BUYER POWER IN TELECOM

SMP ASSESSMENT OF TERMINATION| 26 JANUARY 2008

INFORMED DECISIONS

COPENHAGEN ECONOMICS

TABLE OF CONTENTS

Preface 3

Chapter 1 Main findings 4

Chapter 2 The outset 7
2.1. Motivation 7
2.2. Definition 8
2.3. EU case law 9

Chapter 3 Regulation of termination markets 13
3.1. Telecom termination markets 13
3.2. Assessing the need for regulation 14

Chapter 4 Countervailing buyer power in SMP decisions 17
4.1. SMP status 17
4.2. Methodologies employed 20
4.3. Regulatory impact 22
4.4. Discrimination between small and large buyers 25
4.5. Incentive to use buyer power 26
4.6. Excessive pricing 29
4.7. Other assesments of countervailing buyer power 30
4.8. The impact of operator size 33

Chapter 5 SMP – Is regulation necessary? 37
5.1. Incentive to behave independently 37
5.2. The waterbed effect 39

References 43

PREFACE

The Swedish Competition Authority has asked Copenhagen Economics to study the role of countervailing buyer power in national regulators' decisions on SMP status in the markets for mobile and fixed net voice call termination.

Countervailing buyer power is a field of growing controversy. Four European courts have recently annulled regulatory authorities' decisions on the grounds of inadequate or erroneous appraisal of countervailing buyer power.

We have surveyed the assessments of countervailing buyer power in the existing literature, in SMP decisions in Sweden, Norway, The United Kingdom, and in the comments by the European Commission on notified draft decisions by Member States. The survey reveals a number of differences in the analytical approaches to the concept. This may jeopardize the development of a stable and transparent regulatory regime for telecommunications. We therefore recommend regulators to prioritise a more thorough analytical agenda in the future. Countervailing buyer power will clearly play an important role for future regulatory action in telecom markets.

The report is written by M. Sc. Simen Karlsen, Ph.D. (Econ.) Karl Lundvall, M. Sc. Jonatan Tops and Ph.D (Econ) Henrik Ballebye Olesen.

Copenhagen, 26 January 2008

Ph.D (Econ) Henrik Ballebye Olesen
Senior economist

Chapter 1 | MAIN FINDINGS

Telecom operators have by definition a 100% market share in their own termination market - calls can only reach a Tele2 subscriber if terminated in Tele2's own network.

Such market shares would normally alone constitute a strong indication of SMP (significant market power) of operators. The key constraint on the market power of these operators is the relative strength on the buyer side. Since the telecommunications industry typically involve many situations in which the same operators encounter each other, the assessment of this aspect is particularly important. The principal question is whether the buyer power can *countervail* the market power of the supplier.

For this reason, countervailing buyer power plays a key role in SMP analyses. Recently, four different courts have annulled national regulatory authorities' decisions due to inadequate analyses of countervailing buyer power. These are Ofcom in the UK, OPTA in the Netherlands, ComReg in Ireland and Ficora in Finland.

In this report, we review the role of countervailing buyer power in SMP decisions by national regulators in the markets for mobile and fixed net voice call termination. We make the following three observations.

First, the assessments are based on a number of indicators which vary between regulators. In total we identify 22 different indicators that can be organised into four categories: regulatory impact, discrimination between buyers, incentive to use buyer power and excessive pricing, see Table 1.1 below.

Table 1.1 Assessed indicators of countervailing buyer power in SMP decisions

Category	Sweden	UK	Norway
1. Regulatory impact			
Purpose of the regulations	√	√	√
Terms of the regulations	√	√	√
Predicted outcome of regulatory dispute		√	
Content of agreements		√	
Formulation of agreement		√	
Changes in agreement		√	
2. Discrimination between buyers			
Possibility of buying combined service from fixed net incumbent	√	√	√
Usage of combined service from fixed net incumbent		√	
Actual prices		√	
3. Incentive to use buyer power			
Importance of reaching seller's customers		√	
Loss of turnover		√	
Lack of transparency	√	√	
Reputational damage	√	√	
Occurrence of price differentiation and refusal	√	√	
Recovery of higher termination charges		√	
4. Excessive pricing			
Benchmark prices	√	√	√
Benchmark price changes	√		√
Costs		√	
Other assessments			
Price sensitivity		√	
Information	√	√	
Reciprocity		√	√
Alternative options	√	√	√
Total number of aspects examined	**10**	**21**	**7**

Source: Copenhagen Economics and SMP decision in Sweden, the UK and Norway, cf. SMP decisions in References.

Secondly, Ofcom reviewed two to three times more indicators than the regulators in Sweden and Norway in its most recent decisions. This may be an effect of the 2004 annulment of a previous SMP decision by the UK Competition Appeal Tribunal.

Thirdly, buyer power is rarely sufficiently 'countervailing' to remove an identified SMP status in termination markets. Indeed, there are no such examples in the cases we have reviewed.

Our study also reveals that regulators differ in their appraisal of the need for imposing remedies on operators with SMP. In Sweden, the regulator only analyse whether an operator has the *ability* to raise termination prices, which corresponds to the assessment of SMP. If it has, remedies are imposed. In Norway, the regulator goes one step further and briefly assess whether SMP operators also have an *incentive* to raise prices. Ofcom goes even further and also analyse whether any additional termination revenue will be *reallocated* back to customers. Absent such compensatory reallocation, remedies are imposed on SMP operators.

Chapter 2 THE OUTSET

The role of countervailing buyer power has become a debated aspect of regulators' assessment of whether operators enjoy SMP in their own network, i.e. dominant position in competition law. Operators have by definition a monopoly when terminating calls to their own subscribers. The ability of operators to take advantage of such monopoly power is to a large extent limited by the joint power of the players on the buying side. This aspect has received increased attention by scholars and academics lately. Countervailing buyer power is therefore an area of increasing importance in telecom regulation.

2.1. MOTIVATION

Countervailing buyer power is commonly understood as the restraint buyers put on a seller's market power. Consequently, if buyers have sufficient countervailing buyer power, a seller cannot behave independently of its consumers. The European Commission makes explicit reference in its guidelines to the importance of correctly evaluating this aspect.

"The existence of buyer power and the ability of network operators to raise termination rates above the competitive level should be examined on a case-by-case basis in the context of the SMP assessment on this market."[1]

Recently, however, four different courts have annulled national regulators' decisions due to inadequate or erroneous assessment of countervailing buyer power, including the UK, OPTA in the Netherlands, ComReg in Ireland and Ficora in Finland.[2] The development casts doubt on the quality and accuracy of the adopted methodologies to evaluate buyer power. In this study, we review a selection of decisions involving assessments of countervailing buyer power on termination markets for mobile and fixed net telecommunications.[3]

We limit the scope of the review to a range of regulatory SMP decisions from Sweden, UK and Norway. We also include the comments by the European Commission on national regulators' draft SMP decisions. The review is conducted within the analytical frame as defined by economic theory and European competition case law.

An operator with SMP possesses by definition an *ability* to behave independently of competitors and customers, for instance by raising prices. It may not always be the case,

[1] European Commission (2007), p. 25
[2] Foros and Steen (2007)
[3] It is beyond the scope of the report to assess the impact of countervailing buyer on the design of new remedies, e.g. introducing receiver party pays. In the termination markets, the main competition problem is the application of the principle calling party pays, which leads to the bottleneck. For instance, it could be of utmost interest to assess whether imposing the remedy receiving party pays could eliminate this bottleneck.

however, that the operator necessarily also has an *incentive* to do so. In addition, even when an SMP-operator have such incentives, consumers may remain unharmed if the 'excess' revenue is *reallocated* back to consumers through, for instance, subsidised mobile phones or lower subscription prices. In our review of regulator's decisions, we will also consider the extent to which these aspects are considered.

The study is outlined as follows. In this chapter, we firstly expand on the motivation for the study in section 2.1. In section 2.2, we provide a definition of countervailing buyer power and relate some key findings from economic theory. In paragraph 2.3, we describe how the concept is codified in European competition law using two recent cases on horizontal mergers.

In chapter 3 we introduce the main characteristics of telecommunications markets and draw conclusions on the principal areas that need to be evaluated in SMP assessments. In chapter 4 we survey the role of countervailing buyer power in recent SMP-decisions in three different countries. Chapter 5 shortly describes the extent to which these decisions also have considered the incentives of SMP-operators to raise termination fees and on the waterbed effect.

2.2. DEFINITION

The OECD defines buyer power as

> *"a situation which exists when a firm or group of firms, either because it has a dominant position as a purchaser of a product or service or because it has strategic or leverage advantages as a result of its size or other characteristics, is able to obtain from a supplier more favourable terms than those available to other buyers."*[4].

Interestingly, there is no reference to the market power of the seller. In essence, it is the ability of a certain buyer to negotiate better purchasing terms than available to others that constitutes the heart of the concept.

In a retailing market, OECD adopts the following definition.

