

## **ANNEX VI: Broader Competitive Issues Relating to Mobile Markets**

**a. Individual Mobile Networks: Competitive Conditions Capable of Suggesting A Broader Market Definition**

A strict analysis of demand and supply-side substitutability suggests that voice termination on individual mobile networks might be the relevant product market for *ex ante* regulatory purposes. However, it is arguable whether or not this relevant product market accurately reflects the competitive dynamics of mobile call termination services. In particular, it is open to debate whether the termination services being sought are subject to competitive pressure from other sources.<sup>1</sup>

An approach which examines competitive constraints beyond a particular directly affected market segment is supported by a line of administrative practice developed under EC competition rules in other sectors. There is a developing body of such practice, under both the Commission's competition law review powers found in Articles 81 and 82 of the EC Treaty and the *Merger Regulation*, which suggests that the boundaries of competition might need to be assessed more broadly than the narrow "market" generated by a specific form of demand, thereby taking into account competition at different functional levels of the market. More specifically:

- The Commission has examined whether separate product markets exist for scientific journals in the publishing industry. In *Bertelsmann/ Wessenshaftsvortag Springer*,<sup>2</sup> the Commission decided that market definition made on the basis of the traditional interchangeability tests from the reader's point of view would lead to the definition of very narrow markets, which would be unrealistic in the circumstances in demonstrating the relationship between market players and the effects of the merger on competition. Factors relevant to the determination of relevant product markets for specialised and scientific publications included reputation, access to authors and publishers, knowledge of the customer base, as well as the appropriate marketing vehicles. The use of such a broad approach supported the view that there was a separate product market for the publication of scientific and specialised publications in general (as opposed to individual publications).<sup>3</sup>
- In reviewing its traditional approach in the airline industry in treating point-of-origin/point-of-destination pairs as a relevant product market, the Commission has modified its approach in terms of both its demand and supply-side analysis, namely:

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<sup>1</sup> It must be borne in mind that market definition is concerned with identifying the boundaries of competition. Indeed, the 1991 *Telecoms Guidelines* provide that "[A]n examination limited to the objective characteristics only of the relevant products cannot be sufficient: the competitive conditions and the structure of supply and demand on the market must also be taken into consideration" (emphasis added). See, *Guidelines on the application of EEC competition rules in the telecommunications sector*, European Commission, O.J. 1991 C 233/2. See also, for example, Case 322/81, *Michelin v. the Commission*, [1983] ECR 3529.

<sup>2</sup> Commission Decision of 15/02/1999, Case No. IV/M.1377, *Bertelsmann/Wessenshaftsvortag Springer*.

<sup>3</sup> Cf. *Wolters Kluwer/Reed Elsevier*, Commission Press Release, IP/97/1116 and Commission Decision of 27 August 1998, Case No. IV/M1275 - *Havas/Bertelsmann/Doyma*.

- From the supply-side, it is acknowledged that the air transport sector has evolved as a result of deregulation, the rise of “hub and spoke” systems, and the growth of alliances, so that there is increasing competition between “networks” of airlines.<sup>4</sup>
- From the demand-side, the point-to-point approach to travel is considered to include direct flights between the points of origination and destination, direct flights between airports in overlapping catchment areas, and indirect flights between the airports concerned (whose degree of substitutability depends on a number of factors such as flight times, frequencies and the scheduling of the routes).<sup>5</sup>
- In *Info-Lab/Ricoh Decision*, the Commission rejected a complaint in January 1999 by Info-Lab, a manufacturer of toner for photocopiers, against Ricoh, a photocopier manufacturer. The complainant alleged that Ricoh abused its dominant position on the market for toner cartridges compatible with certain Ricoh photocopiers by refusing to supply Info-Lab with empty toner cartridges, which would enable Info-Lab to compete with Ricoh in the sale of filled toner cartridges. Info-Lab claimed that it could not itself manufacture toner cartridges compatible with certain Ricoh photocopiers without infringing Ricoh’s intellectual property rights. Consequently, Info-Lab requested the Commission to compel Ricoh to sell empty toner cartridges, despite the former not having licensed its design rights or sold empty cartridges. As part of its investigation, the Commission considered that the application of Article 82 EC in such a case could at most be envisaged were Ricoh to have a dominant position on the consumables market. While the fact that Ricoh was the only participant selling filled toner cartridges compatible with Ricoh photocopiers on this market might suggest that Ricoh enjoyed such a dominant position, the Commission preferred instead to examine whether the upstream market for photocopiers was interrelated with the downstream market for consumables in such a way that the horizontal competition in the photocopier market constituted an effective discipline in the vertical after-market for filled toner cartridges for Ricoh photocopiers. The Commission concluded that these markets were interrelated on the grounds of the criteria outlined in the *Pelikan/Kyocera* case.<sup>6</sup> It was established that Ricoh did not occupy dominant positions in either the upstream market for photocopiers or the closely-related downstream market for filled toner cartridges.

In this way, the Commission has acknowledged that the relevant product market in which competitive restraints are exercised can be much wider than the network externalities generated by, for example, individual professional journals or the bilateral routes which characterise the air transport sector. In all these instances, reliance solely upon a classic short-term substitutability analysis has been characterised as being unrealistic in the particular circumstances of those cases. Consequently, it is worth considering whether an approach which seeks to characterise the relevant product market for mobile call termination as being one which is network-specific to each mobile network is open to the same type of criticism.

<sup>4</sup> See Commission Decision of 11 August 1999, Case No. M/JV-19, *K.L.M. – Alitalia*, Commission Decision of 12 January 2001, Case No. Comp/M.2041CF - *United Airlines/US Airways*; and *British Midland*, Commission Press Release of 13 June 2001, IP/01/831.

<sup>5</sup> *Op. cit.* *K.L.M. - Alitalia, United Airlines, US Airways, and British Midland* cases.

<sup>6</sup> XXVth Report on Competition Policy (1995), page 140. In this case, the Commission concluded that Kyocera could not be considered to have a dominant position in the market for toner and other consumables which were compatible with its proprietary system in the market for printers, since Kyocera’s share in the market for printers was relatively low and there was considerable competition.

This includes taking into consideration more aggregated markets<sup>7</sup> or competition at different levels of trade, for the purposes of considering whether *ex ante* regulation should apply.

Accordingly, the Study Team has pursued two lines of enquiry as regards the scope of competitive constraints, with a view to determining whether the relevant product market should be broader than termination on individual networks. At the same time, these lines of enquiry seek to determine whether the relevant product market at the wholesale level should be “associated” in some way with mobile and fixed retail markets.<sup>8</sup> These enquiries are:

- whether subscribers of the called mobile network can themselves constrain mobile termination charges at the wholesale level; and
- whether alternative means of communicating between a caller and a mobile subscriber are sufficient to constrain mobile call termination charges at the wholesale level.

