8 Views of third parties

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Introduction

8.1. A wide range of network operators and service providers, telecommunications advisory committees, other representatives of consumer interests, users and various other bodies submitted evidence to the MMC. This evidence related to the three references made by the DGT in respect of BT's retention on fixed-to-mobile calls and to the termination rates levied by Vodafone and Cellnet. As explained in Appendix 1.1, the investigation for all three references was conducted by the same Group of members in parallel, and evidence was not sought separately for each of them, but rather all evidence was considered in relation to each reference where relevant. This chapter reports the views of third parties of direct relevance to the reference relating to BT.

8.2. Oral hearings were held with Cellnet (two), Vodafone (two), Orange (two), One2One (two), AT&T (UK) Ltd (AT&T), Motorola Telco (Telco), Telewest Communications plc (Telewest), the Telecommunications Users' Association (TUA), CWC, WorldCom International Ltd (WorldCom), Energis Communications Limited (Energis), Blah Publishing Ltd (Blah), Consumers' Association (CA), BAA Plc (BAA) and UniqueAir Ltd (UniqueAir). Cellnet, Vodafone, Orange, One2One and representatives of the Telecommunications Advisory Committees also attended a joint hearing involving the DGT and BT. Staff meetings were held with Cellnet, Vodafone, Orange and One2One on various issues.

Mobile network operators

Cellnet

8.3. Cellnet said that the Cellnet network was run by Telecom Securicor Cellular Radio Limited which was originally formed in 1983 as a 50:50 joint venture between BT and Securicor Group PLC. BT was now the majority shareholder with a 60 per cent shareholding which it had held since January 1986. Cellnet held a separate licence from BT with separate obligations, so in this sense was ring-fenced from BT. It operated its business in its own best interest. Cellnet said that it had over 3 million customers and typically handled some 10 million calls a day. It had invested more than £1.5 billion in building its UK network and was continuing to invest at the rate of £1 million every working day.

8.4. Cellnet pointed out that BT operated in a fast-growing competitive market, in which its share of the market for fixed-to-mobile calls was falling quite rapidly. It was significant also that 86 per cent and probably more of all calls-to-mobiles from the BT network came from the unregulated sector of the market, which was deemed to be competitive. This constituted a significant pressure on BT in the setting of its charges.

8.5. Cellnet said that it only had direct interconnection with two FNOs—BT and Mercury. Most cable operators and other service providers found it cheaper to transit their calls through either the BT or Mercury network rather than a direct link due to the cost economics of dedicated private circuits. Retail charges for fixed-to-mobile calls were composed of two elements, the termination charge and the retention made by the originating operator. Cellnet could not discriminate in its termination charges between originating operators, but this did not lead to harmonization of retail charges. Each originating FNO should be able to decide how its retention should be set.

8.6. There was an active market in the UK for origination of calls. Such competition acted both at the level of network infrastructure and service providers using indirect access over BT's network. In Cellnet's view, all these players should be allowed to set their prices as they saw fit. Innovative price packaging would give rise to a range of customer options. Some operators would bundle call charges and subscription charges together, some would average subscription charges across all mobile charges, some would have different time of day splits, and so on.

8.7. In Cellnet's view the enforced harmonization of retail prices would be harmful to the development of competition in the UK and hence not in the interests of customers.

Vodafone

8.8. Vodafone said that it might be considered the market leader on one measure only, namely that it had a 38 per cent share of the customer base. This share was falling as competition intensified and monthly net new connections revealed that market leadership regularly switched between each of the four MNOs. It had invested some £1.5 billion in its UK mobile network since 1983 and had interconnection agreements with BT, CWC and a number of other operators. The history of the development of its interconnection agreements revealed a consistent pattern of reduction in termination charges.

8.9. Vodafone said that retail prices for fixed-to-mobile calls were set by the FNOs or by resellers using indirect access numbers to offer call origination services. There was a certain amount of actual or prospective competition between them in relation to the retail prices charged for fixed-to-mobile calls. Vodafone said that, as with all other fixed network services, the level of competition depended on the sector involved. Each retailer enjoyed the benefit of a non-discriminatory termination charge, whether or not directly interconnected with the MNO. Retail competition occurred in that callers had the choice of using BT's service, or the service of a reseller operating under indirect access to BT's network, or the service of another fixed-line provider, for example a cable company. There was considerable variation in retailers' charges for fixed-to-mobile calls. For example, Telewest charged more than 40 ppm as its standard business retail tariff, while the equivalent charge levied by Energis was less than 30 ppm, and Colt Telecommunications charged only 20 ppm.

8.10. Vodafone emphasized that the levels of customer churn provided crucial evidence that the mobile market was highly competitive. Consumers were acutely aware that the latest deal to be had was better than the last, and that they could easily switch from one handset to another, from one network to another, from one service provider to another, or from one tariff to another—and from all four simultaneously if that seemed advantageous. Vodafone's own figures showed that, of its average customer base in 1997/98 of approximately 3.1 million customers, some 875,000 disconnected in contemplation of some sort of change, including leaving mobile altogether, abandoning Vodafone for another network, or staying with Vodafone but in some way changing their contracts. For each MNO, churn was of fundamental importance: when a customer disconnected, the MNO lost all that customer's traffic, not just the outbound element. It was therefore imperative for each MNO to compete to retain customers, not merely to attract new ones.

8.11. Vodafone considered that the evidence represented by churn was reinforced by the enormous number of customers who 'migrated', ie changed handset, tariff or service provider without disconnecting. It told us that in the 12 months to May 1998, 58 per cent of the average Vodafone network subscriber base—well over 1.5 million customers—migrated. If one added the proportion of customers who churned to those who migrated, no less than 75 per cent of Vodafone's customers—over 2 million—changed some aspect of their mobile telephone service each year.

8.12. Vodafone also told us that it had looked at customer willingness to desert one contract for another as soon as the opportunity arose, by analysing for how long the present customer base had been with Vodafone and for how long customers had been with Vodafone when they disconnected. It believed that, as its figures showed that over half the current Global System for Mobile communications (GSM) subscriber base had been with Vodafone for no more than one year, and almost 40 per cent of all GSM disconnections had taken place within a year, the evidence of churn as indicating consumer willingness to reconsider was hard to deny.

8.13. Vodafone said that the four MNOs had continually introduced and promoted the introduction of more competitive service packages, with competitive awareness evolving progressively over a range of different elements of the service package. Competition in the mobile market had spread out remorselessly from a single feature to multiple features, and always incrementally, in the sense that no one feature had ever ceased to be a factor of competition once it had entered the competitive arena. The first sign of competition began with handset prices. Soon after launching a service, network operators and service providers realized that it would be attractive—indeed imperative—to cover their high fixed costs by attracting more customers to mobile. They recognized the customer deterrent represented by the handset price (which was initially over £1,000) and, over time, took steps to bring

handset prices down by huge amounts. As a factor of competition, the connection fee followed, then the monthly subscription, and then the per-minute (and subsequently per-second) call charge.

8.14. Meanwhile the MNOs continued to fund huge improvements in call coverage and call quality. Further stimulated by the arrival of Orange and One2One, they developed different tariff packages aimed at different user types, distinguishing (for instance) the emergency-only user from the more intensive small and medium-sized business user. As Vodafone had demonstrated, most customers were actively investigating these different packages and switching between them. Without such acute customer awareness it would have been inconceivable that the number of tariff packages would have grown so markedly: the number of basic outbound retail tariffs (ie single tariff designations without their variant options, for example local call saver) had doubled between 1993 and 1996 and subsequently almost doubled again. While some objected to all this on grounds of customer confusion, Vodafone believed that such concerns were overdone, and that consumers were skilled at picking out the packages which best suited their requirements. In Vodafone's view, what could not possibly be disputed was that the market as a whole was competitive.

8.15. As to outbound call prices, Vodafone took the view that connection fees and monthly subscriptions were not properly to be included as part of what customers paid for making outbound calls because it did not accept that customers paid these other charges solely to make outbound calls. A better way of calculating the average per-minute charge, in Vodafone's view, was to divide total outbound call minutes into total outbound call revenues. Calculated in this way, Vodafone said that the average calling cost (in ppm) on the Vodafone network fell by 54 per cent between April 1994 and April 1998.

8.16. Vodafone also pointed out that its margins had shown a declining trend—which it attributed to intensifying price competition—particularly after the market entry of Orange and One2One. Its operating margin of 42.2 per cent in 1996/97 compared with 48.2 per cent achieved in 1993/94.

8.17. Vodafone submitted that if a market was uncompetitive, and suppliers were making super-normal profits, one would expect to see market entry. It pointed out that the fact that there were no more than four MNOs was not merely the result of government licensing policy; when two licensed MNOs merged to form One2One, no new entrant came forward to take up the returned licence and the additional spectrum was awarded among the four incumbents. This suggested that, at best, no new entrant saw any prospect of making anything other than normal profits—that is, the market was believed to be effectively competitive. Current profitability in no way indicated that excess profits were being earned.

8.18. Downstream barriers to entry were very low, with new retailers and service providers emerging on a regular basis. There were currently some 35 service providers and an estimated 4,000 specialist retailers in the UK, ranging from national chains such as Dixons and The Carphone Warehouse to small-scale, single-outlet operations. The sale or resale of airtime on mobile networks was highly competitive, with many different and innovative pricing structures; the retail sector was unregulated and also highly competitive. In addition, customers had a choice of handsets from such suppliers as Motorola, Ericsson and Nokia, with handsets, in broad principle, working on any network using the same type of technology. Customers ranged from corporate users, with several thousand handsets distributed to employees, to single individuals with mobile phones for emergency use only. Any MNO could compete for any segment of the market, and all four did so.

8.19. Vodafone argued that competition in mobile telephony was vigorous and pervasive and had worked to the overwhelming benefit of consumers, particularly over the last two to three years. In this relatively new and dynamic environment it was not surprising that product package components which displayed comparatively low price elasticities, such as calls-to-mobiles, had been the latest to respond to competitive pressures. The core of Vodafone's contention was that competitive pressure on those aspects of the service package which consumers saw very clearly—handset prices, monthly subscriptions and outbound call charges—had begun to exert pressure on less visible aspects including the cost of calls-to-mobiles.

8.20. Calls to and from mobiles were inextricably linked. It was self-evident that one operator's outbound call was another's inbound call. If charges for the two were to become seriously unbalanced, a distortion between inbound and outbound usage would arise, through excessive use of 'call-back'

which both the DGT and operators were anxious to avoid. There was an observable volume correlation between outbound and inbound calling which had historically been remarkably stable in the UK. Since the loss of traffic in one direction was likely to result in the loss of traffic in the other, MNOs had no incentive to price inbound, or outbound, calls at excessive levels. Network competition ensured that MNOs would not want to lose either. The two could not therefore sensibly be considered in isolation from each other, whether in terms of competitive pressure or of cost.

