Examensarbete
Ulrika Persson

The Assessment of Dominance and Significant Market Power in Mobile Communications; an Analysis of the Interrelationship between Sector Specific Regulation and General Competition Law

Handledare:
Professor Nils Wahl

1 Introduction

The telecommunication sector has traditionally been a regulated sector where state owned companies have been granted exclusive rights for the provision of telecommunications services. Whereas this order was taken for granted in the past the reasons for upholding legal monopolies were called into question in the early 1990s, partly due to economical and technological development of the market, partly due to political motives. The liberalization process started nearly a decade ago and the abolition of exclusive rights within the European Community was completed by 1 January 1998, with the sole exception of Ireland and Greece where the liberalization process was completed three years later.

Liberalization is by no means equal to deregulation, and the liberalization process has, as a consequence, not led to a deregulated market. As will be apparent in the following, the telecommunications sector has undergone a significant number of regulatory measures even after it was opened up to competition. The need for regulation has been deemed necessary as it would take time before the former *de jure* monopolies would cease to be *de facto* monopolies. The liberalized market was, and to a large degree still is, dominated by incumbent operators. It has been the common belief that general competition law is insufficient to face those problems and that specific rules are required for the transition to competition. A system of sector specific regulation [SSR] has been adopted with the objective to foster competition in order to create a level playing field in the sector. This system is meant to be temporary as the legislator is aiming towards the sole application of competition law when the conditions in the market are such that it would be possible. In the meantime, the ambition is to reduce sector specific regulation progressively as the competition in the market increases. It is to be applied only where general competition law is inefficient and the regulation should be the minimum necessary to meet the objectives.

A new framework of sector specific regulation was called for in the very beginning of this millennium. The old regulatory framework from 1998 was quickly outdated due to rapid changing conditions in the market. Whereas the old framework applied to markets where legal monopolies had previously held special or exclusive rights the new framework, which went into force in July 2003, is not focusing on “the original sin” but rather on the overall structure of the market. It is generally applicable on all markets in the electronic communications sector where the application of general competition law is insufficient. Ironically, this change extended the scope of SSR to markets that were not, or only to a small degree, subject to regulation under the 1998 framework. An example is the mobile communications market that was liberalized as early as 1996 and only to some extent subject to regulation under the previous framework. Although the alternation in focus has had some effects that are contradictory to the overall aim of deregulation it is believed to serve the purpose of facilitating a future transition to general competition law. Unlike the previous framework, the new framework uses the same methodologies that are used in general competition law when assessing market power and more importantly when defining the relevant market.

1.1 Purpose and scope of the paper

The interrelationship between general competition law and sector specific regulation is the overall theme of the paper. Yet, the intention has not been to make a comparative study of the two different systems as such. The scope is somewhat smaller. As the title implies, the focus is on the assessment of dominance in general competition law and the equivalent assessment of significant market power [SMP] in sector specific regulation.

According to the new framework, market definition in SSR is to be carried out in accordance with principles used in general competition law. In addition, SMP is to be assessed in the same way as dominance. Yet, the markets are not always identical and SMP is not always equal to dominance and vice versa. The fact that the methodologies used are the same does not necessarily mean that the result will be. This aspect is already recognized in general competition law where a forward looking assessment in merger cases does not always correspond to an assessment based on past and present circumstances, i.e. the classical distinction between *ex ante* and *ex post* application. However, there are additional reasons why markets defined under SSR may differ from those defined under general competition law. Whereas the similarities are emphasized in the new framework many of the differences are neglected.

An adequate question at this point is why the different results might be of any interest. It is recommended in the new framework that guidance, when defining markets and when assessing SMP, is to be sought from the extensive case law in general competition law. In this case it is of interest to know how reliable the case law is when applied in another context. Furthermore, guidance has recently been, and is likely to be in the future, sought in the reverse situation, i.e. from SSR to general competition law. [1] This means that the differences are of not only of importance when applying SSR but also when the case at hand only concerns general competition law, for example a concentration that falls under the merger control. It is thus necessary to be aware of the differences in order to avoid erroneous market definitions when using decision-making practice from the Commission and case law from the Courts.

The study is in some respect limited to the mobile communications market where two alternative approaches to a market definition are accounted for. A market definition is not only an important part of the dominance assessment it is also a prerequisite for the application of sector specific regulation as the structure of the market is the *raison d'être* for SSR. In order to impose obligations under SSR the structure of the market has to be such that the application of general competition law is not sufficient to solve the problems. This leads back to the overall subject of the interrelationship between general competition law and SSR. The main reason for looking at the mobile communications market is that it is somewhere between sole application of general competition law as well as it is subject to sector specific regulation. Consequently it serves as a good example for the study on how the two systems interact. A secondary reason for delimiting the analysis to this market is that there are some competition concerns. From a consumer point of view, prices of mobile communication seem to be set at conditions that are uncompetitive at least in some geographical markets. [2]

---

[1] Case No COMP/M. 3245, *Vodafone/Singlepoint,* 16/09/2003.

[2] There are for example significant differences in prices between different countries, even in countries with comparable infrastructure as for example the Nordic countries.

2 The legal framework

The legal provisions that are of interest in the present study are those which apply directly to dominant undertakings. They will shortly be introduced before the interrelationship between them is analyzed. Comments on the content of general competition law are limited as it is presumed to be known to the reader. However, some comments are unavoidable and specific features are pointed out if they are of particular relevance for the subject matter of the paper.

2.1 General Competition law

One of the main objectives of the European Community is to ensure that the competition in the internal market is not distorted, article 3(1) g of the EC Treaty.

2.1.1 Article 82

"Any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market insofar as it affects trade between Member States".[3]

Article 82 is a repressive provision whereas it is applied *ex post* on past and present situations.[4] The application of article 82 serves primarily two purposes; to make an abuse come to an end, if still performed, and to penalize the undertaking guilty of the abuse by imposing a fine. As is evident from the wording of the article, two conditions have to be fulfilled for its application; (i) an abuse must have been committed by (ii) an undertaking holding a dominant position. Holding a dominant position is in itself unobjectionable, as is an abuse by an undertaking that is not dominant.

2.2 Sector specific regulation

Sector specific regulation in the electronic communications sector consists of a package including five directives,[5] a regulation on unbundled access to the local loop [6], a directive on radio equipment and telecommunications terminal equipment [7] as well as a decision on a regulatory framework for radio spectrum policy. [8] As mentioned in the introduction the objective of this regulatory regime is to promote competition.

---

[3] Article 82 (ex 86), EC Treaty. Only the new number which follows from the Amsterdam Treaty will be used in the sequel.

[4] As opposed to future situations.

[5] One Framework Directive, Dir. 2002/21/EC, and four specific directives; the Authorisation Directive, Dir. 2002/20/EC, the Access Directive, Dir. 2002/19/EC, the Universal Service Directive, Dir. 2002/22/EC, and the Data Protection Directive, Dir. 2002/58/EC.

[6] Regulation 2887/2000 on unbundled access to the local loop, OJ [2000] L 336/427, [hereinafter Reg. 2887/200]. The regulation was not incorporated in the new Framework, neither was it repealed.

[7] Directive 1999/5. The directive falls outside the scope of the new framework, article 1(4) Framework Directive, and as a consequence outside the scope of the present paper.

[8] Decision 676/2002 of March 7 2002, on a regulatory framework for radio spectrum policy in the European Community, OJ L 108/1 2002.

2.2.1 The Framework Directive

As the title implies the Framework Directive sets the scene for the application of the provisions found in the specific directives. It includes *inter alia* procedures for the National Regulatory Authorities [NRA] entrusted with the application of sector specific regulation, as well as provisions regarding the definitions of the relevant market and significant market power. The application of the framework is limited to services consisting of the conveyance of signals and all networks used for conveying these services.

2.2.2 Specific directives

Unlike article 82, where an abuse is a prerequisite for the application of the article, provisions in SSR are applicable despite any particular conduct by the dominant undertaking. The sole designation of SMP will require an NRA to impose obligations. [9] SSR is preventative in contrast to article 82 which is repressive, which means that SSR is applied *ex ante*, on a forward-looking basis, instead of *ex post*.

The most important obligation that may be imposed on a network operator designated with SMP is that the operator may be enforced to meet "requests for access to, and use of, specific network elements and associated facilities", i.e. to give third parties access to its infrastructure.[10] Other obligations that may be imposed are obligations to make information public, for example prices or technical information facilitating access, obligations of non-discrimination, whereby the operator is obliged to apply equivalent conditions in equivalent circumstances. [11] In order to ensure the enforcement of the two obligations just mentioned, an obligation of accounting separation may be imposed, whereby the undertaking is forced to separate the total revenues into different accounts to facilitate the estimation of fair prices of services at different levels of production. [12] Measures of cost recovery and price controls (in order to prohibit excessive or predatory prices, and/or price squeezes) may be imposed under certain conditions,[13] as well as other obligations than those mentioned above in exceptional circumstances.[14]

The selection of obligations in a specific case shall be based on the nature of the problem identified in the market analysis.[15]

---

[9] Article 8 Access Directive. In exceptional cases obligations may be imposed despite SMP, article 5 Access Directive.

[10] Article 12 Access Directive.

[11] Article 9 and 10, respectively, Access Directive.

[12] Article 11 Access Directive.

[13] Article 13 Access Directive.

[14] Such obligations require permission by the Commission, Article 8 (3) second subparagraph, Access Directive.

[15] Article 8(4) Access Directive. Furthermore the imposition of an obligation has to be proportionate and justified in the light of the objectives of sector specific regulation; (i) promotion of competition, (ii) the development of the internal market, as well as it has to be (iii) in the interest of the EU citizens, article 8 Framework Directive.

2.3 Application

The provisions mentioned above do not give much guidance as to how they are to be applied and much less, if any, information on how they interact.

2.3.1 When the different provisions are applicable

Naturally, article 82 is directly applicable whenever there is an alleged abuse committed in a market by an undertaking that is likely to hold a dominant position in that market.

Sector specific regulation is applicable if an undertaking is designated with SMP in a market the characteristics of which may be such as to justify the application of SSR. This is the case if three cumulative criteria are fulfilled. [16] The first criterion is (i) presence of high and non-transitory barriers to entry. Structural entry barriers may cause asymmetric conditions between operators already present in the market and potential operators wanting to enter. To the extent that legal or regulatory barriers still exist they also have to be taken into consideration. A relevant example in mobile communications market is the limited number of licenses due to the scarcity of radio frequencies. The second criterion (ii) limits the scope of sector specific regulation to markets which do not tend towards effective competition within the time frame considered. The state of competition behind the entry barriers is analyzed, as well as the dynamics of the market. Regardless of high entry barriers, competition may be effective if there are a sufficient number of operators with diverging cost structures etc. Furthermore, the likelihood of overcoming entry barriers is elevated in innovation driven markets where technology progress is significant and potential competition is a likely constraint to the operators already active in the market. [17] Finally the third criterion (iii) excludes all markets where general competition law remedies are sufficient when facing existing market failures, i.e. *ex ante* regulation is only justified when the *ex post* application of article 82 is inefficient.

2.3.2 Parallel application

According to the third criterion just mentioned it seems like the different set of rules are applied in different markets. General competition law in markets where the imposition of fines is an effective remedy and SSR in markets where there are structural problems requiring the imposition of more far-reaching obligations. Is this conclusion right? Is it possible to divide the applicability of the different set of rules according to the structure of the market?

Is not article 82 always applicable? The only exception that exist concerns the operation of services of general economic interest carried out by undertakings granted special or exclusive rights provided that the application of article 82 would obstruct the performance of these tasks. [18] As seen in case law, article 82 applied to certain services provided by telecommunications operators even before the liberalization of the

---

[16] Commission recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, OJ L 114/45, 8 May, 2003. [hereinafter Commission Recommendation], recital 9.

[17] Farr, Sebastian, Oakley, Vanessa, *EU Communications Law,* Palladian Law Publishing Ltd, 2002, [hereinafter Farr], pp. 14-15.