The responses to these enquiries might vary from Member State to Member State, as mobile communications markets may vary in maturity across the EU. The empirical data on which the Study Team has relied upon to support its positions are confined to the examples presented by the *United Kingdom* and *Australia*, the two jurisdictions which have most recently addressed mobile “market” issues in some detail.<sup>9</sup>

(i) *Called Party Behaviour In The Face Of Differentiated Tariffs*

While it is widely acknowledged that the “calling party pays” principle (*i.e.*, the fact that a person who makes the call pays for it) has played a crucial role in the success of the mobile industry in Europe, it has also become increasingly understood that this principle contributes to end users being relatively insensitive to the pricing of terminations on mobile networks.<sup>10</sup>

An essential element of a market definition analysis of mobile voice termination is a consideration of the relative price-sensitivity of mobile users to incoming call charges. In particular, this consideration can be focused on the price-sensitivity of mobile users at two distinct points in time, namely, at the time of the selection of a mobile network for the first time and during the period following this selection. The essential empirical elements of this analysis would need to consider whether:

<sup>7</sup> Of course, this approach should be balanced with that taken by the Commission in *Virgin/British Airways*, in February 2000, where the Commission took the view that the aggregation of particular services by travel agents did not mean that the relevant product market was wider, essentially because the different service elements were provided under different conditions of supply and demand. Commission Decision of 14 July 1999, Case IV/D-2/34.780 - *Virgin/British Airways*, O.J. 2000 L 30/1. See also Commission Decision of 18 July 2001, Case COMP.D.2.37.44 – *SAS Maersk Air* and Case COMP.D.2.37.386 – *Sun-Air versus SAS and Maersk Air*, O.J. 2001 L 265/15.

<sup>8</sup> This concept should not be confused with Oftel’s discussion of “*a market for call termination, that is part of a cluster of linked national markets for mobile services*”: Oftel 2001 Statement on Calls to Mobiles ( in particular at paragraph 4.18). This concept is more clearly expressed in the Oftel 2001 Calls to Mobiles Consultation”).

<sup>9</sup> Which has in turn also prompted the empirical research generated by mobile operators in those respective jurisdictions. Principal documents include: Pricing Methodology for the GSM Termination Service, Final Report, Australian Competition & Consumer Commission (ACCC), July 2001 (“the 2001 ACCC Mobile Termination Report”); the 1998 MMC Report; “Review of the charge control on calls to mobiles”, Oftel, 26 September 2001 (“the Oftel 2001 Statement on Calls to Mobiles”); and the Oftel 2001 MMR Statement.

<sup>10</sup> See, Oftel 2001 Statement on Calls to Mobiles. Oftel, for example, concluded that “[T]he called party has little incentive to act to reduce charges he does not pay”.

- there are *differentiated* retail tariffs for making fixed to mobile calls;
- mobile users are *price-sensitive* to inbound mobile voice calls (*i.e.*, mobile “communities of interest”);
- such price-sensitivity would cause these users to *select, or churn* to,<sup>11</sup> other mobile networks with lower inbound voice tariffs;
- the behaviour of these “churning” users is unrestricted by *switching costs*;
- these new and churning users would constitute a sufficient body of *marginal users* to constrain wholesale voice termination charges (either in terms of user volumes or revenues); and
- mobile operators would - and could - introduce call termination services *addressing* the price sensitivities of certain customer segments.

This type of empirical research should lead to a determination of the competitive impact of mobile network churn resulting from call termination charges at the retail level. Sufficiently high levels of churn – where triggered by user dissatisfaction with the costs of receiving mobile calls – could constrain the behaviour of mobile operators with respect to voice termination charges at the wholesale level.

#### Differentiated retail tariffs for fixed to mobile calls

There is only an incentive for those mobile users which are sensitive to the price of incoming calls to switch networks on account of high termination charges if there is price competition among mobile operators for termination and the savings from such price differentials are passed on by the fixed operators to their customers, or if fixed operators offer different tariffs for calling different mobile networks for other reasons.<sup>12</sup> There is emerging evidence of increasing price differentiation at both wholesale and retail levels for calls to mobiles as mobile operators seek to capture market share in a saturating marketplace where outbound prices are already competitive. For example, the termination charges of the respective mobile operators in the *United Kingdom*, gleaned from public sources, are detailed in **Table VI.7** below.

<b>Operator</b>	<b>Day</b>	<b>Evening</b>	<b>Weekend</b>
BTCellnet	12.44	12.44*	1.13
One 2 One	15.62	10.78	2.51
Orange	14.52	10.51	4.30
Vodafone	13.15	7.33	4.71

<sup>11</sup> “Churn” is an industry term to describe the phenomenon of mobile users moving between mobile networks on account of, for example, network/service dissatisfaction, changes in customer requirements, and/or poor customer management. Churn may be further categorised as prepay churn, post-paid churn, and digital churn.

<sup>12</sup> Regulatory initiatives may assist in this regard as, for example, the Belgian NRA, the IBPT, recently recommended that Belgian fixed operators should reflect the reductions in mobile termination rates in their own retail charges. *See, Avis de l’IBPT concernant l’adaptations des tarifs d’interconnexion de la S.A. Belgacom Mobile suite a sa designation en tant qu’opérateur puissant sur le marché de l’interconnexion, IBPT, 25 July 2001.* In addition, certain fixed SMP operators may have regulatory obligations in respect of their retail tariffs under the *ONP Voice Telephony Directive*.

### Table VI.7: Mobile operators' wholesale fixed to mobile termination rates in the United Kingdom<sup>13</sup>

(Source: OfTel 2001 Statement on Calls to Mobiles (prices in pence per minute as at 1 September 2001)).

\* BT Cellnet's evening charge was being reduced to 10.20 with effect from 1 October 2001

The differentiation between the termination charges of the various mobile operators in the United Kingdom is reflected in BT's retail tariffs for calls to mobiles, as listed in Table VI.8 below:

Calls from fixed BT Lines to	Price (Pence per minute including VAT, rounded to two decimal places)		
	Daytime (Mon-Fri, 8h00-18h00)	Evening (Mon-Fri) 18h00 – 8h00)	Weekend (Sat and Sun)
BT Cellnet	19.02	18.44	2.29
One 2 One	23.14	16.52	4.40
Orange	21.67	16.18	6.98
Vodafone	19.97	15.59	7.41

### Table VI.8: BT's retail prices for fixed to mobile calls in the United Kingdom

(Source: BT's Pricing Information Service (<http://www.shop-at-home.bt.com/home/pricing/uk-htm>). The site was last updated on 18 April 2001 but is sufficient for illustrative purposes. OfTel is in the process of examining BT's retention for fixed to mobile calls as part of its wider review of BT's general price controls).

#### Price-sensitivity of mobile users

While there may be evidence that fixed operators differentiate their tariffs for calls from their networks to various mobile networks, it is important that mobile users are aware of these tariff differentiations in order to make informed choices.