8.21. In Vodafone's submission, the DGT's reasoning that call completion was a 'bottleneck' service that was inherently not susceptible to competition was fundamentally flawed. MNOs did not, other than in a trivial and transient sense, enjoy a monopoly over the completion of calls to their customers' mobile phones, since customers could, and readily did, switch between MNOs when it was advantageous to do so. Because the entire capacity of a mobile network was installed for use in carrying any outbound and inbound traffic to any customer without distinction, termination rates were set such that they reflected the role of call completion as part of a composite service (all the elements of which were open to competition), and in a manner which reflected the network capacity which call completion consumed. MNOs competed with each other by offering a packaged product including both call origination and call completion.

8.22. Vodafone told us that it competed both to win and retain customers. To compete successfully it had to offer a competitive package in respect of all elements of the quality and price of its service, including incoming call charges. While it was generally true that it was not the mobile customer, but the caller, who paid for calls-to-mobiles, there was one group of consumers—the closed user group—which exerted direct competitive pressure specifically on inbound call charges, to the benefit of all users.

8.23. Vodafone explained that this direct pressure was established when calls-to-mobiles were paid for by a fixed-line customer who was also a mobile customer. One example was the family group where the head of household paying for a fixed line also paid for one or more mobile phones for members of the family—and hence for calls-to-mobiles within the family group. On a larger scale, corporate customers paid for fixed-to-mobile calls from their offices to employees' mobiles. For closed user groups such as these, the cost of fixed-to-mobile calls was an important element in choosing which mobile phone package to buy.

8.24. In Vodafone's view it was the mobile subscriber, in exercising this choice, rather than the price sensitivity of the fixed-line customer in respect of fixed-to-mobile calls, which imposed a major competitive constraint on inbound call charges. Vodafone did not consider alternatives available to fixed-line customers, such as pagers, fax or e-mail, as, for the most part, a close substitute for calling mobile subscribers on their mobile phone. (However, it viewed such alternatives as providing a benchmark against which callers might judge the reasonableness of charges for fixed-to-mobile calls and noted that fixed-to-mobile call volumes increased with retail price reductions.) What was important was whether a mobile subscriber would regard, say, a Cellnet package (including termination rates) as a good substitute for a Vodafone package. Since closed user groups cared about inbound call charges, it followed that the four MNOs had to compete on these charges in order to win and retain their custom. In Vodafone's view the value of traffic attributable to closed user groups was sufficiently substantial that Vodafone could not afford to ignore the sensitivity of these customers. Further, by virtue of their non-discrimination obligation both Vodafone and Cellnet had to offer non-discriminatory prices to all interconnected operators (and indirectly to all callers).

8.25. Vodafone drew our attention to the findings of four surveys, two each of residential mobile users and small and medium-sized business users, which it had carried out during the course of our inquiry. In summary, both surveys indicated, in Vodafone's view, that users were generally alive to the diversity of the market and took steps to explore it before buying. This was particularly true of users who were entering into a second or subsequent contract. In particular, awareness of, and sensitivity to, incoming call costs was characteristic of a substantial minority both of residential users and of business users. While outbound calling costs were undoubtedly of greater significance in the purchase decision, the cost of inbound calling was already important and becoming more so—implying that as soon as two or more MNOs had met all of a given customer's higher-priority requirements, then the incoming call charge would be decisive. Vodafone drew particular attention to what it saw as the substantial support, both from its own surveys and from the MMC's, for the widespread existence and importance of closed user groups as a direct competitive constraint on termination charges.

8.26. Vodafone continued that further direct competitive pressures arose from the quest by many genuinely knowledgeable users for special bargains to cut the price of calls-to-mobiles based on the standard termination charge. For example:

(a) large-volume corporate customers often paid for a private wire connecting their PBX directly to a mobile network, thereby avoiding the standard charge altogether;

(b) a significant volume of calls-to-mobiles was 'tromboned' via an international switch, allowing customers to benefit from the anomalously low interconnection charge for an incoming international call to a mobile phone; and

(c) equipment was also available to customers which effectively turned a fixed-to-mobile call into a mobile-to-mobile call, thus benefiting from the competition between MNOs on mobile-to-mobile prices.

8.27. Vodafone said that, in addition, there was evidence that customers in some market segments (not limited to mobiles) had an interest in eliminating or reducing the cost of telephoning them by offering either an 0800 freephone number or an 0345 local-rate number or its equivalent. Indeed One2One already offered a freephone 0800 number connecting directly to subscribers' mobiles. Furthermore, the fact that traders opting to offer 0800 numbers paid the full interconnection charge increased their incentive to demand a bargain (assuming they were not bypassing the standard rate altogether). Vodafone submitted that developments such as these were now gaining prominence in the mobile market, with customers becoming increasingly aware of incoming call charges as a factor of competition and suppliers using these charges as a differentiating factor in their offerings. These competitive pressures were gradually extending to benefit all users.

8.28. Vodafone also pointed out that competition operated at the retail end of the fixed-to-mobile calls market, over the total price set by the fixed-line operator, be it BT, a cable company or a reseller. Thus, overall, the caller was safeguarded in relation to the call completion element of the call price by the mobile subscriber's interest in purchasing the most competitive mobile phone package, and in relation to the remainder of the call price by the competition between retailers to offer the best deal to callers.

8.29. Vodafone therefore submitted that competition in the setting of interconnection charges and in the retail market for calls-to-mobiles was sufficiently effective to protect consumers as to the prices charged for interconnection and for calls-to-mobiles.

8.30. Vodafone said that, although the market continued to be dominated by BT, any FNO in fixing its retail mark-up could effectively mask the underlying competitiveness of the MNOs' termination charges. The MNO offering interconnection had no leverage to constrain the FNO's setting of its retail mark-up. On the other hand, Vodafone noted that, of the calls from the BT network terminating on mobile networks, 86 per cent came from the unregulated sector of the market, which was regarded as competitive. It would be a retrograde step to reintroduce price regulation into the retail market for just one particular type of call. It was better to rely on the benefits of competition. If, however, BT's prices for fixed-to-mobile calls were to be regulated this would probably be best done as part of the RPI–X price control placed upon BT. However, OFTEL had already rejected this approach by refusing to include fixed-to-mobile calls within the basket of BT's prices regulated under the RPI–X price control. Other retailers should be free to set their own prices in competition with BT.

8.31. Vodafone contended that the market for the provision of mobile network services was now sufficiently competitive to ensure that interconnection rates were set at a reasonable level and to obviate the need for the MMC to recommend any form of systematic regulation of calls-to-mobiles charges. Such an outcome would be wholly consistent with the regulatory framework of EC and UK law which favoured competition as the foremost means of promoting the public interest and envisaged systematic price controls only as a last resort. The market was in a state of rapid evolution, in which competition would intensify further. There was a serious risk that regulation of interconnection charges would significantly restrict competition in respect of other network services, including call origination, and would stifle investment and innovation at a time when major investment and technological change were set to continue. Regulated prices for fixed-to-mobile calls would pre-

emptively determine the nature of market outcomes and destroy the potential for the development of further competition.

8.32. Vodafone stressed its view that imposition of a price control should be seen as a last resort. It suggested that the MMC's approach was perhaps unduly influenced by the fact that the present investigation was initiated as a licence modification reference under the 1984 Act. It pointed out that it was only because Vodafone's activity happened to entail the running of a telecommunications system that it fell to be regulated under the 1984 Act at all, and, in other circumstances, if these questions had arisen, they would have been referred to the MMC under the monopoly provisions of the Fair Trading Act 1973.

8.33. Indeed, the way in which the inquiry had developed (with the emphasis—quite correctly in Vodafone's view—on the competitiveness of the market) demonstrated that, if it raised issues at all, it raised monopoly-type issues. In such a case, Vodafone observed that the MMC would generally think first, in terms of remedies, of measures directed at making the market more competitive; only if these could not be made to work would the MMC consider price controls. Vodafone contended that this should also be the MMC's approach in the present case: it was neither right in principle, nor an appropriate use of the DGT's regulatory powers, for the MMC to propose price controls to regulate Vodafone's interconnection charges unless that was the only means of protecting the public interest and the proposed price controls did not inhibit the development of competition in the setting of interconnection charges. In other words, the price controls should leave open the possibility of their removal once they were no longer necessary.

8.34. Vodafone stated that in commenting on the MMC's hypothetical licence modifications it would concentrate on whether those remedies would be successful in remedying the relevant adverse effects; whether they would go beyond what was necessary or appropriate for that purpose; and whether they would produce undesirable effects such that, on balance, it would not serve the public interest to adopt them. Reflecting the objections it had raised to any form of price control, it would comment first on the single hypothetical licence modification which might stimulate competition in the setting of termination charges.

8.35. Vodafone considered it unlikely that any single step which the MMC might recommend would be sufficient on its own quickly to stimulate more intense competition in respect of call termination charges. However, it said that it could envisage a package of measures which, taken together, it would expect to be sufficient to stimulate fully effective competition. For example, a combination might be considered of:

(a) an obligation on MNOs to publicize the prices of fixed-to-mobile calls. If MNOs were to be subject to such an obligation, they could quote the BT retail price, or a range of retail prices offered by different retailers of fixed-to-mobile calls. A general obligation to present the information fairly could be included to prevent an MNO from presenting, say, details of an unusually low retail rate offered by only one retailer which did not serve the entire market. In any event, in a market where there was no artificial incentive to harmonize rates, MNOs would voluntarily choose to publicize this kind of information as competition developed, in order to differentiate their own package from competing packages;

(b) an obligation on BT (and other FNOs/retailers) to publicize more effectively their prices for fixed-to-mobile calls. Alternatively, OFTEL could publicize such prices for the benefit of all users;

(c) a postponement of the introduction of MNP until it could be introduced on terms which did not necessitate the charging of uniform call termination charges by all MNOs. For example, MNP could be deferred until a technical solution was developed which would allow for a caller to a mobile phone which had ported to hear a message announcing that the mobile phone being called was now connected to a particular network. This would tell the caller everything that could presently be learned from the mobile number prefix. The MMC might consider recommending the establishment of an industry working group to devise an appropriate technical solution. The imminent requirement for uniform call termination charges as a means of introducing MNP was already acting as a brake on the development of competition in the setting of call termination charges and would continue to frustrate the development of such

competition. As an alternative to postponement, MNP could be introduced as planned on 1 January 1999 with harmonized interconnection rates, but on the basis that the industry would, as soon as practicable, adopt a better solution, to allow renewed competition in respect of interconnection charges;

