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Agenda

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Is it a bargain? The role of countervailing buyer power in mobile call termination

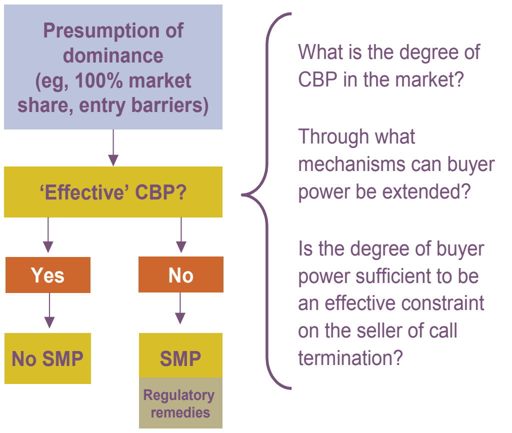
Recent regulatory developments across Europe suggest that assessments of countervailing buyer power will play a more prominent role in the regulation of mobile call termination charges in the near future. Can CBP nullify significant market power over the supply of termination services? How can regulators measure the degree of CBP in a market?

The issue of countervailing buyer power (CBP) in mobile call termination (MCT) is currently the subject of intense regulatory debate across Europe. Several European regulators including Ofcom (UK), ComReg (Republic of Ireland) and OPTA (the Netherlands) have had to reassess their findings of significant market power (SMP) on MCT services in response to the ruling of appeal courts that they had not carried out a sufficient analysis of CBP in their initial decisions.[1] The role of CBP is of particular relevance when assessing SMP in markets for MCT where each network owner holds a 100% market share.[2] In its explanatory memorandum on relevant markets susceptible to ex ante regulation, the European Commission emphasised the role of CBP in assessing market power in mobile call termination:

> Such a market definition—call termination on individual networks—does not automatically mean that every network operator has significant market power; this depends on the degree of any countervailing buyer power and other factors potentially limiting that market power.[3]

A thorough understanding of CBP is therefore a key element when a regulator assesses whether an operator has SMP. This is significant because a finding of SMP under the current EC framework would require the imposition of regulatory remedies. In general, across Europe those remedies have taken the form of a long-run incremental cost-based price cap with a glide path forcing MCT charges down over time. As Figure 1 shows, it is important to address key regulatory questions including: what degree of CBP is an effective constraint to the seller of MCT?

Figure 1 Key questions



Source: Oxera.

The presence of effective CBP would indicate that sellers are unable to act independently of their customers, leading to the conclusion that the seller does not have SMP. In its consultation on MCT, Ofcom stated that, to be considered effective, CBP must be sufficiently strong to achieve an outcome that would emulate that of a competitive market.[4] Therefore, having some bargaining power would not be considered effective CBP unless it ensured that MCT rates were closely related to costs and move with costs over time.

The issue of CBP arises when the interests of negotiating parties diverge. When the interests of all operators coincide, an agreement could be reached with limited bargaining in the negotiation process. An analysis of the incentives of all market players to set high or low termination rates is therefore an important step in the analysis.

Why do incentives to set high or low MCT rates matter?

There is a large body of economic literature on access pricing in MCT that discusses the operators' incentives to set a certain level of termination rates.[5] The results of some of the most representative models of mobile-to-

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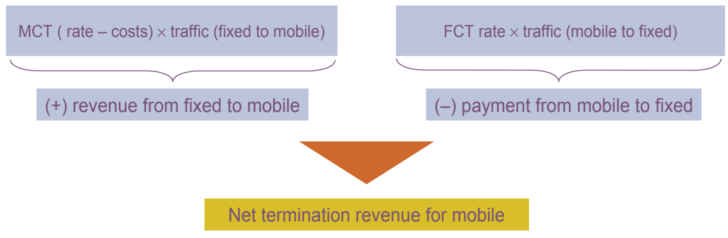
mobile (M2M) access pricing in telecoms have featured prominently in the debate on MCT regulation in both the UK and in the Netherlands. For example, one mobile network operator (MNO) has suggested that M2M termination rates be deregulated in the UK since MNOs have strong incentives to set low reciprocal call termination rates.[6] The incentives to agree on low reciprocal MCT rates, possibly even ‘bill-and-keep’ arrangements (ie, where termination rates of both parties are zero), are derived from the potential to dampen the intensity of downstream retail competition between operators because operators would not be able to use MCT revenues to cross-subsidise handset subsidies and retail charges.[7]

Figure 2 Net termination revenue for an MNO



Source: Oxera.