The majority of mobile users attribute great importance to being contactable. This is supported by recent NOP research<sup>14</sup> in the United Kingdom, which suggests that the receipt of incoming calls is perceived to be a critical use of a mobile phone. In particular, 51% of mobile users interviewed stated that they use their mobile phone to a significant extent (*i.e.*, "quite a lot" or "very much") to receive incoming calls, whereas 42% stated that they make outgoing calls "quite a lot" or "very much". Mobile operators interviewed by the Study Team contend that high prices for calls to mobiles carry with them the risk of less calls being made to mobiles, which will in turn impact upon the importance users attach to being contactable. This risk in theory raises the possibility of a greater degree of loss of customers, and therefore it

<sup>13</sup> The press has reported that Dolphin Telecom plc and several of its subsidiaries went into voluntary administration at the end of July 2001, but the Study Team understands that Dolphin continues to operate on the marketplace. Nevertheless, it has been omitted from this table. Dolphin operates a TETRA-based radio network in the United Kingdom and elsewhere in Europe.

<sup>14</sup> "UK Research Paper – Cost of Calls to Mobile Research", NOP Research Limited, April 2001, carried out on behalf of an EU mobile operator (referred to herein as the "NOP research").

might constrain high mobile termination charges at the wholesale level. However, this will only be the case where mobile users are shown to be sensitive to the price paid by a calling party for a call to a mobile (either at the time of selecting a network operator or in the period following this selection).

Accordingly, it should be investigated whether new and existing mobile users are price-sensitive to the costs of calling their mobile handsets. It is likely that sensitivity towards the prices of calls to mobiles differs amongst the various categories of mobile users, *e.g.*, high users, medium users, and prepay users. While greater empirical research would need to be carried out on the usage segments of the mobile sector, several observations can be made in this context.

As regards *new* users (*i.e.*, those that are selecting a mobile operator for the first time), it would appear that the competitive constraint effected by new users on wholesale termination charges is limited in highly mobile penetrated countries, particularly as such users represent little revenue potential for mobile operators.<sup>15</sup> While a survey by Oftel in the *United Kingdom* revealed that 13% of “residential” users enquired about the cost of calling a mobile network when purchasing their mobile packages, Oftel concluded that the significance of this figure in terms of generating competitive pressure on call termination was undermined by its relative lack of importance when compared to other factors influencing the choice of network, such as the choice of handset and outbound tariff plans.<sup>16</sup>

The Study Team considers that an examination of the price-sensitivity of *existing* mobile users is more difficult to quantify. As regards the lower-usage market segments, what is certain is that the phenomenal growth of prepay users has introduced many price-sensitive subscribers to mobile services for the first time, although the issue of whether there is a sufficient body of such users to whom can be attributed a greater degree of sensitivity to inbound charges is a matter for further empirical research. In addition, there is some evidence to suggest that the price-sensitivity of mobile users to inbound tariffs has led to the emergence of “mobile communities of interest”, the significance of which is discussed below.

The Study Team has also examined the price-sensitivity of existing users in the high usage segments of the mobile marketplace. Indeed, new and existing small and medium-sized enterprises (SMEs) and multinational corporations may be more price-sensitive about the cost of inbound mobile calls than are mass-market users, or at least post-paid users. The NOP research considers that 40% of businesses in the *United Kingdom* believe that the cost of calls to their mobiles is an important consideration in their choice of operator.<sup>17</sup> Indeed, a significant proportion of such customers appear to be taking steps to minimise this cost for themselves and for their own customers. Research by Oftel revealed that just under 20% of

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<sup>15</sup> This is supported by the fact that many mobile network operators are altering their strategies to focus on customer retention and revenue growth rather than customer growth.

<sup>16</sup> See, Oftel 2001 Statement on Calls to Mobiles.

<sup>17</sup> Oftel concludes, *inter alia*, that SME mobile users constitute a very small proportion of total mobile ownership in the *United Kingdom* and that other factors, such as network coverage and customer service, are of greater importance to these users. With respect, as regards the issue of market definition, the more appropriate question should be whether SMEs represent a sufficiently important marginal customer base and - even more importantly - a significant proportion of total revenues so as to be able to constrain inbound termination charges. As regards network coverage, the geographical coverage of most national operators in the *United Kingdom* has reached virtual parity, although the Study Team acknowledges that it may be users’ perceptions which are important in this regard. In addition, at least on the record, Oftel appears not to have taken into account the effects of “private wire” arrangements associated with larger businesses in its final analysis of relevant product markets.

SME mobile users, for example, had adopted a range of strategies to minimise their costs for internal mobile communications.<sup>18</sup> The NOP market research concluded that 43% of businesses in the *United Kingdom* would consider switching their supplier for a 10% saving in inbound mobile call charges (approximately 50% of businesses in the *United Kingdom* renew their mobile phone contracts every 12 months, or even more frequently). There is little empirical evidence available concerning the particular habits of multinational customers, but it is widely understood that they which are often the most price-sensitive customer group and possess the greatest bargaining power.

Several parties consider that there is currently a lack of tariff transparency for fixed to mobile calls, which makes any tariff comparison by mobile users difficult to conduct in practice.<sup>19</sup> This lack of relative tariff transparency might change over time, however, as mobile operators realise new ways of competing to retain customers. In the *United Kingdom*, for example, Vodafone promotes its lower tariffs compared to Orange for daytime calls for corporate customers and other business users.

#### “Mobile communities of interest”

Price sensitivity among mobile users should in principle come about primarily both from a desire by mobile subscribers to be contacted and as a result of so-called “mobile communities of interest” or “closed user groups” (CUGs).<sup>20</sup> The proliferation of mobile communities of interest has been an important recent demand-side development. The creation of such groups leads to the internalisation of mobile calling charges (*i.e.*, the calling party pays externality), as users become increasingly attracted to the mobile networks of their family, friends and those with whom they share an economic interest. Indeed, mobile users are likely to be attracted to mobile networks on the basis of on-net/off-net mobile price differentials. As regards termination rates, the emergence of mobile communities of interest results in these termination rates being bypassed in favour of cheaper on-net tariffs.

The market research conducted by NOP in the *United Kingdom* points to the existence of mobile communities of interest. In particular, this research notes that:

- 52% of businesses cite the main reason for providing their staff with mobiles is in order for them to be contactable by the business, which means that these businesses pay for both their inbound and outbound calls;
- 50% of residential mobile users receive more than 80% of their calls from immediate friends and family, while 36% receive 100% of their inbound calls from immediate friends and family and only 3% receive no calls from these sources;

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<sup>18</sup> This result conflicts with other consumer research carried out independently on behalf of a mobile operator in the *United Kingdom*, which reveals that 54% of companies surveyed in the *United Kingdom* use “least-cost routing techniques”. In any event, both figures seem to represent a considerable proportion of the overall customer bases of mobile operators.

<sup>19</sup> This relative lack of transparency is exacerbated by the fact that number portability for mobile numbers makes the identity of the underlying mobile network more difficult to determine. (The merits of this argument are discussed further below).