(d) regulation, if necessary, of retail margins for fixed-to-mobile calls: for competition among MNOs to be effective, that competition had to have an impact on end-users—in other words, end-users had to be able to see, in the retail price, a difference which reflected the underlying difference in termination charges. If there was inadequate competition at the retail level, then a dominant FNO operator might set a uniform retail price for calls to all mobiles, and simply benefit from higher margins on calls terminating on a mobile network with a lower interconnection charge. Vodafone believed that retail competition was developing successfully and it would therefore expect the benefit of competition in the setting of interconnection charges to feed through to retail charges. However, if the MMC concluded that competition in the setting of interconnection charges needed some regulatory stimulus, there would be a relatively stronger case for subjecting the retail market to a similar stimulus;

(e) an obligation on MNOs (and indirectly on service providers) to allow consumers to terminate their contracts after a specified term (being shorter than the 12-month term presently required under the Unfair Terms in Consumer Contracts Regulations 1995), should the MMC not accept that churn among mobile customers showed that the contracts used in the market were not inhibiting competition;

(f) measures to encourage packages which required the mobile user to pay all or some of the mobile interconnection charge for incoming calls, should the MMC reject Vodafone's view that a significant proportion of mobile customers already cared about incoming call charges (and conclude therefore that interconnection charges were not a factor of competition because the mobile customer did not pay for the incoming call at all). For example, the MMC could recommend a licence modification designed to encourage or require MNOs to offer 'price redistribution products' such as Orange's 0171 service, or the One2One freephone service, or personal numbering services. As yet, these products were relatively new. However, if they were to become more widespread, then they would incentivize buyers to look at incoming call prices as a factor of competition, and the benefit of such buyers' sensitivity would (through the non-discrimination obligation) accrue to the benefit of all buyers; and

(g) as a more radical step to encourage mobile customers to internalize the externality, an obligation on each MNO to recover, say, 85 per cent of the interconnection charge for each incoming call from the originating operator and 15 per cent of the charge from the called party (ie the mobile customer). This would mean that (other things being equal) the presently agreed interconnection charges to OLOs would need to be reduced by 15 per cent and the extra 15 per cent recovered from the called party. This would be a way of causing the mobile customer to take more account of incoming call charges in choosing a mobile package, but it would not have all the usual disadvantages cited against a full 'called-party-pays' system—for example, mobile customers would not end up paying the whole interconnection charge for calls which they did not want to receive at all and the efficiency benefits of having incoming callers paying some of the costs would be retained. However, such a system would be difficult and costly to adopt and there would inevitably be a delay before the technical aspects could be put in place. For this reason Vodafone regarded it as a last resort.

In summary, Vodafone considered that a combination of some of the above measures would be sufficient to stimulate effective competition.

8.36. Vodafone prefaced its detailed comments on individual price control remedies by reiterating that in its view there was no real prospect that the MMC (or the DGT) would be able successfully to devise a cost-reflective initial price, for inclusion in a price control, which would be calculated to serve the public interest better than present prices. It believed there was no evidence to suggest that Vodafone's prices were presently set at inefficient levels and that none of the three FAC models put to it was suitable to determine whether they were. The worst possible outcome would be for the MMC to recommend a supposedly cost-reflective price, based on an unrepresentative model. If there was to be a price control, the MMC should therefore be looking to set the initial price by reference to a bench-

mark—ie a price charged for a similar or equivalent service in a market where prices were competitively determined. The best benchmark would be based on Vodafone's present private wire charge, or its call origination charge.

8.37. Turning first to the hypothetical remedies designed to control the level of its termination charges, Vodafone said that it saw real difficulties in principle in subjecting call termination either to a simple time-of-day/day-of-week price control or to a maximum weighted average termination charge. There was no uniform call termination service for the MMC to price: call termination was capable of being a differentiated product and of being offered on contract terms which caused the service offered to different interconnected operators to be different in value and quality. Any 'simple' price control failed to take account of the fact that call termination was a differentiated product, and that different products within the range should be capable of being priced differently.

8.38. Without knowing the levels at which the maximum allowable charges would be set, Vodafone said that it could not comment comprehensively on the likely effects of these remedies. However, it offered the following comments:

(a) it would be important that remedies intended to prevent exploitative or abusive pricing pending the development of full competition should not frustrate, or impede, the development of such competition;

(b) the price control should therefore act as a back-stop whilst allowing companies to compete by setting prices below the price cap if they could afford (and chose) to do so;

(c) if all four MNOs were subjected to the same price control, and it was set at too low a level (for example, the estimated costs of the lowest-cost operator), then they would, in practice, be obliged to set their termination prices at the maximum permitted level and would not be able to afford to compete below the cap;

(d) in contrast, if separate price caps were set for each MNO, with each being capped at its own estimated costs, then the price control would, in practice, weigh more heavily on the MNO subjected to the lowest price cap, as it would not be allowed the pricing flexibility which the other MNOs enjoyed to set their termination charges below the price cap level and that would give those MNOs a competitive advantage; and

(e) over time, each MNO would be incentivized to model its network on the notional network by reference to which its price control was set (for example, as to capacity, traffic pattern etc). This meant that regulation of termination charges would 'infect' competition in outbound charges and would frustrate the policy of network competition which was intended to enable qualitatively different networks to offer differentiated services.

8.39. In addition, the time-of-day/day-of-week price control remedy (but not the capped weighted average termination charge) could produce further effects, which Vodafone considered would operate against the public interest. In particular:

(a) If the price control set separate price caps for specified different periods of the day/times of the week, then it would constrain the way in which any MNO could manage its traffic load. This might lead to a misallocation of resources (ever more traffic at peak times necessitating installation of extra capacity), and might expose the MNO to the risk that its peak would shift, with the MNO unable to reflect that in a newly balanced pricing package.

(b) If all four MNOs were required to set their prices based on the same division of the day/week into different pricing bands, then the price control would have the effect of eliminating one element of flexibility in meeting different consumer demands: different MNOs would not be able to offer differently specified packages of peak and off-peak pricing.

(c) Moreover, it would be difficult to know whose diurnal traffic pattern to use to identify the peak and off-peak periods to be embodied in such a price control. If Vodafone's diurnal traffic pattern were to be used, then the price control would not be, in any real sense, cost reflective

as regards the other MNOs' costs. If a weighted average derived from all four MNOs' diurnal traffic patterns were to be used, then the result would not be cost reflective of any MNO's costs.

(d) Finally, if all four MNOs were subjected to a single price control, based on a single diurnal traffic pattern, that would, over time, be likely to cause all four networks to converge on the notional model, thereby diminishing network differentiation and choice (not only in respect of interconnection, but also in respect of outgoing call products).

8.40. Moving on to the proposal for a capped weighted average termination charge adjusted annually according to the indexed trend of average charges for outgoing calls, Vodafone said that it envisaged two basic ways of setting the initial price. First, the MMC could seek to calculate, on a theoretical basis, the 'right' price for call termination, based on the OFTEL model, its own model, Vodafone's model or some totally different model. For reasons already explained, however, Vodafone considered that it was not practicable for the MMC (or the DGT) to identify with any precision the price at which Vodafone's interconnection charges should be set so as best to serve the public interest, and there was an unacceptable risk that the MMC (or the DGT) would settle on a figure which was not well suited to achieve that. Alternatively, the MMC could seek to identify a service which was equivalent or similar to the Vodafone interconnection service, being a service whose price was competitively determined at present. The MMC could then set the initial price at a level equal or corresponding to the competitively-determined price of that service, and then apply either a 'linkage factor' with outgoing call prices or a simple RPI–X factor for future years. Vodafone believed that the best potential benchmarks would be:

(a) Vodafone's implied interconnection charge to private wire customers, equating to a weighted average of between 16 and 17 ppm; or

(b) Vodafone's present charge for call origination (calculated—in broad terms—by summing the estimated marginal price of a non-bundled minute with an allocated amount of subscription revenue reflecting the value of bundled minutes). This worked out at a very similar level of charge, about 17.5 ppm.

8.41. For the reasons it had already given, Vodafone said that it would expect an efficient interconnection price to be higher than the corresponding outgoing call price.

8.42. As regards annual adjustments after year one, Vodafone considered that, unless more than one or two years were envisaged, it would be preferable to apply a simple RPI–X adjustment: this would be more straightforward than a continuing linkage with outbound call prices, and would avoid the risk that the linkage could be distorted where MNOs offered discounts on a total price package without overtly reducing outbound prices. In deciding on an appropriate X factor, the MMC should look at trends in total costs, not merely costs attributed to incoming calls.

8.43. Vodafone expressed the view that, if each MNO could set excessive interconnection charges because it was not constrained by competition, the regulation of BT's retention would not by itself provide an adequate remedy to deal with the excessive interconnection charges. On the other hand, it was difficult to imagine a situation where it could be necessary to regulate interconnection charges, but unnecessary to regulate retail charges, since, in Vodafone's view, the development of competition in the interconnection market was more advanced than competition in the retail market. Since the MMC's hypothetical remedies were apparently predicated on the conclusion that there was insufficient competition in the setting of interconnection charges, it must follow that, on that assumption, the MMC would also conclude that it would be necessary to regulate retail prices/margins. Vodafone said that it would therefore expect any control of interconnection charges to be accompanied by a control on retail prices/margins. In this connection Vodafone also noted that the EC had concluded provisionally that BT's retention was too high, and might therefore need to be regulated. Vodafone submitted that, under the Interconnection Directive, there was no objection to the regulation of BT's retail margins.

8.44. Vodafone emphasized that, in line with general regulatory policy in the telecommunications sector, the MMC should be looking to the DGT to regulate the mobile interconnection market only for a limited period, and to withdraw from regulation when competition was sufficiently effective to protect the public interest. Consequently Vodafone favoured either a package of pro-competitive

measures such as those described in paragraph 8.35 or, failing that, a price control which would be imposed for a specified period, after which the relevant licence condition would automatically lapse. If competition was effective, there would be no need for further regulatory intervention. However, if the DGT considered that some form of regulation would continue to be required after the scheduled expiry date, he could seek to agree the continuation (possibly with some relaxation) of the relevant regulatory controls or, failing that, could refer the matter to the MMC for re-examination in the context of the then-prevailing market conditions.

8.45. In contrast, Vodafone would not favour a regulatory remedy which, in effect, was to be adopted indefinitely, at the DGT's discretion, since this would provide Vodafone with little (if any) effective means of ensuring that the need for the continuance of the remedy was genuinely reviewed after an appropriate period. Vodafone believed that the MMC should be vigilant in framing their conclusions, any findings of adverse effect and recommendations with precision, so as not to confer on the DGT a wider discretion than was appropriate. A halfway solution would be a licence modification of indefinite duration but with provision for Vodafone to give notice of disapplication after a specified period. If the parties could not then reach agreement on the continuance of the licence condition, the DGT would need to refer the matter for re-examination by the MMC in order to prevent disapplication.