[18] Article 86(2) EC Treaty.

telecommunications market.[19] Is it possible to draw the conclusion, based on the previous situation, that article 82 is generally applicable even after the regulatory regime replaced the order of exclusive rights?

Undoubtedly this must be the case as it would be impossible for secondary legislation to exclude the application of a fundamental provision in the Treaty. This is somewhat confirmed in the Framework Directive where it is stated that the application of SSR is without prejudice to obligations imposed by Community law.[20] Furthermore, "[c]ommunity acts adopted in the telecommunications sector are to be interpreted in a way consistent with competition rules".[21] The conclusion is thus that SSR may not hinder the application of article 82 in markets even if the application is not sufficient to solve market failures.

Instead of dividing the applicability of the different set of rules according to the structure of the market, the third criterion could possibly refer to *the order in which SSR and general competition law is to be applied*. Are the different systems meant to work side by side or subsequently? Due to the same reason as mentioned above, i.e. the hierarchy of norms, it is not possible that a criterion used for the applicability of SSR may exclude the application of article 82 and it is consequently not possible that a provision in secondary legislation stipulates the order of applicability. The two systems are as a result meant to work side by side[22]. This means that a dominant undertaking may be subject to fines and obligations in the same market at the same time.

Despite parallel application, it is easy to get the impression that general competition law is not used if SSR is applicable. The number of cases of suspected abuses is relatively low for a sector where the competition concerns are high.[23] This may of course be due to the fact that network operators have the eyes on them and are as a consequence more cautious than the general producer or service provider in other types of markets. Yet another possibility is that they are few because the national competition authorities [NCA] and the Commission rely on national regulatory authorities [NRA] to solve the problems. The answer is probably a combination of both hypotheses. The former is just speculation whereas the latter finds some support in the SMP Guidelines as well as in literature.

"In practice, it cannot be excluded that parallel procedures under *ex-ante* regulation and competition law may arise with respect to different kinds of problems in

---

[19] Cf. 41/83, *Italian Republic v. the Commission,* 20 March 1985, also known as the *British Telecommunications* case.

[20] Article 1(2) Framework Directive.

[21] Guidelines on the Application of EEC Competition Rules in the Telecommunications Sector, OJ C 233/02, 06/09/1991, [hereinafter Telecom Guidelines], para.15.

[22] It is not correct to use the terms *lex specialis* and *lex generalis* as the systems are meant to work side by side and not in a subsequent order where *lex specialis* is meant to take precedence.

[23] Apparently there has been two decisions from the Commission in the last three years; Commission Decision, Case COMP/C-1/37.451, 37.578, 37.579, *Deutsche Telekom,* 21 May 2003, OJ L 263/9, 14/10/2003 and Commission Decision, Wanadoo, Case COMP/38.233, not published at this date, cf. IP/03/1025, 16 July 2003. Furthermore, the Commission has stated objections in two cases KPN, Press release IP/02/483, 27 March 2002, and TeliaSonera, Press release IP/031797, 19 December 2003, neither of them has as of yet led to a formal decision.

relevant markets".[24] The position stated in the Guidelines, in particular the phrase "*it cannot be excluded*", indicates that the Commission favors the sole application of either system; yet unclear which one is preferred. Connected to the phrase quoted is a footnote which reads: "[i]t is expected that effective cooperation between NRAs and NCAs would prevent the duplication of procedures concerning identical market issues". [25]

Is SSR preferred more generally whereas article 82 is only used when there are grave abuses? Certainly, this is not outspoken as it would be contrary to the Treaty. Article 82 does not contain a condition of aggravating circumstances. It is nevertheless easy to get an impression that such a tendency exist, save that it may be unintentional.

It is important that all infringements of article 82 are penalized. The fact that the imposition of a fine may have no effect on the overall state of competition in the market is not a reason for not punishing abuses. It is not an objective of general competition law to *promote competition* in the market. As long as both systems are applicable it is irrelevant to discuss which type of remedies, fines or obligations, that is best for solving the problem; or in other words, which system that is preferred in a given situation. [26] A dominant undertaking found guilty of an abuse contrary to article 82 will be penalized by the imposition of fines. It is in addition unavoidable that the same undertaking will be subject to obligations under SSR, assuming the undertaking is designated with significant market power in a market where SSR is applicable. The duplication is not to be seen as an overkill; it is simply the result of two systems having different objectives.

2.3.3 The sole application of general competition law

SSR has been taken for granted above but is there a need for SSR? It is a common belief that SSR is necessary due to the asymmetric conditions between the different undertakings active on the market. It may be argued that *ex ante* regulation is more effective in some situations. The main reason for the efficiency is that it is not necessary to wait for an abuse before intervening. Reliance on provisions applied *ex post* may prove to be insufficient. The harm is already done and losses may only to a limited degree be compensated for afterwards. Furthermore, consumers and undertakings are only indirectly compensated as the fine is paid to the Community. However, the necessity of sector specific regulation as such does not mean that it is justified in all markets where it is applied.

A relevant question is also if it is realistic to omit the regulatory regime in the future. This depends on a number of factors, the structure of the markets, the timeframe considered etc. It might not be realistic in the foreseeable future, at least not in some markets where bottlenecks are likely to remain for quite some time. This question, as well as other matters concerning the necessity of SSR, will be discussed in chapter 3.4.5 *infra.* after some of the typical problems in the sector have been identified and analyzed.

---

[24] Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communication networks and services [hereinafter SMP Guidelines], para. 31.

[25] SMP Guidelines, footnote 15.

[26] This discussion is only relevant when arguing if there is a need for SSR which discussed in chapter 3.4.5 *infra.*

3 The assessment of dominance and SMP

Significant market power is an assessment of dominance in sector specific regulation. According to the old framework from 1998 an undertaking could be designated as having SMP if it had a market share of only 25 %. [27] It was thus possible for an undertaking to have significant market power without being dominant under general competition law. As mentioned in the introduction, the assessment of SMP has in the new framework been aligned to dominance.

The term dominant position is defined by the Court of Justice [ECJ] as "a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition 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*" (emphasis added).[28]

The definition refers to four criteria which will be commented on in the following sub-sections: (i) a position of economic strength (section 3.3), (ii) enjoyed by an undertaking (section 3.1), (iii) which enables it to prevent effective competition being maintained (section 3.2), (iv) on the relevant market (section 3.4).

3.1 Undertaking

Article 82 and the provisions in SSR apply to private as well as public undertakings. More importantly, the legal concept of dominance does not only apply to single dominance enjoyed by one undertaking but also to collective dominance jointly held by two or more undertakings. Whereas this distinction was not made in the definition of dominance by the ECJ, referred to above, it is nevertheless clear from the wording in article 82 where "[a]ny abuse by *one or more* undertakings of *a* dominant position…shall be prohibited as incompatible with the common market" (emphasis added). Collective dominance is likewise an issue for the assessment of significant market power which explicitly follows from article 14(2) of the Framework Directive. "An undertaking shall be deemed to have significant market power if, *either individually or jointly with others*, it enjoys a position equivalent to dominance" (emphasis added). [29]

Collective dominance occurs in markets where two or more undertakings, without any prior agreement on common conduct, adopt a parallel behavior. [30] The undertakings that are considered to be collectively dominant act as one entity in their relations to others, i.e. the undertakings are in the same position as one dominant undertaking *vis-à-*

---

[27] Cf. Notice on the application of the competition rules to access agreements in the telecommunication sector [hereinafter Access Notice], footnote 57. The Access Notice is still used despite the fact that the market shares indicating dominance have been changed. The reader is to be aware of the new framework and disregard the market shares mentioned as they refer to the previous order under the old framework.

[28] Case 27/76, *United brands Company and United Brands Continentaal BV v. Commission of the European Communities*, 14 February 1978 [hereinafter *United Brands*], para. 65.

[29] Cf. second sub-section of article 14(2) Framework Directive, SMP Guidelines paras. 89-106, and Annex II of the Framework Directive.

[30] Parallel behavior is to be distinguished from concerted practice which is prohibited under article 81. Parallel behavior is caused by *unilateral conduct* by each undertaking of an oligopoly *based on prevailing market conditions* whereas concerted practice is not unilateral in nature as it is a result of *acquired information about the market conduct of one or more competitors*.

vis customers and competitors. Parallel behavior is likely to arise in situations where there are structural or economic links, which are not in themselves anti-competitive, between the undertakings. Furthermore, parallel behavior may arise in situations where the structure of the market is conducive to this type of behavior.

Structural links, like shared interests in a joint venture or cross-shareholdings, may exist between different undertakings on the market. Of particular interest to the present study is that more than a third of all the joint ventures notified to the Commission concern the electronic communications sector.[31] Virtually all network operators are, or have previously been, part in a joint venture. However, none of the joint ventures notified is between network operators operating on the same geographical market which means that parallel behavior on the relevant market may not be explained by the existence of structural links based on the these joint ventures. Yet, only full-function joint ventures [32] are notified which means that there is a considerable scope for structural links between undertakings party to partial-function joint ventures [33] which are not subject to the merger control but are evaluated under article 81. In addition, possible joint ventures without a Community dimension notified to the national authorities have to be taken into account. It is for obvious reasons more likely that the parties to a joint venture notified at the national level operate on the same geographical market. It has to be analyzed if such links exist in a particular case in order to establish if the undertakings on the market have an incentive to adopt a parallel behavior. A structural link facilitating parallel behavior due to cross-shareholdings could also exist between different undertakings on the relevant market. The Commission feared that this would have been the case in the *Vodafone/AirTouch* merger where the merged entity would have had joint control over two of three main network operators in Germany if undertakings to divest the shareholdings in one of the companies had not been made.[34] "[T]he proposed operation, by creating *a structural link* between two of the three main market operators in Germany would create a duopolistic market situation, accounting for almost 100% of a market which…*could lead to anti-competitive parallel behaviour*" (emphasis added). [35]

In addition to structural links there may be economic links between different undertakings. Naturally, it makes no difference for the finding of collective dominance which type of link that is present [36] and it is thus not necessary to make any distinction

---

[31] A quick survey of all the notified joint ventures gives that somewhere around 15 of the 57 joint ventures notified at the present date are in the telecommunications sector while at least five are in the broadcasting sector.

[32] i.e. "a joint venture performing on a lasting basis all the functions of an autonomous economic entity", article 3(2) Regulation 4064/89 of 21 December 1989 on the control of concentrations between undertakings, as amended by Regulation 1310/97 [hereinafter ECMR].

[33] The functions of a partial-function joint ventures are limited, often to "R&D, production, distribution or sales", Ritter, p. 426.

[34] AirTouch had a 30-40% interest in Mannesmann Mobilfunk, which through its subsidiary D2, had a market share of 40-50% whereas Vodafone had 17.2% of the shares in E-Plus with a market share of 10-20%, Case No IV/M. 1430, *Vodafone/AirTouch,* 21 May 1999, para. 19.

[35] ibid., para. 28.

[36] Cf. Tarrant, Andrew, *Significant market power and dominance in the regulation of telecommunications markets,* E.C.L.R. issue 7, 2000, [hereinafter Tarrant], p. 322.

between the two.[37] Economic links of various kinds are inevitable in the telecommunications sector. The question is rather if the economic links are strong enough to generate parallel behavior than if the links exist. Network operators are forced to enter into a significant number of agreements with each other to ensure interoperability, the lack of which would render it impossible to convey services on networks belonging to different network operators. [38] Furthermore, network operators are sometimes forced to enter into infrastructure sharing agreements due to environmental concerns. The examples just given, as well as other types of agreements or decisions, [39] are often caused by non-economic concerns like the interest of the consumer or environmental concerns. Regardless of the objective behind the specific agreement they are likely to have some economic value to the parties. In addition to agreements, most mobile operators are members in different types of associations, like the GSM Association, or other forums in order to set common standards necessary to ensure the functioning of the market. [40] Of interest is that the Commission considers all of the above mentioned economic links to be fairly strong.[41]

As implied above, the presence of structural or economic links is not a prerequisite for collective dominance as two or more undertakings may adopt a parallel behavior on the sole ground that they operate in a market the structure of which is conducive to coordinated effects. [42] The very structure of the market makes it possible for independent undertakings to adopt a parallel behavior in order to increase joint profits.[43] This type of tacit coordination is likely in oligopolistic markets where only a few undertakings, often with similar market shares, "account for most or all of the total production."[44] The finding of collective dominance on this ground, as opposed to collective dominance based on structural or economic links, requires that three

---

[37] The distinction made above between structural and economic links is not always upheld in literature, where structural links are treated as one of several forms of economic links. Cf. van der Woude, Marc, Jones, Christopher, *E.C. Competition Law Handbook,* 2003/2004 Edition, Sweet & Maxwell Ltd., 2003, [hereinafter van der Woude], p. 436.