<sup>20</sup> The *United Kingdom* regulator has identified two types of closed economic groups, namely: (i) narrow, where the mobile user pays the fixed bill for inbound calls to his/her mobile and therefore has a direct interest in the cost of being called; and (ii) wide, where groups of friends, family, and other persons have a shared economic interest in reducing inbound call charges to each other.

- more than 50% of fixed to mobile calls are made to just one number (based on research carried out by a fixed operator in the *United Kingdom*); and
- more than 40% of users consider the network of others, such as friends, family or other people they call regularly, in their own decision on the choice of a mobile provider.

Oftel considers that, for several reasons, the effect of CUGs on mobile termination charges in the *United Kingdom* is limited, including: (i) there is little evidence to suggest that mobile users select their networks on the basis of CUGs; (ii) mobile operators have the ability to address CUGs through lower on-net pricing, while increasing termination charges to less price-sensitive users; and (iii) current termination charges remain unaffected by CUGs.<sup>21</sup> A similar view concerning the competitive constraints of mobile communities of interest was echoed by the Australian Competition and Consumer Commission (ACCC) in its final report on GSM termination pricing principles, released in July 2001, where it noted that:

*“[W]hile these [closed-user] groups are able to put pressure on access prices for GSM termination, mobile carriers can effectively segment these particular users by charging lower prices for “on-net” calls ... Prices for other consumers (i.e., those who commonly call “off-net”) would be unaffected if carriers pursued such a strategy.”*<sup>22</sup>

#### Switching costs

Another important consideration is that the costs for mobile users which are associated with switching between networks are relatively low.<sup>23</sup> Switching costs not only take into account the costs incurred with the switching process, *e.g.*, Subscriber Identity Module (SIM) unlocking in the *United Kingdom*,<sup>24</sup> but also relate to the time taken by the switching process. High churn rates in the mobile sector are already indicative of low switching costs.<sup>25</sup> The introduction of full number portability, to the extent that it avoids unreasonable costs, delays

<sup>21</sup> See, Oftel 2001 Statement on Calls to Mobiles.

<sup>22</sup> See, the 2001 ACCC Mobile Termination Report. By way of background, the ACCC considered that the most appropriate pricing methodology for GSM termination prices at the wholesale level is a form of retail price benchmarking. Under this approach, changes in each mobile operator’s access prices will be benchmarked against the retail price movements for the overall mobile package.

<sup>23</sup> In November 2000, the Department of Trade & Industry in the *United Kingdom* published research into consumer attitudes towards switching in various markets, including home and car insurance, energy, mortgages, current accounts, and fixed and mobile telecommunications. In this analysis, the mobile communications sector compared favourably with other sectors examined. See, Consumers’ Attitudes to Changing Suppliers, DTI, November 2000. This research appears to be supported by industry churn rates. Similar data could no doubt become available in other Member States.

<sup>24</sup> Recent research commissioned on behalf of Oftel suggests that the absence of SIM locking in *Italy*, *Finland* and *Portugal* did not seem to result in greater overall switching between networks and packages, as might have been expected. See, Use of multiple SIM cards in mobile phones by consumers in *Italy*, *Finland* and *Portugal* – Summary of Oftel Research, April-May 2001. Despite this research, Oftel concludes in its 2001 Statement on Calls to Mobiles that SIM locked handsets represent a barrier to switching, in particular due to non-cost-orientated fees and a poor level of advice and awareness among mobile users. Of course, it is necessary to weigh the removal of SIM locking with its impact on the uptake of 2G handsets and services and, more importantly, future 2.5G and 3G handsets and services. The subsidisation of handsets, as well as the protection of such subsidies, is likely to play an important role in the successful uptake of the latter types of services.

<sup>25</sup> It must be borne in mind that many mobile users may use several SIMs (*e.g.*, in *Italy*) which, so long as they remain active in any of the services on offer, might not be reflected in churn rates. Accordingly, there is a risk of overlooking the ease with which these customers can switch networks.

and other inconveniences, should also facilitate greater network churn.<sup>26</sup> Long-term contractual arrangements appear to be the greatest - but not an insurmountable - obstacle to churn. The term of post-paid contracts is generally 12 months, with a one-month notice period.<sup>27</sup> In many Member States, users can terminate their contracts within that term insofar as they “buy-out” the remaining term of their contract, the value of which is justified on the basis of the recovery of the handset subsidy.

### Remaining factors

It is necessary to consider whether the degree of price differentiation of calls to mobile calls are differentiated, the sensitivity of mobile users to inbound call charges, and the level of switching costs are sufficient to cause mobile users to select, or churn to, other mobile networks. Such an analysis would require empirical research, which is unavailable to the Study Team; however, one can point to the fact that, while 25% of mobile users in the *United Kingdom* switched mobile network operators in the year 2000, for example, market research conducted by Oftel in March 2000 concluded that inbound mobile call charges were not a cause for churning by a single mobile user questioned by the research team.<sup>28</sup> The question of whether new or churning customers represents a sufficient marginal customer base requires additional empirical research to be undertaken by regulators, as does an examination of the possible responses of mobile operators to this customer base. Examples of such a commercial response might include on-net pricing and/or “private wire” and related arrangements for larger customers.

#### (ii) *Caller Behaviour In The Face Of Substitutable Services*

The calling party pays principle, to the extent that it has an impact on the price-sensitivity of can mobile users, can be seen as hindering the calling party’s ability to restrain mobile termination charges. This effect has been summarised by Oftel as follows:

*“The overall effect of the [calling party pays] principle in the retail market is that, whereas mobile networks have an incentive to keep prices of those services required and paid for by the owner to a level to attract and retain customers, they have less incentive to keep the price of calls to mobiles low. This is because the callers cannot take their business elsewhere if dissatisfied as the caller has to use that network to reach that particular number”.*<sup>29</sup>

### Price-sensitivity of callers

The Study Team examines below whether callers can realistically take their business elsewhere if dissatisfied with fixed to mobile tariffs and, to the extent that this happens, evaluates the impact this behaviour might have on mobile termination charges at the wholesale level. It is first necessary, however, to consider whether callers are aware that they

<sup>26</sup> For example, mobile number portability is expected to be introduced in *France, Germany and Italy* during the year 2002. There is some debate as to whether mobile number portability actually results in greater network churn and whether its significant implementation costs are justified. For example, the Study Team understands that network churn stands at approximately 25% in the *United Kingdom*, while only 1% of mobile users port their numbers.

<sup>27</sup> Indeed, the proposed *Users’ Rights Directive* prescribes that a contract clause of such length be adopted. See, draft Directive of the European Parliament and of the Council on universal service and users’ rights relating to electronic communications networks and services (which is currently the subject of review).

<sup>28</sup> See, Oftel 2001 Statement on Calls to Mobiles.

<sup>29</sup> See, Oftel 2001 Statement on Calls to Mobiles.

are calling a mobile network and whether they are also sufficiently price-sensitive to fixed-to-mobile call charges to consider their bypass options.

