that this approach is most likely in the longer term to lead to the setting of a price control which prevents H3GI from raising prices above an efficient cost. ComReg also recognises the difficulties and uncertainties in setting such forecasts and the implication on the market of setting forecasts which needed significant revision at a later date.

5.12 ComReg is therefore of the preliminary view that in the longer term this approach would be an appropriate one. However ComReg is also of the preliminary view that it would be premature to impose such a price control in the market at this time, given the level of uncertainty in forecasting and the implications for possible disruptions in the market.

5.13 ComReg also considered benchmarking against operators with the lowest unit costs (i.e. those operators with the greatest economies of scale), or a hypothetical situation where all operators had equal market shares. However, ComReg considered this approach disproportionate given the difference in scale between H3GI and the other operators.

Consultation Question 8

8. Do you agree with ComReg's assessment that it would be premature at this time to impose a price control based on forward looking costs?

5.14 As discussed above, ComReg does not consider that forbearance has been appropriate for this market. It also notes that H3GI's current mobile voice call termination rates are the highest of all the mobile operators in the overall mobile market. ComReg is cognisant that the current trend in Europe is toward reductions in mobile termination rates. In line with this trend, Vodafone, O2 and Meteor reduced their mobile termination charges in 2006 and have recently published further reductions effective from 1 January, 2007. While ComReg accepts that H3GI is the latest player in the market, it does not anticipate any circumstance where it would be appropriate for its rates to increase further and is of the preliminary view that as a minimum the current rates should be a ceiling for their mobile voice call termination charges.

5.15 ComReg is therefore of the preliminary view that at this time, a price control which sets a cap of H3GI's mobile termination rates at the current nominal rates would seem to be the most appropriate approach. It has the advantage of ameliorating the uncertainty and disruptive effects of the other form of price controls addressed above. By setting a ceiling of mobile termination rates at the current nominal rates, this would have the effect of reducing rates in real terms and be in effect a price control of CPI- CPI.

5.16 Weighing up the alternatives, ComReg is of the preliminary view that the setting of a price ceiling in the short term would be the least onerous form of price control obligation it should impose on H3GI at this time. However, ComReg is mindful of the fact that the other existing SMP MNOs are currently subject to regulation that maintains a downward trend in their termination rates, thus the differential between other termination rates in the market and H3GI's termination rates (set at a ceiling level) is likely to increase over time. Therefore, ComReg is of the preliminary view that this form of price control may not be appropriate in the medium/longer term, as H3GI build up market share and the differential in operators' rates has a potentially increased adverse effect on competition. ComReg intends to monitor this situation, by for example reference to H3GI's market share and depending on the competitive effect in the market other forms of price controls (as discussed above) would then have to be considered in the medium/long term. However if H3GI in the medium/longer term were to follow a similar course of action as taken by the other MNO's and voluntarily reduce their mobile termination rates a part of a glide path to an efficient rate, this would have the effect of reducing the need for any further regulatory intervention in the medium term.

Consultation Question 9

9. Do you agree with ComReg's proposal that (a) in the short term an appropriate form of price control on H3GI's would be to set the current mobile voice call termination charges as a ceiling –i.e. price control should be capped prices at the current nominal rates and (b) in the medium/long term other forms of price controls would need to be implemented?

Further Supporting SMP obligations

Introduction

5.17 ComReg recognises that the imposition of the proposed remedies should be the minimum necessary and the least burdensome both to achieve its regulatory objectives and to address the relevant competition problems. ComReg has considered the suitability of the five further types of SMP obligations (Access, Transparency, Non-Discrimination, Accounting Separation and Cost Accounting Systems) available under the Access Regulations. ComReg is of the preliminary view that in addition to a price control obligation, it is only necessary to impose the further supporting obligations of price transparency and non-discrimination. Of a total of six available types of SMP obligations, ComReg is proposing to impose three.

Proposed Transparency Obligation

5.18 Regulation 10 of the Access Regulations allows for the imposition of an obligation of transparency on SMP operators, under which ComReg may require an operator to make public specified information such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use and prices.

5.19 ComReg is proposing to impose a price transparency obligation on H3GI. In furtherance of this obligation, ComReg is proposing that H3GI shall publish its mobile voice call termination charges (or any relevant other information ComReg may request it to publish from time to time) in a publicly accessible manner.

5.20 ComReg is of the preliminary view that such an obligation will provide greater certainty in the market and will inform interested parties of charges to other electronic communications providers who are purchasing wholesale mobile call termination services. ComReg's preliminary view is that it is also important that a price control is associated with a high degree of transparency for interconnecting operators, consumers and other interested parties. In addition, a transparency obligation can assist ComReg and the industry in ascertaining and monitoring whether H3GI is complying with its non-discrimination obligation, (as discussed below) under Regulation 11 of the Access Regulations, which is intended to deter potential anti-competitive behaviour by SMP operators.

Consultation Question 10

10. Do you agree with ComReg that an obligation of Transparency is a necessary obligation to include in the SMP obligations for this market?

Proposed Non-discrimination SMP Obligation

5.21 ComReg is of the preliminary view that a non-discrimination obligation is necessary to ensure that H3GI offer equivalent conditions in equivalent circumstances to other undertakings providing equivalent services. This means that H3GI must offer the same price and level of service to similar operators. However, ComReg is aware that the scope of this obligation can cover a wide variety of behaviours. It is in ComReg's view difficult for it to specify a list of prohibited behaviours as such a list might risk unduly restricting ComReg in the exercise of its enforcement powers in the event of potential future breaches of the obligation. However, the following attempts to provide guidance as to ComReg's current thinking.

5.22 ComReg does not intend that an obligation of non-discrimination would prohibit the negotiation of commercial deals, as long as they do not have adverse effects or operate to the detriment of consumers. ComReg notes that non-discrimination does not mean that all parties are treated in exactly the same way, but that parties in similar circumstances are treated identically and that any differences in treatment are justified by reference to objective considerations.

5.23 ComReg will be guided by the principle of non-discrimination as elucidated through the jurisprudence under Article 82 of the EC Treaty (and by any guidelines that may be issued in the future by the EU Commission / DG Competition) in the application of this obligation. ComReg is of the preliminary view that a non-discrimination obligation implemented in this manner is an effective and proportionate obligation and will prevent or restrict an imbalance in the competitive position between FNOs and MNOs or between MNOs which has an adverse effect. This requirement will reduce the likelihood of potentially adverse effects on competition and protect consumers whilst not placing too onerous an obligation on the designated undertakings in question. However, ComReg is of the preliminary view that this obligation is not sufficient on its own to address the potential competition problem in this market that is to sufficiently restrict H3GI in acting to an appreciable extent independently of its customers, competitors and consumers.

Consultation Question 11

11. Do you agree with ComReg that an obligation of non-discrimination is a necessary obligation to include in the SMP obligations for this market?

Access SMP Obligation

5.24 Under the regulatory framework for electronic communications, there is provision under Regulation 6 of the Access Regulations to ensure that there is adequate access and interconnection. It is in H3GI's commercial interest to offer access and interconnection. In addition, the provisions of Regulation 6 of the Access Regulations go some way towards lessening ComReg's concern that H3GI could unreasonably deny access. Therefore, ComReg's preliminary view is that it would not be proportionate to impose the access obligations set out in Regulation 13 of the Access Regulations.

Consultation Question 12

12. Do you agree with ComReg view that an access obligation is not a necessary obligation for this market?

Accounting Separation and Cost Accounting SMP obligations

5.25 ComReg has examined this issue in earlier consultation documents, ComReg Documents 04/62b and 05/51, and was of the view it would be disproportionate to impose the obligations of accounting separation or cost accounting systems on operators with a smaller overall mobile market share, such as H3GI. ComReg has to take into account the promotion of competition in the mobile sector and is of the preliminary view that it would not be proportionate to impose cost accounting and accounting separation on H3GI.

Consultation Question 13

13. Do you agree that it is inappropriate to impose the accounting separation and cost accounting SMP obligations on H3GI?

6 Regulatory Impact Assessment

6.1 According to ComReg's consultation on its Approach to Regulatory Impact Assessment, ComReg Document 06/69, the purpose of a RIA is to establish whether regulation is actually necessary, to identify any possible negative effects which might result from imposing a regulatory obligation and to consider any alternatives. ComReg's proposed approach to RIA is that in the future it will continue to conduct RIAs in respect of any proposed statutory instruments which would impose regulatory obligations, or in respect of any market analyses which propose to impose, amend or withdraw obligations, through the finding of SMP or effective competition. Appropriate use of RIA should ensure the most effective approach to regulation is adopted.

6.2 In conducting RIA ComReg will take into account the RIA Guidelines[98], adopted under the Government's Better Regulation programme. The RIA Guidelines are not formally or legally binding upon ComReg, however, in conducting RIA ComReg will have regard to them, while recognising that regulation by way of issuing decisions e.g. imposing obligations or specifying requirements in addition to promulgating secondary legislation may be different to regulation exclusively by way of enacting primary or secondary legislation. In conducting a RIA ComReg will take into account the six principles of Better Regulation that is, necessity, effectiveness, proportionality, transparency, accountability and consistency. To ensure that a RIA is proportionate and does not become overly burdensome, a common sense approach will be taken towards RIA. As decisions are likely to vary in terms of their impact, if after initial investigation a decision appears to have relatively low costs, then ComReg would expect to carry out a lighter RIA in respect of those decisions.