The results of the various theoretical models are sensitive to the following underlying assumptions.

– **Balance of net termination revenues**. One of the most significant factors in determining whether an operator has incentives to set high termination charges is whether it is a net receiver of termination revenues. The greater the imbalance in net termination revenues between two parties, the less likely it is that negotiations will lead to low reciprocal termination rates. Figure 2 shows that the net termination revenues of an MNO that negotiates with a fixed network operator (FNO) depend on its underlying MCT cost level, the traffic balance, and the MCT and fixed call termination (FCT) rates. Where two MNOs with identical MCT costs are the only market players, and where traffic is balanced, an increase in MCT rates would not increase net termination revenues of either party (in fact they would remain at zero), because the increase in payments would be offset by an equivalent increase in revenues.

– **The waterbed effect**. This indicates that changes in call termination rates are being passed on to call origination, rental and/or handset prices. If the waterbed effect is fully effective (ie, 100% of the net incremental revenues obtained from higher MCT rates are passed on to retail customers as a result of competition in the end-consumer market), MNOs might have incentives to agree on low reciprocal termination rates because this would reduce competition at the retail level.

– **Price discrimination**. In most European countries, there is a net revenue inflow from fixed to mobile operators. When setting MCT rates, it is therefore necessary to assess whether it is feasible to discriminate between fixed and mobile operators. Where such an option is not feasible due to the imposition of an explicit non-discrimination obligation, or because most incoming traffic is transited via the incumbent FNO,[8] MNOs are less likely to reduce termination rates because this would reduce the net termination inflow from FNOs. In such a scenario, a thorough assessment of CBP is therefore a necessary step when deciding whether the provider of mobile termination is able to set high MCT rates.

How can a regulator assess the degree of CBP in a market?

If MNOs have incentives to set MCT rates that exceed their underlying cost levels, regulators need to question whether these MNOs have the ability to enforce such termination rates. The answer to this would depend on the strength of the bargaining power of buyers of termination services.

The existence and the extent of CBP can be analysed with the use of a three-stage approach, as set out below.

– **Step 1: Measuring the potential for exercising CBP**. Exploring the degree of concentration on the buying side of the market through measures such as the Herfindahl–Hirschman Index (HHI) of buyer concentration and buyer concentration ratios.[9]

– **Step 2: Analysis of the factors that influence CBP**. Exploring the factors through which buyers of MCT can influence their terms of trade (see below).

– **Step 3: Measurement of the effectiveness of CBP mechanisms in achieving their intended outcome**. Measuring how effective buyers have been in exercising CBP in the market for MCT on each network.

The outcome of this analysis would indicate whether the bargaining power of any of the purchasers of termination services is sufficiently strong that it would be considered effective in undermining conclusions that sellers of termination services possess SMP.

What factors influence CBP?

The relative bargaining position of the purchaser of MCT is affected by many factors, and the degree of influence that a buyer can exert over a seller will vary accordingly. The extent to which CBP works depends on various factors—most importantly, the degree of buyer concentration and the option to delay or withhold payments, as outlined in the box below.

While it is important to identify the key factors that can influence CBP, it is also important to determine whether each is applicable to the particular market. In countries where the outcome of dispute resolution procedures (which are separate from ex ante SMP regulation) is likely to reduce the level of MCT requested by the seller, the factor is likely to strengthen the relative bargaining position of the buyer. In contrast, when operators are uncertain about the outcome of dispute resolution procedures, it is less likely to improve the buyer's terms of trade.