In order for callers to be price-sensitive, it must be possible for them to identify the network of the called party via his/her telephone number. While mobile users could familiarise themselves with the access codes of individual mobile networks in the past, the introduction of number portability may have the undesirable side-effect that a telephone number no longer guarantees that a caller is calling a particular user linked to a particular mobile network.

Despite the emergence of mobile number portability, however, there is still evidence that a significant proportion of callers will be aware of the identity of the called mobile network. For example, consumer research by a fixed incumbent in the *United Kingdom* revealed that more than 50% of fixed to mobile calls are made to just one number, while additional research by NOP in the *United Kingdom* suggested that the median residential mobile user receives between 81% to 90% of all calls from his/her immediate circle of friends and family and that 36% receive 100% of their calls from such sources. It is likely in many cases that the caller will be aware of the identity of the underlying mobile network of the called party.

Mobile users may also be aware of the overall costs of calling mobile networks, even if there is little evidence to suggest that callers are aware of the price of calling mobile networks on a call-by-call basis. This view is supported by evidence presented during the 2001 investigation of the charges of calling mobiles in the *United Kingdom*. Regulators have thus far determined that, regardless of this broader awareness of the overall mobile package, the degree of price sensitivity of called parties is insufficient to constrain mobile termination rates. For example, the ACCC in Australia recently concluded that:

*“Consumer ignorance [in Australia] means that the mobile carrier can increase the access price for GSM termination without feeling the full effect of the increase. This is because an end-user calling can do no better than basing his/her calling decision on estimates of the average access price for GSM termination”*.<sup>30</sup>

#### Substitutable services for calls to mobiles

The presence of a price-sensitive marginal caller base is insufficient to act as a competitive constraint on mobile termination rates on its own. For a competitive constraint to exist, it is necessary to demonstrate further that such callers bypass fixed to mobile calls by selecting alternative means of communication. These callers would need to represent a sufficient portion of the market (*i.e.*, in terms of user volumes or revenues) to constrain market behaviour at the wholesale level.

The communications sector has witnessed recently the development and increased popularity of many alternative methods of contacting a mobile. Increasing mobile and Internet penetration rates, as well as the higher quality and almost ubiquitous nature of digital mobile services, have facilitated the greater interaction of fixed and mobile calls. For example, the

<sup>30</sup> The 2001 ACCC Mobile Termination Report. This view is supported by the 1998 MMC Report concerning the charges made by Cellnet and Vodafone for terminating fixed-to-mobile calls, as well as a report by Ovum on the regulation of mobile operators (*See, Regulating Mobile Operators – The Road to Effective Competition*, Ovum, Volume 3: GSM termination rates, 2000). In addition, Oftel in its 2001 Statement on Calls to Mobiles concluded that “[T]here is little evidence to show that consumers are well informed about the price to call any particular [mobile] network” (brackets added). Oftel appears to have focused on residential users only.

majority of mobile users no longer consider call quality to be an impediment to use.<sup>31</sup> Mobile penetration rates, in particular as a result of the introduction of prepay tariff plans, are very high in many EU Member States, where they exceed fixed line penetration rates in several cases. Consequently, the majority of callers have access to a fixed and mobile terminal on each occasion they choose to make a call. Mobile handsets are considered to be a personal accessory and are, in general, rarely separated from their subscriber.

A caller has a choice of several voice call types when wishing to contact an individual:

- a fixed to mobile call;
- a mobile to mobile off-net call;
- a fixed to fixed call;
- a mobile to fixed call; and
- a mobile on-net call.

Additional alternative means of contacting an individual are offered by derivatives of these call types, *e.g.*, call back and private wire services, as well as by text messaging such as Short Messaging Service (SMS) and email services.<sup>32</sup>

A caller's choice of call type is based upon a combination of factors, including convenience, location, time, tariff plans, and the importance and purpose of the communication. For example, the degree of substitutability between fixed and mobile services will vary depending on the nature of the originating network. There will be greater substitutability for a fixed originated call than there will be for a mobile originated call. The availability of fixed substitutes for the latter call is likely to be dictated by the location of the calling party, *e.g.*, a greater number of available substitutes will be available in a home or fixed environment than when a subscriber is on the move.

#### The substitutability of voice services<sup>33</sup>

It is arguable that an NRA as examination of voice termination on mobile networks should assess the substitutability of fixed to mobile calls within the context of a broader communications market.

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<sup>31</sup> See, for example, "Cellular Mobile Pricing Structures and Trends", Working Party on Telecommunications and Information Services Policies, OECD, 19 May 2000. As regards GSM, speech is currently digitised at 13 kbps unlike 64 kbps in the PSTN, which results in a slight reduction in speech quality.

<sup>32</sup> The Study Team acknowledges the existence of alternatives, such as voice over IP, but has limited its analysis to the examination of those services which present a realistic opportunity of constraining mobile voice call termination charges at the wholesale level (*i.e.*, those made in a circuit-switched 2G environment) in the short to medium term, and could represent a marginal customer base/revenue stream.

<sup>33</sup> Without prejudice to an investigation of demand-side characteristics, the Study Team notes at this stage that there is currently little supply substitutability between fixed and mobile services. A fixed operator does not currently have access to spectrum capacity and will require an individual mobile licence. The prohibitive costs of network rollout, the presence of several existing mobile network operators (enjoying an important first mover advantage), the loss-making activities of newer entrants, and the forthcoming entry of new 3G entrants would appear to deter such entry. Nevertheless, technological and regulatory initiatives are emerging which may necessitate a review of these conclusions in the medium-to long term. For example, the proposed new regulatory framework will permit spectrum trading, while services provided on the basis of unlicensed spectrum and low-cost wireless LANs are predicted to grow in popularity. There is also the issue of market entry by full virtual mobile network operators with the ability to determine their own termination rates.

It is currently true that the substitutability between fixed to mobile calls and mobile to mobile off-net calls at the retail level is unlikely to constrain mobile call termination charges at the wholesale level; this is because a terminating mobile operator does not discriminate, for both commercial and regulatory reasons, on the prices charged between fixed and mobile originating operators (*see* discussion in Section III.3.B.a. above). Similar termination charges therefore apply to both operators. In addition, the retail price of a mobile to mobile off-net call is generally higher than a fixed to mobile call. Likewise, the competitive impact of “bundled” free minutes with several mobile subscription packages is likely to have a limited impact.<sup>34</sup>

A fixed to fixed call and a mobile to fixed call, in theory, have the potential to constrain mobile call termination charges, as both call types eliminate the payment of a call termination charge to a mobile operator. Independent market research by NOP suggests that 36% of callers seek an alternative fixed number to avoid calling a mobile number. However, these call types will only be substitutable for a fixed to mobile call where the mobile user has access to a fixed phone, *e.g.*, when at home or at the office. It will generally not be substitutable for a mobile user that is on the move or one that does not readily have access to a fixed terminal.<sup>35</sup> Past behaviour appears to demonstrate, however, that fixed to fixed and/or mobile to fixed calls do not constrain termination charges in practice.