[38] Cf. Chapter 3.4.3.2. *infra.*

[39] Naturally, article 81 is applicable on all agreements etc. if anti-competitive which means that parallel application of article 81 and article 82 is possible.

[40] Cf. Working document by the Commission on the sector inquiry into mobile roaming charges, www.europa.eu.int/comm/competition/antitrust/others/sector_inquires/roaming/working_document_on_initial_results.pdf, p. 24. Cf. van der Woude, footnote 121, p. 440.

[41] ibid. p. 24.

[42] Cf. Framework Directive, recital 26 and Annex II.

[43] As stated above, a distinction is not always made between structural and economic links, cf. footnote 37. Neither is a distinction always made of links as opposed to lack of explicit links. The Court of First Instance [CFI] stated in Case T-102/96, *Gencor Ltd. v. Commission,* 25 March 1999, that "there is no reason whatsoever in legal or economic terms to exclude from the notion of economic links the relationship of interdependence existing between the parties to a tight oligopoly" para. 276. Both the CFI and the Commission, cf. Access Notice, para. 79, consider that interdependence is a form of economic link. Whenever a distinction is necessary the locution "economic link in the strict sense of the term" will be used with reference to agreements as opposed to interdependence, cf. Tarrant, p. 323.

[44] Pindyck, Robert, Rubinfeld, Daniel, *Microeconomics,* 5th edition, Prentice Hall International Inc., 2001, [hereinafter Pindyck], p. 429.

conditions are met; (i) the market has to be sufficiently transparent making it possible for the undertakings to predict the behavior of their competitors, (ii) the parallel behavior adopted has to be sustainable over time which is the case if there is no incentive to deviate from the common conduct due to probable retaliation by the others, and (iii) the common conduct must not be jeopardized by any reaction of actual or potential competitors as well as consumers which would rebut independence. [45]

There is a possibility that collective dominance in the telecommunications sector may be found on the presence of either structural or economic links. [46] If this is not the case, a combination of such links and the very structure of the market may contribute to such a finding. This would for example not be unexpected in mobile communications where the structure of the market clearly is oligopolistic. Transparency in the market is fairly high due uniform services and similar cost structures. [47] High barriers to entry exist especially at some levels of production. [48] Furthermore, as seen above mobile operators are forced to cooperate in a number of matters for example to ensure interoperability in the interest of the consumers and to enter into infrastructure sharing agreements due to environmental concerns etc. This type of cooperation mainly based on non-economic grounds, which consequently is considered to be pro-competitive, may potentially contribute to a situation where the retaliation mechanism is enforced. [49] Deviation from parallel behavior that is anti-competitive may be avoided in order to secure good relations in matters that are pro-competitive and in everybody's interest. Furthermore, the high media attention in this sector makes it possible for competitors to identify any deviation almost immediately. If there is a price cut it will come to everybody's knowledge within short which means that retaliation is likely to be effective and speedy. Different opinions have been stated on how the growth of the market is to be interpreted. On the one hand there is a belief that deviation is less likely in growing markets as the short term profits that may arise will be small in relation to future retaliation.[50] On the other hand, "stagnant or moderate growth on the demand side" and "lack of technical innovation" are two criteria listed in Annex II of the Framework Directive being of importance when assessing collective dominance. However, the list of criteria is neither exhaustive nor cumulative, which means that an overall assessment is necessary. Of interest is that the Commission has in the past considered that two mobile communications markets had characteristics facilitating parallel behavior. [51]

---

[45] Case T-342/99, *Airtours plc. v Commission*, 6 June 2002, para. 62.

[46] The mere presence of such links does not in itself mean that the undertakings are collectively dominant as they have to be of a certain strength in order to facilitate parallel behavior.

[47] In fact one of the side effects, which is rather unfortunate, of the application of sector specific regulation is that the market becomes more transparent, for example in the case of obligations imposed to make information, like prices, public. Cf. Bavasso, p. 179, and Tarrant, p. 324.

[48] High barriers to entry are discussed under the heading potential competition, 3.3.1.2 *infra.*

[49] Cf. Rey, Patrick, *Collective Dominance and the telecommunications industry,* September, 2002, [hereinafter Rey], p. 30.

[50] ibid.

[51] Cf. Commission Decision Case No IV/M. 2016, *France Telecom/Orange,* 11 August 2000, para. 26, and Commission Decision, Case No IV/M. 1430, *Vodafone/AirTouch,* 21 May 1999, paras. 27-28.

It follows from case law that collective dominance is to be assessed in the same manner under article 82 and under the merger control regulation. This conclusion is based on the fact that the Courts have frequently referred to earlier cases under article 82 when affirming that collective dominance is applicable under the merger control regulation despite any explicit referral to "two or more undertakings" in article 2(3) ECMR.[52] However the circumstances under which both provisions are applied are quite different which means that the finding of collective dominance is likely to differ under article 82 and under ECMR. The main reason is that an assessment under the merger control concerns an estimation about future conditions whereas an assessment under article 82 is based on past and present conditions in the market. [53] As a merger leads to a reduction of the number of undertakings in the market the assessment has to be focused on if the undertakings will change their current behavior to parallel behavior when the concentration of the market is increased. The assessment is thus clearly different from article 82 cases where the structure of the market is intact. [54] Most of the case law on collective dominance in recent years has developed under the merger control regulation. It is quite possible that a finding of collective dominance is more unproblematic under the merger control than under article 82. One of the reasons is that the parties to a concentration are likely to be aware of all probable grounds on which their application may be denied. A possible finding of collective dominance may not come as a surprise to the parties, especially not if they are operating on an oligopolistic market which is highly concentrated. Secondly, the consequences of a denied application are limited to the economic loss whereas the sole finding of collective dominance in article 82 cases is likely to lead to remedies in the form of fines. [55]

The assessment of collective dominance in sector specific regulation is likely to follow the assessment under article 82. Despite the fact that SSR is applied *ex ante,* on a forward-looking basis like the provisions in ECMR, it is not based on a reduction of the number of undertakings in the market. [56]

---

[52] Cf. Whish, Richard, *Competition Law,* 5th edition, LexisNexis UK, 2003, [hereinafter Whish], p. 519 and particularly p. 525, and Bishop, Simon, Walker, Mike, *The Economics of EC Competition Law: Concepts, Application and Measurement,* 2nd edition, Sweet & Maxwell Ltd., 2002, [hereinafter Bishop], p. 251.

[53] Cf. Chapter 4.2.1 *infra.* on the differences between *ex ante* and *ex post* application.

[54] Cf. Bishop, footnote 3, p. 251.

[55] As seen above, two conditions have to be met for the application of article 82. What is problematic is however that parallel behavior may in itself constitute an abuse, which means that the two conditions in fact become one. Inevitably parallel behavior will lead to higher prices than would have been the case if the undertakings were operating on a market in perfect competition. However, to condemn parallel behavior as abusive would not be reasonable as this situation may force the undertakings to act *irrationally* in order to avoid remedies. Yet, it is not satisfactory that abuses that are incompatible with article 82 when a single undertaking is dominant are not caught when the dominant position is based on collective dominance. Cf. Whish, p. 527 and Bishop, pp. 251-252. The case law on abuses in markets where collective dominance is based on the oligopolistic structure of the market is underdeveloped. In the absence of case law it has been argued in literature that there would be a distinction between *high prices*, which do not amount to an abuse, and *excessive prices* which would be considered to be abusive. Cf. Whish, pp. 526-528.

[56] The assessment is reversely based on the assumption that the number of undertakings in the market will increase as the market becomes more competitive.

3.2 Prevent effective competition

As will be apparent in the following, dominance does not exclude there being a certain degree of competition in the market. The definition of a dominant position is not equal to that of a monopoly. Effective competition is simply negatively defined as a state when nobody enjoys a dominant position. This is clear from the ruling by the ECJ in *Hoffmann-La Roche* where it states that a dominant "position does not preclude some competition, which it does where there is a monopoly or a quasi-monopoly, but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it so long as such conduct does not operate to its detriment". [57]

3.3 Position of economic strength

The assessment of dominance is an overall assessment where several factors are to be taken into account. The different factors may be divided into three different categories, market structure, firm structure and market conduct.[58]

3.3.1 Market structure

The most important factors indicating dominance concern the structure of the market. Actual competition, which is best estimated with referral to market shares, is the starting point whereas potential competition and countervailing buying power is taken into consideration only if a concern exists with regard to the market shares.

3.3.1.1 Market shares

The market share of an undertaking plays a significant, yet rarely a decisive, [59] role in the assessment of dominance. Nevertheless, very high market shares of 75 % or more is often enough to prove that an undertaking has a dominant position. In other cases, when an undertaking has a market share below 75 % but over 40 %, [60] more evidence is as a general rule needed,[61] especially if the market share is less than 50 %. [62] An undertaking is likely to be in a dominant position in such cases but the assessment has to be

---

[57] Case 85/76, *Hoffmann-La Roche & co. Ag v. the Commission of the European Communities,* 13 February 1979, [hereinafter *Hoffmann-La Roche*], para. 39.

[58] Cf. Ritter, Lennart, Braun, W. David, Rawlinson, Francis, *European Competition Law: A Practitioner's Guide,* 2nd edition, Kluwer International Law, 2000, [hereinafter Ritter], p. 331.

[59] This is however the case if the undertaking has a market share of 100 %. "A monopolist who does not face any competition at all is dominant by definition", Ritter, p. 337.

[60] Dominance may be presumed if the market share is over 40 %, Bellamy & Child, *European Community Law of Competition,* Fifth edition, 2001, [hereinafter Bellamy & Child], para. 9-045, p. 706.

[61] Cf. Access Notice, "A market share of 50 %...is usually sufficient to demonstrate dominance although other factors will be examined", para. 73.

[62] This is especially true in markets with few undertakings. A market share of 49 % does not amount to dominance on a duopolistic market as the other one then has a market share of 51%. Collective dominance is however likely if the conditions are fulfilled, cf. 3.1. *supra.*

confirmed by supplementary evidence, preferably due to other factors relating to the structure of the market.[63]

"[I]n determining whether any particular level of market share confers dominance, the relationship between that share and the shares of others in the market will be an important consideration".[64] The relative market shares of the undertaking in question and its nearest rival will be of particular importance. Furthermore, the stability of high market shares over time is also indicative of dominance. [65] However, stable market shares may be ambiguous as it may be evidence of either fierce competition or lack of competition whereas fluctuating market shares is in general evidence of competition. [66]

The calculation of market shares in the telecommunications sector may be based on market shares counted in volume, i.e. number of subscribers or on value, i.e. revenue. In general terms, it is difficult to say which measure is preferred as different markets may require different assessments. This is particularly true for markets at different levels of production. A combination seems to give the most appropriate picture of the market. [67] In case the figures diverge, it is possible that market shares based on value is preferable as the cost of telecommunications services often vary according to the time of the day etc. While this may be true when assessing dominance at the retail level a calculation based on numbers of subscribers connected to a network, compared to the total number of subscribers in the market, is often useful at the wholesale level in order to determine the market power held by a network operator. [68]

3.3.1.2 Potential competition

An undertaking may be found not to be dominant despite high market shares if it is constrained by potential competition. This is the case if the undertaking is not able to act independently due to the fact that it can not afford to be too profitable since this will attract new entrants. Potential competition is another type of constraint on the supply side. The difference between supply-side substitution, which is taken into account when defining the relevant market, and potential competition is that supply-side substitution is more or less immediate while potential competition is based on the estimation of market entry in a longer, yet foreseeable, time period. Supply-side substitution is a result of a price increase whereas market entry from potential competition is due to overall profits in the market. Potential competition is also different in the sense that it imposes additional

---

[63] An illustrative case when market shares are high enough that no more evidence is needed as well as when this is not the case is *Hoffmann-La Roche* where market shares varied in different types of markets (47%, 75%, 86% etc.).