> *"… a retailer is defined to have buyer power if, in relation to at least one supplier, it can credibly threaten to impose a long term opportunity cost (i.e., harmful or withheld benefit) which, were the threat carried out, would be significantly disproportionate to any resulting long term opportunity cost to itself."*[5]

[4] OECD (1998), p. 49
[5] OECD, (1998), Supra note 8

The definition is related to a Nash bargaining situation. When a buyer discontinues trading with one of its suppliers, its proportional loss depends on the cross-price elasticity between the supplier's own product and its competitors' products, rather than on its own market share. On the contrary, the supplier's proportional loss is directly linked to the retailer's market share. This is the main logic behind the assertion that firms with larger market shares also can be expected to have stronger buyer power.

From a more general perspective, antitrust authorities should be concerned about monopsony for exactly the same reasons as for monopoly. There are certainly situations when the existence of either monopoly or monopsony may motivate the creation of the other. However, such a bilateral monopoly is hardly an optimal solution for consumers and would most likely be considered as a less attractive option for the parties than an ordinary merger. Hence, there is little reason for antitrust authorities to permit the creation of a monopsony to balance a downstream monopoly.

It is sometimes argued that antitrust law enforcement should assume a more flexible attitude towards buyer cartels. From a strictly economic perspective, such a policy would only be motivated when there is one supplier, constant returns to scale in production and no significant sunk costs. In such a bilateral monopoly, both parties would prefer vertical integration. In any case, it is unlikely that the buyer cartel would pass on reaped gains to consumers.

In the literature, countervailing buyer power has most frequently been assessed in merger analysis. Typically, merging parties advance circumstances that mitigate the lessening of competition which accompany mergers. For instance, a merged firm may be better able to countervail existing selling power of suppliers and reduce input prices which would ultimately benefit consumers. If so, it can be motivated for antitrust authorities to clear mergers among buyers in cases where suppliers are strong. An alternative, more traditional, less controversial and easier approach would be to simply rely on markets forces to gradually wear down market power and hence always bar mergers which result in dominance, be it accompanied with countervailing buyer power or not.

2.3. EU CASE LAW

Countervailing buyer power has gained more influence in European competition law enforcement lately. The main focus is on whether buyer power leads to consumer harm or not, especially in relation to vertical agreements and price discrimination.

Over the years, the assessments of dominance in European competition law have gradually become more economically oriented, moving away from market shares as the overriding evaluation criteria. By implication, there is an increased focus on the role of buyer power. In fact, the definition of dominance has an implicit reference to buyer power.

> *"The dominant position referred to in Article 82 relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition in being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers."*[6]

Consequently, if buyers are sufficiently powerful, a supplier will not be able to act independently and hence not be in a dominant position.

Countervailing buyer power is also accounted for in the horizontal merger guidelines by the European Commission and the OFT, as shortly outlined below.

Guidelines

The horizontal merger guidelines by the European Commission (2004) contains three references to buyer power.

The first reference concerns the creation or strengthening of buyer power in upstream markets (section IV.4). The merged firm, empowered through its sheer expansion in size, may be in a position to obtain lower prices by reducing its purchase of inputs. This may reduce output and harm consumers. These risks are greater when suppliers themselves are fragmented and therefore have limited seller power. The merged entity may also use its increased buyer power to increase rivals costs in supply markets.

The second reference to buyer power in the guidelines considers the specific *countervailing* effects. The Commission is to analyse the relative position of customers to balance the increase in market power of a merged entity. The guidelines provide three examples of how countervailing buyer power may be exercised.

- the ability to quickly switch to other suppliers
- the ability to signal realistic vertical integration plans
- the ability to actively sponsor expansion in supplier markets

[6] Court of Justice of the European Communities (1978), paragraph 65

The third reference is to purchasing efficiencies - increased buyer power may be beneficial for competition if it lowers input costs without harming downstream competition or total output (§62).

The OFT guidelines on dominance treats countervailing buyer power in much the same fashion. Most interestingly, the authority provides illustrative examples drawn from their enforcement experience. Switching to other suppliers is considered as a critical manifestation of buyer power. In cases where switching is not viable option, buyer power can be imposed using alternative means such as delaying purchases, restricting supplementary purchases, and threaten to enter the supplier markets themselves.

The evaluation of buyer power, however, is a complex task and involves more variables than sheer size. Strong brand names of suppliers may constitute a considerable hindrance for exercising countervailing buyer power – this is exemplified by the food retail industry in which certain small suppliers may offer so-called “must have” brands. Even if a supplier is small, consumers may exhibit high brand loyalty and switch shop if the supply in their normal shop is discontinued. The Danish Competition Authority reaches similar conclusions in its *Konkurrenceredegørelsen 2006*.

Recent cases

Two recent Commission merger cases are illustrative in understanding the guidelines mentioned above and the current economic thinking. These are the Korsnäs/AD Cartonboard merger in 2006 and the Stora/Enso merger in 1998.

The 2006 case was unconditionally, and quite surprisingly, approved in phase one despite the creation of a near-duopoly by letting AD Cartonboard acquire Korsnäs. The merger involved the second and third largest suppliers in the Common market of liquid packaging board. The merged entity did not become market leader, but the merger nevertheless led to a substantial increase in concentration. The two largest firms represents over 90% of the market in the European Union.

The production is characterised with high fixed costs and the output is sold to converters with considerable market power, including Tetra Pak, Combibloc and Elopak. These companies process the material into liquid packaging containers for milk and juice. Before the merger, StoraEnso was a large producer with a competitive fringe of the two smaller players Korsnäs and AD Cartonboard. The demand side consisted of one large customer, Tetra Pak, and two smaller, Elopak and Combibloc. After the merger, two large suppliers remained, facing one large and two smaller customers. In all, this proved to be a rather peculiar market structure. The key questions were whether the two suppliers would have the ability and incentive to expand production if the other party would raise prices, and whether customers had sufficient countervailing buyer power also after the merger.

The Enso/Stora merger in 1998 had been approved by the Commission once it deemed the customers “on balance” to possess enough countervailing power to offset any adverse effects. Consequently, the critical question in the Korsnäs/AD Cartonboard case was whether the merger was sufficient to tip the delicate balance into the red. As it turned out, it was not. In contrast, the wording of the decision by the Commission suggests that they were convinced that countervailing buyer power on behalf of Tetra Pak and others were strong enough to remove any anticompetitive concerns. Furthermore, Tetra Pak possessed both the strength and the know-how to replace any of the two large suppliers or to initiate in-house production.

In sum, we conclude that both economic theory and European competition case law acknowledge the effects of countervailing buyer power. The main thrust of the analysis has, however, been directed to mergers. As we shall see in the next chapter, the needs and analytical environment when evaluating countervailing buyer power in telecoms is distinct.

Chapter 3 REGULATION OF TERMINATION MARKETS

Telecommunication naturally involves both a caller and a receiver. The call is normally paid for by the caller, but the call usually involve two networks - that of the caller and that of the receiver. These are referred to as the origination and termination network, respectively. Normally the owner of the origination network pays for access to the termination network. As noted above, the operator of the receiver has by definition a 100% share of this termination market. For smooth interconnection between networks, owners of termination networks are normally regarded as enjoying SMP and therefore subject to regulation.

However, termination markets are special. Operators are, in a sense, alternating between being buyers and sellers of each others' termination services. In addition, operators are also competitors in retail markets. Some operators are active in various geographical markets and in mobile as well as fixed net telecommunications. Others are not. Accordingly, mainstream economic theory and European competition case law on countervailing buyer power may not be directly applicable to these markets.

3.1. TELECOM TERMINATION MARKETS

Termination markets have a number of characteristics that distinguish them from other markets. Five such characteristics are listed in Table 3.1 below. A first observation is that there is only one network in which a call can be terminated. When a TeliaSonera subscriber calls a Tele2 subscriber, Tele2 is the only available terminator. Moreover, it is the consumer at the receiving end who decides in whose network the call is terminated. The operator in the originating network, and ultimately the subscriber, pays for the service, an arrangement denoted calling party pays.

Table 3.1 Characteristics of termination markets

Characteristic	Comment
1. No alternative	Calls must be terminated in the network used by the receiver
2. Interlinked products	Revenue on both outgoing and incoming calls
3. Buyers are also sellers	All operators have outgoing and incoming calls from other networks
4. Buyers/Sellers are also competitors	Termination fees constitute a competitive burden
5. Operators are regulated	Most operators' behaviour is constrained by regulation

Source: Copenhagen Economics

Secondly, the products are interlinked – more subscribers imply increased termination revenue as the number of incoming calls becomes larger. On the other hand, termination expenses also increases following more outgoing calls.