A mobile on-net call may be substitutable for a fixed to mobile call. Mobile on-net calls are generally cheaper than mobile off-net calls, as demonstrated in **Table VI.9** below, and comparable to, if not cheaper than, fixed to mobile retail charges.<sup>36</sup> The subscription package, the time and the day, *e.g.*, weekday or weekend, will influence the call charges in this regard. Thus, a mobile on-net call has the potential, at least in theory, to constrain mobile call termination charges at the wholesale level. This is because the terminating mobile operator receives no explicit termination charge for such a call, which is likely to have been more profitable than an on-net call origination charge.<sup>37</sup> The effect of mobile on-net calls is increased further where mobile communities of interest are involved, not only because of the loss of termination charges but also because members of such communities may be more inclined to switch network operator as a result of termination charges (*see* discussion above).

March 2001	Day		Evening		Weekend	
	On-net	Off-net	On-net	Off-net	On-net	Off-net

<sup>34</sup> In particular, the Study Team considers that users are unlikely to restrict the use of such bundled free minutes for mobile calls that substitute fixed to mobile calls. It is also currently not possible from a technical perspective. However, the Study Team is aware that One2One in the *United Kingdom* has broadened its “Everyone” tariff package to include bundled free minutes for calls to “any network” (*i.e.*, bundled minutes offerings marketed by mobile operators in the *United Kingdom* were previously restricted to on-net mobile calls and/or calls to fixed networks). It is likely that Orange, at least, will follow One2One’s lead, as a result of its “Orange Value Promise”.

<sup>35</sup> There will be occasions where, for example, a voice mail message will be sufficient if the called party is away from his/her fixed phone.

<sup>36</sup> By way of an additional example, a mobile on-net call for D2 in *Germany* is between DM 0,29 to 0,69 at peak times (depending on the tariff plan) and between DM 0,29 and 0,39 at off-peak times, while a call from DTAG to D2 is DM 0,48 at all times.

<sup>37</sup> It must be borne in mind that it is the subject of considerable debate whether the provision of an on-net mobile call involves the provision of two or one legs of interconnection, *i.e.*, concerns an originating and terminating leg. Many fixed operators argue that the price of the overall service should be greater or equal to the sum of both these legs. The IBPT, the Belgian regulator, when asked recently to rule on this issue, took a different view.

BTCellnet	8.2-36	35-50	8.2-10	25-30	8.2-10	25-30
One2One	0-20	20-40	0-10	20	0-10	20
Orange	8-35	30-40	5	12-25	5	12-25
Vodafone	10	35-50	5	25-30	5	25-30

**Table VI.9: On-net and Off-net Price Plans in the United Kingdom**

(Source: *Carphone Warehouse March Buyers' Guide, 2001 (prices in pence per minute)*).

It is therefore necessary to examine whether the emergence of mobile on-net calls and mobile communities of interest will impact on mobile termination rates in practice. It is arguable that the introduction of attractive mobile on-net tariffs, as well as private wire<sup>38</sup> arrangements, enables mobile operators to meet the requirements of price-sensitive users – including those forming mobile communities of interest – *without* affecting existing mobile termination rates.<sup>39</sup> This commercial policy of maintaining existing termination rates is all the more rational where such termination charges subsidise mobile services at the retail level, thereby making them more affordable and attractive to existing and potential subscribers, as well as acting as the commercial driver for 2.5G and 3G networks and innovative services.

Oftel considers that the nature and extent of the substitution of a fixed to mobile call by a mobile on-net call in the *United Kingdom* is not sufficient to constrain mobile termination charges because: (i) the calling and called parties must belong to the same mobile network; (ii) there is no evidence to suggest that mobile termination charges have mirrored the decreasing price movements of mobile on-net calls; and (iii) the substitution of calls by mobile on-net calls could actually increase call termination charges for non price-sensitive users, as mobile operators segment and target the requirements of price-sensitive users.<sup>40</sup>

Several commentators, including some fixed operators, have argued that the availability of on-net mobile calls as a substitute for fixed to mobile calls is limited due to the fact that subscribers are distributed amongst several mobile networks. The overriding principle in this regard should be, however, whether the availability of on-net mobile calls represents a sufficient proportion of subscribers so as to be able to curtail sufficiently mobile termination charges at the wholesale level. It is a sufficiently representative group of marginal subscribers, and not the majority of subscribers, that is of critical importance for the purposes of a market definition exercise. In this regard, it should be taken into consideration that in several Member States, a large proportion of mobile users are associated with only one mobile operator.

The introduction of multi-SIM handsets and/or special batteries/covers (*e.g.*, “dual-SIM” and “tri-SIM” handsets), in conjunction with prepaid cards and the increasing price-sensitivity of mobile users to inbound charges, provides the most realistic possibility of a significant impact being realised on wholesale termination rates at some point in the future. Their introduction will result in mobile users being able: (i) to transform “off-net” outbound relationships into

<sup>38</sup> “Private wire” services describe the arrangements whereby a large mobile user connects directly to a mobile network via dedicated capacity.

<sup>39</sup> In addition, it is arguable that on-net packages increase mobile traffic volumes by shifting calls currently made on fixed networks over to mobile networks (although it is questionable whether on-net traffic growth is translated into actual revenue growth for particular mobile operators).

<sup>40</sup> *See*, Oftel 2001 Statement on Calls to Mobiles. It is difficult to explain how such increases for non-price-sensitive users could be sustained without considerable arbitrage to mobile calls, thereby further reducing the termination revenues of mobile operators. The Study Team also points out that an historical comparison between mobile termination rates and on-net mobile rates might fail to reveal parallel price decreases, as the rise of “mobile communities of interest” is only a recent phenomenon.

“on-net” relationships on a dynamic call-by-call basis (*i.e.*, differentiating between outbound networks); and (ii) to choose between alternative mobile terminating operators.<sup>41</sup> A similar impact is likely to arise from the manual use of multiple SIM cards in mobile phones.<sup>42</sup> Oftel estimates that between two and six million mobile users in the *United Kingdom* would use more than one SIM card in the absence of SIM locking, a figure which the Study Team calculates could represent just under 15% of all mobile users (*i.e.*, *prima facie*, a significant marginal user base).<sup>43</sup> Many mobile operators in other Member States do not SIM-lock their handsets.



Dual SIM battery for Ericsson T 28 (£32.99, inclusive of delivery) (right) and Dual SIM cover for Nokia 3310 (£14.95) (left)<sup>44</sup>

### The substitutability of text messages

It is necessary to examine the substitutability of text messaging for voice calls and, more specifically in this present context, the substitutability of text messaging for a fixed to mobile call. It is arguable that text messaging can act at least as a partial substitute for fixed to mobile calls, particularly for price-sensitive customers. It is also arguable that such messaging might be substitutable for all voice calls. The substitution of an off-net SMS for a fixed to mobile call will result in the mobile terminating operator receiving an SMS termination charge but losing a voice call termination charge, which would have been substantially greater.<sup>45</sup> On-net SMS substitutability will be likely to have a greater competitive impact than off-net SMS, as

<sup>41</sup> The Study Team is aware that multi-SIM handsets have recently been commercially introduced on to the market in *Italy*, where they have proven to be popular. For product information, *see*, for example, <http://www.thesimpleshop.co.uk> or <http://www.rete.co.uk>. The costs associated with upgrading a handset or purchasing a special battery/cover must be weighed against the overall cost savings of using a multi-SIM handset. The Study Team considers the costs of multi-SIM batteries/covers to be low. In addition, these solutions appear to be popular given the fact that many retailers have noted that many models were already sold out. Greater empirical research is required therefore, particularly as regards whether the emergence of these solutions have influenced mobile termination rates.