[64] Bellamy & Child, para. 9-042, p. 705.

[65] High market shares that are stable during a period of five years is considered to prove dominance whereas a period of less than three years is in general not enough, especially not in a dynamic market. Bellamy & Child, para. 9-043, p. 706.

[66] NB. The fact that there is some competition does not exclude dominance. Cf. chapter 3.2 *supra*. An undertaking with fluctuating market shares may still be dominant as will be the case if market shares vary within the interval where dominance is very likely, for example 60-100%.

[67] Cf. the different diagrams in Commission Decision Case No COMP/M.3245, *Vodafone/Singlepoint,* 16/09/2003.

[68] Cf. Access Notice, para. 72.

costs of starting up a new business, costs that are deemed to be compensated for in the long run.

The likelihood of new actors entering the market is estimated on the existence of different types of barriers to entry. Structural entry barriers are likely to exist in the telecommunications sector, as is the case in other network industries. The predominant factor for structural entry barriers is large sunk costs. Network industries entail unreasonable costs when building new infrastructure or improving the one existing. This is especially true in rural areas where the number of customers is relatively low. A typical entry barrier in the telecommunications sector is thus the inability for a service provider, who is dependant on access to a network in order to provide services, to build his own parallel network. It is particularly relevant in the local access network where it is exceedingly uneconomical for an operator to duplicate the local loop infrastructure.[69] This problem is however of diminishing importance in fixed telephony where different types of networks may be used for the provision of telecommunications services, for example cable in the place of the public switched telephone network [PSTN].[70] The competition concerns arising from essential facilities are thus becoming less relevant at least in some areas of the sector. Whereas a mobile network does not face much competition from other types of infrastructure it faces competition from mobile networks belonging to other operators. The fact that mobile telephony was liberalized at an early stage when mobile communication was fairly low made it viable for different operators to build parallel networks. They got more or less an equal chance to build their networks at the same time, avoiding a situation where all but one are behind from start. The same pattern is repeated in the developing infrastructure for third generation [3G] mobile services, where several networks are under way. A second reason why it has been possible to duplicate the mobile network is that mobile networks are cheaper than the traditional PSTN. However, the network market for second generation mobile services must at this point be considered to be mature making further duplication uneconomical. Once a network is in place an operator is likely to profit from economies of scale [71] and scope.[72] Whereas the infrastructure is expensive, the costs for operating it are relatively marginal. This is another type of structural entry barrier placing a potential competitor at a disadvantage.[73]

---

[69] The local loop is the twisted copper pair that connects the customer to the point of interconnection at the local exchange (the main distribution frame). The competition problems arising from this situation may be dealt with in accordance with Reg. 2887/2000 which is meant to ensure other service providers access to the local loop (a phenomenon known as local loop unbundling). However, the regulation has proven unsuccessful so far. Cf. Press release IP/02/686, 8 May 2002, concerning a suspected abuse by Deutsche Telekom and footnote 142 *infra.*

[70] As cable networks have been adjusted to convey point-to-point telecommunication services they should be included in the market for terrestrial networks, Garzaniti, Laurent, Telecommunications, Broadcasting and the Internet: EU Competition Law and Regulation, 2nd edition, Thomson Sweet & Maxwell, 2003, [hereinafter Garzaniti], p. 271.

[71] An undertaking enjoys economies of scale when “output can be doubled for less than a doubling of cost”, Pindyck, p. 227.

[72] “[E]conomies of scope are present where the joint output of a single firm is greater than the output that could be achieved by two different firms each producing a single product”, Pindyck, p. 231.

[73] Cf. sub-section 3.3.2 *infra*. where additional barriers to entry are mentioned.

In addition to the structural entry barriers there may be legal or regulatory entry barriers impeding potential competitors from entering the market. In order to provide telecommunications services and operating networks a license is required. Whereas it is fairly easy to obtain a license in fixed telephony it is more difficult in mobile telephony due to scarce resources of frequency spectrum. Hence, there are a limited number of licenses for the right to use numbers and frequencies needed for wireless communication.[74] However, it is possible for a Member State to accept spectrum trading permitting a service provider that is not granted a license to enter into an agreement with an operator having free capacity and buy some of the unused numbers and frequencies.

Undoubtedly there are some obvious entry barriers. Yet, the telecommunications market is a fairly dynamic market where technological innovation is a clear threat to prevailing market conditions. It is much more difficult to protect a dominant position on a dynamic market than on a market that is mature. Furthermore, an undertaking is not dominant, even if it is the only undertaking operating in the market, if the market consists of new products or services not previously distributed or provided. The reason is that potential competition is presumed to be high on emerging markets. Regulation is deemed to be unjustified in those markets as there is a possibility that the market will solve the problems making intervention unnecessary and sometimes even harmful.

3.3.1.3 Countervailing buying power

Regardless of high market shares, an undertaking is not dominant if it is constrained by countervailing buying power. This is the case when a dominant purchaser is able to make a supplier dependent on it as it could easily turn to other suppliers if demand is not satisfactorily met.

Countervailing buying power is unlikely in the service markets under review.[75] Telecommunications services, constituting public utility services, are bought by a very large proportion of the population. Services of this kind are also bought by corporations, state agencies, public bodies as well as governments etc. A service provider may thus have several large customers. Nevertheless it is excluded that any customer is in a position where it would enjoy a dominant position *vis-à-vis* the service provider as these kinds of services are virtually used by each and all. Is it possible that a large independent service provider who buys wholesale access from a network operator could be a dominant purchaser? In theory, this could be possible if the network operator does not, or only to a limited extent, uses its network for the conveyance of telecommunication services or for other purposes. It is however very unlikely that a network operator is not present on some kind of retail market, be it the telecommunications service market or any other type of service market. The reason is that a network operator has to recoup the sunk costs from infrastructure which most certainly requires presence at the retail level. Consequently, it is unlikely that a network operator let an independent service provider use more than a relatively small proportion of the network capacity.

---

[74] Cf. Article 5 Authorisation Directive.

[75] However, network operators or service providers may be dominant buyers on different equipment or software markets. Cf. Telecom Guidelines, para. 82 and Case IV/M. 042, *Alcatel/Telettra*, 12 April 1990. This situation falls outside the scope of the paper as it concerns markets that are not subject to sector specific regulation.

3.3.2 Firm structure and market conduct

Other factors that might corroborate a dominant position have reference to firm structure and market conduct. These factors are not sufficient on their own when determining dominance but they may be used in combination with factors related to the structure of the market. The former category accounts for the undertaking's internal strength and includes factors like technological lead over competitors, superior access to raw materials, control of essential facilities, financial resources, the possession of intellectual property rights or other commercial advantages etc. Important in the telecommunication sector is that firm structure is often characterized by vertical integration. This situation is likely to give rise economies of scale and scope, factors that might strengthen a plausible dominant position.

Market conduct relates to the behavior of the undertaking concerned. The fact that an undertaking may act independently of its competitors for example when setting prices may be an indication of dominance. However, caution is called for when looking at market conduct since many types of behavior can indicate dominance as well as lack of dominance.

3.3.3 Leveraged dominance

The application of article 82 requires, *inter alia*, that an abuse have been committed by an undertaking holding a dominant position. Based on the definition of dominance this position must be held on the relevant market. However, article 82 is mute as to where the abuse has to be committed in order for the provision to be applicable. This opens up for the application of article 82 in situations where the abuse has taken place in a market other than the dominated market.[76] However, the extended application of article 82 in this sense is limited to cases where there is a "link between the dominant position and the alleged abusive conduct".[77] Furthermore, an application of article 82 on abuses committed, and having effects, on the non-dominated market may be justified only by special circumstances.[78] Dominance held on the relevant market may under these conditions be extended to a closely related market. A dominant position in one market combined with a leading position on an associated market may, in exceptional cases, be "comparable to that of holding a dominant position on the markets in question as a whole".[79] This means that evidence from the first mentioned market is sufficient to prove dominance on the second market or on both markets taken together.

The concept of leveraged dominance is likely to be applicable in the telecommunications sector. This might be the case if a network operator holding a

---

[76] Cf. Case C-62/86, *Akzo Chemie BV v. the Commission,* 3 July 1991, where the abuse was committed on the non-dominated market having *effects on the dominated market* and Case C-333/94, *Tetra Pak International SA v. Commission of the European Communities,* 14 November 1996, [hereinafter *Tetra Pak II*], where the abuse was committed on the non-dominated market having *effects on the non-dominated market*.

[77] *Tetra Pak II,* para. 27.

[78] Tetra Pak held a 90 % market share in the aseptic packaging market as well as a high market share in the oligopolistic non-aseptic market (presumably around 50 %). Taken together, Tetra Pak held a 78 % market share of the overall market for aseptic and non-aseptic packaging which was seven times more than its closest competitor. Furthermore, Tetra Pak faced the same competitors and, to a large percentage (35 %), the same customers in both markets.

[79] *Tetra Pak II,* para. 31.

dominant position on the network market also has a leading position on the downstream service market.[80] The high degree of vertical integration in this sector contributes to the finding of associated markets. However, it is important to keep in mind that vertical integration is not *per se* anti-competitive.

The case law of *Tetra Pak II* mentioned above is codified in sector specific regulation. "Where an undertaking has significant market power on a specific market, it may also be deemed to have significant market power on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking."[81] The article does not contain the requisite "special circumstances" that was referred to in *Tetra Pak II*. Logically it should be required as there is no objective reason justifying a more extensive application of leveraged dominance in SSR than in general competition law.

It is difficult to understand how leveraged dominance is to be applied in SSR. As mentioned above, imposition of obligations is not linked to an abuse. It is thus irrelevant to look at market conduct in a non-dominated market, to find out if this conduct was linked to a dominant position in a closely related market, for the purposes of SSR. Due to the main objective of the regulatory regime, i.e. to promote competition, it is often better to directly impose obligations on the dominated market, where the problem is, than on a closely related market where the effects are felt. Furthermore, obligations on the retail market are only justified if the imposition of obligations on the wholesale market, where the market power in general is stronger, is not possible.[82] Clearly the applicability of leveraged dominance must, according to this, be limited in SSR. Save that there might be some use of leveraged dominance in cases where an undertaking has a dominant position on a market that is not subject to SSR, for example an equipment market, and in addition has a leading, but not dominant, position on a market where SSR is applicable. However, if this is likely scenario remains to be seen.

3.4 Relevant market

Markets selected for sector specific regulation under the new framework are to be defined in accordance with the principles of EC competition law. [83] This is a change from the previous framework where markets were not defined according to the structure of supply and demand but were pre-defined based on technical characteristics. The reason for this methodological change when defining markets was to bring the two systems nearer in order to facilitate the transition to general competition law.

Before the analysis of different markets is carried out a note of caution is required. It is difficult, if not impossible, to define relevant markets without present

---

[80] Access Notice, para. 65 Clearly, the Commission had incumbent operators of the fixed network in mind. Regardless of the focus on incumbent operators of the fixed network the principle is applicable on network operators in general if the conditions are fulfilled. Cf. SMP Guidelines, para. 84.

[81] Article 14(3) Framework Directive.

[82] De Streel, Alexandre, *The Integration of Competition Law Principles in the New European Framework for Electronic Communications,* World Competition 26(3), pp. 489-514, 2003, [hereinafter De Streel], pp. 503-504.

[83] Framework Directive, article 15 (1) and SMP Guidelines, para. 4.

circumstances of a particular case at hand. Despite the application of general criteria, the delimitation of a relevant market is always case specific. Furthermore, market definitions in a sector exposed to constant technical innovation run the risk of being outdated in a short period of time. [84] Due to the reasons just mentioned, general comments are preferred to a more thorough analysis. Conversely, a meticulous analysis serves the purpose of delineating the methodology used when defining markets. This is the reason why the following analysis is not restrained to general comments although it has been an ambition worth striving for.