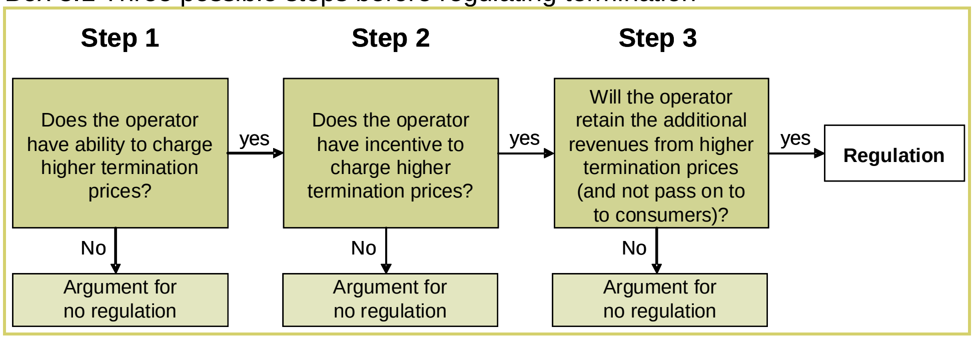
Thirdly, all operators are both buyers and sellers of termination services. Reciprocal negations of termination are commonplace. In most other markets, the roles are seldom combined.
Fourthly, besides being buyers and sellers of each other's termination services, operators are also competitors. Termination market strategy thus becomes an integral part of the overall competitive strategy.

Finally, the competitive behaviour of operators is constrained by a range of regulations. For instance, operators are obliged to interconnect their networks with each other. These constraints need be accounted for when assessing whether an operator has SMP.

3.2. ASSESSING THE NEED FOR REGULATION

These characteristics are relevant both for the assessment of whether an operator has SMP and for the assessment of whether imposing remedies is necessary. Regulatory practice, as well as economic literature, has sometimes proposed that the mere existence of SMP, which corresponds to an *ability* to, for example, raise termination fees, is not a sufficient motivation for regulation. Also relevant is whether the operator in question has an *incentive* to use his SMP in an uncompetitive manner. And lastly, even if an operator both has the ability and incentive to raise termination fees, it is sometimes likely that consumers are not hurt since the added termination revenue is allocated back to consumers, for instance through better subscription terms. This is referred to as the *waterbed* effect. The three possible assessment steps are outlined in Box 3.1 below.

Box 3.1 Three possible steps before regulating termination



Source: Copenhagen Economics

Addressing these steps is a challenging task for any regulatory authority. And there is no commonly accepted understanding of the most appropriate empirical strategy. Swiftly, we go through each of the steps below.

The ability to behave independently

To address whether an operator has an ability to set higher termination fees, one has to focus on whether the entity is in a position to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers. Based on economic theory, there are two main antagonist approaches: the classic monopoly theory and the modern economic theory of bargaining.[7]

In economic theory, suppliers of termination services are monopolists setting a monopoly price. This theory could be relevant due to two conditions. Firstly, buyer power is restricted by the fact that the calling party pays while the called party chooses the termination operator. Secondly, regulation of buying operators' own network restricts their countervailing buyer power.

In the theory of bargaining, both the seller and the buyer have bargaining power. The monopolist is dealing with a monopsonist. Whether the operator has SMP or not then depends on the relative negotiating power between the two. For instance, a small entrant offering mobile telecommunications services may have negligible supply power when faced with an incumbent offering both fixed net and mobile services.[8] It is typically more important for the smaller operator to establish a termination agreement than for the incumbent. It may sometimes be possible for the incumbent to deliberately delay this process, which can be regarded as an expression of SMP. Such situation can be hard to address by the conventional arsenal of regulatory tools.[9]

The assessment by regulators of the ability of operators to raise prices with special reference to countervailing buyer power is the focus of chapter 4. We will systematically describe the methods applied and evaluate whether the assessment of countervailing buyer power depend on operator size.

The incentives to behave independently and the waterbed effect

If an SMP-operator has no incentive to use its market power uncompetitively, there is little motivation for imposing remedies. In the case of two mobile operators, the literature is ambivalent on whether the receiving operator has an incentive to set high termination prices.[10]

On the one hand, one could argue that the terminating operator has the incentive to increase termination price as this would lead to higher costs for competitors. On the other

[7] Binmore and Harbord (2005) and Foros and Steen (2007)
[8] Idem.
[9] Binmore and Harbord (2005)
[10] Binmore and Harbord (2005), p. 449

hand, one could argue that higher termination prices would increase the incentive for competitors to act aggressively and capture customers from rivals. In order to avoid this from happening, the terminating operator may refrain from doing so.

Regarding interconnection between fixed and mobile networks, it can be expected that operators indeed have incentives to increase termination prices. The reason is that the competition between mobile and fixed net operators normally is weak, which means that there are no strategic reasons to keep termination prices low.[11]

Termination services at the wholesale level are closely related to services at the retail level. More customers result in more termination revenues as subscribers both receive and make calls.

In the telecoms literature, there is an increased attention on the possible interdependence between termination services and retail telecommunications services. One line of reasoning asserts that any additional termination revenue would be passed on to end-users in form of subsidised phones and lower subscription and traffic prices. This is often called the waterbed effect.[12] This effect is stronger when retail competition is hard. As the national regulatory authorities and the European Commission conclude that mobile competition is effective in most EU countries, we consider it also relevant to look at this effect. If the operators allocate all additional termination revenue back to their consumers, one could argue that the operators are not behaving to an appreciable extent independently of consumers, i.e. do not have SMP.

In chapter 5 we review the extent and results of regulators' assessments of the incentives of SMP-operators and of the existence of waterbed effects.

[11] Binmore and Harbord (2005)
[12] For more information on possible waterbed effect, see for instance Genakos and Valletti (2007) and Littlechild (2006).

Chapter 4 COUNTERVAILING BUYER POWER IN SMP DECISIONS

In this chapter, we examine the role of countervailing buyer power in SMP decisions in termination markets, which correspond to step 1 in Box 3.1 above. Our sample of decisions are drawn from Sweden, Norway and the United Kingdom. We also scrutinise the comments by the European Commission on draft decisions by Members States.

We find that the authorities acknowledge the possibility that, due to countervailing buyer power, telecom operators may not have SMP in termination markets despite a market share of 100%. In the sample of decisions reviewed, however, we have not found any such example. National regulators and the Commission typically conclude on the existence of SMP for telecom operators in termination markets.

We also find that the analyses of countervailing buyer power are primarily based on four main questions: First, does the current regulation leave room for countervailing buyer power? Second, are small buyers discriminated? Third, do the buyers have an incentive to exercise buyer power? And fourth, what does past pricing behaviour indicate?

4.1. SMP STATUS

The European Commission is clear on the need to assess countervailing buyer power when assessing SMP status in termination markets.

> *"The Commission acknowledges that the 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."*[13]

The same stance is found in its comments on a notification from Ofcom.

> *"The Commission notes that a detailed assessment of the competitive effects of obligations to be imposed on BT* [British Telecom] *as a result of finding BT to have SMP is important for the finding that all other PECNs* [*Public Electronic Communications Network operators*] *have SMP as well."*[14]

In addition, the Commission calls for a careful consideration of evidence.

[13] European Commission (2003)

[14] The Commission has commented on five countries' assessment of countervailing buyer power.

> *"The Commission is of the view that a 100% market share raises a strong presumption of SMP, save in exceptional circumstances which need to be clearly and unambiguously demonstrated by the national regulatory authority."*[15]

In particular, the Commission has raised objections to the SMP assessments in two EU countries, Spain and Germany. In these countries, the national regulatory authorities had concluded that countervailing buyer power made regulation unnecessary.

Regarding the Spanish SMP assessment, the regulator, Comisión del Mercado de las Telecomunicaciones (CMT), argued that countervailing buyer power would make the regulation of termination of mobile-to-mobile call redundant. They reached this conclusion despite the fact that they considered the Spanish mobile operators to have SMP for termination.

> *"In CMT's opinion, all three mobile operators have some countervailing buying power in their mutual relations such as to restrict the ability of those operators to set excessive mobile termination charges. However, this assessment does not affect the designation of SMP, but is instead reflected in the remedies."*[16]

We also note that the Spanish national regulatory authority considered there to be competition problems for termination of fixed-to-mobile calls. This suggests that the fixed network operators had lower countervailing buyer power in termination markets than mobile operators.

Evidence from the UK

In contrast to the European Commission, the UK Competition Appeal Tribunal emphasizes the need for an extensive analysis of SMP. A regulator must consider all possible factors that may have an impact on the decision.

> *"Nonetheless, it was for Ofcom to analyse whether there was sufficient countervailing buyer power in the market to negate the finding of SMP."*[17]

In fact, the UK Competition Appeal Tribunal annulled Ofcom's previous SMP decision of the mobile operator H3G on the basis of an incomplete assessment of countervailing buyer power.

[15] European Commission (2005e)
[16] European Commission (2006c)
[17] Competition Appeal Tribunal (2004), p. 9

"We note that it was against the background of those strong prima facie indicators of SMP that Ofcom reached its decision that there was no effective competition in that market and, accordingly, concluded that H3G has SMP. Nonetheless, it was for Ofcom to analyse whether there was sufficient countervailing buyer power in the market to negate the finding of SMP. We take the view that on that one aspect of its decision, Ofcom did not meet the standard required of it."[18]

Ofcom's market analyses of the fixed net termination markets show that 100% market share does not necessarily lead to SMP. In case of no regulation of the fixed net incumbent, Ofcom tends to find other fixed net operators not having SMP due to the countervailing buyer power of the fixed net incumbent.

"However, in the absence of regulation, other fixed network providers would not possess SMP in the provision of their fixed geographic call termination services to BT because of BT's countervailing buyer power."[19]

As regards the relevant threshold for finding SMP in light of countervailing buyer power, the regulatory authorities refer to the EU's Framework Directive.