8.46. Vodafone said that at first sight it might be tempting to suggest that Vodafone and Cellnet should each be subjected to a cost-reflective price control, based on a bottom-up calculation of its own costs, by reference to the actual state of its network (taking account of differences in technologies, system architecture etc). However, on further consideration various weighty factors pointed against that approach. Differences might reflect different levels of efficiency. In a competitive market where the most efficient firm could not meet total demand, such differences would lead to the setting of prices at a level which reflected the costs of the marginal operator, based on its technology, system architecture etc. If the object of a price control was to mimic the outcome in a competitive market, that alternative approach should be adopted here. However, it was immediately apparent that it would be extremely difficult to identify, or specify the network characteristics of, a marginal MNO, and this prompted Vodafone to conclude that it would be wrong for the MMC to seek to specify a price control predicated on a single notional or actual network. This suggested that there were real difficulties in either of these approaches.

8.47. Furthermore, in a competitive market, differences in network technology, network architecture, etc could be reflected in different prices if those underlying differences resulted in differentiated outputs. Customers would not be willing to pay more for one mobile service than another merely because it used comparatively more expensive technology but they might expect to pay more if, because of that technology, they obtained a superior service (for example, superior sound quality, better functionality or a less congested network). As Vodafone had already explained, mobile telephony was not a utility service for which there was a single right price. Different interconnection products could legitimately carry different prices. Alternatively, MNOs could choose to offer superior quality at the same price.

8.48. Vodafone also said that it could see no reason *per se* why Cellnet and Vodafone should be subject to one interconnection charge, and Orange and One2One to another. Moreover, it believed that if, ultimately, two such sets of regulated prices were to be imposed, this could have damaging consequences for competition. If the price cap for Vodafone and Cellnet were set at so low a level as to make it impossible for Orange and One2One to justify setting their charges as high as they would wish (because the differentiation of their product was not so great as to sustain so much higher a price), then such a cap could effectively constrain Orange and One2One as well, to their potentially severe financial detriment. Either or both of them might be required to exit the market. Alternatively, if they could realistically do so in the face of competition from Vodafone and Cellnet, Orange and One2One could choose whether to compete by pricing below their own cap, but Cellnet and Vodafone would have no choice but to price within their price cap.

8.49. In this context Vodafone reiterated that the imposition of different price caps for different MNOs would fail to mimic the outcome in a competitive market. Four operators offering the same product in a competitive market were constrained to charge a price which reflected the costs of the marginal operator: it was not the case that a more efficient operator charged less. The more efficient

operator might choose to charge less (and thereby to win market share) but it might choose instead to charge the same price as the marginal operator and to make extra profits.

8.50. Vodafone also expressed concern that the adoption of two different price controls, in a manner which disadvantaged some MNOs, would be unfair and incompatible with the non-discrimination provisions of the EC Licensing Directive.

8.51. In Vodafone's view, for so long as different MNOs continued to provide qualitatively different interconnection services (whether generally or to particular customer groups), one would expect to see different interconnection charges. However, competitive forces would mean that there would be a single, competitively-determined, quality-adjusted price. In contrast, the DGT did not appear to recognize the importance of allowing continued differentiation of interconnection charges. Indeed he required harmonized interconnection charges as a means of securing MNP. In contrast, the Australian Communications Authority had decided to defer MNP (albeit for a short period) until a technical solution was available which would allow this to be implemented in a way that preserved MNOs' ability to price their interconnection services at different rates.

8.52. Vodafone believed that if there was to be a price control to protect consumers from excessive pricing, then it need only set a ceiling. There was no need for it to set a floor. A floor price was not an apt remedy to deal with excessive pricing, and might well go beyond what was permissible under the 1984 Act as a response to a finding of excessive pricing. A harmonized price control for all four MNOs would have the effect of setting back indefinitely the prospect of effective competition in the setting of interconnection charges. It would fail to promote the public interest and, indeed, would operate against the public interest by frustrating the development of competition. The MMC and the DGT would be taking on themselves the task of regulating prices for ever.

Orange

8.53. Orange told us that it was licensed in 1991 and launched its service in April 1994. At 31 March 1998 it had some 1.3 million UK customers, equivalent to 15 per cent of the UK total. It had invested £1 billion in its network to date.

8.54. Orange said it recognized that the vast majority of fixed-to-mobile calls from BT's network came from the unregulated sector of the market. Nevertheless, as an MNO, Orange had no control over what BT actually charged its customers for fixed-to-mobile calls, which meant that it was unable to drive the market or compete effectively in this area. Orange considered that the competitive forces to which termination charges for fixed-to-mobile calls were already exposed would intensify if BT's retail margin on such calls were regulated. While there was some degree of competition in the retail charges made for fixed-to-mobile calls, competition in this market was limited by the existence of BT as a dominant, near-monopoly, player with the bulk of all fixed-to-mobile calls originating on the BT network. Competitive forces would intensify over time as mobile customers began to use their mobile phones as their primary or sole point of contact, but until they did so it was important to regulate BT's retail margin on fixed-to-mobile calls to ensure that this margin remained cost reflective. Orange had been requesting OFTEL to take this action since March 1992.

8.55. Orange said that in its negotiations with BT on termination rates BT had sought details of Orange's costs, but was not prepared to provide reciprocal information on how its retention was calculated, which it regarded as very much its own preserve. Orange said that it did not understand the relationship between BT's retention and its own termination charge. Prior to August 1998, there were four termination charges in the market between the MNOs and BT, but only two retail rates, so BT's margin was different for different operators. When Orange increased its termination charge, BT had increased its retention by an even greater extent. The margin that BT made on calls to Orange and One2One was higher than on calls to Vodafone and Cellnet, which meant that it was exploiting the fact that Orange's termination charge was lower than Vodafone's and Cellnet's. Orange concluded that BT's retail margin on fixed-to-mobile calls was excessive, being significantly greater than the retail margin that it retained on calls to fixed-link telephones, even though the operation performed by BT (and therefore the cost) was practically the same for both types of call.

8.56. BT's approach to its retail margin on fixed-to-mobile calls suggested that there was a very low level of customer sensitivity to the price of these calls. The significant increase implemented by BT in February 1997 in the price of calls to Orange and One2One had not resulted in any appreciable change in incoming call volumes even though it had been in excess of the increase in the termination charges implemented by the MNOs concerned.

8.57. At present, with BT making an excessive retail charge for fixed-to-mobile calls and little customer pressure on the price of these calls, it was very difficult for any FNO to justify a policy of significantly undercutting BT's retail prices. Any FNO that did so would effectively be denying itself the excessive profits that could be gained, while its primary competitor, BT, continued to enjoy the benefit of those excessive profits. However, once BT's retail margin was regulated there would be a strong commercial incentive for other FNOs at least to match BT's prices. As an example Orange pointed out that CWC had not offered retail rates that were significantly discounted from the BT rates, despite the high retail margin retained by BT. Notwithstanding the fact that after 1991 CWC had had the benefit of substantially lower termination charges with Cellnet and Vodafone as a result of the OFTEL determination, it had only offered its customers a retail rate which was a mere 1.23 ppm below the BT daytime rate.

8.58. Although on the face of it BT faced competition from a large number of other FNOs which were free to set their own retail prices for fixed-to-mobile calls, in practice BT set the 'guiding' price for fixed-to-mobile calls which was largely followed by the other FNOs. If FNOs varied from BT's prices it was not to any significant extent. Many FNOs did not handle the volume of fixed-to-mobile calls to justify direct interconnection with the MNOs and sent their calls via the BT network.

8.59. Orange said that the harmonization of retail charges by regulatory action would have significant adverse effects on competition to set against any limited benefits of transparency that might result. Harmonization of retail prices without harmonization of termination charges would lead to market distortions. FNOs could be setting very different retail margins on calls to different MNOs with retail prices higher than could be justified simply in order to harmonize retail prices. If the harmonization of MNOs' termination charges was also envisaged, this would adversely affect competition by removing any incentive on MNOs to produce innovative new charging structures or reduce their termination charges.

8.60. Orange said that the lack of customer pressure on the price of fixed-to-mobile calls would, over time, change as customers began to use their mobile phones increasingly as their main point of contact. At present, while fixed-to-mobile calls competed with various other available forms of communication (such as calls to fixed-link telephones, to pagers, faxes and e-mails), fixed-line customers viewed fixed-to-mobile calls as a premium service and were willing to pay a premium price for the utility it offered. When mobiles became more widely used, the service they provided would be viewed less as a premium service and customers would be less willing to pay a premium price. Moreover, fixed-line callers would increasingly find that a larger proportion of their calls and of their call charges were accounted for by fixed-to-mobile calls. These developments would inevitably result in greater pressure being exerted by fixed-link customers on the price of fixed-to-mobile calls.

8.61. As far as OFTEL's proposals were concerned, Orange said that there was a contradiction between allowing cost recovery on the one hand and setting common retail and termination rates on the other. OFTEL apparently saw great value in establishing a common rate for fixed-to-mobile calls. However, it was not always clear whether OFTEL's desire was to see a common retail rate being charged by FNOs for fixed-to-mobile calls or whether it wished to see a common termination rate charged by the four MNOs. OFTEL's purported rationale was to remove possible confusion for customers calling mobile customers. This seemed to suggest that OFTEL was seeking a common retail rate. However, the only action that OFTEL had proposed to date was to regulate the termination rate charged by MNOs which need not have any effect on the retail rate set by BT and the other FNOs which had absolute freedom in setting their retail rates for fixed-to-mobile calls. OFTEL had consistently refused to accede to demands that the retail price of fixed-to-mobile calls should be included within the basket of services covered by BT's price cap.

8.62. Orange said that it would be appropriate to regulate BT's retail retention because of BT's overwhelming dominance of the fixed network market. Regulation of the retail rates of other FNOs

without such a dominant market position would not be appropriate. It was important that any such regulation took due account of and sought to encourage the increasing level of competition in fixed-to-mobile calls. With this in mind, Orange suggested that the appropriate form of regulation was to ensure that there was a transparent and non-discriminatory relationship between the retail price charged by BT for fixed-to-mobile calls and the termination charge made by the individual MNOs. Orange proposed that BT should be required to set its retail retention on all calls-to-mobiles at no higher than a prescribed ppm figure. BT should also be obliged to set the same retail retention on calls to each MNO. It would not be appropriate to control the absolute level of BT's prices. With such regulation BT would be able to generate reasonable returns but would no longer be able, as it did at present, to manipulate and distort the market by setting the same retail rate for calls to MNOs which had different termination rates. This form of regulation would also ensure that changes in MNOs' termination rates would be passed through to the customer. This would in turn encourage greater competition and give the MNOs an incentive to reduce termination charges in order to attract greater volumes of incoming traffic.