6.3 The Government's RIA Guidelines sets out the stages it believes are necessary for minor impact regulations and a more detailed set of steps for more comprehensive or full RIA, ComReg has taken these steps into consideration and has come up with a 5 step approach as follows which will be used:

(a) Description of policy issue to be addressed and identification of objectives;

(b) Identify and describe the regulatory options;

(c) Determine the impact on stakeholders;

(d) Determine the impact on competition;

(e) Assess the impacts and select the best option;

6.4 In determining the impacts of the various regulatory options, current best practice appears to recognise that full cost benefit analysis would only arise where it would be proportionate or in exceptional cases where robust, detailed and independently verifiable data is available. Such comprehensive review will be taken when necessary.

[98] See "RIA Guidelines: How to conduct a Regulatory Impact Analysis", October 2005, www.betterregulation.ie

6.5 The following sections in conjunction with the rest of this consultation document represent a RIA. It sets out a preliminary assessment of the potential impact of proposed SMP obligations for the voice call termination market on Hutchison 3G Ireland's (H3GI) mobile phone network.

The RIA

Description of policy issue and objectives

6.6 The European Commission, in its adoption of a new common regulatory framework for electronic communications networks and services on 7th March 2002, acknowledges the need for *ex ante* regulatory obligations in certain circumstances in order to ensure the development of a competitive communications market. The Recommendation identifies electronic communications markets, the characteristics of which may be such as to justify the imposition of such regulatory obligations. Regulation 26 of the Framework Regulations[99] requires that, as soon as possible after the adoption by the European Commission of this Recommendation, ComReg shall define relevant markets in accordance with the principles of competition law including the geographical area within the State of such markets. In addition, Regulation 27 requires that, as soon as possible after ComReg defines a relevant market, ComReg should carry out a market analysis of these markets. Where ComReg determines that a recommended market is not effectively competitive, it shall designate undertakings with significant market power on that market, and it shall impose on such undertakings such specific obligations as it considers appropriate.

6.7 Regulation 9(1) of the Access Regulations[100] states that: *"Where an operator is designated as having significant market power on a relevant market as a result of a market analysis carried out in accordance with Regulation 27 of the Framework Regulations, the Regulator shall impose on such operator such of the obligations set out in Regulations 10 to 14 as the Regulator considers appropriate."* Furthermore, paragraph 21 of The *SMP Guidelines*[101] states that, *"if NRAs designate undertakings as having SMP, they must impose on them one or more regulatory obligations, in accordance with the relevant Directives and taking into account the principle of proportionality."* ComReg is therefore compelled to impose at least one obligation where an undertaking is designated as having SMP.

6.8 ComReg can impose any or a combination of obligations from those obligations listed in Regulation 10 to 14 of the *Access Regulations*. Under Regulation 9(6) of the Access Regulations, obligations shall be *'based on the nature of the problem identified; be proportionate and justified in the light of the objectives laid down in section 12 of the Act of 2002 and only be imposed following consultation in accordance with Regulations 19 and 20 of the Framework Regulations'*.

6.9 As part of the process of selecting appropriate obligations which satisfy the requirements of Regulation 9(6), ComReg is conducting, *inter alia*, a Regulatory Impact Assessment in accordance with the Ministerial Policy Direction on

[99] European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003, S. I. No. 307 of 2003.

[100] European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003, S.I No. 305 of 2003.

[101] Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03).

Regulatory Impact Assessment[102]. ComReg is also paying close attention to best practice, and specifically, to recent Guidelines on Regulatory Impact Assessment (the RIA Guidelines) issued by the Department of the Taoiseach.[103]

6.10 ComReg has undertaken a market analysis of the market for wholesale call termination on individual mobile networks, (one of the markets identified in the Recommendation as having characteristics which may be such as to justify the imposition of regulatory obligations), in this specific consultation for wholesale voice call termination on H3GI's mobile network. ComReg has made the preliminary finding that this market is not effectively competitive and has preliminarily designated H3GI with significant market power in its individual market, as required under Regulation 27 of the Framework Regulations.

6.11 As such, ComReg is obliged to impose at lease one regulatory obligation on H3GI in light of this finding. It is proposed that the following regulatory obligations should be imposed on H3GI:

- Transparency (Regulation 10)
- Non-discrimination (Regulation 11)
- Price control (Regulation 14)

6.12 ComReg's objectives as the national regulator are to promote competition, contribute to the development of the internal market and to promote the interests of end users within the European Union.

Description of Regulatory Options for H3GI

6.13 The regulatory options open to ComReg (Regulations 10-14 of the Access Regulations):

- **Access to and use of specific network facilities:** ComReg is of the preliminary view that it would be disproportionate to impose an obligation of Access on H3GI. This is primarily because the provisions of Regulation 6 of the Access Regulations go some way towards lessening ComReg's concern that H3GI could unreasonably deny access. As outlined in the market analysis section it is also the case that commercial incentives exist to interconnect for the provision of termination services. ComReg is of the preliminary view that this will not harm end-users in the market nor will it adversely affect fixed and/or mobile operators in the telecommunications market in Ireland. Further, H3GI has an existing obligation under its 3G licence, unlike the other MNOs in the Irish market, to offer MVNO access
- **Transparency & Non-discrimination**: ComReg is of the preliminary view that these obligations are proportionate, appropriate and justified. ComReg is of the preliminary view that a transparency obligation will provide greater certainty in the market and will inform interested parties of changes to other communications providers who are purchasing wholesale mobile call

[102] Section 6 of the Directions by the Minister for Communications Marine and Natural Resources to the Commission for Communications Regulation under s. 13 of the Communications Regulation Act 2002, published in February 2003.

[103] See "RIA Guidelines: How to conduct a Regulatory Impact Analysis", October 2005, www.betterregulation.ie

termination services from H3GI. It would also be important that a price control would be associated with a high degree of transparency for interconnecting operators, consumers and other interested parties and commentators. In addition it can assist ComReg and the industry in ascertaining and monitoring whether H3GI is complying with a non-discrimination obligation, as discussed below. The general non-discrimination obligation on H3GI would require that H3GI must offer equivalent conditions in equivalent circumstances to other undertakings providing equivalent services. This obligation would not mean that commercial negotiation of deals would be prohibited as long as these deals did not have adverse effects or operate to the detriment of consumers. Finally, out of the five SMP obligations available to ComReg, these two obligations are the least burdensome, apart from the imposition of an obligation of transparency alone as, together, they constitute a minimum intrusion on an SMP operator's business. It is unlikely for example that the imposition of an obligation of transparency would impose a high cost burden on H3GI in terms of administrative costs.

- **Accounting Separation**: ComReg is of the preliminary view that an accounting separation obligation would be disproportionate to impose on H3GI.

- **Price Control and Costs Accounting Obligations:** Where a lack of effective competition means that the operator concerned might apply or implement excessive prices (i.e. to the detriment of end-users) then this obligation may apply. Absent regulation, the current termination market structure would appear to allow for such an outcome. In addition a benefit of setting termination rates *ex ante* would be to provide for certainty in the market and for operators when setting their retail prices, as the retail price is a function of the termination charge. Based on the analysis carried out in the consultation document, ComReg is of the preliminary view the current termination markets do not provide sufficient constraints to ensure that prices reflect costs and are not excessive. ComReg is of the preliminary view that this has the potential to result in higher prices for consumers.

  In addition, mobile termination rates make up the largest proportion of costs in a fixed to mobile retail price for a voice call. H3GI has stated in previous responses that it does not want to be perceived as a high cost network to call. However this did not seem to prevent it from attempting to extract termination rates from fixed operators that were substantially higher than all other mobile operators' rates at the time and successfully achieving rates that are higher than the level in the overall mobile market. ComReg is of the preliminary view that any ad hoc or forbearance approach would be more likely to result in a climate of commercial and regulatory uncertainty. As such, it is appropriate to assess whether this obligation should be imposed to complement the preceding obligations in addressing the competition problems in this market and ComReg is of the preliminary view that the benefits of such an obligation would outweigh the costs.

Impact of Options on Stakeholders and Competition:

Option 1: Do nothing (impose no SMP obligations).

Option 2: Impose Transparency & Non-discrimination obligations only.

Option 3: Impose Transparency, Non-discrimination and Price Control

6.14 In relation to the options available to ComReg in achieving the objectives of the proposed regulatory obligations (i.e. to ensure the development of a competitive communications market), ComReg notes that the "do nothing" option (Option 1), which is the situation at present, is primarily being included for benchmarking purposes only. Therefore, it will not be examined in detail as part of this RIA because it is not envisaged that this option will be pursued in practice. To impose no regulatory obligations on an undertaking designated as having SMP, or vice versa, would mean a failure to comply with our EU obligations and could result in prosecution by the EU Commission.

6.15 Option 2, would impose a lighter form of regulation on H3GI than option 3 but ComReg is of the preliminary view that it would not fully target the main competition problem which is the potential for excessive pricing.

6.16 In relation to the market for wholesale call termination on H3GI's mobile network, it is proposed that the obligations set out above (i.e. Option 3) would be proportionate and justified on the basis of competition. ComReg again sets out the reasons as to why it is of the preliminary view that these obligations would be necessary for this market. In choosing obligations, ComReg has taken into account the potential impact of each option (see below) on consumers, competitors and on H3GI.