There are several ways of ascertaining whether the factors described in the box below are effective in constraining the dominant position of the seller of termination services. At the heart of the assessment is whether CBP emulates the outcome of a competitive market. One approach to this would be to undertake a year-by-year comparison of the level of the actual MCT rates and the underlying MCT costs. Another option would be to compare the evolution over time of the level of MCT rates and the underlying MCT costs. For example, an examination could be made of whether dispute resolution procedures resulted in a decrease in MCT rates over a certain time period.

Both approaches raise not insignificant questions about how to estimate the competitive level of MCT rates when costs are also falling.

Assessing CBP in practice?

Regulatory precedents provide further insights into the practicability of the theoretical concepts explained above. The UK and the Netherlands provide good examples of how the degree of CBP has been examined.

In 2006, Ofcom assessed the potential impact of CBP on market power in the supply of MCT services in the UK in light of the theoretical arguments provided by Hutchison 3G.[10] In its consultation, Ofcom identified BT as the main purchaser of MCT and set out a number of criteria to assess the existence and extent of BT's CBP. Such criteria included, for example, the option not to purchase; BT's ability to self-provide mobile voice call termination on Hutchison 3G's network; BT being an important outlet for Hutchison 3G; and its ability to intensify competition among suppliers. Subsequently, Ofcom considered the extent to which BT could exert sufficient negotiating power to constrain Hutchison 3G's dominant position. The regulator examined, for example, whether the option not to purchase would be a viable threat to the seller of call termination services. Ofcom took the view that BT did not consider a refusal to buy termination as a viable option for its business during the relevant period. Following a similar assessment of each criterion, Ofcom concluded that BT did not, and would not, have sufficient CBP to constrain Hutchison 3G's prices to a competitive level.[11]

Similarly, on the basis of evidence collected and analysed by Oxera, OPTA concluded that empirical and factual evidence did not support the argument that CBP was effective in the Dutch mobile termination markets between 2000 and 2006, and would not be effective going forward.[12] The regulator assessed whether the largest buyer of MCT in the Dutch market, KPN Carrier Services (KPN CS), had sufficient CBP to constrain the ability of MNOs to set high MCT rates. On the basis of factual and empirical evidence, OPTA examined whether any of these factors resulted in a decrease of MCT rates during the relevant time period. Withholding net termination revenues (for the difference between what the buyer deems is reasonable and what the seller is requesting) proved to be the most direct means of buyers, in particular KPN CS, seeking to constrain the

Factors that influence CBP

- ***The importance of originating MNOs as outlets for the sellers*. Buyer power is more likely to arise when a few firms or buyer groups purchase a large proportion of a seller's output.**
- ***The option not to purchase/withhold payments*. This can be a credible threat for purchasers of MCT even though there might be adverse affects on demand for the operator's retail services. This factor not feasible in most European markets because operators are obliged to guarantee the end-to-end connectivity of their subscribers. Operators may, however, refuse to interconnect on unreasonable terms. Alternatively, operators may interconnect, but withhold payments that exceed a 'reasonable' level.**
- ***Dispute resolution mechanisms*. Operators may refer a dispute to the regulator if they consider the MCT requested by the seller unreasonably high.**
- ***Multi-market contact*. The operator may trade 'losses' in one market (eg, the transit market) against 'gains' in the MCT market in the form of lower MCT rates.**
- ***Regulation of operators' rates*. In countries where FCT rates are subject to tighter regulatory regimes than MCT rates, MNOs have better bargaining positions because FNOs cannot reciprocate an increase in termination rates.**
- ***Existence of transit service providers*. In some markets, buyers can indirectly interconnect via a transit operator. Tariffs set by transit operators can function as a price floor and ceiling, which may improve the terms of trade in favour of the purchaser or seller of mobile termination.**
- ***Operators' desire to reach agreement*. New market entrants may be less patient to reach an agreement on MTC rates than established operators because they need to recover fixed (sunk) investments such as spectrum fees.**

termination rates observed in the Netherlands between 2002 and 2003. For example, KPN CS began to withhold payments of termination revenue for the difference between the MCT rates observed in the market and what the regulator had signalled were the maximum allowable reasonable rates after the publication of its policy rules in 2002.[13] Notably, following these actions, not only did MCT rates not decline, they actually increased or remained constant. OPTA concluded that KPN CS's degree of CBP was insufficient to withdraw its finding of SMP.[14]

Conclusion

In any negotiation the buyer will have some degree of buyer power. The crucial question is, however, whether the degree of CBP is sufficient to constrain the dominant position of sellers of MCT. While decisions from the courts mean that regulators will have to consider carefully arguments relating to CBP, the latest decisions by the Dutch, Irish and British regulators show how difficult it will be for MNOs to argue successfully that any SMP they possess in relation to call termination services is nullified by CBP.