8.63. Orange also said it was important that fixed line customers should have the appropriate level of pricing information available to them since this would heighten customer awareness and increase price sensitivity. Although BT was already obliged to provide such pricing information to its customers, it had in the past been somewhat disingenuous in the way it had drawn attention to price changes for fixed-to-mobile calls. In particular, BT had highlighted price reductions for calls to Vodafone and Cellnet (which was 60 per cent owned by BT) without pointing out that calls to Orange and One2One were charged at even lower rates. Such skewed promotional activity by BT should be subject to regulatory control because of BT's overwhelmingly dominant position in the fixed wire market.

8.64. Orange recognized that with MNP, BT's obligation to publish detailed retail price data could potentially be very burdensome. It therefore proposed that BT's obligation in this situation should be to publish the range of retail prices that could apply to a particular national number group, ie the 'area' code number. This price information would probably be sufficient for the great majority of BT's customers, but should be backed up by a dial-up service so that any customer requiring more detailed information on a particular retail rate could get it.

8.65. Orange did not consider that the introduction of MNP necessitated a mandatory least-cost routing requirement to be imposed on BT and the other FNOs. However, it considered that the charging regime should set commercial incentives to encourage the correct routing of calls since it was important that the FNOs had an incentive to route calls correctly. To provide such an incentive, the FNOs should bear the additional conveyance costs of wrongly-routed calls including any mobile termination charge difference. The FNO should also be required to set retail charges for calls-to-mobiles based on the recipient network rather than upon the national number group of the called customer.

One2One

8.66. One2One said that it launched its mobile service in September 1993. Since then it had invested approximately £1.2 billion in its network and competed vigorously to win market share by providing highly innovative services at competitive rates, and by rolling out its network to achieve coverage of over 95 per cent of the population ahead of the timetable stipulated in its licence.

8.67. One2One said that the company was effectively owned jointly by C&W and Media One International. The ownership structure was complex and had been developed as a response to US tax law. The views and information put to the MMC by One2One were its own.

8.68. One2One registered a strong interest in any findings the MMC might make in relation to the Cellnet and Vodafone inbound termination rates for fixed-to-mobile calls from the networks of BT and other operators. One2One, too, charged BT and other operators inbound termination rates for terminating the calls their local loop customers made to One2One mobile phones. One2One's inbound

termination rates were substantially (up to 10 per cent) lower than the rates charged by Cellnet and Vodafone.

8.69. One2One said that the inquiry's proper focus should be on the fixed origination market and BT's margin on the rates it charged customers for fixed-to-mobile calls. BT was dominant in this market and over 70 per cent of fixed-to-mobile calls originated from BT's local loop network. This meant that BT had the ability to set margins that prevented mobile telephony becoming a competitive alternative to fixed lines. If the MMC were to conclude that BT had abused its dominance in the origination market in setting its retail rates for fixed-to-mobile calls, regulation of BT's margin would be desirable.

8.70. As an alternative to the regulation of the termination rates of Vodafone and Cellnet, One2One suggested that an approach based on the regulation of BT's retail margin would be more effective in furthering competition in the price of fixed-to-mobile calls. Such regulation would give BT an incentive to try and negotiate lower inbound termination rates with the MNOs in an effort to stimulate call volumes and so recoup any lost revenues resulting from a regulated reduction in its margin. This would be appropriate only if the inquiry concluded that BT had misused its dominant position. Any regulation of BT's margin should be accompanied by a requirement to publish its prices in a clear format. This would give customers a greater awareness of the cost of calling mobiles. At present BT's domination of the fixed network, the size of its margin and the fact that that margin appeared to be unresponsive to changes in termination rates all served to hold up the competitiveness of the inbound market.

8.71. Regulation of BT's margin would significantly reduce its potential to set retail rates for fixed-to-mobile calls at a level designed to frustrate MNOs' efforts to replace fixed as the phone of first choice for consumers. One2One also stressed the importance of ensuring that any reductions in mobile termination rates were passed on to consumers—rather than simply absorbed by BT or other operators taking higher margins.

8.72. BT might argue that because of the detailed cost attribution methodology to which it was bound, it had no flexibility to reduce its margin on fixed-to-mobile calls. This was hard to believe when BT's retention could account for as much as 38 per cent of the total cost of a call-to-mobile.

8.73. One2One said that the creation of a separate Carrier Pre-Selection option for fixed-to-mobile calls would help to ensure long-term competitiveness in this sector of the market. It was therefore surprised that OFTEL was not proposing a separate Carrier Pre-Selection for calls-to-mobiles.

8.74. One2One said that the imposition of uniform retail rates for fixed-to-mobile calls would distort competitive processes and cause resource misallocation. It would cause inequitable outcomes unless imposed by applying a retail tariff gradient which reflected each individual network's traffic profile. Different retail rates for fixed-to-mobile calls should not cause customer confusion. BT should be required to publish the charges applicable for calls to each mobile phone number prefix in its retail price list. Customers would then easily be able to ascertain the relevant retail rate for any fixed-to-mobile calls they made. If the MMC were nevertheless concerned about the potential for customer confusion, One2One believed the most appropriate way for this to be addressed would be through the imposition of more onerous obligations on BT requiring clearer publication of its retail rates.

8.75. OFTEL apparently believed that uniform retail rates for fixed-to-mobile calls were appropriate, which implied that uniform inbound termination rates were also appropriate, ie setting the same inbound termination rate for all four MNOs. One2One thought such an approach was misguided and would inhibit competition.

Other network operators and service providers

ACC Telecom

8.76. ACC Telecom said that it was the UK subsidiary of ACC Corp, a multinational switch-based provider of long-distance telecommunication services and, in some markets, a local exchange carrier and Internet service provider. It was granted a PTO licence in 1997 and had over 50,000 customers in the business, education, health and residential markets.

8.77. ACC Telecom believed that there was no need for detailed regulation by OFTEL to reduce BT's retention rates on fixed-to-mobile calls. These would be subject to increasing competitive pressure once termination charges had been reduced to be truly cost reflective.

AirTouch Communications

8.78. AirTouch said that it was arguably one of the world's largest global wireless communications companies with ownership interests in mobile service providers in the USA, six member states of the EU and six other countries.

8.79. AirTouch offered comparisons of US and European pricing and interconnection practice. It said that the most notable feature of the US market was that even where 'calling-party-pays' arrangements were used, determination of the retail price was completely separate from determination of the termination charge. This meant that MNOs were able to set the retail charge for fixed-to-mobile calls in response to market demand and customers were therefore able to benefit from a wide variety of discounts, price specials and innovative price plans. In the EU on the other hand, MNOs were constrained from offering such discounts to the full degree possible in a competitive market. This was because retail prices for fixed-to-mobile calls were directly linked to termination rates, which having been determined as the result of complex negotiations were not susceptible to quick or unilateral change.

8.80. AirTouch believed that interconnection arrangements should continue to be negotiated on a commercial basis. However, the retail price of a fixed-to-mobile call should be set by the MNO and should be independent of its termination rate to the FNO. Solutions that imposed the same price for all fixed-to-mobile calls regardless of the mobile network concerned eliminated consumer options and effectively destroyed price competition. In a competitive market, MNOs set prices primarily in response to customers, rather than costs.

AT&T (UK) Ltd

8.81. AT&T said that it was part of the AT&T Group which was a provider of long-distance telecommunication services, with some 90 million customers worldwide. Its telecommunications network handled on average a quarter of a billion calls each working day. AT&T said that it had concerns about both BT's retail charges for fixed-to-mobile calls and the way international calls-to-mobiles terminating in the UK were handled.

8.82. AT&T did not agree with OFTEL that BT's margin on the retail price for fixed-to-mobile calls should be regulated. OFTEL's concern appeared to be that BT's margin was excessive, but the problem was that if BT's price was set too low it would impose an untenable price squeeze on BT's competitors. AT&T said that it would prefer the introduction of natural competition. Operators like AT&T should be allowed automatic access to BT's network with their customers being allowed to pre-select their carrier of choice simply by dialling the digits to identify that carrier. Such an arrangement would allow the other operators to attack BT's dominance in call origination to mobile. With equal access of this sort, there would be no need for regulation. Equal access would, however, need to be accompanied by a customer awareness campaign to offset customer inertia. If it were decided to regulate BT's retention, the simplest approach would be to require BT not to discriminate in its

retention as between calls-to-mobiles and calls terminating on fixed networks. Setting a specific regulated price would effectively stifle price competition.

8.83. As far as unanswered calls-to-mobiles were concerned, AT&T said that any regulatory solution to bring the practice of charging for such calls to an end would need to address the root of the problem, the charging practices of the MNOs concerned, not BT's action of passing on such charges to consumers.

8.84. AT&T saw no need for a single uniform retail price for calls from all fixed-to-mobile networks. MNP was essentially no different from fixed number portability which worked satisfactorily without the need for standardized prices. MNOs did compete on price. OFTEL's proposal for a uniform retail price for fixed-to-mobile calls would therefore restrict price and marketing innovation.

8.85. AT&T said that it was concerned about the way BT's actions affected international traffic. For BT the cost of terminating an international call-to-mobile was higher than the cost of terminating an international call to a fixed line. This came about because the MNOs' charges for call termination were higher than those of FNOs. These high termination charges were the root cause of the market distortions found in international traffic and in particular the practice of tromboning or arbitrage. It was AT&T's understanding that BT actually made a loss handling tromboned calls that were returned to the UK via its network. However, this had not caused BT to exert pressure on the MNOs to reduce termination charges. Instead BT proposed using international settlement arrangements to shift the burden of paying the high cost of calls to UK mobiles on to the overseas party making the call. BT was seeking to impose on US carriers a higher, one-way, asymmetrical rate for calls originating in the USA and terminating on mobile networks in the UK. AT&T noted that BT had an equity interest in one of the MNOs and suggested that the present arrangements represented a subsidy from BT to Cellnet.

Cable & Wireless Communications plc

8.86. CWC was a subsidiary of C&W which was formed in April 1997 from the merger of Mercury and three UK cable companies. Although One2One was 50 per cent owned by C&W, the two companies operated at arm's length. CWC provided integrated telecommunication and television entertainment services in the UK. Six million homes fell within its cable franchise areas, of which over 1 million took its services. It also had 1,200 large and 130,000 small and medium-sized corporate customers. CWC said that its key wholesale suppliers, BT for telecommunications and BSkyB for programming, were also primary competitors and dominant in their respective markets. Although the telecommunications market was a growing one, there were still significant risks for participants. To become an effective competitor, CWC had had to make substantial investment. Apart from BT, CWC was the only FNO in the UK making a profit, but even so, its return on investment had been negligible to date because of a combination of aggressive competition in the fixed market and the continuing requirement for investment to develop its network. CWC said that it had recently entered into commercial arrangements with both Vodafone and Cellnet which had resulted in the termination charges it paid to these operators being set at a level higher than the level determined by the DGT. Overall, both deals had been commercially advantageous for CWC's business in terms of traffic volumes and routings. These revised rates were in line with the rates Vodafone and Cellnet were offering to the rest of the industry. It had not passed on the impact of these higher termination rates to its retail customers.