Table 6.1: Identification of costs, benefits and other impacts of each option being considered.

Option 1*-Do Nothing (impose no SMP Obligations)			
H3GI	**Competition**	**Consumers**	**Overall Impact**
Positive impact on H3GI: H3GI would benefit from maintaining the status quo of no regulatory burden. However, flexibility for H3GI to potentially use its market power at the wholesale level.	**Negative impact on competition**: Risk that H3GI would have the potential to charge excessive termination rates to competitors. Asymmetrical treatment of SMP operators in mobile markets.	**Negative impact on consumer welfare**: Potential for high retail prices.	Positive impact on H3GI; Highly negative impact on competition and consumers

Option 2-Obligations of Transparency & Non-discrimination			
H3GI	**Competition**	**Consumers**	**Overall Impact**
Neutral impact on H3GI: H3GI would have lightest form of regulation imposed on it. Low cost of compliance as rates published already and to date no discrimination on rates charged to different operators in equivalent circumstances.	**Negative impact on competition**: High risk that, even though transparency & non-discrimination afforded, insufficient regulation for ComReg to ensure that dominant firm is not adversely affecting competition or exercising its market power through charging higher than efficient termination rates to competitors	**Negative impact on consumer welfare**: As above	Neutral impact on H3GI; Highly negative impact on competition and consumers
Option 3-Obligations of Transparency, Non-discrimination & Price Control			
H3GI	**Competition**	**Consumers**	**Overall Impact**
Negative impact on H3GI: Increased regulatory burden. However, ComReg would note this is minimised by the proposal to have a less intrusive form of price control.	**Positive impact on competition**: H3GI wholesale pricing is certain for customers and competitors to have certainty in the market and benefit competition at the retail level.	**Positive impact on consumer welfare**: Consumers benefit from ensuring that the risk of excessive pricing that would feed into retail prices is mitigated	Negative impact on H3GI; Highly positive impact on competition and consumers

* *This option would leave ComReg open to legal challenge from the European Commission for not imposing an obligation on an SMP operator.*

Conclusion

6.17 The proposed imposition of regulation in the wholesale market for voice call termination on H3GI's mobile network (i.e. **Option 3**) is justifiable, in that it is required to ensure that H3GI does not exploit its market power at the wholesale level to the ultimate detriment of its customers, competitors and consumers and hence meets ComReg's objectives. The regulatory obligations chosen do not unduly discriminate against H3GI in that, while they only apply to H3GI, the obligations are imposed in order to specifically address the potential competition problems which exist in the market for wholesale voice call termination on H3GI's mobile network. They are proportionate in that they are the least burdensome means of achieving this objective. For example the implementation of the price control remedy is proposed in a manner that is less burdensome than other alternative forms and ComReg has also proposed not to impose cost accounting on H3GI.

6.18 ComReg considers that it has met the condition of transparency by setting out the potential requirements on H3GI, the justification for the proposed obligations, and issuing a public consultation on the same.

6.19 **ComReg invites comments from interested parties on the above regulatory impact assessment and its underlying analysis.**

Consultation Question 14

14. Do you agree with ComReg's regulatory impact assessment? Please provide detailed reasons to support your answer.

7 Submitting Comments

7.1 All comments to this consultation are welcome. However, it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.

7.2 The consultation period will run from 11 January 2007 to 23 February 2007, during which time ComReg welcomes written comments on any of the issues raised in this paper.

7.3 ComReg appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful. Respondents are requested to clearly identify confidential material and, if possible, to include it in a separate annex to their response. Such information will be treated as strictly confidential.

7.4 Having analysed and considered the comments received, ComReg will review the Market Review for Wholesale Voice Call Termination on H3GI's Mobile network and publish a response to the consultation which will inter alia summarise the responses to the consultation.

7.5 In order to promote further openness and transparency, ComReg will publish the names of all respondents and make available for inspection responses to the consultation at its Offices.

Consultation Question 15

15. Please provide any further comments which you feel are relevant to this Consultation.

Annex A-Draft Decision Instrument

The Draft Decision Instrument set out below is for information purposes only. ComReg has set out its preliminary views in relation to the market for wholesale mobile voice call termination on H3GI's individual network and its initial views regarding proposed SMP obligations, both of which are subject to consideration of any views expressed during the course of consultation by interested parties.

[DRAFT] DECISION INSTRUMENT

1 STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

1.1 In making this Decision Instrument and imposing the SMP obligations set out herein, ComReg has, taken account of and assessed, amongst other things, the proportionality of these SMP obligations relative to the objectives of ComReg set out in section 12 of the Act of 2002,[104] has taken in to account the factors set out in Regulation 13 (4) of the Access Regulations[105], has taken the utmost account of the European Commission's Recommendation[106] and the SMP Guidelines[107] and has (where appropriate) complied with and taken in to account relevant Policy Directions made by the Minister.[108] This Decision Instrument is based on the market analysis and reasoning conducted by ComReg in relation to the market for wholesale voice call termination services on H3GI's individual mobile network related to the Consultation Document entitled *Market Analysis: Mobile voice call termination on Hutchison 3G Ireland's mobile network* (Document No. 0701) dated 11 January 2007) which forms part of this Decision Instrument.

1.2 This Decision Instrument is made pursuant to Regulations 25, 26 and 27 of the Framework Regulations[109], Regulations 9, 10, 11 and 14 of the Access Regulations and having regard to sections 10 and 12 of the Act of 2002.

In this Decision Instrument:

"H3GI" means Hutchison 3G (Ireland) Limited;

[104] The Communications Regulation Act 2002.

[105] The European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003.

[106] European Commission Recommendation of 11 February, 2003 on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services.

[107] Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services.

[108] Policy Directions made by Dermot Ahern T.D. Minister for Communications, Marine and Natural Resources on 21 February, 2003 and 26 March, 2004.

[109] S.I. No. 307 of 2003 the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services.

"MVCT" means mobile voice call termination services;

"Operator" means an undertaking (within the meaning of the Framework Regulations) seeking MVCT from H3GI; and

"SMP" means significant market power, as referred to in Regulation 25 of the Framework Regulations.

2 MARKET DEFINITION

2.1 This Decision Instrument relates to the market for wholesale voice call termination services on individual mobile networks, as identified in the European Commission's Recommendation.

2.2 The relevant product market in this Decision Instrument is defined as the market for wholesale voice call termination on H3GI's individual mobile network in accordance with the Recommendation.

2.3 The relevant geographic market for the market for wholesale voice call termination on H3GI's individual mobile network is defined as Ireland.

3 DESIGNATION OF UNDERTAKING WITH SMP

3.1 H3GI is designated as having SMP in the market for wholesale voice call termination on its individual mobile network in Ireland.

3.2 For the purposes of this Decision Instrument, any reference to H3GI includes a reference to any undertaking which is associated with, or is controlled by, or controls, directly or indirectly, H3GI and which carries out business activities in Ireland, where the activities engaged in (either directly or indirectly) are activities falling within the scope of the relevant product and geographic markets defined in this Decision Instrument.

4 SMP OBLIGATIONS[110]

4.1 ComReg has decided to impose certain SMP obligations on H3GI, as provided for by Regulations 9, 10, 11 and 14 of the Access Regulations. These SMP obligations are detailed in sections, 5, 6 and 7 of this Decision Instrument.

5 OBLIGATION OF TRANSPARENCY

5.1 As provided for by Regulation 10 of the Access Regulations, H3GI shall have the obligation to ensure transparency in relation to the terms and conditions (including price) for offering and providing MVCT.

[110] ComReg is legally obliged to impose *ex ante*, SMP obligations that are appropriate, based on the nature of the problem identified, proportionate and justified in the light of the objectives set out in Article 8 of Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications.

5.2 Without prejudice to the generality of section 5.1, H3GI shall comply with the SMP obligations set out in sections 5.3 and 5.4 of this Decision Instrument.

5.3 H3GI shall each publish in an easily accessible manner, all MVCT prices in place immediately before the effective date of this Decision Instrument, within 28 days of the effective date of this Decision Instrument. H3GI shall publish in an easily accessible manner, all amendments to MVCT prices to be made subsequent to the effective date of this Decision Instrument, 28 days prior to their becoming effective.

5.4 H3GI shall each make publicly available information such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use and prices in respect of MVCT, as may be specified by ComReg from time to time.

6 OBLIGATION OF NON-DISCRIMINATION

6.1 H3GI shall have an obligation of non-discrimination, as provided for by Regulation 11 of the Access Regulations. Without prejudice to the generality of this obligation, H3GI shall:

I. Ensure that it applies equivalent conditions in equivalent circumstances to Operators providing equivalent MVCT; and

II. Ensure that it provides MVCT and information in relation thereto, to Operators under the same conditions and of the same quality as H3GI provides for its own MVCT, or those of its subsidiaries or partners.

7 OBLIGATION OF PRICE CONTROL

7.1 As provided for by Regulation 14 of the Access Regulations, H3GI shall have obligations in relation to cost recovery and price control.

7.2 This price control should not exceed the average price weighted by traffic volumes for the most recent financial year offered by H3GI for MVCT on its network, shall not exceed the average price, calculated by reference to the prices set out below, weighted by traffic volumes for their first financial year to end during or after December, 2006, until further notice by ComReg.