3.4.1 The principle of technology neutrality

According to the new framework market definitions based on technology are to be avoided. A technology neutral approach is not explicitly stated in general competition law but it applies nevertheless. It is not a novelty as it follows from the general principle of demand substitution. The emphasis to apply a technology neutral approach is only to illustrate that demand substitutability, which traditionally has moved along the lines of technology, might have changed. This means that previous case law might not be taken for granted as there is a possibility that demand substitutability and technology no longer coincide.

Technical innovation in the telecommunications sector makes it possible to a certain extent to use different types of networks for the conveyance of a specific service. The convergence of transmission technology means that the distinction between voice and data communication used in the past is somewhat blurred. Data is conveyed in a packet-switched mode, where no direct connection between two locations is needed. Voice telephony has traditionally been, and to a very large degree still is, conveyed over a circuit-switched network where point-to-point connection is necessary in order to convey the service. Voice telephony over a circuit-switched network, for example the PSTN, requires a connection between the two locations throughout the call. However, due to more powerful networks voice may be conveyed in packet-switched mode, [85] for example internet voice telephony, where no point-to-point connection is necessary. The question is how the development of new technology will affect market definition in the telecommunications sector. At this point it is impossible to say if the markets will be broader or narrower in the future. The only sure thing is that they will be different from what has been considered as a service market in the past. [86]

One example of a hypothetical service market defined in this manner, i.e. regardless of the infrastructure used, is international voice telephony. Active on this imaginary market are all providers able to convey that particular service whether they are using the PSTN network, a cable network normally used for cable TV services,

---

[84] The relatively short lifespan of a market definition in this sector is the reason why detailed market definitions are often avoided in literature as well as in different instruments of law. Cf. Access Notice, para. 47.

[85] The technology used makes it possible to send packets of data back and forth in a speed making it possible to carry voice over as data without a significant loss of quality. The data is "broken down into packets, sent, received, and put back together" instantaneously, Larouche, Pierre, *Relevant Market Definition in Network Industries: Air Transport and Telecommunications,* Journal of Network Industries 1, p. 407-445, 2000, [hereinafter Larouche article], p. 418, footnote 40.

[86] Alternative service markets will be discussed in the following sub-sections.

national utility networks such as the electricity network using digital power lines, a mobile network or something else like satellites.

3.4.1.1 Is a technology neutral definition possible?

Is this imaginary market definition just mentioned in accordance with prevailing market conditions? According to demand substitution, "[a] product market comprises the totality of the products which, with respect to their characteristics, are particularly suitable for satisfying constant needs and are only to a limited extent interchangeable with other products in terms of price, usage and consumer preference".[87] The hypothetical monopolist test is often used to facilitate the estimation of demand substitutability in cases where several variables like price, quality etc. are taken into consideration.[88] According to this test, products A and B belong to the same market if the shift in demand from product A to the available substitute product B due to a small, in the range of 5-10%, but permanent price increase in the price of product A, is unprofitable to the producer of that product, i.e. the producer did not earn as much on the price increase as he lost due to decrease in demand/quantities sold. [89]

It is thus necessary to identify the constraints on the different service providers, by reference to the substitutability patterns of the customers, in order to delineate the relevant market. It may be argued that the method used for the conveyance of a service may be indifferent to the consumer, assuming the quality and the price of the services is equal. The position stated in the Telecom Guidelines is that "satellite provision presents a broad interchangeability with the terrestrial transmission link for the basic voice and data transmission on long distance. Conversely, because of its characteristics it is not *substantially interchangeable* but rather complementary to terrestrial transmission" [90] (emphasis added). This position has been confirmed in the decision-making practice by the Commission and it is likely to reflect current conditions on the market for international or long distance voice telephony. The characteristics of satellite services making them separate from services conveyed on terrestrial networks are possible delay and echo effects as well as decreased functionality in certain weather conditions like heavy rains etc.[91] It is more difficult to ascertain if services conveyed on the fixed network or on a cable network belong to the same market. Services conveyed on a circuit-switched network, like the PSTN, are generally a little more expensive as the cost of services

---

[87] Telecom Guidelines, para. 26. Cf. with the definition used in Commission Notice on the definition of the relevant market for the purposes of Community competition law, OJ [1997] C 372/03, 09/12/1997, [hereinafter Relevant Market Notice], "A relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their price and intended use", para. 7.

[88] Cf. Relevant Market Notice, para. 17. The hypothetical monopolist test is used in the US where it is known as the SSNIP-test (small but significant non transitory increase in price).

[89] However, account has to be taken of the "cellophane fallacy" where the hypothetical test may lead to a situation where the definition of the relevant market may be too broad due to the fact that an increase of a *profit-maximizing price* set by a monopolist who does not face any competition, is per se unprofitable. Relevant Market Notice, para. 19. Cf. Bellamy & Child, para. 9-016, p. 690.

[90] Telecom Guidelines, para. 29.

[91] Commission Decision, Case No IV/M. 856, *British Telecom/MCI II,* 14 May 1997, OJ L 336/1, para. 13.

depends on the distance of the call. This is not the case for services conveyed on a cable network using the packet-switched mode where the prices are not based on the distance of a call as there is no direct line between the sender and the receiver. The cost is consequently the same for international, long distance and local calls, making voice over internet attractive on markets for international voice telephony. However, there is a risk that voice over internet may suffer from congestion problems as there is no separate line reserved for the specific phone call. Although the technology has increased significantly in recent years there is, in addition, a possible difference in quality. The high quality in services conveyed over the PSTN as well as a direct line between the two locations suggests that voice telephony and data communication belong to different service markets. For the reasons mentioned it is not likely that customers respond to a price increase of 5 to 10 % in a way that the increase is unprofitable to the service provider. This leads to the conclusion that the distinction between voice telephony and data communication is still valid.

Undoubtedly the price, usage, quality etc. *of the service in question* is of significant importance for the market definition. However, there are additional factors that may not be neglected when considering the substitutability patterns of the customers requesting services. One such factor is that a technology neutral approach most certainly requires that a sufficient number of customers have access to the different types of infrastructure that can convey a specific service. In addition, the costs of capital goods like telephones, handsets, computers, modems etc. has to be taken into account. It is not possible, from a customer perspective, to compare services conveyed on different types of networks without considering the costs of complementary goods. Nevertheless, these costs may be negligible if the customer intends to consume a large amount of services. The substitutability patterns of different categories of end users are likely to differ; services considered to be close substitutes to a corporation may not be substitutes to a consumer.[92]

Despite the fact that voice telephony over cable and satellite is not substitutable with voice telephony over the fixed network is it possible to see mobile and fixed telephony as one market? A large part of the population has access to both fixed and mobile telephony services.

3.4.1.2 The distinction between fixed and mobile telephony

According to a technology neutral market definition, it is not evident that the distinction implied above, of separate markets for mobile and fixed telecommunication services, is correct. This distinction has previously been confirmed by the Commission and it seems to reflect current market conditions for a number of reasons. First, fixed voice telephony is not considered to be a substitute to mobile voice telephony due to the fact that the latter is indeed mobile and not restrained to a fixed location. [93] Presumably the mobility feature alone is such an important characteristic making mobile telephony a separate market. The fact that mobile communications services can be used almost everywhere is in itself worth a 5-10% price increase. [94] Neither is mobile voice telephony a substitute to

---

[92] An account of different customer groups will be further analyzed in section 3.4.2.2 *infra*.

[93] Commission decision, Case COMP/M.2574, *Pirelli/Editizione /Telecom Italia*, 20 September, 2001, para. 33 and De Streel p. 538.

[94] However, this does not mean that prices may be raised on a regular basis as there will be substitutability if the prices are too high. Cf. the Cellophane fallacy referred to in footnote 89 *supra.*

fixed voice telephony since the latter is in general less expensive. However, the higher costs for mobile voice telephony services may be equal to the lower costs for fixed voice telephony services when account is taken to the subscription fee. By canceling a subscription of fixed telephony services in favor of mobile telephony services the user can avoid paying double subscription fees, and thereby make an overall profit although the average cost for services on the mobile network is higher. [95] With regard to the fact that mobile services can be used at home as well as elsewhere, is it possible that mobile telephony is a substitute to fixed telephony when consideration is taken to the subscription fee? The structure of demand and supply in Europe seem to indicate that they are only substitutable to a limited degree as people tend to keep their subscriptions to the fixed network when getting a mobile subscription.[96] There are several reasons why people keep their subscription to the fixed network. One of them is that that fixed telephony also can be used for other services than voice telephony such as internet access.[97] Other reasons than the differences in price mentioned above, are the superior quality of the services carried over the fixed network and no problems with area coverage etc. In the overall assessment it seems like mobile communications is used as a complement and not as a substitute to fixed telephony. The fact that some competition exists is not sufficient for the different services to belong to the same service market. The constraints on a service provider have to be of such a magnitude that a hypothetical price increase is unprofitable.

3.4.2 Retail markets in mobile communications [98]

The Commission has come to the conclusion that the relevant market is that of mobile communications services,[99] possibly divided into different sub-markets according to different customer categories. What is this conclusion based on? More importantly, are any alternative definitions possible? Two different approaches will be accounted for in the following, the first one seems to reflect the decision-making practice from the Commission up to this date and the second has some support in literature as well as it is more adjusted to prevailing changes in the market. However, it is only the result that is similar to the findings by the Commission in its previous case law, which means that the definition process used in this paper may diverge from the one used by the Commission regardless of the fact that the same methodologies are used.

---

[95] The subscription fee in fixed telephony, which covers the cost for the use of the network and mainly for the access to the local loop, is a fairly remarkable cost in relation to the cost of the services. The subscription fee is much lower in mobile telecommunications.

[96] There are some indications of substitutability between fixed and mobile telephony in the US. Yet it is unclear the substitutability is sufficient in order to change the definition of the product market for competition law purposes.

[97] Access to the Internet on a mobile telecommunications network using Wireless Application Protocol [WAP] is not substitutable with Internet access to the World Wide Web [www].

[98] The retail market is also referred to as the service market as it concerns the provision of telecommunication services to end users.

[99] Outside the scope of this study are possible connected markets where mobile subscriptions may be tied to the sale of handsets. This might be the case if the service provider buys a large quantity of handset at wholesale prices and then sells them to subscribers for a price that is well below the average retail price. The price difference is recouped by higher subscription fees for a pre-defined period of time when the subscriber is tied to that particular service provider.

3.4.2.1 The traditional approach

From a consumer perspective there are several types of services in the mobile telecommunications market that would be considered to belong to different service markets were they severable from the subscription. Clearly the different services that are offered by a service provider within a subscription are different. Not only do they satisfy different needs for the user, the prices vary accordingly. A short messages services [SMS] is not a substitute to a phone call for example, as it consists of one way communication which, in addition, is limited to the mobile network. The fact that the consumer is tied to one service provider as for the bundle of services means that a service provider face no competition on the services included in the subscription, [100] only on the package as a whole. Hypothetically, different markets for different types of services could exist in mobile communications had it been possible to unbundle the product. A comparison can be made with the situation in fixed telephony where call-by-call carrier selection and carrier pre-selection is possible.[101] Service providers would face competition on different types of services included in the subscription had it been possible to send an SMS with one operator while calling with another. [102] This situation, where the service provider only faces competition on the bundled product, might not be of great importance to the overall state of competition in the service market. Yet it contributes to the difficulty for the consumer to compare different types of subscriptions.[103] From a consumer point of view there are subscriptions that are substitutable whereas others are not. The hypothetical test, which is normally well suited where a number of criteria are to be taken into consideration is not of much help as it is almost impossible to calculate on a 5 to 10 per cent increase of the package being offered when prices of the services included in the package vary according to the type of service, the time of the day, and how often they are used etc. In addition, it is likely that there is some kind of supplementary charge when a subscriber wants to change subscriptions, especially if the change involves a change from one service provider to another.