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[1] See, for example, Ofcom (2006), 'Assessment of whether H3G Holds a Position of SMP in the Market for Wholesale Mobile Voice Call Termination on its Network', September 13th; ComReg (2007), 'Market Analysis: Wholesale Voice Call Termination on Hutchison 3G Ireland's Mobile Network', January 11th; and OPTA (2007), 'Marktanalyse gespreksafgifte op de mobiele netwerken van KPN, Orange, T-Mobile en Vodafone', May 15th.
[2] Only the network owner can terminate calls on its own network, which implies that the buyer cannot consider any alternative sellers of termination services.
[3] European Commission (2003), 'On relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services (Text with EEA relevance)', Explanatory Memorandum, February, p. 2.
[4] Ofcom (2006), 'Mobile Call Termination: Proposals for Consultation', September, p. 46.
[5] See for example, Gans, J.S. and King, S.P. (2001), 'Using "bill and keep" Interconnect Arrangements to Soften Price Competition', *Economic Letters*, **71**:3, 413–20.
[6] Oftel (2003), 'Wholesale Mobile Voice Call Termination Consultation: Proposals for the Identification and Analysis of Markets, Determination of Market Power and Setting of SMP Conditions', December, p. 65, para. 5.64.
[7] See Gans, J.S. and King, S.P. (2001), op. cit.
[8] The transit provider makes all MCT payments on behalf of the originating party. In many countries, a terminating party can not discriminate between different buyers of MCT services that interconnect through a transit provider.
[9] The HHI of terminating traffic is estimated as the sum of squared market shares (based on terminating traffic on each mobile network) of purchasers of MCT traffic. The HHI can take any value between 0 (no concentration) and 10,000 (maximum concentration—one buyer is responsible for 100% of the sales of that particular network). For example, if there are two buyers of MCT traffic on a network, each responsible for 50% of traffic, the HHI for that network would be 5,000 ($50^2 + 50^2 = 2,500 + 2,500 = 5,000$).
[10] In the UK, the new market entrant, Hutchison 3G, challenged Ofcom's decision on MCT, arguing that negotiations over MCT rates between an entrant and an established operator would be similar to those of a bilateral monopoly. According to Binmore and Harbord (2005), the relative bargaining power of each party depended on the expected outcome of the agreement, which would be lower than the current one due to limited market expansion. As a result, Hutchison 3G predicted that the negotiated termination rate would be at most equal to the incumbent's termination rate. Binmore, K. and Harbord, D. (2005), 'Bargaining over Fixed-to-mobile Termination Rates: Countervailing Buyer Power as a Constraint on Monopoly Power', *Journal of Competition Law and Economics*, **1**:3, 449–72. See also Oxera (2006), 'Call Terminator 3: The Ongoing Debate in Mobile Telephony', *Agenda*, October.
[11] Ofcom (2006), 'Assessment of whether H3G Holds a Dominant Position in the Market for Mobile Voice Call Termination on its Network', consultation document, September 13th.
[12] See Oxera (2007), op. cit., and OPTA (2007), 'Marktanalyse gespreksafgifte op de mobiele netwerken van KPN, Orange, T-Mobile en Vodafone', May 15th.
[13] OPTA (2002), 'Policy Rules Regarding the Regulation of Mobile Termination Tariffs', March 28th; and Aanvullend beroepschrift van Orange Nederland B.V. terzake van het besluit van OPTA inzake de markt door gespreksafgifte of het mobile network van Orange van 14 November 2005.
[14] Oxera (2007), op. cit., p. 14.