Table: Prices for MVCT to be offered by H3GI

SMP MNO	**MVCT Price (Cent Per Minute)**		
	Peak	**Off Peak**	**Weekend**
H3GI	17.78	11.43	8.89

7.4 As and from the effective date of this Decision Instrument and prior to the establishment of a definitive level of cost oriented prices for H3GI, ComReg may, in pursuance of the aim of establishing such prices, issue directions to H3GI for the purposes of establishing a glide path (that is to say, a graduated step approach) towards cost orientation or a price cap in respect of MVCT prices. In doing so, ComReg may amongst other options, employ benchmarking.

8 STATUTORY POWERS NOT AFFECTED

8.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties under any primary or secondary legislation (in force prior to or after the effective date of this Decision Instrument) from time to time as the occasion requires.

9 EFFECTIVE DATE

9.1 This Decision Instrument shall be effective from the date of its publication and shall remain in force until further notice by ComReg.

MIKE BYRNE
CHAIRPERSON
THE COMMISSION FOR COMMUNICATIONS REGULATION
THE X DAY OF MONTH YEAR.

Annex B – Consultation Questions

Annex C – Glossary of Terms

Calling Party Pays Principle (CPP): The CPP principle means that the party making the call, i.e. the calling party, rather than the party receiving the call, i.e. the called party, pays the entire cost of the call at the retail level.

Called Party: A person who receives a call.

Calling Party: A person who makes a call.

Electronic Communications Appeal Panel (ECAP): Panel set up under legislation for operators to appeal decisions of ComReg.

Fixed Network Operator (FNO): An operator providing services over a fixed network, as opposed to a mobile network.

Fixed to Mobile Call: A call that originates on a fixed network and terminates on a mobile network.

Instant Messaging (IM): The ability to see whether a chosen friend or colleague is connected to the internet and if yes, to exchange messages over the internet in a real-time online "conversation."

IP (Internet Protocol): Packet data protocol used for routing and carriage of messages across the internet from one computer to another.

Mobile to Mobile Call: A call that originates on a mobile network and terminates on a mobile network.

Mobile Network Operator (MNO): An operator providing telecommunications services over a mobile network operator such as Hutchison 3G Ireland.

Mobile Number Portability: A system that allows a customer who subscribes to one mobile operator, for example O2 or Vodafone to keep their telephone number when they switch to a difference mobile operator.

Mobile Termination Rate (MTR): A terminating operator charges a fee for the termination of a call from an originating operator on its network. For the purposes of this consultation paper, this fee is known as the mobile termination rate.

Mobile Virtual Network Operator (MVNO): A MVNO is a mobile operator that does not own its own spectrum and usually does not have its own network infrastructure. Instead, MVNO's have business arrangements with traditional mobile operators to buy minutes of use (MOU) for sale to their own subscribers.

Multimedia Messaging Service (MMS): MMS is an extension to the SMS protocol. MMS defines a way to send and receive, almost instantaneously, wireless messages that include images, audio, and video clips in addition to text.

Originating Operator: an operator on whose network a call originates, that is the network to which the calling party or customer subscribes and is directly connected.

Second Generation Networks (2G): Second generation mobile network technology using a digital network. GSM is the standard used in Europe.

Short Code Messaging (SMS): A facility to send messages of alphanumeric characters between compatible devices, other wise known as texting.

SIM: A small smart card device that holds details of the mobile subscriber including public telephone number and the numbers required by the network to recognise and authenticate the subscriber.

Terminating Operator: The operator on whose network a call terminates, that is to whom the called party subscribes and is directly connected.

Third Generation Networks (3G): A European 3G mobile communications system provides an enhanced range of multimedia services (e.g. high speed Internet access).

Universal Mobile Telecommunications Service (UMTS): UMTS is a third-generation (3G) broadband, packet-based transmission of text, digitized voice, video, and multimedia at data rates up to 2 megabits per second.

Voice over Internet Protocol (VoIP): The generic name for the transport of voice traffic using Internet Protocol (IP) technology. The VoIP traffic can be carried on a private managed network or the public Internet (see Internet telephony) or a combination of both. Some organisations use the term 'IP telephony' interchangeably with 'VoIP'.

WiMax: A family of standards under development for broadband wireless access in bands above 3GHz, also referred to as IEEE 802.16.

WLAN: Also known as 'hotspot' services. A WLAN access point provides Internet connection and virtual private network (VPN) access from a given location e.g. public places, such as airports, hotels, and coffee shops. Access is facilitated via the user's own portable computer.

Annex D-Binmore & Harbord Model-a summary and preliminary analysis

D.1 The basic BH model used a bargaining model where there were two firms: H3GI and eircom, who bargained over the price that H3GI would charge eircom to terminate calls on its network. BH also assumed that each firm had the same approximate 'power' in the bargaining game, which can be interpreted as saying no side had a particular advantage in bargaining – BH justified this by suggesting that eircom had an interconnectivity requirement which ensured they could not refuse to bargain, while H3GI had a requirement to get its network functional.

D.2 BH used the Nash[111] bargaining solution to find the outcome of their model. The Nash solution is a frequently-used solution concept in bargaining games where the parties essentially agree, at the start of the bargaining game, to split the 'surplus' (or the total gain from reaching an agreement) in a way that will depend upon the various payoffs involved. In this case, the Nash bargaining solution splits the "surplus" equally between both firms. In order to do this, BH specified the potential benefits eircom and H3GI would gain from any bargain, and what were known as their "status quo" payoffs (what they would obtain if the bargain did not take place). They initially posited that H3GI's status quo was zero, while its gains from a successful bargain would simply be the total revenue obtained (the termination rate multiplied by the number of calls) minus the total costs of termination. The values for eircom would depend upon whether there was what BH called a 'saturated' market or not. A saturated market is one where there is no possibility for further expansion of the number of consumers, and any new entrant such as H3GI would take customers from current market participants.

D.3 If the market was saturated, BH argued that eircom's status quo would be the profits it would receive from its existing termination deals with other mobile phone operators. Its net payoff from reaching an agreement with Hutchison would then be:

$$s(a_O - a_T) \qquad (1)$$

D.4 Note that s is H3GI's total expected number of subscribers, while a_O is the average termination rate paid to other mobile phone operators and a_T is the rate eircom agrees with H3GI.[112]

D.5 Technically, the solution to the bargaining game was as follows:

$$a^*_T = (a_O + c_T)/2 \qquad (2)$$

D.6 Where a*T is the actual outcome of the game, and c_T is the termination cost faced by H3GI and ($c_T < a_O$). This implied the actual termination rate will not exceed the average of the termination rates paid to other mobile phone operators. The key

[111] Another model that can be used is the Rubenstein alternate offers bargaining model (see Rubenstein 1982), where the parties take turns to make offers about the value at which the goods or services can be exchanged. Indeed BH later consider this approach in their paper and the models give similar results under plausible assumptions.

[112] Note that in their paper BH suggest that the average of termination rates paid to other mobile operators is the monopoly termination rate.

driver of this result was the saturated market assumption; it implied that in order for eircom to have been persuaded to allow its customers to terminate on H3GI's network, it must have been offered a better rate than it currently obtained from other operators. This is because, given the number of total users was fixed, H3GI was forced to bid lower than the amount paid to existing operators.

D.7 BH then developed the framework further by adding various factors that would influence this basic outcome. First, they called π_I the negative externality of the incumbent as a result of a new entrant to the mobile market. They called π_3 the flow of profits which accrued to H3GI in other markets (call origination and access, international roaming) from reaching a termination agreement. When adding this in to the framework, they obtained the following outcome:

$$a^*_T = (s(a_O + c_T) - \pi_3 - \pi_I)/2s \qquad (3)$$

Note that when the values of π are zero, this reduces to equation (2) above.

D.8 Essentially, introducing the outside options allowed eircom to gain half of any benefit H3GI received by having a functioning business, while allowing eircom to get rid of half of any negative impact H3GI's arrival would have on its general business.

D.9 BH then explored the case of a non-saturated market, where none of H3GI's customers previously subscribed to other mobile networks. They suggested that this situation seemed less realistic than the saturated case. The key difference with the saturated case was that the incumbent's outside option was now zero; this reduced its bargaining position somewhat. The termination charge obtained would be:

$$a^*_T = (P - C_0 + c_T)/2 \qquad (4)$$

where P[113] is the incumbent's fixed-to-mobile retail price, and C_0 its origination cost.

D.10 Note that $P - C_0$ is essentially the "monopoly" price that would be set in the traditional literature referred to above in paragraphs 4.18-4.22 in the market analysis section. The bargaining framework had given eircom half of the total profits to be derived from its customers terminating calls on H3GI's network.[114]

D.11 In this equilibrium, therefore, the termination price was roughly half-way between the monopoly outcome and the efficient charge level. It should be noted that the price could be substantially above H3GI's costs. Indeed, it would always be greater than H3GI's costs, unless $(P - C_0)$ was less than c_T. If this was the case then even the monopoly outcome, where H3GI held one hundred percent of the bargaining power, would not be sufficient to allow H3GI to cover its costs. So price would always be above costs unless demand/cost conditions were such that even the conventional monopoly outcome would also lead to a price below cost.

[113] The incumbent, eircom's, price is constrained by the retail price cap of CPI-0%. Retail fixed to mobile charges changed in the past as a result of mobile termination rate changes.

[114] Note that, partly for simplicity, we have omitted the two values of π from this equation. If included, they would lower the rate.