8.87. CWC said that the UK telecommunications industry was in the process of changing from being dominated by one FNO towards being a fully competitive market. Competition was growing rapidly and prices were falling year on year. At present CWC and BT together originated some 90 per cent of fixed-to-mobile calls, but this number was under pressure. BT's fall in overall market share of around 5 per cent a year was an indication that competition was taking hold in the fixed telephony market. In the market for final connections several operators were vying for market share. Benefits had increasingly flowed to consumers as a result of competitive pressures rather than from regulatory intervention. As a result, the DGT had systematically 'rolled back' retail price controls on BT on all but the bottom 80 per cent of residential customers. This was recognition of the fact that for the business sector and for the top 20 per cent of residential customers the market was already competitive. The DGT had also begun to change his role from being a prescriptive regulator,

prohibiting certain activities in all circumstances, to that of a competition authority intervening only where there was a competition problem. Against this background CWC said that it found the DGT's proposals for the regulation of fixed-to-mobile calls as inconsistent and heavy handed, and it was opposed to any regulation of BT's retention for such calls.

8.88. In the retail market users had a variety of options for the origination of fixed-to-mobile calls. At current interconnection rates, other operators were able to undercut BT's prices and CWC currently offered among the most competitive retail rates in the industry for fixed-to-mobile calls. CWC's pricing strategy was to undercut both BT and other operators and wherever possible to offer tariffs tailored to customers' needs and traffic profiles. CWC had reduced its tariffs over time in response to competitive pressures. Between 1991 and 1997 the termination charge to CWC from Cellnet and Vodafone had fallen by 14 per cent across all time bands, and the corresponding retail rates had shown a larger decrease, particularly for residential customers. In CWC's view, any initiative to reduce prices should be made in termination rates, not through regulation of FNOs' margins, which were subject to significant competition.

8.89. CWC saw a growing convergence of fixed and mobile telephony, not only through technological developments but also through developments in billing and numbering. Against this background, CWC favoured diversity and choice. It was therefore surprised by the DGT's advocacy of uniform retail rates as a means of alleviating customer confusion. In CWC's view, simplicity of pricing could benefit customers, but it should not be achieved at the expense of diversity and choice. Customer confusion on tariffs was best tackled by effective communication of available tariffs rather than by enforced uniformity.

Cellcom Ltd

8.90. Cellcom Ltd (Cellcom) said that it was an established mobile communications service provider with some 400,000 subscribers in the UK, France and South Africa. Cellcom said that the cost of calls via the BT network to its own subscribers on the Cellnet and Vodafone networks was too high and contrary to the public interest. Without competitive pressure from Cellnet and Vodafone the BT termination bottleneck would continue. The arrangements currently existing between BT and Vodafone and BT and Cellnet were anti-competitive.

8.91. Cellcom did not consider that for the future a single retail price for fixed-to-mobile calls should be imposed by OFTEL on BT and the MNOs. In its view, the BT element of the charge for carrying a mobile terminating call was too high and could not be justified. It should be no more than the cost of carrying an equivalent call terminating on the BT network. Cellcom said that such an approach would allow MNOs to influence BT's retail charges to its customers for mobile terminating calls, to differentiate themselves and so compete in the area of inbound call charges.

Energis Communications Limited

8.92. Energis said that it was a national telecommunications carrier that had been operative since 1994. It was a UK-based company which provided international services through direct relationships with a number of carriers in North America and Europe. There were five major aspects of its business, one of which was providing indirect access through the BT network. Its customers were predominantly large businesses such as Boots, Virgin, Mirror Group Newspapers and British Gas and it also managed the BBC's transmission network.

8.93. Energis said that it agreed with OFTEL that a standard termination rate, regardless of network, was appropriate. The increase in BT's retail prices for access to Orange and One2One at a time when other call prices were falling suggested that there was market power within this area of the market. Near-end handover to MNOs meant that there was not really a stand-alone transit opportunity for national operators in the conveyance of mobile calls. BT's rates had never been subject to any rigorous financial analysis by OFTEL and were in fact agreed in negotiation at the start of the

interconnection process. BT's wholesale charges for fixed-to-mobile calls were significantly higher than those of Mercury.

8.94. Energis noted that BT's transit charge for calls to Cellnet numbers during evenings and weekends was higher than for calls to Vodafone numbers. It was also significant that BT's rate for the termination of inbound international calls to Vodafone was less than for national calls, which was anomalous. It believed that BT's retail rates to all MNOs should be standardized, but that other service providers should be free to undercut BT's rates. It did not believe that retail prices should be regulated. Energis said that its market strategy was to offer innovative services at prices below those charged by BT. Energis believed that other service providers did exert some competitive pressure on BT prices. Agreements with other FNOs were difficult to negotiate and were invariably based on BT rates. BT would, however, be subject to increased competition as the cable companies became more effective; and in the year 2000, when carrier pre-selection became available. When the cable companies were strong enough to offer really effective competition there would be no need for the regulation of BT's charges, but until that time regulation was needed.

8.95. Energis saw an increasing tendency for fixed and mobile telephony networks to converge, and drew attention to BT's recent introduction of OnePhone. It saw mobile services being used increasingly to provide fixed telephony with, for example, houses being fitted with GSM mobile technology instead of a fixed connection.

Ionica plc

8.96. Ionica plc said that BT's interest in the level of fixed-to-mobile termination rates was ambiguous. On the one hand, as an FNO, its interest was to see them kept as low as possible. On the other hand, it was the major shareholder of one of the MNOs. Ionica plc observed that BT did not appear to have taken appropriate steps to protect the interests of its customers as far as fixed-to-mobile termination rates were concerned.

Motorola Telco

8.97. Telco said that it was a cellular service provider in the UK and other European countries. It was owned by Motorola Inc, which was a major equipment manufacturer worldwide. Telco set up as an independent service provider (ISP) linked to Cellnet in 1985, and became an ISP linked to Vodafone as well in 1986. It did very little business with Orange which had given notice to terminate its agreement, and none with One2One. In the UK Telco's turnover was about £100 million, compared with Motorola Ltd's turnover of about £3,100 million. Telco sold only Motorola Inc products. In all, Telco had a customer base of 460,000 of whom more than 200,000 were in the UK. Telco was sold on 14 August 1998 to RSL COM Europe Ltd, a company specializing in international PSTN communications.

8.98. Telco said that it saw an increasing convergence of the fixed and mobile telephony markets. It noted that BT had recently brought out its OnePhone and said that by the year 2005 about 90 per cent of all calls would be made from mobiles. In Germany Telco had started selling fixed wire services as well as mobile, and was looking to do the same in the UK, initially through arrangements with one FNO. Telco's aim was to work directly with a core network and buy unbundled services so that it could create its own bundled services incorporating other value-added components.

8.99. Telco said that it did not bill its customers for fixed-to-mobile calls; this was done by the FNO concerned. Its own direct charges to customers were in respect of mobile-to-mobile calls, mobile-to-fixed calls and private wire calls. However, as some of the revenue arising from the services provided by Telco was from fixed-to-mobile calls, it did have a direct interest in the level of termination charges.

Telewest Communications plc

8.100. Telewest said that it was the second largest cable communications company in the UK with franchises covering large parts of Scotland, the North of England, the West Midlands and the South-West. In all, there were some 3.8 million homes in its franchise areas. It had approximately 1 million telephone customers and 800,000 cable television customers. It had built its own national network to link its franchise areas together, and this network carried some 19 per cent of its originating non-local traffic, the rest being carried by BT. Telewest had invested some £2.5 billion in its network and was still making heavy losses because of the size of this investment and the associated financial costs. It spent about £9 million on delivering calls to mobile networks in 1997.

8.101. Telewest said that the level of retail prices for fixed-to-mobile calls and call termination rates on mobile networks were important to its business. It did not interconnect directly with the mobile networks so its call termination charges included a small transit charge for the use of the BT network.

8.102. Telewest did not agree with the DGT's proposal that BT's retail prices for fixed-to-mobile calls should be regulated. It believed such an approach would undermine and compromise the whole concept of local infrastructure-based competition. Its whole market strategy was based on competing vigorously with BT, CWC and the various service providers, and it did so both in the provision of retail calls and line rentals. It was installing approximately 20,000 new telephony customers a month which was proof that competition was working. Telewest said that its basic pricing strategy was to undercut BT on both line rentals and calls by 10 to 20 per cent, and within this strategy its charges for calls-to-mobiles for residential users were 6 per cent below BT's standard rate. In addition calls-to-mobiles were included within its residential discount scheme which meant that these calls were subject to a further 10 to 20 per cent discount if the customer's monthly call bill exceeded £15 (or £20 including VAT). On the business side, although rates varied, with the different discount schemes that were available, the effective charge to most customers was about 10 per cent below BT's discounted rate. Telewest said that the high termination charges levied by the MNOs on calls-to-mobiles, which were the same for Telewest as for BT, affected its overall margin on these calls. Where customers made a large number of calls-to-mobiles they were in effect subsidized by the company with heavily discounted bills, and Telewest's margin was squeezed still further.

8.103. Telewest said that telephony tariffs were complex and it had various benchmarks against which it measured BT's rates. BT had brought out numerous schemes to segment the market and was being forced to compete. Over the last three years there had been reductions of the order of 20 to 25 per cent in retail prices. It was also significant that whereas BT was at one time totally reactive in seeking to win back lost customers, it was increasingly taking pre-emptive action to stop them leaving its network. All this suggested that competition was an effective constraint on BT, and that regulation of its retail prices for fixed-to-mobile calls was not required. BT's retention on fixed-to-mobile calls should end up at a level slightly higher than its retention on calls to fixed networks to reflect the higher level of bad debt and fraud associated with mobile telephony.

UniqueAir Ltd

8.104. UniqueAir said that it was one of a diminishing number of ISPs still operating in the UK mobile telephony market. It began operations in 1985 installing mobile phones into Jaguar cars but had expanded rapidly into the mobile phone market and now had 360,000 customers which made it the largest ISP in the UK market. Business and corporate customers made up only 10 per cent of its customer base. Its share of Cellnet and Vodafone customers was 5.5 per cent and it also had 3,000 Orange subscribers. It was a wholly-owned subsidiary of the Unipart Group of Companies and accounted for just under 20 per cent of the Group's annual turnover. However, the structure of the UK mobile phone market and the practices of the MNOs, particularly Cellnet and Vodafone, had changed significantly since UniqueAir first entered the market, making it difficult for the company to sustain its market position.