"The test to assess whether countervailing buyer power is sufficient to prevent the exercise of SMP is that set out in Article 14 (2) of the Framework Directive, namely: whether countervailing buyer power can constrain an MCT [Mobile Call Termination] *provider from having the "power to behave to an appreciable extent independently of competitors, customers and ultimately consumers". In the context of this review, Ofcom considers that MNOs* [Mobile Network Operator] *will have SMP if they are able to sustain charges to an appreciable extent above the competitive level."*

Country studies – overall conclusions

In all three countries, the regulatory authority has designated all mobile and fixed net operators SMP in their own networks. Primarily, the authorities found that countervailing buyer power did not sufficiently restrict the seller power to neutralise SMP, cf. Table 4.1.

---

[18] Competition Appeal Tribunal (2004), p. 8
[19] Oftel (2003a), p. 22

Table 4.1 Designation of SMP status

SMP designation	Sweden	UK	Norway
Fixed net termination	√	√	√
Mobil termination	√	√	√
Reasoning	Monopoly circumvents buyer power	Monopoly circumvents buyer power	Monopoly circumvents buyer power

Source: Copenhagen Economics and SMP decision in Sweden, the UK and Norway, cf. SMP decisions in References.

4.2. METHODOLOGIES EMPLOYED

The empirical approaches used by the European Commission and the national regulatory authorities in Sweden, Norway and the UK are similar in reasoning but differ with respect to comprehensiveness.

European Commission

In the German case, the European Commission argued that the national regulatory authorities should make the following four assessments in order to conclude whether an operator has SMP or not for termination.[20]

Firstly, the impact of regulation should be explicitly accounted for. For instance; would the buyer, faced with interconnection obligations, be able to turn down offers of allegedly high termination prices?

Secondly, buyer power should not only be assessed for large, but also for small, operators. For instance, are there any examples of smaller operators paying higher termination prices, or is this not possible due to non-price discrimination?

Thirdly, the national regulatory authority should consider whether the buyer has the incentive to turn down termination offers. For instance, would rejecting a termination agreement create protests from the buyers' customers and negative publicity due to lack of interconnection?

Fourthly, the national regulatory authorities should look at past behaviour. For instance, is there any concrete demonstration of the constraining effects of buyer power on supplier behaviour?

[20] European Commission (2005a and 2005e)

Country studies - examinations

In all three examined countries, the regulatory authorities focus on the four assessments to which the European Commission refer, with particular emphasis on regulatory impact. However, the regulators also look briefly at some other aspects, cf. Table 4.2.

Table 4.2 Different assessments of countervailing buyer power

Factor Assessed	Sweden	UK	Norway
Regulatory impact	√	√	√
Discrimination between buyers	√	√	√
Incentive to use buyer power	√	√	√
Excessive pricing	√	√	√
Price sensitivity		√	
Information	√	√	
Reciprocity		√	√
Alternative options	√	√	√

Source: See Table 4.1

The table illustrates that Ofcom's reaction to the Competition Appeal Tribunal's annulment has been to consider more aspects of buyer power compared to Sweden and Norway. It is illustrative to present Ofcom's approach in some detail.

Firstly, Ofcom acknowledges that the bilateral monopoly setting, as analysed by Binmore and Harbord (2007), is an appropriate analytical framework. Hence, they measure the negotiation power between a monopolistic seller and a monopsonistic buyer. In this way, countervailing buyer power is a relative term.

> *"The framework within which Ofcom has conducted the countervailing buyer power analysis is the same as the one proposed by H3G, namely a bilateral monopoly setting, with H3G as the monopolist (only 1 seller) and BT as the monopsonist (only 1 buyer) of termination. This is a widely used and recognised framework for characterising negotiations of fixed-to-mobile termination and is the framework that was used in the June 2004 CTM* […] *statement. Ofcom's review of the evidence confirms that it remains appropriate."*[21]

Secondly, Ofcom uses the Office of Fair Trade's (OFT) guidance of market power as a practical starting point when identifying a number of relevant factors in the assessment of countervailing buyer power.[22]

[21] Source: Ofcom (2007a), p. 26
[22] For more information, cf. Ofcom (2007b), pp. 24-25.

Next, we turn to the four assessments highlighted by the European Commission in section 4.3 – 4.6. In section 4.7 we consider remaining aspects and in section 4.8, we take a closer look at the assessment of smaller operators.

4.3. Regulatory impact

A key question in the analysis of countervailing buyer power is: What would happen in the absence of regulation? This is the "but-for situation". A controversial issue is whether the but-for situation should be evaluated with or without the current regulation in the market in question.

The European Commission argue for the second approach. The "but-for situation" is that all regulation, except that related to SMP on the market under investigation, remains. The Commission emphasises that regulation of buyers has a large impact on their countervailing buyer power. An evaluation absent regulation would consequently be irrelevant. The point was highlighted in the comments issued to the German regulator, see Box 4.1.

Box 4.1 A German case

The German regulator authority maintained that SMP should be assessed in a scenario absent regulation, according to the so-called strict Greenfield approach. The argument was that it would be inconsistent to look at a situation with regulation when the purpose of the assessment was to check for competition problems which warranted regulation.

In its comments, the European Commission rejected the German approach. The Commission was of the opinion that the regulator should take into account regulation which did not originate from the SMP analyses in question and would be expected to exist during the time horizon of the market analyses:

"The Commission considers that obligations flowing from existing regulation (other than the specific regulation imposed on the analysed market) must be taken into consideration when assessing the ability of an undertaking to behave independently of its competitors and customers on that market."[23]

Moreover, the Commission argued that the regulation of the largest buyers would significantly constrain the buyer's buyer power. Consequently, even the smallest operators would presumably have SMP for termination.

"It is generally considered that countervailing buyer power of a large operator is essentially lost if its call termination rates are additionally regulated in the separate market for call termination on that operator's individual public telephone network".[24]

Source: European Commission (2005a and 2005e)

Based on the Commission's emphasis on the restrictive effects of regulation on buyer power, we could easily believe that termination operators per definition have SMP. How-

[23] European Commission (2005e)
[24] European Commission (2005a)

ever, the Commission commented on a notification from Ofcom that the British regulator should make a detailed assessment of the regulatory impact before concluding on SMP.

> *"The Commission notes that a detailed assessment of the competitive effects of obligations to be imposed on BT as a result of finding BT to have SMP is important for the finding that all other PECNs have SMP as well.'*[25]

Country studies - conclusions

The regulators of Sweden, Norway and UK shares the view of the Commission that regulation is the relevant scenario for the but-for situation. They also agree that regulation in general constrains buyer power since it limits the possibilities for levering SMP in neighbouring markets, cf. Table 4.3.

Table 4.3 Regulatory impact

	Sweden	UK	Norway
Conclusion: Yes, signs of SMP	√	√	√
Reasoning	Regulation restricts buyer power	Regulation restricts buyer power	Regulation restricts buyer power

Source: See Table 4.1

Country studies - examinations

OFT examines both the content and purpose of the regulation in order to understand how it has influenced the termination agreements, while Norway and Sweden focused on just the regulations, cf. Table 4.4.

Table 4.4 Regulatory impact

Examined aspect	Sweden	UK	Norway
Purpose of the regulations	√	√	√
Terms of the regulations	√	√	√
Predicted outcome of regulatory dispute		√	
Content of agreements		√	
Formulation of agreement		√	
Changes in agreement		√	

Source: See Table 4.1

Regarding the purpose and the terms of the regulations, the two Scandinavian countries just state that the regulations force buyers to enter into termination agreements and prevent the incumbent fixed net operator from threatening to increase its own termination charges.

[25] European Commission (2003)

In contrast, when Ofcom assesses the purpose of regulations, they carefully check the purpose of each regulatory provision. For instance, they review whether the purpose of the end-to-end interconnection obligation has a special anticompetitive twist.

Concerning the terms of the agreements, Ofcom reviews the conditions in the regulations, for instance the period for negotiations, the interpretation of reasonable terms and Ofcom's leeway to decide or modify any termination terms.

In contrast to Norway and Sweden, Ofcom assesses also whether the regulations may reduce seller power. In practice, Ofcom tries to predict how they would intervene in a termination dispute, e.g. whether they would enforce termination charges which are not excessively above the competitive level.

Moreover, as the only regulator, Ofcom reviews the termination agreements. In doing this, they are looking for signs or traces of either market power on the seller side or countervailing buyer power on the buyer side. This review includes the final content of the agreements and the formulation of, and changes in, the agreements. In practice, Ofcom considers a number of factors serving as a potential indicator of buyer power.

- Reference to regulation in the agreements.
- Easiness for the seller and buyer to amend the agreement.
- Earlier agreement changes: Do they reflect changes in regulation or cost related parameters, such as traffic volume, or market power on either side?
- Examples of buyer pressure or seller pressure in correspondence between the parties, e.g. threats of rejections or delaying the processes.
- Outcome of such buyer and seller pressure.
- Internal documents on the seller's and buyer's strategy in negotiations.