D.12 BH then considered issues such as the discount factor (the rate at which parties to the bargain trade-off the future) and whether this would influence the outcome of the bargain. In particular, they suggested that since H3GI was a new entrant, who may be financially constrained, it was more likely to be impatient and risk-averse. As is well-known in these models, the more impatient party actually loses bargaining power and would obtain a smaller share of any surplus.

D.13 BH moved on to consider how this framework would be affected by the presence of the regulator. The paper explicitly acknowledged the idea of dispute resolution, and analysed how this would affect the actual negotiations. If both sides were unable to reach an agreement as to rates, either had the ability to refer the dispute to the regulator. ComReg then had a specific period to analyse the dispute and, if necessary, to issue a formal direction as to the appropriate resolution of the dispute.

D.14 BH modelled this by altering the status quo payoffs of H3GI and eircom. Essentially, the termination rate that would be set if the regulator intervened is factored into the choices of the firms. There was a probability, ρ, that the regulator would intervene and set a rate, and this allowed them to calculate the expected status quo payoffs. This changed their status quo payoffs, and ultimately, affected the distribution of the surplus being bargained over. Key to this was the actual rate the regulator would be likely to set; once that was known; the parties factored it in and, again, agreed an actual rate without the need for intervention.

D.15 The use of this framework seemed to have a greater effect on the saturated market case, as it raised H3GI's status quo payoff from zero, which implied it would obtain a greater share of the surplus and thus a higher termination rate. BH found the following solution for the saturated case:

$$a^*_T = [(1-\rho)(a_O+c_T) + 2\rho a_R]/2 \qquad (5)$$

Note that a_R is the rate the regulator would set if it mediated the dispute.

D.16 The key issue in determining the actual rate that would be agreed is the rate the regulator would set. BH said that it was not clear what this would be, but put forward two candidates: the cost of termination for H3GI, or the average of the other operators' termination rates. In either of these latter cases, an outcome where the agreed rate was around the average of other operators rates was the most likely solution. BH did not solve the model for the non-saturated case, but the outcome would again depend upon the rate set by the regulator. Using their framework, this would be close to the average rate, with the exact figure depending upon the extent to which the solution to the non-saturated bargaining game was greater or less than the average rate. BH, using the saturated case, suggested that the rate with the threat of intervention would be likely to be higher than without intervention, but that it would be close to the average rate of other operators. Thus, it seemed likely that the threat of regulatory intervention would increase H3GI's bargaining power.

D.17 In summary, the BH model put forward the solution that the termination rates negotiated between H3GI and eircom would likely be lower than the average of other mobile operator's rates. When accounting for the threat of regulatory intervention, the BH model resulted in a solution for termination rates negotiated between H3GI and eircom that was still below, albeit by a smaller proportion, the average of other mobile operator's rates.

Analysis of the Paper

D.18 The BH paper represents a valuable contribution to the debate over termination charges. Their key result is that an incumbent fixed-line operator may have sufficient CBP as to ensure new mobile operators will not be able to raise termination rates significantly above the competitive level. Their analysis was specifically based on a bargaining model, which constituted a new element into the analysis of this issue, as most of the previous literature on mobile call termination assumed the mobile operator made TIOLO's to the incumbent. We now consider the strengths and weaknesses of this approach for the analysis of whether eircom has sufficient CBP.

D.19 **Other economic models:** A first comment is that the conclusions of the BH model could also be examined in terms of more traditional literature on the subject, where the mobile network was assumed to hold all the bargaining power. If H3GI had the ability to make a TIOLO to eircom, and it was assumed that the mobile market is saturated, then, eircom would only accept a termination rate which did not exceed the average termination charges of existing operators. Otherwise it would lose revenue by having to pay a higher charge to H3GI than it would pay (for exactly the same customer) to another mobile operator. Secondly, the assumption that the new entrant mobile operator is able to make a TIOLO, which in the traditional literature is assumed possible as there are many competing fixed operators, is not the case here. Therefore whether there is a bargaining model or a more traditional-type approach, may not be the key aspect, but rather the assumption by BH that the market is saturated and mobile operators do not have the ability to make TIOLOs.

D.20 **External values:** In their model, BH made some assumptions about the external values, which in turn affected the agreed termination rate. ComReg is of the preliminary view that the level of evidence in support of those assumptions is not convincing. In particular, the assumption that the negative externality of the incumbent could be a large value as a result of a new entrant to the mobile market (π_I) seems questionable. The idea that a new entrant to the mobile sector would have a significant negative effect on the fixed incumbent, whether through losing fixed line customers or by increasing mobile market competition seems unreasonable to ComReg, particularly since, as the authors argue, the new entrant is likely to be small in scale and market share. Also, according to the history of the negotiation process as outlined in Annex E, it was eircom that requested the direct interconnect agreement with H3GI, which does not seem to lend weight to the idea that eircom considered the new entrant, would have a significant negative impact on it.

D.21 Similarly, there is little evidence for the idea that the fixed incumbent bargaining over termination rates would allow it to capture a significant proportion of any other revenue earned by H3GI (π_3). Empirically there does not appear to ComReg to be evidence provided to it to date that eircom sought to extract any type of payment from H3GI in respect of its other mobile services **[•]**.

D.22 For the reasons given above, ComReg is of the preliminary view that the use of both external values of π is not merited. If these values are included in the model, it would lead to a lower termination rate, but as argued above, ComReg's preliminary view is that there is little real evidence to show such values would be factored into any bargain, or indeed that they would be high values.

D.23 BH also suggested that H3GI was likely to have a higher cost of capital than eircom which would disadvantage it in any bargain. ComReg is of the preliminary view that this has no real evidence to support it. The market value of the parent company of H3GI is greater than the market value of eircom,[115] thus ComReg questions the suggestion that H3GI is financially constrained, or is likely to be particularly risk-averse. Moreover, H3GI have successfully entered markets in other jurisdictions, including the UK. Under these circumstances, it seems legitimate to factor out any such suggestions, unless there was strong empirical evidence to the contrary, in particular as H3GI is now an established market operator with an on-going relationship with eircom.

D.24 **Saturated or non-saturated market:** It is also not clear to ComReg why it should be assumed that the market is saturated (that is whether the total number of subscribers would rise as a result of H3GI's entry). While there may be a high penetration rate in terms of subscriber numbers[116] consumers may wish to subscribe to H3GI for reasons of product differentiation[117] and there is always scope for an increase in revenues generated in the market.

D.25 On balance, exclusively assuming either a saturated or a non-saturated market is not likely to fully reflect reality – a new entrant to the market would both create new subscribers and take some customers from existing operators. ComReg is of the preliminary view that based on the history of negotiations before it, when reaching a deal, both parties appeared to be coming from a position where if no deal was made, eircom would obtain zero and H3GI close to zero. While eircom were reluctant to enter into a commercial agreement at the rates originally proposed by H3GI, there does not seem to be significant evidence that eircom considered it would be losing revenue from its existing customers by negotiating an interconnect arrangement with H3GI.

D.26 **Regulatory intervention:** The CAT stated that "the possibility of dispute resolution is part of the overall picture which has to be taken in to account in assessing whether BT has a real and effective bargaining position that is sufficient to counter the factors which would otherwise point in favour of H3G having SMP." Dispute resolution therefore, is a factor which according to the CAT, OFCOM had to consider in assessing whether or not H3G has SMP. In Ireland, the ECAP did not rule on this issue. However, given that the CAT's ruling is likely be persuasive in the event of an appeal before the ECAP, it is appropriate for ComReg to also have regard to it.

D.27 It will be clear from the following sections that ComReg has, to the fullest extent possible, taken dispute resolution in to account in assessing eircom's bargaining

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[115] Hutchison Telecoms International had a market capitalisation of 315,702mn Hong Kong $, Lehman Brothers, August 25, 2006. eircom group plc had a market capitalisation of €2,275 million, Irish Stock Exchange, April 7 2006.

[116] The latest penetration rate for the Irish market is 106 percent, still less than the EU average at 108%, ComReg document 06/68: Irish Communications Market: Quarterly Key Data Report December 2006.

pload/publications/ComReg0615.pdf"
http://www.comreg.ie/_fileupload/publications/ComReg0615.pdf

[117] This seems particularly likely given that Hutchison offers 3G services, such as video services and higher bandwidth for internet access.

position relative to H3GI. However, it will also be seen that there is a limit to how far ComReg's analysis can extend without this exercise becoming overly speculative. Accordingly, ComReg has reached the preliminary conclusion that dispute resolution is not a factor to which ComReg can attach very considerable weight in assessing whether or not eircom has sufficient CBP and as to whether H3GI has SMP or that it is of itself a singularly significant factor bearing upon these issues. However, the limited conclusions that ComReg can draw from its assessment of dispute resolution seem to in fact favour the preliminary view that H3GI has SMP.

D.28 BH analysed how regulatory intervention would change the outcome, and, as discussed above, predicted that the threat of intervention would be likely to raise the termination rates but that they would remain below the average of other mobile operators' rates. ComReg finds this analysis interesting, but also somewhat speculative. Exactly what outcome ComReg would reach while mediating a dispute would depend upon the specific circumstances of the dispute. ComReg has the power to regulate prices of a non-SMP operator pursuant to the dispute resolution provisions under Regulation 31 (3) of the Framework Regulations[118]. However, ComReg's preliminary view is there are a number of reasons, analysed in the paragraphs below, why dispute resolution, although effective when used as intended, is not a substitute for SMP regulation nor is it at all clear what effect the regulator's determination might have in a negotiation framework.