8.105. UniqueAir said that any reduction in fixed-to-mobile termination charges could lead to increased prices in both the wholesale and retail markets since MNOs would have no difficulty in recovering the revenue in other ways. For this reason the MMC inquiry needed to cover wider

industry issues, in particular the impact of any regulation of call termination charges on the price of calls from mobile phones.

8.106. UniqueAir saw a growing convergence of mobile and fixed telecommunications networks and of television and broadcasting as well. It was, therefore, in BT's interest to see demand for telephony services grow. UniqueAir considered that ISPs should get some remuneration from fixed-to-mobile calls, which they did not do at present, to reflect their efforts in stimulating general demand.

8.107. UniqueAir said that the revenue flows between BT and Cellnet were virtually impossible to understand and that Cellnet's accounts were opaque particularly as regards staff and interface services provided by BT, such as the use of leased circuits to link Cellnet's base stations to the BT network.

Virtual Network Systems Ltd

8.108. Virtual Network Systems Ltd (VNS) said that it held an International Simple Voice Resale licence and had made an application for a PTO licence. It was proposing to operate both fixed and mobile public telephony services in the UK from 1999 and throughout Europe from 2000. The aim of the company, which was registered last year, was to exploit the market for interactive information services which was slowly being addressed by the MNOs at present, and to offer the customer a high-quality, two-way service covering voice telephony, both fixed and mobile, Internet access and data transmission.

8.109. Although VNS foresaw increased market pressure on BT to reduce its charges, it nevertheless agreed with the DGT that BT's charges for handling fixed-to-mobile calls should be regulated. VNS said that BT's retention rate for fixed-to-mobile calls should be the same as that applying to calls terminating on fixed networks. VNS believed that while the receiver pays principle could solve the problems of MNO termination charges significantly exceeding costs, in practice this was not feasible. However, it supported the approach whereby the fixed-line caller paid the equivalent inland call rate to the MNO and the called mobile subscriber paid the balance of the termination charge.

WorldCom International Limited

8.110. WorldCom said that the company was created through the merger of WorldCom Inc and MFS Communications Inc (MFS) in 1996. MFS first offered voice services in the UK in 1994. WorldCom's strategy was to develop a high reliability global integrated network based on synchronized digital technology which would be of particular interest to big business customers and financial institutions. WorldCom's UK turnover was modest but rising. Revenue generated by fixed-to-mobile calls accounted for only a very small proportion of this. WorldCom did not have a major involvement in mobile telephony and did not see itself as being in direct competition with the MNOs.

8.111. When MFS first offered voice services in the UK in 1994 its only interconnection arrangement was with BT, so while it could offer calls or leased circuits between directly connected customers over its own network, it was otherwise dependent on BT to deliver calls from its customers, including fixed-to-mobile calls. This meant that MFS faced a significant barrier to entry in respect of fixed-to-mobile calls because BT's mobile interconnection charge at that time was several ppm higher than the retail rates charged by Mercury.

8.112. WorldCom said that BT gained a significant competitive advantage on fixed-to-mobile calls originating abroad as it currently paid a reduced termination charge that was not available to other UK operators. WorldCom said that BT justified the position by arguing that its system did not distinguish between incoming calls according to whether they were to terminate on a fixed or mobile network.

8.113. WorldCom said that without access to BT's figures it was impossible to comment on the appropriateness of BT's mark-up on retail calls. However, it was far cheaper to trombone calls to UK MNOs via the USA rather than to connect direct via BT. This was because of the high level of the MNOs' termination rates coupled with the current International Telecommunications Union international settlement system.

8.114. Tromboning arrangements were both technically and financially complicated with netting off of charges between operators. Tromboning was limited by the capacity of international gateway exchanges, so BT set a limit on such traffic and for WorldCom this was set at a monthly ceiling of 2.5 million call minutes. WorldCom tromboned right up to this limit. BT's aim was to remove the incentive to trombone without reducing its interconnection charges. A further anomaly was that BT's interconnection rates to Vodafone and Cellnet for international incoming calls were lower than its rates for national calls. It was time that this and other economic nonsenses were swept away. WorldCom said that it did not accept BT's argument that a higher retention was justified on calls-to-mobiles than for calls to fixed lines. There might be marginal cost differences in, for example, billing, customer service and the proportion of failed calls, but none of these factors justified a significant mark-up compared with the equivalent fixed-to-fixed interconnection charge.

8.115. WorldCom was not in favour of regulating BT's retail price for fixed-to-mobile calls and did not believe that a single regulated retail price for such calls would create a downward pressure on prices. Although other operators would be able to undercut the BT regulated price, there would be a tendency to set charges at or just below that price. WorldCom adopted a flexible approach to pricing and tended to set its charges to reflect the particular package of services that an individual customer used. Such an approach by competitors was the most effective way of putting pressure on BT to reduce its charges. Its charges to business customers had already responded to such pressure and were well below the RPI–X formula level.

8.116. WorldCom operated on an LRIC basis and its network costs structure was similar to BT's. If BT's costs were calculated on a true LRIC basis rather than a long-run average incremental cost basis, they would probably be significantly lower. Unlike BT, WorldCom did not levy a minimum charge irrespective of duration. [*Details omitted. See note on page iv.*] WorldCom's gross margin on fixed-to-mobile calls was typically not much more than a half of that on fixed calls.

Telecommunications Advisory Committees

Advisory Committee on Telecommunications

8.117. The Advisory Committee on Telecommunications (ACT) said that there was no competitive pressure on network operators to reduce call termination charges and this increased retail charges for fixed-to-mobile calls. It also saw no justification for BT's retention from charges for fixed-to-mobile calls networks being higher than for calls to other fixed networks since the same network elements were used for both types of call.

8.118. The ACT had doubts about the likelihood of competition emerging quickly or at all in retail charges for fixed-to-mobile calls, so believed firmly that the preferred solution was for retail charges for fixed-to-mobile calls to be controlled to ensure that they were cost reflective. The ACT supported the DGT's view that there should be a single retail price for calls to all mobile networks.

Northern Ireland Advisory Committee on Telecommunications

8.119. The Northern Ireland Advisory Committee on Telecommunications (NIACT) said that BT's retention charge was an important element in the cost of making a fixed-to-mobile call.

8.120. In Northern Ireland BT had held on to a very large share of the market. This meant that domestic customers had to rely on geographic averaging in order to get the benefits they were looking for through increased competition. Domestic customers really saw no justification for BT's retention for calls-to-mobile networks being higher than for those to other fixed networks. BT's charges to Orange and One2One were different from those to Cellnet and Vodafone. In the NIACT's view the same charges should be levied to all MNOs. It strongly supported the idea of a regulated BT price for interconnection with the mobile network which was published so that customers could compare their own charges with it.

Scottish Advisory Committee on Telecommunications

8.121. The Scottish Advisory Committee on Telecommunications (SACOT) said that it saw no reason for BT levying a higher charge for fixed-to-mobile calls than for calls to a fixed phone. It was also concerned about arrangements between operators that could limit competition. It believed that CWC had traded favourable terms for leased lines against higher termination charges on the Vodafone and Cellnet networks. The SACOT said that there should be transparency in relation to charges levied to and from mobile phones.

Welsh Advisory Committee on Telecommunications

8.122. The Welsh Advisory Committee on Telecommunications said that retail prices for fixed-to-mobile calls were much higher than was reasonable based on the costs and rate of return that the DGT had estimated. The conclusions to be drawn were that these retail prices were excessive and that there was no evidence of competition in this area.

Business Advisory Committee on Telecommunications

8.123. The Business Advisory Committee on Telecommunications said that it had a statutory duty to advise the DGT on the interests of small and medium-sized businesses. It suggested that market distortions could arise not only because of cross-holdings between fixed and mobile networks (BT had a stake in Cellnet; C&W had a stake in One2One), but because the FNOs were both suppliers to and customers of the MNOs. These factors were likely to operate against the public interest.

8.124. Consumers were being exploited by the high prices charged for fixed-to-mobile calls. BT's retention rate on these calls was too high. It added a significant mark-up to the cost of fixed-to-mobile calls, even though it appeared that such calls were no more expensive for BT to handle than calls to a fixed phone.

Other consumer interests

Consumers' Association

8.125. CA said that it was an independent consumer organization with over 700,000 members. It had had a long-standing interest in competition and regulatory issues affecting telecommunications. It stressed the need for measures to ensure effective competition, supplemented with regulation where competitive forces were either weak or absent, as the best way of ensuring quality, value and choice for telecommunications customers. Recognition of the special character of call termination meant that charges for such services on BT's fixed network were regulated as a separate basket of services, outside the general network charge control. But with the exception of the 1991 'Mercury' determinations, call termination on mobile networks had remained unregulated.

8.126. CA said that the provision of better information for callers to mobiles, while desirable, would not on its own remedy the consumer detriment result from the current charging structure. The high charges for incoming calls to the Vodafone and Cellnet networks were a function of two factors, the high termination charges on those networks plus BT's retail uplift, which was higher for fixed-to-mobile calls than for comparable inland calls even though the network elements were identical in each case. The level of termination charge in turn depended on the way the different parts of the mobile business were defined and how different types of cost were allocated.

8.127. CA said that, because of lack of competition at both the wholesale (call termination) and retail levels, charges were substantially out of line with costs for each of the different components of calls made to mobile networks. This resulted in an allocatively inefficient provision of such services, and moreover the current charging structure was likely to entrench these inefficiencies. Both the

current call termination charges levied by Cellnet and Vodafone, and BT's retail retention in relation to calls delivered to these operators, acted against the consumer interest, and possibly indirectly against the public interest of greater competition in the wider mobile phone market.

8.128. In the market for the delivery of fixed-to-mobile calls, BT was by far the dominant operator with 78 per cent of the market in terms of call minutes and 78.5 per cent in terms of call revenues in 1996/97. These figures referred to the networks on which calls originated. If instead reference were made to the percentage of calls passed by each FNO to the mobile networks, BT was in an even stronger position as it handled transit calls from other FNOs which did not have direct interconnection agreements with the MNOs. BT's share of residential calls to mobiles was 89.1 per cent in terms of call revenue, compared with 72.8 per cent for business calls. This difference was explained by CWC's significant foothold in the business market.

8.129. CA also drew attention to the web of vertical relationships which characterized the wholesale and retail markets for calls to mobiles. BT, the dominant retail operator, was part owner of Cellnet, while One2One was part-owned by C&W. BT as part-owner of Cellnet had little incentive to wield its monopsony power to negotiate lower interconnection charges.