Overall, Ofcom has undertaken a much more thorough examination of the regulatory impact. While Norway and Sweden mainly refer to the general impact of regulation, Ofcom identifies several regulation provisions that may have a bearing on the countervailing buyer power and examines their impact separately. These include the following.

- SMP regulations on related markets
- End-to-end interconnect obligations
- Carrier (pre)-selection
- Negotiating obligations

4.4. Discrimination between small and large buyers

Countervailing buyer power is generally analysed with respect to the fixed net incumbent, as the incumbent is the largest buyer and potentially also the strongest. However, the termination operators also encounter other fixed net and mobile players.

European Commission

In fact, the European Commission argues that national regulators should explicitly consider the fixed net incumbents' buyer power vis-à-vis other smaller operators. The Commission hence implicitly assumes that sellers of termination services would be capable of discriminating between, for instance, large and small operators.

The Commission's view on the ability to discriminate contrasts with the German national regulator, who stated that smaller operators would not discriminate between the fixed net incumbent and other operators. According to the German regulatory authority, other operators could circumvent any higher prices by profiting from the fixed network operator's lower negotiated prices for terminating calls on the small operators' network.

> *"Finally, RegTP [German regulatory authority] has failed to analyse ANOs' [other fixed network operators than the incumbent] market power vis-à-vis each other and vis-à-vis MNOs [mobile network operators]. Although, as RegTP points out, these operators may only play a marginal role on the demand side of the termination markets (since most of the traffic originating on their networks is terminated indirectly, using the transit and termination services provided by DTAG), an analysis of those direct interconnection agreements that exist between ANOs and/or with MNOs could have provided further information on the market power of ANOs."*[26]

Country studies - conclusions

Conclusions differ between the countries on the possibility of this kind of discrimination. The Norwegian Authority argues that sellers may differentiate prices between large and small operators. Ofcom is, along with the Swedish regulator, of the opposite opinion, arguing that the combined transit and termination service from the fixed net incumbents constitute an efficient restraint on the price setting of the seller vis-à-vis smaller buyers, cf. Table 4.5.

[26] European Commission (2005e)

Table 4.5 Discrimination between small and large buyers

	Sweden	UK	Norway
Conclusion: yes, signs of SMP			√
Reasoning	Competitive alternatives for buyer	Competitive alternatives for buyer	None

Source: See Table 4.1

Country studies - examinations

There are also differences as regards the substantiation of the conclusions, cf. Table 4.6.

Table 4.6 Discrimination between small and large buyers

Examined aspect	Sweden	UK	Norway
Possibility of buying combined service from fixed net incumbent	√	√	√
Usage of combined service from fixed net incumbent		√	
Actual prices		√	

Source: See Table 4.1

While Norway alleges that the seller may differentiate prices, the UK assesses the possibility and traces of discrimination. In all three countries, it is analysed whether it is possible to buy a combined transit and termination service from the fixed net incumbent instead of direct termination with the termination operator.

However, only Ofcom goes any further and checks whether the operators use the combined service as a real alternative to direct termination agreement. Moreover, Ofcom has examined whether the operators actually differentiate their prices or charge uniform prices. Uniform prices would be a sign of the combined service being a real option, and vice versa.

> *"These considerations are evidenced by the fact that, where termination charges are not regulated, MNOs do not charge each customer a different termination charge (as discussed in Section 3). Data received from each of the MNOs confirms that they charge the same for termination to all originating operators".*[27]

4.5. INCENTIVE TO USE BUYER POWER

We have now reviewed the assessments of regulatory impact and the possibility to differentiate between operators with different buyer power. In these assessments, the focus is on the ability to countervail seller power. However, one could also question whether the buyers have the incentive to use any possible countervailing buyer power.

[27] Ofcom (2007b), p. 72

European Commission

In fact, the Commission goes as far as to argue that they do not have an incentive to insist on lowering termination prices.

> *"Regardless of the existing regulatory framework set out above, DTAG has little economic incentive either to cut off current interconnection with, or to stop buying termination services from, any particular ANO. […] If DTAG decided not to purchase termination from a certain ANO, this would conversely result in customer dissatisfaction, reputation damage and pressure from consumer organisations as DTAG's retail customers would no longer be ensured end-to-end connectivity. […] In addition, if DTAG were to cease to purchase termination from ANOs, this may have the effect of stimulating substitution via carrier selection.[…] In such a case, DTAG would lose market share in a core area of its business.[28]*

Consequently, the Commission tends to believe that operators as buyers neither have the ability nor the incentive to insist on low termination prices.

Country studies - conclusions

All three countries conclude that the buyers have limited incentive to use refusal to interconnect, or to use differentiated end-user prices, as a weapon in order to exert pressure on termination charges. The primary reason is that buyers would face negative consequences if they refused the offer or differentiated the end-user prices based on differences in termination charges, cf. Table 4.7.

Table 4.7 Incentive to use buyer power

	Sweden	UK	Norway
Conclusion – Signs of SMP	√	√	√
Reasoning	Negative buyer consequences	Negative buyer consequences	None

Source: See Table 4.1

Country studies - examinations

However, there are considerable differences in regulators' substantiations of their common conclusions, cf. Table 4.8.

[28] European Commission (2005e)

Table 4.8 Incentive to use buyer power

Examined aspect	Sweden	UK	Norway
Importance of reaching seller's customers		√	
Loss of turnover		√	
Lack of transparency	√	√	
Reputational damage	√	√	
Occurrence of price differentiation and refusal	√	√	
Recovery of higher termination charges		√	

Source: See Table 4.1

The Norwegian Authority just states that the incentive is absent.

> *"Hva gjelder forhandlingsstyrke mellom mobiltilbyderne, mener PT at det verken er teoretisk eller empirisk grunnlag for å si at slike forhandlinger kan bidra til at termineringsprisene vil presses ned til et nivå som ikke indikerer markedsstyrke. Aktørene har verken incentiver eller forhandlingsstyrke til å forhandle prisene tilstrekkelig ned. Tvert om vil PT anta at tilbyderne i slike forhandlinger har incentiver til å sette priser som er høyere enn de en ville funnet i et marked med fungerende konkurranse."*[29]

In contrast, Ofcom examines several factors. Firstly, they consider the size of sellers of termination, e.g. number of subscribers, and evidence of the buyer's valuation of reaching an agreement, such as statements and internal documents, in order to indicate the importance for the buyer to reach an agreement.

Secondly, Ofcom tries to indicate the likely loss of turnover for the fixed net incumbent due to competition from mobile and fixed net operators. The question is how easy it is for call (pre-)selection operators to offer customers of the fixed net incumbent alternative means to reach the termination operator. As regards mobile operators, the question is to what extent customers would use their mobile phone instead of their fixed net phone.

Thirdly, Ofcom assesses the effectiveness of any refusal to interconnect due to lack of transparency. The main examination is the impact of number portability. Customers can now change operators while keeping their telephone number.

> *"This would mean that when a customer ported from a donor network to a recipient network, BT would be unaware that the number was now hosted on a network to which they otherwise might not provide termination. Similarly BT would be unable to provide connection to customers who had ported from the "excluded network"*

---

[29] Post- og teletilsynet (2007), p. 33

> *because it would be unaware that they were no longer hosted on that excluded network."*[30]

Fourthly, Ofcom examines the possibility that the fixed net incumbent initially refuses to accept any increases of termination of rates but is subsequently forced to accept the increases retrospectively. If so, the consequences may be dire.

> *"BT may be unable to recover the charge differential from transit customers (in addition to being unable to pass on increases to its own retail customers)."*[31]

Fifthly, Ofcom reviews whether there is any evidence that the fixed net incumbent has refused, or intended to refuse, to purchase mobile termination from a particular operator.

Finally, Ofcom examines the likely reactions from own customers as well as negative publicity from refusal to enter into an agreement with a smaller operator.

In Sweden, the regulator swiftly addresses the issue of transparency, of harm of own consumers as well as retail price differentiation based on higher termination prices.

4.6. EXCESSIVE PRICING

A concrete demonstration of the constraining effect of buyer power on a supplier's behaviour, can be an indication of countervailing buyer power. In contrast, excessive prices may indicate there is not sufficient countervailing buyer power.

European Commission

The Commission recommends regulators to provide concrete evidence on price behaviour when assessing countervailing buyer power.

> *"RegTP could have demonstrated this by showing that, in the recent past, DTAG has been able to exert sufficient pressure on the individual ANOs to keep their call termination rates at competitive levels. RegTP presents no evidence of this behaviour."*[32]

---

[30] Ofcom (2007b), p. 91
[31] Idem, p. 76
[32] Source: European Commission (2005e)

Country studies – conclusions

All three countries find signs of SMP when assessing price behaviour in the termination markets. The prices are, at least partly, considered to be well above competitive level, cf. Table 4.9.

Table 4.9 Pricing behaviour

	Sweden	UK	Norway
Conclusion: yes, signs of SMP	√	√	√
Reasoning	Prices appreciably above competitive level	Prices appreciably above competitive level	Prices appreciably above competitive level

Source: See Table 4.1

Country studies – examinations

To identify excessive pricing, regulators need a pricing benchmark. Regulators commonly examine actual prices if they are not totally regulated. There are, however, alternative ways to conduct the analysis, cf. Table 4.10.