D.29 According to the CAT in the UK, OFCOM could make a decision on foot of a dispute over price, prior to any SMP finding being in place[119]. OFCOM had unsuccessfully argued before the CAT that a SMP finding must first be in place. In theory therefore, ComReg could also make such a finding without (according to the CAT at least) a finding of SMP being in place.

D.30 However, the question of dispute resolution and any determination on foot of it being a factor that would influence CBP and act as a constraint on H3GI's SMP, is of course a different one.

D.31 At the outset, it should be noted that there would appear to be two fundamental problems associated with ascribing special significance to the issue of dispute resolution.

D.32 Firstly, In the UK, the CAT stated that a potentially regulated entity can not say that it does not have SMP on the basis that the threat of regulation means that it does not have the necessary market power[120]. The threat of regulation might be taken as meaning the threat of SMP regulation. However, there would appear to be no obvious reason for saying that the comments of the CAT do not apply equally to other varieties of regulation e.g. the prospect of ComReg directing in relation to end to end connectivity obligations or indeed, a determination on foot of dispute

[118] The European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services.

[119] Hutchison 3 G (UK) Limited v the Office of Communications [2005] CAT 39.

[120] Hutchison 3 G (UK) Limited v the Office of Communications [2005] CAT 39, at paragraph 98.

resolution. If that reasoning is correct, then the CAT's pronouncements should be authority for the proposition that the threat of a determination by ComReg on foot of dispute resolution is also not a valid basis for H3GI to assert that it does not have SMP. If that is so, then it would appear that this is as far as the analysis in relation to dispute resolution ought to proceed. It should be noted that the CAT[121] also stated that it did not consider that the mechanism for dispute resolution under an interconnection agreement "*has any material effect on the question of whether H3GI had or has SMP*."

D.33 Secondly, a fundamental question should be asked: if dispute resolution were in general to be considered a constraining effect on potential SMP, why are SMP designations ever necessary and why are they the cornerstone of the entire regulatory framework for electronic communications? ComReg suggests that the answer lies in the fact that the European legislators decided fundamentally, as a matter of competition policy, that *ex ante* regulation was clearly preferable to *ex post* measures (such as dispute resolution) in markets that are susceptible to ex ante regulation and where there are potentially, SMP operators. It is also worth noting that the SMP Guidelines, which comprise a key part of the regulatory framework, make no mention whatsoever of dispute resolution as a factor that NRAs need to consider in assessing SMP. Put simply, dispute resolution is no substitute for SMP obligations when one is addressing potential SMP - it would be contrary to the policy underpinning the regulatory framework for electronic communications if regulators were to proceed in this manner in relation to markets that are susceptible to *ex ante* regulation.

D.34 It is illustrative of this principle that any determination under dispute resolution might ultimately be effective in resolving a dispute between the parties to it, but it would not necessarily prevent an operator from leveraging any market power that it had against other operators in the market who had not notified a dispute to ComReg, or against consumers. *Ex ante* measures however (if they were deemed appropriate as a consequence of any finding of SMP) would be effective at preventing in advance, the leverage of such market power.

D.35 ComReg notes that the question of whether dispute resolution would ever come in to play and how it would operate in practice is extremely speculative.

D.36 Firstly, under Regulation 31 (3) of the Framework Regulations ComReg has a clear discretion not to accept disputes if (a) it is satisfied that other means of resolving the dispute are available to the parties or (b) if legal proceedings in relation to the dispute have been initiated by either party. That is of course not to say that ComReg would always decline to accept a dispute. Whether its discretion to do so would be exercised or not, would depend on the circumstances of any case, which at this remove, may be too difficult to predict.

D.37 Secondly, the procedure under Regulation 31 of the Framework Regulations does not preclude a party from bringing an action before the courts. The Framework Regulations do not therefore purport to oust the jurisdiction of the courts or indeed the ECAP. A party might choose to deal with its dispute in the High Court, rather than refer it to ComReg at all. A party may decide that its dispute can be dealt with

[121] *Hutchison 3 G (UK) Limited v the Office of Communications* [2005] CAT 39 at paragraph 139 b).

in a manner that it prefers (perhaps before the Commercial division of the High Court). Accordingly, because of this variable, there is no guarantee that a party will even submit a dispute for resolution by ComReg in any given case.

D.38 Thirdly, if a dispute were submitted, the terms (including price) that ComReg might deem reasonable in any determination it made, might not be considered reasonable by one or both parties to the dispute. In that regard, while ComReg has the power under Regulation 31 (1) of the Framework Regulations to "make a determination, aimed at ensuring compliance…" such a determination is not necessarily truly dispositive of a dispute or a determination that must at that point then be unquestioningly accepted by the parties to the dispute. There is an obligation on an undertaking to whom a determination applies to comply with such a determination and it is a criminal offence not to do so. A party may or may not accept ComReg's determination but it is clear that at this point, they can not have what they consider to be unreasonable terms forced upon them. This is because either party still has a right to an appeal under Part 2 of the Framework Regulations in respect of ComReg's determination. Thus, while any determination made by ComReg is intended to be complied with, it does not remove a party's right of appeal to the ECAP in respect of that determination – it might ultimately materialise that a party would not in fact be bound to comply with a determination on foot of dispute resolution because of a ruling of the ECAP. If a party appeals a determination (which it believes to be unreasonable) under Part 2 of the Framework Regulations, it can seek a suspension of the determination. This, it is likely to do and the ECAP is in general likely to accede to its request as otherwise the appeal might be moot. Once ECAP delivers its substantive ruling, it might decide to uphold ComReg's determination or to annul it. If it does the former, that is not necessarily an end to the matter. The party aggrieved by that outcome still has a right to seek leave to apply for judicial review of the ECAP's decision in the High Court. From there, it is possible that the High Court's decision might be appealed to the Supreme Court. Aside from this an ECAP, the High Court or the Supreme Court has discretion to refer a point of European Community law to the European Court of Justice. A party might also choose to appeal any decision of the ECAP to the High Court. It is possible that both of the parties to a dispute could anticipate protracted litigation as a consequence of any legal proceedings arising from a determination by ComReg in relation to the dispute.

D.39 On the other hand, it is also possible that neither of the parties would at all legally challenge a determination on foot of a dispute resolution procedure by ComReg and would readily accept its outcome.

D.40 It is also possible that having initiated a dispute or legal proceedings the dispute would be withdrawn or the legal proceedings settled because the parties had decided to revert to commercial negotiations and had thereby reached agreement.

D.41 Thus, it can be seen that the many vagaries inherent in the options for legal redress - be that the courts or the ECAP - may need to be factored in by the negotiating parties. Whether the parties can do so with any degree of certainty seems highly dubious to day the least. Whether ComReg can, for the purpose of estimating the effect of dispute resolution on CBP and SMP, factor in these uncertainties and how the parties assess them also seems highly dubious.

D.42 Clearly, the issues in relation to dispute resolution are very hypothetical and case specific. Fundamentally, the question at issue is whether there exists sufficient

CBP and to some extent, whether an economic model can reasonably capture this. If it is valid to ask whether dispute resolution affects CBP, it appears that one would in fact be requiring ComReg in this instance to know in advance what H3GI thinks would be the likely outcome of dispute resolution. Such an exercise would seem to be artificial and contrived and it is difficult to see how it could be invested with any accuracy or reliability. Notwithstanding the above discussion, ComReg has attempted below to carry out a somewhat speculative assessment on the issue.

D.43 In the case of H3GI, if its expectation was that ComReg would favour it in any price determination it made, that would make it more confident in its negotiations and vice versa for eircom. That might be the case for example, if H3GI expected that ComReg would allow it to set the prices it chose. On the other hand, H3GI could also have expected that the regulatory intervention would be less favourable to it, making it less confident in its negotiations with eircom. ComReg has not to date issued a price determination under the relevant dispute resolution powers and therefore H3GI has no past experience to refer to in this regard. It should be noted that in assessing whether H3GI has or does not have SMP, it would be entirely inappropriate for ComReg to suggest or factor in, that ComReg itself would be predisposed to favour either of the possible outcomes. To do so would be tantamount to predetermining the matter with respect to possible future disputes but moreover (and worse) leave ComReg open to a charge of bias.

D.44 In reality, operators might anticipate that the outcome to dispute resolution would lie somewhere between the two extremes of favouring one party entirely over the other. It is not practical or possible for ComReg to anticipate either the exact outcome or its exact policy with respect to intervention in a specific case[122].

D.45 However, while there are many uncertainties regarding dispute resolution, it seems likely that ComReg would have to adopt lighter touch regulation with respect to setting an MTR in respect of H3GI as a non-SMP operator, relative to the MTR applicable to SMP operators. In this regard, it is clear that if ComReg were called upon to adjudicate a dispute, it could not set a cost oriented MTR under Articles 9-13. This is because ComReg would be addressing the dispute in the absence of H3GI having SMP. The obligation to offer cost oriented MTRs can only be imposed on operators having SMP[123].

D.46 In these circumstances, H3GI would not have SMP and would not be subject to a cost orientation obligation. In this regard, the Access Directive Article 8 (3) provides that:

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[122] ComReg is for example likely to take into account the need to be proportionate and the effect that any decision would have on competition and consumers in the market place.