<sup>42</sup> *See*, for example, “Use of multiple SIM cards in mobile phones by consumers in *Finland, Italy* and *Portugal* – Summary of Oftel Research, April-May 2001”. According to this research, the proportion of mobile users using more than one SIM was 13% in *Italy*, 7% in *Finland* and 4% in *Portugal*. The majority of these users manually changed their SIMs and on average considered the choice of SIM for approximately 50% to 75% of their calls. Those users that choose to operate only one SIM did so on the basis that they were satisfied with their mobile tariffs and their lack of mobile usage did not justify the use of multiple SIMs. It should be interesting to calculate the proportion of a mobile operator’s total revenues represented by such multi-SIM users.

<sup>43</sup> *See*, Oftel 2001 MMR Statement.

<sup>44</sup> These pictures have been somewhat distorted to ease recognition of the SIM card slots.

<sup>45</sup> SMS termination charges in the past have been zero but the emerging commercial practice in the mobile industry is to charge for SMS termination. This is primarily due to the significant increase in inbound SMS traffic and the substantial imbalance between inbound and outbound SMS traffic volumes.

it results in the complete elimination of termination charges, with the mobile operator profiting from an SMS call charge only.<sup>46</sup>

SMS is currently the most popular form of text messaging, with operators witnessing enormous increases in both basic and value-added or premium SMS traffic volumes. An SMS message may be sent to most handsets (with the exception of analogue handsets) from either another mobile handset or a computer. The degree of substitution is driven by such factors as a user's technical acumen and the purpose, priority, price, and timing of the communication. An additional factor is the limitation in the number of characters that can be sent in one message, *i.e.*, a single SMS is currently restricted to 160 alphanumeric characters. Consequently, it is apparent that SMS will not be fully interchangeable for a voice call in all cases, *e.g.*, a lengthy two-way real time conversation. It should be borne in mind that SMS messages are significantly cheaper than fixed voice calls, in particular those to mobile networks.

Oftel has indicated that over 40% of mobile users in the *United Kingdom* use text messaging.<sup>47</sup> This information is supplemented by market research from an EU fixed operator which suggests that 86% of mobile residential users in the *United Kingdom* use SMS as a substitute for voice either "sometimes" or "often". The research adds that some two thirds of residential mobile users regard SMS as a substitute for some, many or nearly all, voice calls. In the business segment, some 50% of businesses use SMS as a substitute for voice and the same proportion consider that SMS provides a good substitute for some, many or all voice calls. From a demand perspective, it should also be borne in mind that SMS is marketed by several mobile operators as an alternative to voice services. For example, one of three headline advertisements of one mobile operator in the *United Kingdom* comments that "[S]ometimes its good to talk, but its often better to text".<sup>48</sup> Demand-side considerations aside, it appears that there exists a degree of supply-side substitutability between SMS and mobile voice services (as discussed in detail in Section III.2.D.(iii) above concerning mobile communications retail cluster markets).

It is questionable whether the proportion of mobile users currently substituting SMS for voice calls to mobiles is sufficient to constrain mobile call termination charges at the wholesale level. There has been little clear evidence of such a constraint thus far.<sup>49</sup> Nevertheless, this requires greater empirical investigation, especially in light of the growing popularity of SMS services and the gradual increase in SMS termination charges. The likely responses of mobile operators to any substitutability would also need to be investigated.<sup>50</sup>

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<sup>46</sup> The Study Team is aware that a single voice call might be replaced by several text messages. However, the frequency of such an occurrence may be limited.

<sup>47</sup> See, Oftel 2001 MMR Statement. Oftel has noted that 59% of this 40% of mobile users send text messages because they are cheaper, while 55% of them do so because they are more convenient than making voice calls.

<sup>48</sup> A review of product marketing in order to compare services is not a novel concept for regulators. For example, DG COMP has used such an examination in its determination of whether voice over IP constituted voice telephony for the purposes of the *Services Directive*. See, Communication from the Commission, Status of voice on the Internet under Community law, and in particular, under Directive 90/388/EEC, O.J. 2000 C 369/3. Similarly, it is used as a reference point for a relevant market analysis under the Form CO used by notifying parties under the *Merger Regulation*.

<sup>49</sup> The bulk of European mobile operators interviewed by the Study Team noted that they consider SMS and voice services to form distinct relevant product markets.

<sup>50</sup> Account must be taken of the fact that mobile operators provide both mobile call and SMS termination.

Several mobile operators consulted by the Study Team emphasised that the competitive effect on wholesale mobile termination charges is likely to increase in the future due to the introduction of such services as email over mobile networks. The Study Team acknowledges that alternative text messaging services are already beginning to emerge, including GPRS-based data services and email. However, their ability to influence voice call termination charges at the wholesale level in the short to medium term appears to be speculative. As regards email, Internet penetration rates are significantly lower than mobile penetration rates in most Member States, while email messages cannot be communicated directly to WAP-enabled mobile handsets, but must be accessed by the called party via his/her Internet portal. The impact of GPRS-based and wCDMA-based services is as yet unclear, while it appears that the availability, and uptake, of, at least, 3G handsets is unlikely to be sufficiently widespread in the foreseeable future in many Member States.

#### The substitutability of call-back and other derivative services

Several mobile operators have highlighted the potential of call-back to constrain mobile termination charges at the wholesale level. Call-back essentially substitutes a mobile to fixed call for a fixed to mobile call. This can be done on a call-by-call basis, whereby the caller requests the called party to call him/her back, or on a longer-term commercial basis, whereby particular call-back calls are automatically established. A mobile operator suffers a loss of call termination charges under this scenario but this is offset, to a lesser extent, by the generation of call origination charges (which appear to be priced very competitively). This loss is greater in relation to longer-term commercial call-back services, as call-back on a call-by-call basis involves some form of a call termination charge. Call-back arrangements can also lead to mobile users becoming increasingly sensitive to fixed to mobile call charges, in particular as a consequence of their own increasing call origination charges.

If the comparable historical situation in the fixed sector is to serve as an example, call-back is a means of constraining termination charges at the wholesale level. However, there has been little evidence thus far of call-back services representing a sufficient constraint on wholesale mobile termination charges. This may have been as a result of, for example, a lack of commercial offerings, an unwillingness of callers to request mobile subscribers to call them back, and high call set-up charges. The emergence of greater numbers of “mobile communities of interest” may increase the significance of call-back arrangements as, for example, where the fixed caller is a business client or a family member (see discussion above). Market research conducted by NOP reveals that 23% of users in the *United Kingdom* calling from a fixed phone to a mobile phone asked the called party to return their call. This compares favourably with the lower percentage figure of 9% identified during the MMC investigation in 1998.<sup>51</sup> Additional empirical research is required to determine the frequency with which such users behave in this manner.