Table 4.10 Different options for finding a competitive level

Examined aspect	Sweden	UK	Norway
Benchmark prices	√	√	√
Benchmark price changes	√		√
Costs		√	

Source: See Table 4.1

In the three countries, the regulators compare the price level of the operator in question with the prices of other operators. If the prices are much higher, it might be a sign of prices being appreciably above a competitive level.

Similarly, the Norwegian and Swedish authorities compare the price changes of the operator in question with price changes of other operators. To the extent that regulated price reductions for one operator are not followed by price reductions of other operators, this can also be a sign of prices being appreciable above a competitive level.

Ofcom compares prices with costs, which are based on a cost model, i.e. long run incremental costs including a mark up for common costs.

4.7. Other assesments of countervailing buyer power

We have now reviewed the assessment aspects recommended by the Commission. In addition, the regulators address other dimensions.

Country studies – conclusions

In the three sample countries, we identify four other assessments of countervailing buyer power: price sensitivity, access to information, outside alternatives, reciprocity in interconnection negotiations.

With respect to the first three aspects, it is concluded that they are insufficient to alone have an decisive impact on the SMP-assessment. The 'outside alternatives' option fails by definition since there typically is no alternative termination network.

The possibility that reciprocity in termination negotiations might increase countervailing buyer power is undermined by the fact that the mobile operators know whether they are net receiver of net recipients of calls. In addition, the difficulties in discriminating termination charges between buyers and the regulatory restraint on the buyers weaken the potential threat of reciprocity in high termination prices.

In total, the authorities consider these factors to speak in favour of SMP on the termination markets.

Table 4.11 Other assessments of countervailing buyer power

	Sweden	UK	Norway
Conclusion: yes, signs of SMP	√	√	√
Reasoning	Moderate potential buyer power	Moderate potential buyer power	Moderate potential buyer power

Source: See Table 4.1

Country studies - examinations

Ofcom has examined four other factors with an impact of buyer power: price sensitivity, access to information, reciprocity in interconnection negotiations and outside alternatives, cf. Table 4.12.

Table 4.12 Other assessments of countervailing buyer power

Examined aspect	Sweden	UK	Norway
Price sensitivity		√	
Information	√	√	
Reciprocity		√	√
Alternative options	√	√	√

Source: See Table 4.1

Two related factors are the buyers' price sensitivity and information set on actual termination charges in the market. When Ofcom assesses the level of price sensitivity, they focus on the seller's termination proportion of the buyer's total expenditure on termination.

The higher the proportion, the more likely it is that the buyer is price sensitive. The proportion is assessed both in terms of incoming traffic and of number of subscribers.

As regards the degree of information, Ofcom looks at the experience of the buyer or any concrete evidence of the incumbent's level of information.

> *"It appears reasonable that BT would:*
> *• compare the charge with that offered by other providers of mobile call termination, i.e., the other MNOs, for a similar service; and*
> *• recognise the implications of the retail prices faced by its subscribers for calls to different mobile networks.*
> *4.31 The evidence shows that both of these factors were taken into account by BT. For example, in an e-mail from BT to H3G, BT sets out that "it has reached the conclusion that proposed termination rates, being significantly higher than call charges to other existing GSM services, represent too high a cost for BT's retail customers.""*[33]

The examination of alternative options is straightforward as the authorities already in their market delineation defined the seller of termination as having a monopoly on its own network.

The operators are normally both sellers and buyers of termination services. Consequently, buyers could in principle use termination on its own network as countervailing buyer power. When Ofcom assesses this factor, they focus on three points.

Firstly, on the fixed network, the primary issue is whether the fixed net incumbent can use termination on its network as countervailing buyer power.

Secondly, on the mobile networks, the primary issue is whether it is a credible threat for mobile operators to charge a similar high (unregulated) price for termination on its own network. According to Ofcom, this depends on two conditions. One is traffic balance.

> *"If traffic between MNOs is balanced then the threat is not effective as a means of constraining the charges of a terminating MNO. The threat of higher reciprocal charges does not change the profitability of the terminating MNO. In this situation, as noted by respondents to the March 2006 Consultation, the outcome for charges could be that MNOs agree to charge each other relatively high or low charges. However, the evidence and theory in this area is not conclusive.*

---

[33] Ofcom (2007a), p. 28

> *[…] However, if the originating MNO is a net receiver of calls the terminating MNO will face a net cost associated with such a reciprocal agreement. Therefore the threat, to respond to a high termination charge by setting a similarly high termination charge in return, is a credible one for an MNO engaged in a reciprocal negotiation with another MNO from which they are a net receiver of calls.'*[34]

Another condition is the knowledge of traffic balance. The threat depends on whether the buyer is aware of the traffic balance between the buyer and the seller and on whether the traffic balance is stable between them. If not, the buyer would not know whether mutual high termination prices are in its interest.

Thirdly, Ofcom assesses whether it is possible for operators to discriminate between buyers. For instance, if the fixed net incumbent has entered into termination agreements with all mobile operators, it may be difficult for the originating mobile operator to threaten to charge a higher termination price. The reason is that the terminating operator may use the combined transit and termination services of the fixed net incumbent.

In Norway and Sweden, the authorities just briefly address outside options, reciprocal termination agreements and level of information.

4.8. THE IMPACT OF OPERATOR SIZE

The bargaining power is often influenced by the size of the sellers. Normally, large sellers have more power than smaller sellers. Hence, the analysis of countervailing buyer power depends on operator size.

European Commission

The Commission argues that regulation to a large extent eliminates the buyer power of larger operators.

> *"While small networks will normally face greater buyer power than large networks, the regulatory requirements referred to in paragraph 26 above will normally redress this imbalance of market power.'*[35]

Based on the regulatory restraint on the large operators, the Commission seems to be of the opinion that also small operators have SMP. As mentioned in its comments to the

[34] Source: Ofcom (2007b), p. 88
[35] Source: European Commission (2005a)

German regulator, none of the 53 alternative operators to Deutsche Telecom were sufficiently restricted by countervailing buyer power.

Country studies - conclusions

None of the regulators believe that seller size makes a difference on the overall SMP conclusion. The primary reason is that the countervailing buyer power of the large buyers is restrained by regulation of the buyers. Nevertheless, our investigation of the enforcement in Sweden, Norway and the UK shows that the degree of market power may vary depending on the size, Table 4.13.

Table 4.13 Size of the seller

	Sweden	UK	Norway
Conclusion: yes, signs of SMP	√	√	√
Reasoning	Regulation restricts countervailing buyer power	Regulation restricts countervailing buyer power and delay strategy is unlikely	Regulation restricts countervailing buyer power and possibility of discrimination

Source: See Table 4.1

Of particular interest is the Norwegian authority's assessment of smaller operators. The Norwegian authority acknowledges that smaller operators may have reduced relative supply power, but argue that the operators should document any impact from countervailing buyer power on termination prices.

> *"Tele 2 og TDC Song har også fastsatt sine termineringspris på et nivå som er høyere enn Telenor og NetComs. PT forventer imidlertid at Tele2 og TDC Song i kraft av sin avhengighet av Telenor som leverandør av innsatsfaktorer i større grad enn NetCom vil være utsatt for Telenors forhandlingsstyrke. Det er imidlertid svært usikkert hvordan dette eventuelt vil slå ut for termineringsprisene og kan ikke tillegges vekt før det foreligger dokumentasjon på at kjøpermakt på etterspørselssiden har stor betydning for fastsettelsen av termineringspriser."*

In this context, it is also of interest that some smaller operators in Norway tried to increase the termination prices dramatically. The incumbent fixed net operator replied by playing an automatic message warning its customers every time they picked up the telephone in order to call customers of the smaller operators. Quickly, the smaller operators reduced the prices again.

In the UK, Ofcom makes a difference between new entrants and established small operators. The reason is that Ofcom considers delay strategy as the buyer's likeliest credible threat in presence of regulation. Accordingly, Ofcom finds that a small operator is much more sensitive to delays when it is still not operative.

Country studies – assessments

There are some differences in how the three countries examine whether small and large sellers are faced with different degrees of countervailing buyer power, cf. Table 4.14.

Table 4.14 Impact of seller size

Examined aspect	Sweden	UK	Norway
Sensitivity to delays		√	
Evidence of delay tactics		√	
Consequences of dispute		√	
Impact of regulation	√	√	√
Incentive to use buyer power	√	√	√
Discrimination between buyers			√

Source: See Table 4.1

In Norway and Sweden, the emphasis has been on whether the fixed net incumbent still has some leeway to transfer market power from other markets to the termination market of the smaller operator. Consequently, these countries focus on the impact of regulation and on the incentives to use any buyer power.

In this respect, the Norwegian authority also emphasise whether any lower prices for fixed net incumbent will also result in lower prices for smaller buyers.

Ofcom argues that there is no room for levering market power from other markets. Instead they focus on whether the fixed net incumbent may use any delaying tactics in order to achieve lower termination prices from smaller operators. More precisely, Ofcom examines four issues: Sensitivity to delays, evidence of delay tactics, consequences of a dispute and regulatory impact.