[123] ComReg notes the provisions of Article 5 (1) of the Access Directive, which enable obligations to be imposed on undertakings that control access to end-users, to the extent that it is necessary to ensure end-to-end connectivity. The obligations include, in justified cases the obligation to interconnect their networks, where this is not already the case. Given that these provisions are exceptional, they should be narrowly construed. The criteria for their application would also need to be first present. Even if it were (a) permissible and (b) appropriate to impose price related obligations pursuant to this provision and (c) given the discretionary nature of the provision, Article 5 (1) would and could not oblige ComReg to require an operator to offer cost oriented MTRs.

"*…national regulatory authorities shall not impose the obligations set out in Articles 9 to 13 on operators that have not been designated in accordance with paragraph 2*."

D.47 H3GI would not be a SMP operator "*designated in accordance with paragraph 2*" and it could not therefore be subject to any of the obligations set out under Articles 9 – 13. One of the obligations that may be imposed under Articles 9 – 13 is that of "*price controls, including obligations for cost orientation of prices…*" as provided for under Article 13.

D.48 While ComReg is not able to (and can not be expected to) predict the actual price that would be imposed in the context of a dispute, it is clear (because of the limits of ComReg's legal powers) that the price would not be the same or better than a cost oriented rate.

D.49 Given that ComReg could not impose a cost oriented rate under Articles 9-13 in respect of H3GI's MTR, this would likely improve H3GI's bargaining position. This, ComReg believes is the only significant conclusion which can be drawn from an assessment of dispute resolution. If it is a valid conclusion, it is one that in fact favours the view that there is insufficient CBP in the market.

D.50 Overall, however, while theoretical models may not give unambiguous outcomes, (particularly when potential regulatory action is taken into account) ComReg is not convinced that an explicit analysis of potential regulatory intervention is necessarily helpful in assessing the sufficiency of CBP. This is particularly the case given it would be inappropriate for ComReg to suggest or factor in, that ComReg itself would be predisposed to favour any possible outcome in advance of a particular dispute.

D.51 ComReg is of the preliminary view that placing undue emphasis on dispute resolution would appear to be over-reliance on a single factor, perhaps no less than when the ECAP ruled that H3GI's one hundred percent market share was a factor that ComReg placed undue reliance on when it previously found that H3GI had SMP on the relevant market.

D.52 Upon proper examination, the issue of dispute resolution becomes a far less significant factor and one must then ask whether the preponderance of the rest of the evidence suggests that H3GI has SMP or not.

D.53 ComReg's preliminary conclusions in relation to dispute resolution may therefore be summarised as follows:

(a) The issue of dispute resolution is not especially significant for determining whether H3GI has SMP. Attaching too much weight to it seems at odds with the policy underpinning the electronic communications regulatory framework;

(b) Notwithstanding the above, ComReg has assessed the issue comprehensively. ComReg is of the preliminary view that it is too difficult to accurately speculate on the possible outcomes of dispute resolution; and

(c) The limited conclusions that ComReg can draw from its assessment of dispute resolution seem to favour the preliminary view that H3GI has SMP.

D.54 **Subscriber base:** ComReg has four other comments on the BH paper. The first is the assumption that H3GI's subscriber base (s) was a fixed value and did not depend upon the call termination rate. BH mentioned this in a footnote to their paper, and suggested it was a relatively minor assumption, though they noted that if it was changed, the agreed termination rate would be likely to rise. As they stated, much of the literature on call termination suggested that high termination rates were used to subsidise acquiring new subscribers by, say, handset subsidies. If BH's prediction that H3GI would achieve a rate less than other mobile operators was correct, then it would not be able to compete for its own subscribers. For example, if the market for mobile subscribers was extremely competitive, an entrant may not be able to profitably attract any subscribers unless it received the same profits from terminating calls as its competitors in the mobile market. In this situation, H3GI could not agree to any termination rate below other operators, even if that was at a monopoly level. While the exact affect of taking subscribers as fixed rather than depending upon termination rates was not fully analysed, ComReg is of the view that it may not be a realistic assumption.

D.55 **Complete information:** Secondly, there was the use of complete information in this model. ComReg considers that this is unlikely, as there is no reason to believe, for instance, that eircom would know the preferences, costs, potential revenues, etc of H3GI or vice versa. However, while this affects both parties, it would be more likely that H3GI had an advantage in terms of asymmetry of information given eircom's SMP status and regulatory obligations to be transparent and publish information.

D.56 ComReg would note that the approach where the mobile operator makes TIOLOs also assumed complete information, so this was not an issue confined to the BH model. However, the outcomes predicted by bargaining theory are usually particularly sensitive to different specifications of the information structure of the game. Bargaining games with asymmetric information are usually marked by multiple equilibria, where a large number of potentially very different outcomes could occur. It is thus very difficult to say what the actual outcome will be.[124]

D.57 **New entrant:** Thirdly, within the bargaining game, the evidence for the assumption that H3GI's status quo payoffs were zero was not clear cut. It is likely to be the case that the requirement for H3GI to provide its potential subscribers with the ability to receive calls from eircom is more important for it to launch a commercially viable service than would be the converse. However, as discussed in the paragraphs on the relative bargaining strengths of operators in the market analysis section, it is also true that all operators, including eircom wish to provide subscribers with the ability to make and receive calls to all other operators in the Irish market and this provides incentives for interconnection. In the event that H3GI had not managed to reach an agreement with eircom for eircom's traffic to terminate on its network it would not affect the ability of H3GI's subscribers to make outbound calls nor to reach an agreement with another fixed operator such as BT to transit other traffic, from for example the mobile operators to H3GI's network. While this effect may not be very strong, it is possible to directly factor it into the bargaining game by allowing H3GI's status quo payoffs to be greater than zero. This would alter the result of the bargain analysed by BH; a higher status quo payoff for H3GI would give them more bargaining power if negotiations broke

[124] See, for instance, Fudenberg and Tirole (1991), P 399, "Thus, bargaining theory seems unlikely to offer unique predictions even if one knows the extensive form…The theory of bargaining under incomplete information is currently more a series of examples than a coherent set of results."

down, thus allowing them to have obtained a higher share of the surplus and a higher termination rate.

D.58 Fourth, when considering the negotiation framework more generally, a possible threat point for one party might be to raise its own termination rates in response to the other party demanding a high rate. However, this is not a measure open to eircom, as it must terminate all traffic, including mobile traffic originating on H3GI's network, on a non discriminatory cost orientated basis. The other fixed operators set their own rates, but are not obliged to offer cost orientated rates. For fixed to mobile calls, the mobile operators set the termination charges which are subject to regulatory constraints depending on the network. The mobile termination rates of the other MNOs in Ireland are regulated[125] albeit to date the cost orientation of rates has been effected on a voluntary basis. Regulation of the charges of FNOs and/or MNOs deprives them of a potential instrument in the negotiations with other operators that is the ability to retaliate by raising termination rates.

D.59 In summary then, while the model raised some very interesting issues, some of the assumptions may not have clear evidence to support them and are perhaps skewed towards the view that H3GI had no bargaining power. In addition but perhaps tellingly, the empirical evidence does not support the predictions of the model.

[125] ComReg Document 05/78: Market Analysis-Decision on SMP obligations-Wholesale Voice Call Termination on Individual Mobile Networks.

Annex E [Confidential] - Summary of Negotiations between H3GI and its interconnection partners

Annex F – Other SMP Criteria.

SMP Criteria	Relevance to SMP Assessment	Relevance to Termination market
Market shares	Market shares are not on their own determinative of SMP but are a useful starting point for defining instances where SMP is more likely to arise. It is clear from EU jurisprudence that concerns about SMP are more likely to arise where a large market share is held over time.	This criterion is relevant because the wholesale termination market is characterised by very high market shares which have persisted over time.
Barriers to entry	Barriers to entry are factors that prevent or hinder undertakings from entering a specific market. They generally comprise any disadvantage that a new entrant faces when entering a market that incumbents do not currently face. Entry barriers may result, for instance, from a particular market structure (structural barriers) or the behaviour of incumbent firms (strategic barriers).	This criterion is relevant as the infrastructure required to enable other providers to offer termination on a specific network, apart from the provider of that network, is not available nor is it replicable in the timeframe of the review.
Sunk costs	Sunk costs are costs which must be incurred in order to enter a market and which are not recoverable on exiting the market.	This criterion is not as relevant as call termination to a particular end user is not replicable during the timeframe of the market review, irrespective of costs of entry.
Control of infrastructure not easily duplicated	This indicator refers to a situation in which certain infrastructure is: • necessary to produce a particular product/service, • exclusively or overwhelmingly under the control of a certain undertaking, and • there are high and non-transitory barriers to substituting the infrastructure in question.	This criterion is relevant as it is clear that call termination to a particular end user is not replicable during the timeframe of the market review. In that respect it can be viewed as a barrier to entry.
Economies of scale	Economies of scale arise when increasing production causes average costs (per unit of output) to fall. By producing above the level that a new entrant might be able to produce at, the incumbent can ensure lower unit costs than the entrant. Where sunk costs are large and/or barriers to expansion exist, the new entrant's expected profit from being in the market may fail to cover its sunk costs and entry may be deterred.	This criterion is of less relevance in this market as the presence of absolute barriers to entry indicates no operator would be facing potential competition, so cost advantages are of less relevance in this market.
Economies of scope	Economies of scope exist where average costs for one product are lower because of it being produced jointly with other products by the same firm. If the presence of economies of scope requires that entrants enter more than one market simultaneously to achieve similar cost savings as the incumbent, this can deter entry.	This criterion is of less relevance in this market as the presence of absolute barriers to entry indicates no operator would be facing potential competition, so cost advantages are of less relevance in this market.
Overall size of the undertaking	This refers to the potential advantages, and the sustainability of those advantages that may arise from the large size of an undertaking relative to its competitors.	This criterion can be relevant in this market in respect of the analysis of Countervailing Buyer Power (CBP). It is possible that the overall size of the undertaking can have an influence on the relative negotiating positions of operators in respect of bargaining strength.
Technological advantages or superiority	Such advantages may represent a barrier to entry as well as an advantage over existing competitors due to lower production costs or product differentiation.	This criterion is less relevant as by virtue of the market definition there are absolute barriers to entry and no potential competition in the market. Therefore no comparison between technologies is relevant.
Product/services diversification (e.g. bundled products or services)	There can be a positive relation between product/services diversification and market power. If suppliers are able to differentiate their products and competitors are not able to imitate the differentiation, then scope for customer switching to alternative suppliers might be reduced. Conversely, if alternative suppliers are not able to sufficiently differentiate their own service offering from that provided by the incumbent, switching away from the	This criterion is of less relevance because, typically, termination services are sold on a stand alone basis and in general is not bundled by terminating operators. The actual operators who purchase termination have no effective demand-side alternatives for reaching a specific end user and so the presence of bundles incorporating