However, the exact distinction of different markets for different types of subscriptions that are demand substitutes is irrelevant as the application of supply-side substitutability extends the relevant market to mobile communications services.[104]

---

[100] Competition from service providers using other types of network infrastructure, for example the PSTN, cable, power lines etc. has been ruled out in section 3.4.1.2 *supra.* as mobile telephony is considered to be a separate market from fixed telephony.

[101] Call-by-call carrier selection makes it possible for a subscriber to make a call using another service provider than the incumbent by entering a code before dialing the number. Carrier pre-selection means that the call is automatically provided by another operator than the incumbent. Cf. Commission Decision, Case No IV/M. 1439, *Telia/Telenor*, 13 October 1999, paras. 22-23.

[102] Cf. Koeing, Christian, Bartosh, A, Braun, D, *EU Competition and Telecommunications Law,* Kluwer Law International, 2002, [hereinafter Koenig], p. 709.

[103] One service provider is likely to offer several types of subscriptions, i.e. tariff packages, and at least one pre-paid card scheme.

[104] Commission Decision Case No IV/M.1430, *Vodafone/Airtouch*, 21/05/1999, OJ C 295 15/10/1999 p. 0002. “The Commission did not receive any substantive evidence in the course of its investigations to suggest that the product market should be segmented more narrowly than that proposed by the parties”, para. 12. which was “[a]ccording to the parties , the narrowest relevant product market is the market for mobile communication services”, para. 8. The market

Despite the fact that different types of subscriptions are not substitutable to the final user they belong to the same market as a service provider can easily adjust his assortment of subscriptions to satisfy the demand of a different type of subscription that he is not currently providing. An illustrative example is when many service providers in the market quickly followed the first provider in offering a pre-paid card scheme to more price-sensitive consumers.[105]

However, supply-side substitution is only taken into account *when defining markets* if "its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices".[106] If these conditions are not met, i.e. if the change in production entails additional costs or is for some reason delayed, supply-side substitution is like potential competition to be taken into account not when defining markets but at the subsequent stage *when assessing dominance*.[107] The example given by the Commission in the Relevant Market Notice is in the area of consumer products as it is likely that such products are delayed or entail additional costs due to advertisement, product testing and distribution.[108]

According to the reasoning above there are two different types of supply-side substitution,[109] and the relevant question at this point is which type of constraint that is present in the market being analyzed. An educated guess is that a service provider is able to adjust his offerings of subscriptions according to a shift in demand within a short time frame without incurring additional costs or risks. Although a mobile subscription is a consumer product, it is unlikely to entail *significant* additional cost due to advertising,

---

definition was however left open as the Commission did not foresee any competition concerns, para. 12.

[105] Cf. Larouche article, p. 417.

[106] Relevant Market Notice, para. 20. "[I]n response to small and permanent changes in relative prices" does not seem to be a condition for the applicability of supply-side substitution regardless of the wording. The example of pre-paid card-schemes mentioned above indicates that supply-side substitution may be taken into account in situations where new products emerge on the market, not only when there is a price increase. This situation has resemblances with potential competition, where a producer enters a new market, yet it is different due to fact that the service provider can enter the market immediately without additional costs. Cf. chapter 3.3.1.2. *supra.*

[107] Relevant Market Notice, para. 14 in combination with para. 23. "The competitive constraints arising from supply side substitutability *other than those described in paragraphs 20 to 23"* should be taken into account, like potential competition, only at a subsequent stage. Paragraphs 20 to 22 refer to supply side substitution where it is immediate and without additional costs whereas paragraph 23 refer to situations where this is not the case. Logically, there must be an error in paragraph 14 when it includes paragraph 23 in the locution "*other than those described in paragraphs 20 to 23"*. It should be paragraphs 20 to 22 as supply-side substitution that is not immediate or that entails additional costs is to be considered at a later stage which is explicitly stated in paragraph 23.

[108] The product explicitly referred to was branded beverages, Relevant Market Notice, para. 23.

[109] Regardless of the clear distinction made in theory it is not always easy to distinguish in practice. "[s]upply substitutability may in appropriate circumstances be used as a complementary element to define relevant markets. *In practice it cannot be clearly distinguished from potential competition*". (emphasis added), Access Notice, para. 41.

product testing or distribution. It does not take much effort to change the tariff structure, which mainly concerns the billing service. Hence, supply-side substitutability is, in this case, to be taken into account when defining the relevant market. A large number of subscriptions, possibly all, will thus belong to the same product market leading to the conclusion that the relevant market is that of mobile communications services. But logically, there must be some outer limits to the applicability of supply-side substitution.

The boundary of supply-side substitution is likely to be drawn along the lines of what type of technology that is used for different types of services. The new 3G technology is an example. The main difference between 3G and second generation mobile telephony is that 3G allows the user to send and receive more information, for example multimedia services etc. The fact that these services are not substitutable for the end user[110] does not necessarily exclude them from being in the same service market. However this is the case as supply-side substitution is not possible due to the considerable costs of building the network that is needed for these kinds of services. Regardless of separate markets for 3G services and other types of mobile communications services it is not possible to draw the conclusion that all mobile communications services conveyed over different types of networks belong to different product markets. There is for example only one market for services conveyed over analogue and digital networks.[111] The reason is that different applications exist for switching between the networks, making it possible to use the same handset for different networks.

The Commission has in its decision-making practice in merger cases been content with a separate market for mobile communications services.[112] Yet, a more narrow definition of the relevant market of different categories of customers seems appropriate owing to the possibility to charge different prices to different types of customers. Price discrimination is possible if two conditions are met; (i) it has to be possible for the provider to identify which category the customer belongs to and (ii) it should not be feasible for customers belonging to different groups to trade products among them or to sell them on secondary markets. [113] Before analyzing if the conditions for a more narrow market definition are met in the present case, the precedence of the two countervailing principles, supply-side substitution and price discrimination, has to be sorted out.

It is likely that a more narrow market definition due to price discrimination is to take precedence over a broader market definition due to supply-side substitution. It is consistent with the overall aim to use narrow market definitions. However, the aim, as such, does not legitimate this position as there are exceptions. Supply-side substitution if applicable, takes for example precedence over demand side arguments. Price discrimination is not a constraint on the service providers and can not be placed under

---

[110] The services are more expensive, area coverage is expanding but still fairly low compared with the GSM network, more expensive equipment (handsets) are required etc.

[111] However, there is not much traffic on the analogue network and it may be disregarded in the overall assessment.

[112] The distinction between different types of networks will not be commented on in the following and the service market will implicitly refer to a market including both digital and analogue networks.

[113] Relevant Market Notice, para. 43.

these rules.[114] It is simply treated as "[e]vidence to define markets"[115] which gives no guidance as to its application when in conflict with another principle used when defining markets. However, price discrimination is only present in markets where supply-side substitutability is possible thus leading to the conclusion that, if this evidence is ever to be taken into account, it has to take precedence over supply-side substitution.

Price discrimination is taken into consideration in fixed telephony where there are different markets for residential and non-residential customers.[116] It has been implied that this distinction may not be applied in mobile telephony due to the reason that many customers use their mobile phones both at work and at home. This argument is likely to be valid as neither of the two conditions mentioned above are fulfilled, whereas it is not possible for the service provider to identify the customer and the customer may profit from the offer in both situations. However, as an increasing number of people work at home, partly due to the development of telecommunications services, it might be questionable whether the division in fixed telephony is justified. They are in the same position as some mobile customers where they may profit from different types of rates not mentioned to be traded from one customer group to another. Naturally, the possibility to identify different customer groups does not require a perfect identification in all situations as there will always be some customers who are able to benefit from the system.

Despite the fact that price discrimination is not possible in mobile communications along the line of separate markets for business and private usage there is a possibility to discriminate according to the amounts of services used. This is confirmed in recent case law from the Commission. According to the service providers, they "design their tariff structure on the basis of high, moderate, or low usage subscribers rather than along business or personal usage". [117] Whereas it is not possible to segment the market according to residential and small businesses it is still possible to target large and possibly medium-sized corporate customers. This is the case as it is likely that these types of customers demand tailor-made services, for example a series of numbers, a possibility to use short numbers between them etc. The exact delimitation of the different service markets will depend on the circumstances of the individual case.

3.4.2.2 An alternative approach

It has been implied above that different customer groups have different substitutability patterns. Whereas individuals and small business customers may be content with the traditional services offered by a telecommunications operator, medium-sized and in particular large corporations are likely to demand tailor-made offers where several products are integrated. It is for example fairly common that corporate customers demand integrated fixed and mobile telephony where the service provider may offer a

---

[114] Yet, it is unfortunately placed under the heading "Demand substitution" in Ritter, p. 25 and 30. The customers, who are made subject to price discrimination, do not have a choice of the different products offered to them. The different markets emerging from this situation can thus not be explained in the terms of demand substitutability.

[115] Relevant Market Notice, heading para. 36.

[116] Cf. Commission Recommendation, Annex 1-6.

[117] Commission Decision, Case No COMP/M. 3245, *Vodafone/Singlepoint,* 16/09/2003, para. 8.

tariff structure that is somewhat less favorable in fixed telephony but compensated for in better mobile charges, or vice versa.[118]

Like the analysis carried out in the previous sub-section this alternative way of defining the relevant market starts with demand-side substitution. However, there is an important difference. The first analysis was based on the assumption that has been confirmed in case law that mobile telephony is a separate market from fixed telephony. This alternative approach recognizes the differences but takes different customer groups into account before the distinction between mobile and fixed telephony is made. The difference is thus that whereas mobile telephony and fixed telephony belong to separate markets for the average consumer this might not be the case for all customers. A more technology neutral definition may be possible for the groups that use a large amount of telecommunications services. In addition it might even be difficult to separate the service markets due to integrated fixed and mobile services. There are for example integrated offers for corporate customers who have an interest in being reached while mobile at a cost that is not too high for the person calling, for example a client. A solution to the problem might be a service where the incoming call, i.e. from the client, is charged at a price that is equal to the tariffs in fixed telephony despite the fact that the call is received on a mobile telephone. All outgoing calls from the mobile, i.e. calls made by the corporate user, on the other hand are charged at the cost for mobile communications. This is made possible by an additional cost of a higher subscription fee than the average fee. The problem with service bundles like the one described is that it is difficult to determine how the costs are to be allocated between fixed and mobile communication.

The main difference between the analysis accounted for in the previous sub-section and this one lies in the next step when supply-side substitution is applied. In this approach supply-side substitution is only applicable within the different customer groups.[119] That means that all types of services aimed at a specific customer group will be included in the relevant market,[120] despite the fact that they are not demand-side substitutes, as long as it is possible for the provider to alternate between them in the short term without incurring additional costs or risks. This approach finds some support in literature where the different customer groups are selected on the basis of demand side criteria and not due to the possibility to charge discriminatory prices according to usage.[121]

An adequate question is why supply-side substitution is limited to the different customer groups. The answer might be that the application of supply-side substitution is not intended to make the market extend to all the services that a provider may offer, only those services that are substitutable from the provider's point of view in response to a small but permanent price increase. A price increase in one customer segment may not

---

[118] There is a risk that an offer like the one described is incompatible with article 82 as cross-subsidization may constitute an abuse if the service provider is dominant. Even if a service provider is unable to offer better prices in this way, the transaction cost of having two different providers for fixed and mobile telephony services is not to be neglected.

[119] Cf. Bavasso, Antonio, Communications in the EU Antitrust Law: Market Power and Public Interest, Kluwer Law International, 2003, [hereinafter Bavasso], pp.133-134.

[120] Cf. Case No COMP/M. 2803, *Telia/Sonera,* 10/7/2002. "[I]t could be argued that the provision of WLAN services is either part of a mobile communications service market or part of *a corporate communications services market*" (emphasis added), para. 21.