Firstly, Ofcom examines whether the seller has already launched its termination services or not, i.e. whether or not there is an initial agreement. The reason is that the seller probably is more sensitive to interconnection delays if not yet operational, as the delay would represent an opportunity cost to the seller.

Secondly, Ofcom looks for evidence that the buyer sought to exploit the risks of delay. Ofcom also looks for concrete evidence of whether a new operator was concerned about potential delay on its launch.

"For example in an internal H3G memo dated 15 October 2001, attached to an email dated 12 October 2001, which notes the "time critical" nature of the BT agreement and subsequent memos relating to BT's rejection of Hutchison3G's interim call termination rate, which cites the risk of "impact on launch dates"."[36]

Thirdly, when there is an initial agreement, Ofcom looks at the consequences of a dispute. Would the dispute result in an interruption of services or just a referral of the dispute to Ofcom? And for any of the two alternatives, what would the economic consequences be for the buyer and the seller? In this context, Ofcom also examines the buyer's incentive to insist on lower termination charges.

Fourthly, Ofcom considers the impact of regulation in order to indicate whether any higher countervailing buyer power facing smaller sellers are eliminated.

[36] Ofcom (2007a), p. 31

Chapter 5 SMP – IS REGULATION NECESSARY?

From an economic viewpoint, it is not obvious that a SMP operator should be subject to regulation. There are at least two arguments which suggest that the consumers are not harmed by SMP by operators in termination markets. They are identified as step 2 and 3 in Box 3.1 on page 14 above. Firstly, do the operators have the incentive to use any SMP, and, if so, do they allocate the additional revenue ultimately to their customers? The latter is referred to as the waterbed effect.

5.1. INCENTIVE TO BEHAVE INDEPENDENTLY

In this section, we examine to what extent the regulators have looked at the termination operators' incentive to behave independently of its competitors, customers and consumers. We also examine how the national regulatory authorities have examined the incentive effect and the conclusions they reached.

European Commission

In its comments to the national regulatory authorities' notifications, the Commission does not directly address the incentive to take advantage of any SMP. However, indirectly, the Commission appears sceptical that there would be no incentive to increase prices absent any SMP regulation.

Both in its comments to the Finnish and Austrian national regulatory authority, the Commission urged for strict price remedies as any commercial freedom would lead to higher termination prices.

> *"In particular, in view of the monopoly power of mobile network operators over termination on their network, the absence of countervailing buying power and past pricing practices, it is unclear on what basis TKK [Austrian regulatory authority] believes that commercial negotiations will lead on a short term to cost-oriented prices."*[37]

In fact, the European Commission argues that buyers do not have an incentive to insist on lowering termination prices.

> *"Regardless of the existing regulatory framework set out above, DTAG has little economic incentive either to cut off current interconnection with, or to stop buying termination services from, any particular ANO. […] If DTAG decided not to purchase termination from a certain ANO, this would conversely result in customer dissatisfaction, reputation damage and pressure from consumer organisations as*

[37] European Commission (2004)

> *DTAG's retail customers would no longer be ensured end-to-end connectivity. […] In addition, if DTAG were to cease to purchase termination from ANOs, this may have the effect of stimulating substitution via carrier selection.[…] In such a case, DTAG would lose market share in a core area of its business.*[38]

Consequently, the Commission tends to believe that operators as buyers neither have the ability nor the incentive to insist on low termination prices.

Country studies – conclusions

The three countries do not focus on whether or not the seller has an incentive to increase termination charges when assessing SMP. This can also reflect the fact that the UK Competition Appeal Tribunal concluded that, in order for a seller to have SMP, it is enough to look at the ability of the seller, i.e. not necessary to have the incentive.

> *"Accordingly we reject Mr Green's submission that Ofcom left a vital consideration out of account when it did not form a view about the incentive of H3G to raise its prices to an excessive level. Such a consideration is not relevant to the assessment of SMP (though it may be relevant to the remedy to be imposed."*[39]

Nevertheless, in reaction to stakeholders questioning the incentive effect, Ofcom states regarding fixed net termination that the seller has double incentives to increase its own termination charges.

> *"As the calling party pays, terminating providers naturally have an incentive to raise the charge for termination to maximise their call termination profitability. In providing termination services to rivals in the retail market, a terminating provider has a further incentive to increase its call termination price. Not only does the terminating provider increase its call termination revenues but it also increases its competitors' end-to-end retail costs, as the terminating provider's competitors have to buy its call termination service."*[40]

Ofcom reaches the same conclusions in the analyses of mobile termination. Also the Norwegian regulator appears to have the same view, but without any reasoning, cf. Table 5.1.

---

[38] European Commission (2005e)
[39] Competition Appeal Tribunal (2004), p. 28
[40] Oftel (2003b), p. 87

Table 5.1 Incentive to increase termination charges

	Sweden	UK	Norway
Conclusion – Necessary to regulate		√	√
Reasoning	None	Termination a bottleneck	None

Source: See Table 4.1

Country studies – assessments

Ofcom asks whether an operator has an incentive to increase termination in light of the fact that it is the calling party who pays for a phone call while it is the receiving party who chooses the terminating operator, cf. Table 5.2.

Table 5.2 Incentive to increase termination charges

Examined aspect	Sweden	UK	Norway
Economic theory and calling party pays		√	

Source: See Table 4.1

Based on the economic theory of multi-sided platforms, Ofcom examines whether any price increase in termination services would result in lower demand.

5.2. THE WATERBED EFFECT

The waterbed effect arises when operators, while earning supranormal profits on termination, pass on the resulting profit to consumers. The argument is that high termination rates make it more profitable to attract more consumers to a network, and that the operators therefore will compete harder in order to attract and retain consumers. This could for example take the form of subsidies of mobile phones.

European Commission

The Commission does not explicitly refer to the possibility of a waterbed effect. However, it seems that they are sceptical to the existence of this kind of effect.

As already mentioned, the Commission rejects the Spanish national regulatory authority's point of view that competition between mobile operators at the retail level, would make an ex ante regulation less urgent.

> *"The Commission considers that CMT's approach to regulate only the wholesale voice termination of fixed-to-mobile calls may not allow consumers to drive the maximum benefit in terms of price."*[41]

[41] European Commission (2006c), p. 4

Country studies – conclusions

Ofcom is the only authority in our survey who has analysed possible waterbed effects. They did this in relation to the mobile termination markets. They find that there is a significant waterbed effect, but that it is not 100%. Accordingly, Ofcom concludes that there is a need for regulation of termination charges. The reason is that the competition is not perfect for mobile services, cf. Table 5.3.

Table 5.3 Size and impact of the waterbed effect

	Sweden	UK	Norway
Conclusion – Necessary to regulate		√	
Reasoning	None	Not full competition and inefficient price structure	None

Source: See Table 4.1

Besides, even if the waterbed effect was 100%, Ofcom considers that the price structure of high termination charges is economic inefficient for three reasons.

- Overconsumption of mobile services and underconsumption of fixed net services
- Distortion of competition, as there is an increasing competition between mobile and fixed net telephony
- Excessive termination prices may increase the risk of anticompetitive behaviour

Ofcom finds that the significance of the waterbed effect depends on the level of appropriate termination charges. In fact, Ofcom uses the waterbed effect as an argument for conservative assumptions of appropriate termination charges when choosing suitable remedies, cf. Box 5.1.

Box 5.1 Impact of the waterbed effect on termination charges

According to Ofcom, asymmetric impact of too high and too low regulated termination charges is an argument for conservative remedy approach:

> *"Ofcom remains of the view that the waterbed effect is unlikely to be complete. However, even an incomplete waterbed effect ameliorates the impact of the level of termination charges on MNOs' profitability and so on MNOs' ability or incentives to invest in 3G and consumer services. However, if termination charges are below costs, the mechanism of the waterbed effect may involve MNOs earning sufficient revenues to cover their costs by setting higher mobile retail prices. This may be detrimental to consumers in the long run because it may slow the growth of new mobile services and lead to slower investment by MNOs. This may lead to a loss in consumer welfare resulting from a delay in the availability and innovation in new services. Ofcom has concluded, therefore, that unit estimates adopted when identifying the appropriate level of MCT charges should be based on reasonably conservative assumptions which, in the presence of any uncertainty, are not likely to result in under-recovery of costs"*[42]

Source: Ofcom (2007b)

Country studies – assessments

When Ofcom assesses the presence and magnitude of waterbed effect, they focus on two factors: The combined profit of all mobile services and competition intensity on the mobile access and origination market, cf. Table 5.4.

Table 5.4 The size and impact of the waterbed effect

Examined aspect	Sweden	UK	Norway
Competition level		√	
Profit level		√	

Source: See Table 4.1

As regards the profit level, Ofcom examines whether the operators earn any excessive profit. To do this, Ofcom performs an accounting review of the reported profitability of the mobile operators. Ofcom acknowledges that estimating profitability is complicated and sensitive to assumptions made about the relevant costs base and the time horizon over which profitability is assessed. Consequently, Ofcom considers that the choice of assumptions has a bearing on whether returns are higher or lower than the cost of capital.