	incumbent may also be less likely.	termination services confers no obvious advantage on a particular terminating provider, although it may be advantageous in associated markets.
Vertical integration	Vertical integration, while normally efficient, can make new market entry more difficult. Where the presence of a firm at multiple levels in the production or distribution chain increases the possibilities for it to foreclose one or more markets and/or where prospective new entrants may perceive the need to enter two or more markets simultaneously to pose a viable competitive constraint to the integrated operator.	This criterion is of less relevance however in an examination of CBP it may be relevant because the size of a vertically integrated terminating operator at the retail level may be linked to CBP at the wholesale level. The greater its position in the retail market vis-à-vis its competitors, the more prospect that countervailing buyer power would be exerted at the wholesale level.
Easy or privileged access to capital markets/financial resources	Easy or privileged access to capital markets may represent a barrier to entry as well as an advantage over existing competitors.	This criterion is less relevant because the presence of absolute barriers to entry indicates no operator would be facing potential competition and therefore the cost of capital to be faced confers no particular advantage. This criterion might be referred to in the context of CBP if easier access to capital conferred an advantage in respect of bargaining power.
A highly developed distribution and sales network	A well-developed distribution system may be costly to replicate and maintain and may even be incapable of duplication. This may represent a barrier to entry as well as an advantage over existing competitors.	This criterion is of less relevance because the service in question is acquired only by purchasers at the wholesale level and it would appear that no specialized sales network is required. Furthermore, it is not clear that implementing relevant billing, account management and/or customer service systems would pose a significant barrier to potential new entrants.
Absence of potential competition	This refers to the prospect of new competitors (which are in the position to switch or extend their line of production or to commence an entirely new line of production) entering the market (e.g. in response to a price increase) within the timeframe considered by the review.	This criterion is of relevance. By definition, call termination to a specific end user is not replicable. So a credible threat of potential entry is not present in the timeframe of the review.
Barriers to expansion	While growth and expansion is easier to achieve for individual firms (and in particular for new entrants) in growing markets, it might be inhibited in mature, saturated markets, where customers are already locked in with a certain supplier and have to be induced to switch.	This criterion is of less relevance in this market as the presence of absolute barriers to entry indicates no operator would be facing potential/existing competition and competition in the market for termination is not likely to expand beyond the fixed operator in question, so it is irrelevant.
Absence of or low countervailing buying power	The existence of customers with a strong negotiating position, which is exercised to produce a significant impact on competition, can potentially restrict the ability of providers to set their prices and/or other commercial terms to an appreciable extent independently of their customers.	This criterion is relevant in this market. The EU Explanatory Memorandum to its Recommendation on Market Definition sets out that even a 100% market share in itself does not automatically imply that the undertaking in question has SMP. This is because an undertaking's ability to act to an appreciable extent independently depends, among other things, on the ability of its customers to influence its pricing decisions.
Evidence from behaviour and performance	According to the OFT Market Power Guidelines, an undertaking's conduct in a market or its financial performance may provide evidence that it possesses market power. While high prices or profits alone are unlikely to be sufficient proof that an undertaking has SMP, when considered with other factors, prices that are consistently above an appropriate measure of cost or returns that are persistently high relative to those that would prevail in a competitive market may suggest the	This additional criterion is of relevance but it should be noted that excessive pricing is not a prerequisite for a finding of SMP. However, an analysis of pricing can indicate whether any external competitive pressures induced fixed operators to reduce their charges and so whether they have the ability to act to an appreciable extent independently of their competitors and/or consumers in

	existence of market power.	practice.

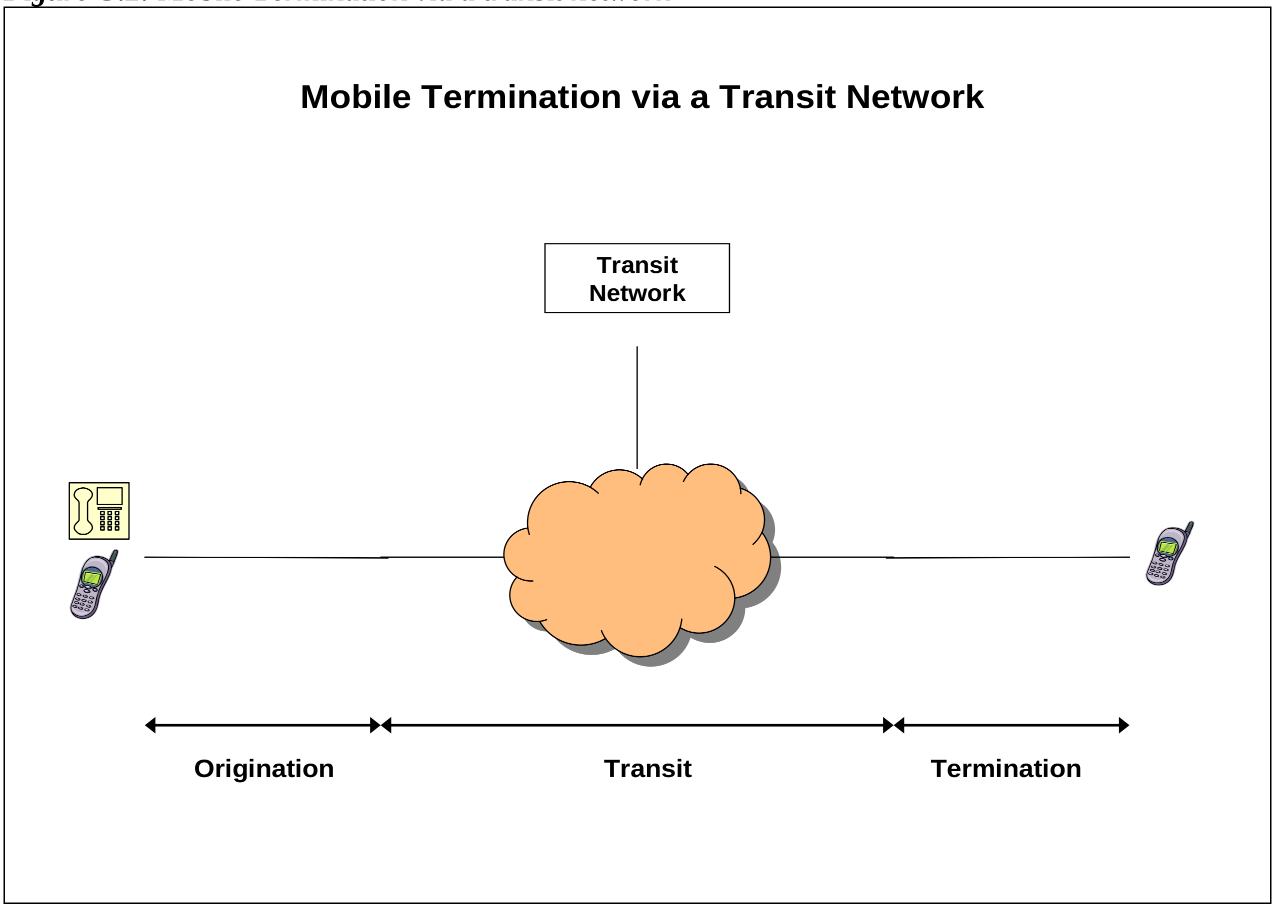
Annex G - Table of MTRs in three unregulated countries & Diagram on Mobile Termination via Transit

Table G.1 Mobile termination rates in three unregulated countries

Country	Operator	Year of entry	Market Share (% of subscribers)	Entrant Number	Mobile Termination Rate as % of the average rate
Austria	tele.ring	May 2000	4.57%	4	153%
Germany	Viag	October 1998	6.32%	4	118%
Switzerland	Orange	June 1999	17.76%	3	105%

Source: IRG WG and www.GSMWorld.com

Figure G.2: Mobile Termination via a transit network



Source: ComReg