[121] Cf. Larouche article, pp. 415-417.

automatically lead to a shift in the types of services offered. It is quite possible that it would take higher prices for a supplier to increase his presence in a specific service market, for example individual customers, instead of concentrating on a more profitable market, for example corporate customers. On the other hand, the telecommunications sector is a network industry and a common characteristic in these types of markets is that the marginal cost for serving one more customer is small as long as there is free capacity available. A service provider is, as a consequence, likely to offer many types of services to different customers as long as it is profitable.[122] The result of the inherent structure of the market may thus be that supply-side substitution may not be limited to different customer categories as the service provider may increase his presence in one market without giving up much of his presence in another. Yet, there must be a limit to how easily a service provider may increase his presence in one market without losing his position in another. A shift is likely to incur some additional costs and it is possible that the line is to be drawn between the different customer segments. [123]

3.4.2.3 Conclusion

What used to be a fairly simple market, where fixed telephony was clearly distinctive from mobile telephony on the one hand and where voice telephony was something different than data communication on the other, has in recent years become a very complex market. It is not an easy task to define the relevant market and it is quite possible that none of the above mentioned models serves the purpose of identifying the constraints on a service provider. However, it is necessary to use simplifications as it the actual constraints are not easy to measure.

The different approaches lead to quite different result. Whereas the first only takes the constraints from different service providers of mobile communications into account the second includes the constraints from other service providers using other types of infrastructure in some markets where this might be justified.

3.4.3 Wholesale markets in mobile communications

The wholesale market concerns the provision of access to electronic communications networks to service providers active on the retail market, and it is often referred to as the access market. [124] The customers on the wholesale market are thus the suppliers on the retail market. The term access [125] is often used in a broad sense where it also includes

---

[122] A comparison can be made with air travel where it is better to sell a cheap ticket at the last minute to minimize a loss than fly with empty seats.

[123] The fact that a last minute ticket in air travel may be sold at a reduced price in order to minimize a loss does not mean that business travels and leisure travels belong to the same market. Surely there is some competition but it is not sufficient to efface the different markets based on different customer groups.

[124] The terminology used is somewhat unfortunate as provision of access is indeed a service. The distinction between a “service market” at the retail level and an “access market” at the wholesale level is rather based on different customer groups (end users and service providers respectively) requesting different types of services.

[125] Access is defined as “the making available of facilities and/or services, to another undertaking…for the purpose of providing electronic communications services”, Access Directive, article 2 (a).

interconnection.[126] Whereas the distinction might be of little concern in some situations, the proper terminology serves a purpose as access and interconnection appear in different markets at the wholesale level. Furthermore, the provision of access concerns a wholesale relationship between a network operator and a service provider while interconnection concerns a wholesale relationship between different network operators.[127]

Whereas the service markets are relatively wide in scope the same is not true for the wholesale markets.

3.4.3.1 Access and call origination

There is a specific market for access and call origination in mobile communications. The customers on this particular market are independent service providers who are reliant on getting access to a network in order to provide services on the retail level. From the independent service providers' view all mobile networks offering the same area coverage etc. will be included in the relevant market. This seems to have been the view the Commission has taken in its Recommendation as it refers to "[a]ccess and call origination on public mobile telephone *networks*" (emphasis added). [128]

Nevertheless it may be argued that this market does not only exist for independent service providers but also for service providers who have their own networks. Despite the fact that they are in no need to request access to their own network it might be possible to see them as customers on the wholesale level.[129] An intellectual experiment has to be applied as the wholesale arm, the network operator, is to be seen as providing access to its retail arm, the service provider who is one and the same.[130] There are some factors indicating that vertically integrated companies may be divided into two hypothetical bodies when analyzing the constraints on this particular market.

"Traditionally, an operator who is also a service provider has not required its downstream operating arm to pay for access, and therefore it has not been easy to calculate the revenue to be allocated to the facility. In a case where an operator is providing both access and services it is necessary to separate so far as possible the revenues as the basis for the calculation of the company's share of whichever market is involved".[131] Clearly, service providers with their own networks are acknowledged as customers of wholesale access when assessing dominance. A preliminary question is if they are taken into account when defining the relevant market. Market definition is an

---

[126] Interconnection is defined as "the physical and logical linking of public communications networks…in order to allow the users of one undertaking to communicate with users of the same or another undertaking, or to access services provided by another undertaking", Access Directive, article 2 (b).

[127] The terms operator and provider are usually used interchangeably in literature, where a service provider is the same as an operator at the retail level.

[128] The Commission Recommendation, Annex, point 15.

[129] The fact that a subscriber usually has to pay a fee for originating a phone call is irrelevant in this respect as it is not evidence that a wholesale market/relationship exists.

[130] The example is to be treated as if the undertaking was structurally separated into two different bodies.

[131] Access Notice, para. 71.

intrinsic part of the dominance assessment whereas it serves no purpose on its own. According to the general principle where the law is to be seen as a coherent whole, it would be ambiguous to include the downstream arm when accounting market shares at the market for wholesale access but not when identifying customers for the purposes of defining the same market.[132] Consequently, service providers with their own networks as well as independent service providers should be recognized as customers on the market for wholesale access. As independent service providers in general only account for a small percentage of the market,[133] the market definition is likely to depend on the substitutability patterns of the service providers who are also network operators. [134] For obvious reasons a service provider with its own network will not consider a competitor's network as a substitute. This leads to the conclusion that every network is a separate market.

Regardless of the definition used it may be established that competition on the wholesale market for access and call origination seems to be relatively low. This is likely to be the case as independent service providers in general account for fairly, in some Member States very, small market shares making profits from granting access small in comparison with profits made at the retail level. It is consequently more likely that network operators will concentrate on increasing their own market shares at the retail level than fiercely compete in providing wholesale access to independent service providers. Furthermore, vertical integration is an important factor in order to benefit from economies of scale and scope which means that retail presence is by far more prosperous than granting access at the wholesale level.

In addition to the market mentioned above there may be a market for call conveyance, i.e. national roaming, where an independent service provider has to roam on a network belonging to another operator. Call conveyance between the different interconnection points, i.e. where the call is originated and where it is terminated, may be bought from a different operator than the one providing access. In practice however it is rather unlikely that this is the case which is the reason for omitting the market in the present study.

---

[132] Some authors recommend structural separation as the only possible measure to properly allocate the costs from different levels of production. However, no power to oblige an undertaking to divest part of its business exists in EC Competition law. If it had been possible it would lead to a situation where all providers offering services at the retail level were indeed customers at the wholesale level. Cf. Ryan, Michael, *Structural Separation: A Prerequisite for Effective Telecoms Competition?,* E.C.L.R. issue 6, 2003, pp. 241-250.

[133] Independent service providers account for 2 % of the mobile communications market in Sweden. The percentage is considerably higher in the UK where they account for 6-10 % of the market. However, the largest independent service provider had a market share close to 6 % whereas the four network operators had market shares in the range of 15-30 %. Cf. *Vodafone/Singlepoint,* paras. 19-20. Sweden and the UK will to some extent be used as reference countries throughout the study. Most countries in the Community seem to have a market structure more or less like the one found in Sweden. The UK serves as a good reference as the state of competition seems to be higher there than in the rest of the Community. A word of caution is needed as these comments are based on the literature, case law etc. used for the present study and not on a specific report or thorough analysis of the state of competition in the Community as a whole.

[134] As they together account for 90-98 % of the market (based on the market shares in the previous footnote).

3.4.3.2 Interconnection and call termination

Interconnection, whereby one network is linked to another, is necessary in order for services to be conveyed over different networks. An example is when a phone call has to be terminated on another network due to the fact that the person receiving the call has a subscription with a service provider using another network than the one originating the call.

The network, on which a service has to be terminated, constitutes an essential facility from the point of interconnection to the handset of the person receiving the service.[135] The service may not be provided unless interconnection is granted. However, interconnection is not a problem in itself as it is in both network operators' interest to facilitate the conveyance of services over different networks. [136] The problem lies with the pricing of call termination on another operator's network.

The termination charges are set by the network operator terminating the call. [137] It is the called party who chooses which network the service has to be terminated on when choosing service provider for outgoing calls. This fact in combination with the prevailing tariff system in European mobile telephony, which is based on the calling-party-pays principle, is rather unfortunate.[138] The one who pays has not chosen the network on which the call has to be terminated and the one who chooses the network is indifferent as to the termination charges set by the operator of that network as he is not the one paying for the incoming call. [139] Under these circumstances it is very likely that a network operator may profitably raise the price more than 5-10 % leading to the conclusion that each network is a separate market with regard to call termination. [140]

This situation may be compared with the equivalent problem in fixed telephony concerning the local loop infrastructure which is an essential facility, if not solely to a very large degree, owned by the incumbent. The reason for making it possible to unbundle the local loop was *inter alia* to get rid of the incumbent's monopoly on call termination. Whereas outgoing calls are open to competition by the means of call-by-call selection or carrier pre-selection, ingoing calls have to be terminated on the incumbent's

---

[135] "[T]he expression essential facility is used to describe a facility or infrastructure which is essential for reaching customers and/or enabling competitors to carry on their business…which cannot be replicated by any reasonable means", Access Notice, para. 68.

[136] Cf. however, the suspected abuse by KPN where call termination on all mobile networks in the Netherlands had to go through the fixed network owned by KPN, Press release, IP/02/483, 27 March 2002.

[137] "The termination charges are the wholesale charges that the calling network pays to the called network to terminate a call", De Streel, Alexandre, *The New Concept of "Significant Market Power" in Electronic Communications: the Hybridisation of the Sectoral Regulation by Competition Law,* E.C.L.R. issue 10, 2003, pp. 535-542, p. 539.

[138] "The Commission has, however, stated that the development of third generation mobile networks is likely to change the way mobile services, including voice telephony are tariffed and sold. Voice services might be priced in a way that resembles the approach used in packet data networks, where receivers as well as senders pay for part of the communication", Garzaniti, pp. 18-19.

[139] Which means that "the called party imposes a negative externality on the calling party", De Streel, p. 499.

[140] Cf. Case No COMP/M. 2803, *Telia/Sonera,* 10/7/2002, paras. 23-31.

network.[141] However, the unbundling of the local loop has been a failure so far which means that every call to a fixed location still has to be terminated on the incumbent's network.[142] Reference to fixed telephony might nevertheless be misleading as there is only one network operator able to terminate calls. In mobile telephony each network operator terminates calls to its network which means that all network operators are in an equal position in that respect.

Does the fact that each network is a separate market when it comes to call termination automatically mean that a network operator is dominant on this particular market and as a consequence may raise termination charges at its own discretion? The calling-party-pays principle suggests that this is the case. Nevertheless it has been argued that a network operator may be constrained by countervailing market power.[143] According to this view, there might be an imbalance between small and large network operators where it would be easier for a large network to raise termination charges.[144] However, it is difficult to imagine a market where a network operator buying wholesale termination is able to affect termination prices. The reason is because a large network operator with a large number of subscribers connected to its network has to buy relatively small amounts of wholesale call termination in respect to the number of subscribers. A small network operator is in the reverse situation where it has to buy large amounts of wholesale termination in relation to the number of subscribers. In fact, wholesale termination traded between the different network operators cancel each other out. Take for example a market where there are three network operators, A, B, and C. Their markets shares are 50, 30 and 20% respectively. In this market 300 phone calls are made, and according to the market shares 150 are made by subscribers to network operator A (50 % of 300 calls), 90 by customers to B and the remaining 60 are placed by the subscribers to C. Of the 150 phone calls made by customers using A's network 75 (50 % of 150 phone calls) will be terminated within A's own network as half of the total number of subscribers in the market are connected to this network, 45 (30 % of 150) will be terminated on B's network, and the remaining 30 (20 % of 150) on C's network. The equivalent numbers for operator B is that 45 (50 % of 90) calls will be terminated on the network operated by A, 27 (30 % of 90) on its own network and 18 (30 % of 90) on C's. Finally, network operator C has to terminate 30 calls on A's network, 12 on its own network and 18 on C's network. This example shows that network operator A buys termination for 45 phone calls terminated on B's network whereas B has to buy termination for 45 phone calls terminated on A's network. The wholesale termination charges are thus likely to cancel each other out assuming that the termination charges are the same on all networks, or at least on a reciprocal basis where A and B have the same charge in their agreement notwithstanding that A and C has another charge in their relation. Does this mean that there is no market for wholesale termination as each network operator buys as much as it sells? Clearly, this model is built on the assumption that each call is originated and terminated on the various networks according to the

---

[141] Cf. Case No IV/M. 1439, *Telia/Telenor*, 13 October 1999, para. 27.