The Study Team is also aware of the growing popularity of virtual private mobile networks (VPMNs) amongst multinational customers and other large business users. Their traffic volumes can justify the use of leased lines interconnecting between their switch and the mobile networks, thereby bypassing higher termination charges. The services offered by mobile operators in this manner can result in significant cost savings when compared to termination via another fixed or mobile operator. For example, Proximus in *Belgium* offers

<sup>51</sup> See the 1998 MMC Report.

“Virtual ProxiNet” and Libertel in *The Netherlands* offers “Libertel Corporate Net” at considerable savings to normal rates, at least beyond the short term.<sup>52</sup>

**b. Wholesale Voice Termination Services: Competing Approaches**

An assessment of whether or not to declare wholesale mobile voice termination services – whatever the parameters of the relevant market identified on the basis of the above analysis – as a Candidate Market for *ex ante* regulatory purposes should be made in the knowledge that the overriding policy obligation on NRAs under the new regulatory framework is to promote an open and competitive market for electronic communications networks, electronic communications services and associated facilities.<sup>53</sup>

One element of that “openness” is the recognition that certain inputs are required by competitors whose bargaining power can be overridden by incumbent operators with few incentives to compete on price for certain types of facilities. Key to this debate, however, is the perspective one has concerning the role of efficiencies, profits, and overall consumer welfare.

*(i) Arguments Favouring An Interventionist Regulatory Approach*

Those advocates in favour of declaring mobile termination to be a Candidate Market point to the existence of the “calling party pays” principle which, when coupled with consumers’ relative ignorance of the price of calls to mobiles, results in a situation where prices can be persistently set at excessively high levels. Several fixed operators, for example, stated that the high level of mobile termination rates is due to the lack of competitive pressure on these rates because of a “calling party pays” environment, thereby affording mobile operators a considerable degree of market power. According to this view, the market power of mobile operators allows them to raise termination rates well above cost, as operators seeking to terminate traffic do not have any choice but to purchase wholesale mobile termination from each mobile operator. As a result of these conditions, fixed operators believe that regulatory intervention in relation to mobile termination rates is warranted.<sup>54</sup> One solution is to intervene in the marketplace to ensure that prices are set at a hypothetical competitive level.<sup>55</sup>

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<sup>52</sup> The IBPT, the Belgian regulator, has concluded that these interconnection rates are non-discriminatory in the circumstances, as the interconnection charges are covered by the costs of the overall service package.

<sup>53</sup> Article 7(2) of the draft Directive of the European Parliament and the Council on a common regulatory framework for electronic communications networks and services.

<sup>54</sup> It is also arguable that mobile operators are in a position to foreclose fixed operators from the provision of voice telephony services through their use of mobile termination rates, by migrating traditional fixed voice users onto mobile networks.

<sup>55</sup> Oftel, for example, obliged Vodafone and BT Cellnet to reduce their average termination charges by 25% to a ceiling of 11.7 pence per minute for 1999/2000 with subsequent reductions of RPI-9% for the years 2000/01 and 2001/02. This followed an investigation by Oftel and a subsequent reference to the MMC. This charge control has just been revisited by Oftel and its findings set out in its 2001 Statement on Calls to Mobiles. Oftel considers that a new charge control of RPI-12% each year for the next four years until March 2006 is appropriate, thereby ensuring that the LRIC cost of terminating call on a mobile network – at approximately 6 pence per minute based on a bottom-up approach, is achieved over a four year period. The approach of the European Commission has thus far been to benchmark mobile termination rates across the common market, while the Australian ACCC has favoured obliging mobile operators to amend their termination charges in line with retail price movements for the overall package of mobile services. The Study Team understands that the Commission is currently reviewing a complaint by WorldCom concerning mobile termination rates in the *Netherlands* and has already

(ii) *Arguments Favouring A Less Interventionist Regulatory Approach*

An alternative approach is prescribed by some economists to the mobile market and other sectors of the communications industry characterised by innovation, economic change and uncertainty, and whose genesis cannot be found in historical monopolies. This approach makes no assumptions that technologies, products, costs, quality, strategic and demands are all “given”, constant and known to all market participants. Similarly, prices are not considered to be in equilibrium, but constantly changing. This model does not take the view that high profits, even when substantial and persistent over time, are themselves evidence of market power and consequently market failure.<sup>56</sup> Indeed, high profits may be considered to have a beneficial effect insofar as they constitute an incentive to innovate, encourage market entry, and to lead to market participants competing on quality, innovation and price. In other words, this approach is focused on the ability of existing or new entrants to *compete away* excessive profits, *i.e.*, the contestability of the market. Where a persistent market failure arises, this approach advocates that the sources which prevent rivals from competing be addressed, rather than focusing on a notional “competitive market price”.

Mobile operators interviewed by the Study Team contend that regulatory intervention is, in any case, not justified because any excess profit on termination is distributed back to the retail customers via the competitive retail market for mobile communications services.<sup>57</sup> Observations derived solely from the wholesale market, therefore, are in their view not determinative of overall competitiveness because they do not factor in the market dynamics which ensure that retail consumers are operating simultaneously in downstream retail markets. Under this view, higher termination charges have typically acted as a counterweight to subsidised handsets or low outbound charges at a point in the development of the mobile market when mobile operators have sought to achieve maximum penetration.<sup>58</sup> Future characteristics of termination charges as the retail level approaches saturation in the EU are difficult to predict, but empirical evidence suggests that the market is still relatively dynamic and unstable.

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adopted a statement of objections against KPN Mobile. However, it is understood that the case does not concern excessive pricing, but allegations of discrimination, unfair pricing practices amounting to a margin squeeze and constructive refusals to deal.

<sup>56</sup> In this regard, note the traditional reluctance of competition rules to equate profitability with market (see discussion in Faull & Nikpay, *EC Competition Law*, 1<sup>st</sup> Edition, 1999; Oxford University Press.

<sup>57</sup> This position is best explained in the words used by the 2001 ACCC Mobile Termination Report, which states that: “*The Commission considers that if it were to determine that GSM termination was a part of a separate market, then the overall market analysis might be distorted. This is because a mobile carrier prices each element of the mobile call taking into consideration the price of other elements. For example, the Commission understands that access prices for GSM termination may include some of the common costs associated with providing mobile origination. To define these elements as separate markets might ignore the fact that the pricing decision of one element affects the pricing decision of other elements*” (page 26).

<sup>58</sup> Accordingly, it is argued that there is a risk of a distorted view of the marketplace where a regulator focuses solely on one side of the call termination issue, thereby ignoring the linkage created by competition in mobile services.