Regarding the competition level, Ofcom examines whether or not the competition can be assumed to be perfect based on the characteristics of the mobile access and origination market.

> *"Nevertheless, Ofcom remains of the view that, in a market with a limited number of network competitors, complicated retail tariffs and significant entry barriers (due to*

[42] Ofcom (2007b), p. 176

factors including the high level of sunk costs involved in entry and the historic scarcity of spectrum), the waterbed effect is unlikely to be complete.''[43]

[43] Ofcom (2007b), p. 108

REFERENCES

Binmore, Ken and David Harbord (2005), ‘Bargaining over Fixed-to-mobile Termination Rates: Countervailing buyer Power as a Constraint on Monopoly Power’, Journal of Competition Law and Economics, 1: 449–472.

Court of Justice of the European Communities (1978) “United Brands v Commission of the European Communities, ECR207, judgment of 14 February 1978, paragraph 65

Dobson, Paul and Roman Inderst (2007), ‘Differential Buyer Power and the Waterbed Effect: Do Strong Buyers Benefit or Harm Consumers?’, European Competition Law Review, 27: 393-400.

Doyle, Chris and Roman Inderst (2007) ‘Some Economics on the Treatment of Buyer Power in Antitrust’, European Competition Law Review, 28: 210-219.

European Commission (1998), Commission Clears Enso/Stora Merger, IP/98/1022.

European Commission (1999), Commission Decision, Official Journal of the European Union, L254: 9-21.

European Commission (2004), Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, Official Journal of the European Union, C31: 5-18.

European Commission (2006), Case No. COMP/M.4057 - Korsnäs/Assidomän Cartonboard, Regulation No. 139/2004.

European Commission (2006), Commission Approves Acquisition of AD Cartonboard by Korsnäs, IP/06/610.

European Economic & Marketing Consultants (2005), Importance of Buyer Power, Competition Competence Report 5.

Evans, David S. and Schmalensee, Richard (2007) “The Industrial Organization of Markets with Two-Sided Platforms”, Competition Policy International Vol. 3, Nr. 1

Fingleton, John (2007), Buyer Power, 5th ACE Conference: Toulouse.

Foer, Albert A. (2005), Introduction to Symposium on Buyer Power and Antitrust, Antitrust Law Journal, 72: 505-508.

Foros, Øystein and Frode Steen (2007), SMP-analysis of the Swedish Market for Call Termination on Mobile Networks, Report commissioned by Tele2 Sverige AB.

Genakos, Christos and Tommaso Valletti (2007), Testing the "Waterbed" Effect in Mobile Telephony, CEP Discussion Paper No. 827.

ICN Merger Working Group (2006), ICN Merger Guidelines Workbook, Fifth Annual ICN Conference: Cape Town

Inderst, Roman (2007), Treatment of Buyer Power, 5th ACE Conference: Toulouse.

Inderst, Roman and Greg Shaffer (in preparation), 'The Role of Buyer Power in Merger Control', ABA Antitrust Section Handbook, Issues in Competition Law and Policy, W.D. Collins.

Inderst, Roman and N. Mazzarotto (in preparation), 'Buyer Power in Distribution', ABA Antitrust Section Handbook, Issues in Competition Law and Policy, W.D. Collins.

Inderst, Roman and Tommaso M. Valletti (2007), 'A Tale of Two Constraints: Assessing Market Power in Wholesale Markets', European Competition Law Review, 27: 84-91.

Inderst, Roman and Tommaso M. Valletti (forthcoming), 'Assessing Market Power in the Presence of Indirect Constraints and Captive Sales', Journal of Competition, Law and Economics.

Karlsson, Johan (2006), 'Clearance of Near-Duopoly', European Competition Law Review 9: 514-518.

Konkurransetilsynet (2005), Betaling for Hylleplass - Virkninger for Konkurransen i Dagligvaremarkedet i Norge, Konkurransetilsynets Skriftserie 2.

Konkurrensverket (2006) “Konkurrensen i Sverige 2006” Yearly report from the Swedish Competition Authority.

Littlechild, S.C. (2006), ‘Mobile termination charges: Calling Party Pays versus Receiving Party Pays’, Telecommunications Policy, 30: 242–277.

Monti, Giorgio (2006), ‘The Concept of Dominance in Article 82’, European Competition Journal, Special Issue Art.82.

Noll, Roger G. (2005) Buyer Power and Economic Policy SIEPR Discussion Paper No. 04-08.

Office of Fair Trading (2002), Mergers, Enterprise Act.

Office of Fair Trading (2004), Assessment of Market Power, Competition Law Guideline.

Oxera (2007), Is It a Bargain? The Role of Countervailing Buyer Power in Mobile Call Termination, Oxera Agenda, June: 1-4.

Rosenthal, Michael, R. Hewitt Pate and Ryan Shores (2007), ‘Efficiencies and Remedies under the ECMR’, The European Antitrust Review 2008.

Schwartz, Marius (2004) Should Antitrust Assess Buyer Market Power Differently than Seller Market Power?, DOJ/FTC Workshop on Merger Enforcement: Washington DC.

Verge, Thibaud (2003), Portfolio Effects and Merger Control: Full-line Forcing as an Entry-Deterrence Strategy, CMPO Working Paper Series No. 02/046.

Wang, Hao (2007), Buyer Power, Transporttation Cost, and Welfare Working Paper, Peking University.

European Commission comments

European Commission (2003): SG (2003) D/231920, Case No UK/2003/0003, Comments on termination provided on fixed network in the UK.

European Commission (2004): SG-Greffe (2004) D/204425, Case AT/2004/0099, Comments on termination provided on mobile network in Austria.

European Commission (2005a): Commission decision May 2005, Case DE/2005/0144, Call termination on individual public telephone network provided at a fixed location.

European Commission (2005b): SG-Greffe(2005) D/204457, Case DK/2005/0204, Comments on termination provided on mobile network in Denmark.

European Commission (2005c): SG-Greffe(2005) D/206904, Case LT/2005/0263, Comments on termination provided on fixed network in Lithuania.

European Commission (2005d): SG-Greffe (2005) D/205049, Case FR/2005/0228 Comments on termination provided on fixed network in France.

European Commission (2005e): SG-Greffe (2005) D/205252, Case DE/2005/0239 Comments on termination provided on fixed network in Germany.

European Commission (2006a): SG-Greffe (2006) D/207527, Case AT/2006/0538 Comments on termination provided on mobile network in Austria.

European Commission (2006b): SG-Greffe (2006) D/203136, Case FI/2006/0403 Comments on termination provided on mobile network in Finland.

European Commission (2006c): SG-Greffe (2005) D/206038, Case ES/2005/0251 Comments on termination provided on mobile network in Spain.

European Commission (2007a): SG-Greffe (2007) D/205267, Case DE/2007/0671 Comments on termination provided on fixed network in Germany.

European Commission (2007b): SG-Greffe (2007) D/205793, Case DE/2007/0679, Comments on termination provided on fixed network in Germany.

SMP Decisions

Competition Appeal Tribunal (2005) “Judgment on 29 November 2005”

European Commission (2003) “Explanatory Note,” Recommendation on Relevant Product and Service Markets within the electronic communications.

European Commission (2007) “Explanatory Note,” Recommendation on Relevant Product and Service Markets within the Electronic Communications.

Kammarrätten i Stockholm (2007a) “Dom av 11. Maj 2007” Decision on SMP on mobile networks concerning Tele2.

Kammarrätten i Stockholm (2007b) “Dom av 11. Maj 2007” Decision on SMP on mobile networks concerning Telenor.

Ofcom (2003) “Review of fixed geographic call termination markets” Statement of November 28, 2003.

Ofcom (2006a) “Mobile Call Termination: Proposals for Consultation” Consultation of September 13, 2006.

Ofcom (2006b) “Assessment of whether H3G holds a position of SMP in the market for wholesale mobile voice call termination on its network” Consultation Document of September 13, 2006.

Ofcom (2006c) “Mobile Call Termination” Consultation of September 13, 2006.

Ofcom (2007a) “Assessment of whether H3G holds a position of SMP in the market for wholesale mobile voice call termination on its network” Statement of March 27, 2007.

Ofcom (2007b) “Mobile Call Termination” Statement of March 27, 2007

Oftel (2003a) “Review of the fixed geographic call termination markets” Consultation document of March 17, 2003.

Oftel (2003b) “Review of the fixed geographic call termination markets: Proposals for the identification and analysis of markets, determination of market power and setting of SMP conditions” Consultation document of August 26, 2003.

Post & Telestyrelsen (2004a) ”Beslut av 6. Juli 2004.” Decision on termination on mobile networks

Post & Telestyrelsen (2004b) ”Beslut av 6. Juli 2004.” Decision on termination on fixed networks

Post & Teletilsynet (2006) “Analyse av markedene for originering, terminering og transitt i fastnett” Appendix 1

Post & Teletilsynet (2007) ”Analyse av markedene for terminering av tale i individuelle, Offentlige mobilkommunikasjonsnett (marked 16)”. Appendix on market 16.