8.130. BT's retail retention on calls to the Vodafone and Cellnet networks was currently 5.77 ppm compared with its retail retention on inland calls generally of 3.39 ppm even though the network elements were the same for each. In CA's view BT's retention on fixed-to-mobile calls should be reduced to the inland calls level. One of the reasons for this difference in retention was BT's use of turnover for the detailed allocation of common costs. A clear framework for the detailed allocation of BT's retail and own-network costs was required. The termination charges for fixed-to-mobile calls on the Vodafone and Cellnet networks should be the same, and by extension the retail tariffs for such calls should also be the same.

Telecommunications Managers' Association

8.131. The TMA said that it was a professional association with over 1,670 individual members concerned in a senior capacity with the management and operation of telecommunication services in commerce and industry. Employees of equipment manufacturers and service providers were not admitted to membership. The TMA was concerned with the interests of the business consumer, particularly quality of service, pricing and the availability of choice.

8.132. BT's retention for a fixed-to-mobile call was too high. The excessive retention was most marked when a mobile was called from a BT callbox, when the retained portion could be as high as 120 per cent of the portion passed to the MNO. If there was any difference at all between the cost of handling a call to another fixed network and one to a mobile network, it was unlikely to be significant.

8.133. BT's retention was enhanced further by the iniquitous practice of charging for fixed-to-mobile calls that were not completed. The cost incurred in an unsuccessful call attempt should be regarded as an operating overhead and spread over the entire customer base.

Users

Bass PLC

8.134. Bass PLC (Bass) said that it was a UK-based company with some 70,000 staff worldwide. It operated some 3,300 mobile phones across the Cellnet and Vodafone networks, of which some 80 per cent were connected to Cellnet. The mobile market, in terms of GSM or analogue technology, was restricted to these two operators and interconnection between the fixed and mobile networks was almost exclusively channelled through BT regardless of the fixed network from which the call originated. These three operators enjoyed an effective monopoly where they, not the market, could determine prices.

8.135. Bass said that as a major user of mobile phone services it had installed a direct connection between its own internal telephone network and those of the MNOs in order to reduce its costs. The marginal cost of making calls via the BT fixed-line network far exceeded the average cost of installing and using its own fixed-line connection to the mobile network. This did, however, necessitate substantial installation costs. Bass said that such economies of scale were open only to large users of mobile telephony. This suggested that the lack of competition in the area of fixed-to-mobile network connection had left a legacy of excessively high connection charges.

8.136. Bass said it understood that BT's retention for delivering a call to the Vodafone and Cellnet networks was some 70 per cent higher than for an equivalent call to another fixed network. There could be no justification for different charging structures between fixed and mobile networks, and Bass fully supported the approach advocated by the DGT.

BAA Plc

8.137. BAA said that it was a major user of mobile phones with around 1,000 handsets in use, ie by some 10 per cent of employees. For the nature of its business, security and reliability of service were its paramount concerns. It was a member of OFTEL's Large Business Telecommunications User Panel.

8.138. BAA said that it was unable to see how the delivery of calls by BT to the mobile networks could possibly cost BT more than the cost of terminating a call on a fixed network. The FNO provided no additional service compared with termination on a fixed network, and in fact BT charged transit calls-to-mobiles at its national rate when, because it had many interconnect points, most of these could be handled locally, for example Heathrow calls were handled at Reading.

Sainsbury's Supermarkets Ltd

8.139. Sainsbury's Supermarkets Ltd told us that it fully supported moves to reduce the cost of fixed-to-mobile calls. It considered that the termination charges levied by the MNOs were excessive and that BT's retention on its network costs was too high.

Telecommunications Users' Association

8.140. The TUA said that it represented UK users' interests at home and overseas and had about 1,000 business members of all sizes and from all sectors of the economy as well as a small number of private user members. It came into existence in 1964 and was a company limited by guarantee. It lobbied on behalf of its members to the DGT, the DTI and the EC, and also provided information, training and consultancy services. The price of fixed-to-mobile calls was much too high and was a matter of concern. The national rate for fixed-to-mobile calls of 30 ppm compared with a cost of 6.8 ppm for calls terminating on fixed networks. It had taken the DGT an inordinate amount of time to address this issue, partly because of its complexity and partly because of the lack of co-operation of the MNOs and the main FNOs carrying the bulk of these calls.

8.141. BT was invariably blamed for the high cost of fixed-to-mobile calls because these charges usually came through to customers on their BT bills, and it was assumed that these charges were raised by BT rather than the MNOs. But even so, the TUA found it difficult to accept that BT's costs in forwarding calls to a mobile network were any greater than those for forwarding a call to another fixed network or for terminating a call on its own network. Yet BT was currently taking in excess of 60 per cent more for handling fixed-to-mobile calls. There were currently 8 million mobile subscribers, compared with 6.3 million a year ago, and call minutes to mobile, currently 5 billion a year, were growing at a rate of 40 per cent a year. Some 90 per cent of these call minutes were handled by BT. Despite this substantial growth the user had not seen any significant price benefit. The

TUA said that it would have expected a much faster reduction in MNOs' termination charges to BT, given the growth of calls. Where leased line access to a mobile network was used by large corporate customers the charge per minute was as low as 6 to 9 ppm compared with 32 ppm currently charged for calls via the public network. The TUA said that this difference could not be substantiated by BT's costs. In practice there was little pricing competition across the market and no competition in the cost of calling mobiles from fixed phones. Both MNOs and FNOs were taking excess profits from an area of business that was not sensitive to competition. The caller had no choice in the mobile network he called, which was a bottleneck. Charges for fixed-to-mobile calls should, therefore, be regulated, and such regulation would serve both to drive down costs and stimulate traffic growth.

8.142. Even where there were ISPs, these did not compete on price. Most ISPs had interconnect agreements with BT and routed traffic to the MNOs via BT, so had little alternative but to accept the charges BT levied on them.

8.143. The high cost of calling mobiles distorted the market. The ISPs were under pressure from their customers to offer lower fixed-to-mobile call charges, but they could not achieve this through their interconnect agreements with BT. Their only recourse was tromboning, where traffic was routed via overseas operators and back to the UK BT network to benefit from the fact that calls-to-mobiles entering the BT network in this way were charged at the fixed call interconnect rate. BT was putting pressure on ISPs to limit the tromboning of calls-to-mobiles but was not able to distinguish between international incoming traffic terminating on fixed networks and that terminating on mobile networks. The TUA said that it had even been suggested that BT itself routed some calls-to-mobiles through another FNO to improve its profitability.

Individual users

8.144. Mr K Hamilton said that for fixed-to-mobile calls the fixed-line customer should be required to pay no more than the national call rate applicable to his or her FNO for the time of day concerned, not the premium rates charged at present.

8.145. Mr A Lait complained about the price of fixed-to-mobile calls. He said that calls should be charged for at the same rate, whether to a fixed line or to a mobile, based on distance and time of day. Any additional charges for fixed-to-mobile calls should be borne by the mobile phone users and incorporated into their standing rental charges.

Others

Blah Publishing Ltd

8.146. Blah said that it was the publisher of *What Mobile and Cellphone Magazine* which tested and reported on handsets and aimed to tell people which mobile phone to buy. The bulk of the handsets that it tested were readily available and came from The Carphone Warehouse's sales stock. The magazine had a readership of some 15,000 and about 80 per cent of its revenue came from advertising by the 20 handset manufacturers. It was not uncommon for advertising to be withdrawn following a critical review of a particular handset.

8.147. Blah said that it was very clear that the price of fixed-to-mobile calls was excessive. Telecommunications was a computer-based industry in which costs, particularly infrastructure costs, were plummeting. Mobile costs were now spread across 9 million users compared with 50,000 in 1985 and 500,000 in 1988.

8.148. The cost of calling a mobile was 50 per cent higher than the cost of calling the USA. The MNOs, however, argued that prices were lower than in most European countries. But prices in the UK should be significantly lower than in Europe generally because the UK had a high density of population and was a more mature market. It was clear that Vodafone, Cellnet and BT were enjoying a feeding frenzy of high prices.

8.149. Blah thought that the UK mobile market would continue to grow rapidly but it did not see a growing convergence between fixed and mobile telephony; nor did it consider that mobile phones would ever become as cheap as fixed lines.

8.150. BT had enormous market power, but it had not used this power to drive down the price of calls-to-mobiles because it was not in its interests to do so. In fact, BT was responsible for a significant element of the price because most fixed-to-mobile calls, even if not originating on the BT network, had to transit it. Blah also noted that BT's various discount schemes were heavily weighted against mobiles with calls to international mobiles excluded completely. Blah favoured the regulation of the whole retail charge for fixed-to-mobile calls at a level at which the average person did not consider that such a call was horribly expensive.

Central Computer and Telecommunications Agency

8.151. The Central Computer and Telecommunications Agency (CCTA) said that it was an executive agency of the Cabinet Office. Its aim was to improve the delivery of public services by the best use of information technology. Its contracts for the delivery of telecommunication services to the public sector were all subject to competitive procurement and none had been awarded to BT. BT remained the dominant provider of telephony services to the public sector by default.

8.152. The CCTA said that when service providers were subject to competition their tariffs were inevitably reduced from the standard published tariff. This supported the view that BT's current rate was too high. The CCTA said that the spend by the public sector on BT fixed-to-mobile calls was not known. However, reductions in the tariff would mean consequential savings for public sector expenditure.

Other Licensed Operator Group

8.153. The OLO Group, a group of telecommunication companies which included all the major investors in UK telecommunications other than BT, said that the unanimous view of those operating in the industry was that UK telecommunications policy had now to enter a consciously deregulatory phase if investment in the industry was not to be jeopardized. It said that it had urged the DGT to develop a clear strategy for lifting controls on BT's retail prices. Intense competition was now developing for fixed-line customers and the time was approaching when regulation of prices as a substitute for competition would no longer be necessary. Indeed it might be positively harmful if it led to the continuation of certain price distortions.

8.154. The OLO Group had been dismayed that the DGT had chosen to include the issue of BT's retail charges in its referral to the MMC. If the outcome of the inquiry were to be an extension of retail price controls, this would run counter to any deregulatory policy of progressively lifting retail price controls and would constitute a significant setback in the development of competition in the sector.

Sony United Kingdom Limited

8.155. Sony said that it was a distributor of Sony-branded cellular mobile phones, a provider of cellular services and a user of those services. In its view BT should not be permitted to charge a premium on calls-to-mobiles unless this could be justified by higher costs.

D J MORRIS *(Chairman)*

S C FINCH

J C HANRATTY

C E HENDERSON

T S RICHMOND

P A BOYS *(Secretary)*

4 December 1998