[142] One year after the regulation on local loop unbundling went into force less than 800 000 subscriber lines had been unbundled in Europe, 700 000 of them in Germany which is less than 2 % of all the subscriber lines in that Member State. Cf. Press release IP/02/686, 8 May 2002, concerning a suspected abuse by Duetsche Telekom.

[143] Cf. Bavasso, p. 137.

[144] Cf. Bavasso, p. 129. The statements made refer to fixed telephony but apply equally to mobile telephony. Cf. p. 137.

number of subscribers in the market. There might be small differences in practice if the calls are not placed and received according to what is the most likely situation in theory; yet this difference is in the overall assessment negligible. Furthermore, an assumption has been made that each call that is terminated on a different network is conveyed the same distance from the point of interconnection between the two networks and the receiver of the call. This means that the reach of the networks are assumed to be the same as well as the density of the infrastructure, for example number of base stations.

Whereas it is possible that the wholesale termination market may be neglected when assessing dominance on the market for mobile communications it has to be included in relation to fixed telephony as a large number of calls originated on the fixed network have to be terminated on different mobile networks and vice versa. The revenue from wholesale termination in mobile telephony is, according to the reasoning above, mainly based on revenue from operators using the fixed network. The abovementioned particularity where phone calls to the fixed network may only be terminated by one operator, i.e. the incumbent, plays a significant role when calculating the revenue as there is a discrepancy between how much that is bought and how much that is sold in this regard.

3.4.3.3 Conclusion

Competition seems to be limited at the wholesale level. As mentioned above there are reasons for network operators to concentrate on increasing their market shares at the retail level in place of increasing provision of wholesale services to independent service providers. Does it matter if competition is limited at the wholesale level as long as there is effective competition at the retail level? Naturally it does as prices set under uncompetitive market conditions at the wholesale level will have repercussions at the retail level. Fierce competition at the retail level is an illusion if prices are jointly controlled by a few network operators. Yet it is very difficult to estimate a fair price as it has to cover not only the actual cost of using the network but also administrative costs as well as part of the large sunk costs for infrastructure.

The oligopolistic market structure at the wholesale level is reflected at the retail level. As mentioned above, the risk of complex dominance, i.e. collective dominance and leveraged dominance,[145] is increased in the telecommunications sector. Hereby not saying that this is the case in general; a case specific analysis of the market has to be made.

3.4.4 The relevant geographic market

The relevant market has to be delimited in a geographical dimension as to where an undertaking faces the competitive constraints mentioned above. [146]

3.4.4.1 General comments

“The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogenous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different

[145] Cf. Bavasso, p. 171.

[146] The relevant geographical market has to cover a substantial part of the common market in order for Community Law to be applicable. Cf. Telecom Guidelines, para. 33.

in those areas"[147] In other words, used by the ECJ in *United Brands*, the relevant geographical market "is an area where the objective conditions of competition applying to the product in question must be the same for all traders". [148] Although ECJ refers to a market where the conditions of competition are the *same* it does not exclude markets where the conditions are slightly different as long as they are similar or sufficiently homogeneous.[149]

The hypothetical test mentioned above is also used when defining the market in a geographical sense. If a 5-10% permanent price increase in one area (A) makes costumers turn to a supplier in another area (B) that area is included in the geographical market for the product in question. If this price increase makes a supplier in yet another area (C) enter market area (A) the former area is included as well, since the conditions of trade obviously are sufficiently homogenous. The key criterion is still profitability, whereas additional markets are included until a price increase in the area is profitable for the producer.

3.4.4.2 The geographical scope of the mobile communications market

Two main criteria have traditionally been conclusive in the delimitation of the geographical market in the telecommunications sector; (i) the area coverage of the network and (ii) existing legal or regulatory provisions. [150]

The first criterion is to some extent taken into account when defining the relevant product market as network coverage may affect demand substitutability. [151] The average customer may be content with interconnection and roaming services if abroad. Some of the functionalities may however be lost when roaming, for example voice mail or short message services [SMS]. [152] On the other hand, there are customers requiring a higher quality of services provided when traveling between different countries. There has for example been implied that a market exists for seam-less mobile communications services for internationally mobile customers covering several countries. [153] A demand for cross border services means that interconnection is not an option as these customers require full functionality and no roaming charges. Furthermore the first criterion is likely to coincide with the second criterion as the network coverage will correspond to the area in which a network operator is authorized to operate. [154] As a result, it is often sufficient to look at existing legal or regulatory provisions limiting the scope of the market. [155]

---

[147] Relevant Market Notice, para. 8.

[148] *United Brands,* para. 44.

[149] *Tetra Pak II,* para. 91.

[150] SMP Guidelines, para. 59. Cf. Garzaniti, pp. 276-277.

[151] This aspect is even more evident in fixed telephony where for example a leased line between two locations is geographically bound.

[152] Case No IV/M. 1430, *Vodafone/AirTouch,* 21/05/1999, para. 15.

[153] Cf. Case Case No COMP/M. 2803, *Telia/Sonera,* 10/7/2002, para. 13, and Case No IV/M. 1795, *VodafoneAirTouch/Mannesmann,* 12/04/2000, para. 21.

[154] Cf. SMP Guidelines, footnote 43 and 44.

[155] Cf. Larouche article, p. 27, and De Streel, p. 501.

With the exception of cross-border services aimed at corporate customers the geographical scope of the market is national as the authorization to use number and frequencies takes place on a national basis. [156] This is further confirmed by demand-side substitutability as the cost of roaming makes it unprofitable for the customer to subscribe to a service provider operating in a foreign market. [157] A more narrow delimitation of the market may be possible due to linguistic reasons. This is rather unlikely as it can be assumed that a service provider operating in a country where two or more languages are spoken offer communications services in all those languages.

3.4.5 The state of competition in the market and a futuristic outlook

It is time to get back to the question if there is a need for sector specific regulation. As seen above there are some apparent problems in the telecommunications sector giving rise to competition concerns. Many of the problems are inherent in the structure of the market, for example externalities generated from network effects like economies of scale and scope. Others are a direct result from the former situation when legal monopolies were granted exclusive rights for the provision of telecommunication services. In the strict sense, it is only problems emerging from the second situation that makes sector specific regulation justified. However, it is not always possible to identify the nature of the problem based on the two reasons mentioned above. Nevertheless, it is something to keep in mind as the application of SSR is meant to be the minimum necessary in order to make the transition to general competition law possible. The objective of sector specific regulation is not to solve the problems inherent in network industries.

An illustrative example of the need for sector specific regulation is the liberalization of telecommunications services in New Zealand where the legislator went from regulation to deregulation in one step. Problems arose within short and the legislator was forced to take appropriate measures which meant that a system of sector specific regulation was adopted. [158] The retreat was necessary but it could not cover up delays in the liberalization process. [159]

The fact that SSR is necessary for the transition to general competition law does not mean that there is a need for regulation in all types of markets. It is for example questionable if SSR is justified in mobile communications. First, it may be assumed that the problems that still remain are a result of market conditions in network industries rather than the former incumbent's position in this market. The objective of a regulatory regime is as a consequence not fulfilled in this particular market. However, as stated in the introduction the new framework extended the scope of SSR to markets other than the markets where the incumbent previously held exclusive rights. Second, it is questionable if the three criteria mentioned in chapter 2.3.1 *supra.* are fulfilled.

The first criterion refers to entry barriers. As seen above, there are some clear barriers to entry at the wholesale level. Regardless of the entry barriers at the wholesale level it is fairly easy to enter the market at the retail level which means that application of

---

[156] Cf. Case No COMP/M. 3245, *Vodafone/Singlepoint,* 16/09/2003, para. 15.

[157] Cf. Case No IV/M. 1439, *Telia/Telenor*, 13 October 1999, para. 124.

[158] The problems that arose were *inter alia* refusal by the incumbent to grant interconnection and failure to agree on standards necessary for interoperability. Cf. Rey, p. 28.

[159] Cf. Walden, Ian, Angel, John, *Telecommunications Law,* Blackstone Press Limited, 2001, pp. 11-12 and 506-507.

SSR is not justified at this level. The first criterion will for obvious reasons always be fulfilled in a network industry at the wholesale level. The structural barriers to entry, in particular the enormous costs of infrastructure, is deemed to put new entrants at a disadvantage. The second criterion concerning the dynamics of the market and the state of competition regardless of entry barriers is more important. This criterion is not fulfilled if there are a sufficient number of undertakings with diverging cost structures present in the market. A sufficient number is not defined but it goes without saying that the number is limited with regard to environmental concerns, scarce resources of frequency spectrum etc. Assuming that the network operators have diverging cost structures any number of three or more must be sufficient. This is likely to be the case in most Member States which leads to the conclusion that the second criterion is not fulfilled. [160] However, in the case it is fulfilled there is always the third criterion which excludes the application of SSR if general competition law is efficient facing possible market failures. It is not easy to foresee how the market will respond to obligations on the one hand and remedies on the other. In case of doubt as to the effect of obligations the sole application of general competition law should be preferred as SSR should be applied restrictively. [161] Furthermore, many of the obligations that may be imposed like the obligation to grant access exist in general competition law under the essential facility doctrine. Save that the facility has to be essential and that the application requires that an abuse has taken place in the market. The same is true for excessive prices etc. Based on the present situation in the two reference countries mentioned above[162] the state of competition seems to be such that the sole application of general competition law is efficient in mobile communications. None of the three criteria are fulfilled which leads to the conclusion that SSR is not justified in the markets being analyzed.

Nevertheless, the Commission has found that all three criteria are fulfilled on three wholesale markets listed in its Recommendation on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation. [163] As a result, national regulatory authorities are at present in the process of imposing obligations on undertakings designated with SMP on those markets recommended. The NRA in the UK has come to the conclusion that no operator has SMP on the wholesale market for access and call origination which means that no obligations will be imposed on this market.[164] A direct consequence of the Commission's definition of a separate market for voice call termination on *individual* mobile networks is that all network operators in the UK and in Sweden has been designated as having SMP within their own networks regarding call termination. [165] Obligations ensuring cost oriented prices for this

---

[160] There are for example three network operators in Sweden and five in the UK.

[161] Regulation should be the minimum possible to meet the objectives of facilitating the transition to general competition law.

[162] Cf. footnote 133 *supra*.

[163] Cf. Commission Recommendation, Annex, 15-17. The markets are access and call origination on public mobile telephone networks, voice call termination on individual mobile networks, and the wholesale market for international roaming on public mobile networks.

[164] Case No COMP/M. 3245, *Vodafone/Singlepoint,* 16/09/2003, para. 24. Cf. Decision by Oftel, 4 August 2002, available at www.ofcom.org.uk.

[165] Cf. Proposal from Oftel, the British NRA, *Wholesale Mobile Voice Call Termination, Proposals for the identification and analysis of markets, determination of market power and setting SMP conditions, Explanatory Statement and Notification*, published on 19 December 2003, available at

service will as a consequence be imposed on all network operators. It is assumed that this measure, which is an indirect form of price regulation, will lower the prices of communications services at the retail market. The important question is however if it will promote competition? An overall decrease in price will not change the state of competition in the market. [166] Regardless of the fact that regulation of call termination is not in accordance with the overall objective of SSR it is a good thing that the markets are defined with reference to individual networks. As seen in the example above where wholesale termination charges are likely to cancel each other out the former order where only one undertaking, presumably the former incumbent, was designated with SMP was indeed unfortunate. [167] The result of imposing an obligation to charge cost oriented prices on one undertaking and not on the others[168] in regard to call termination is that this undertaking has to pay more for wholesale call termination than it will receive from the others. A situation where money is taken from one undertaking and given to others is incompatible with the main objective to ensure that competition in the internal market is not distorted. The objective of SSR is to create a level playing field so that all network operators can compete on equal terms not to create equally strong undertakings, no matter if it is in the consumers' interest.

Opinions may diverge on the need for SSR in particular markets. However, as stated above there is a general belief that SSR is necessary in the transition process to general competition law. A relevant question is if the sole application of general competition law is realistic in the sector as a whole.

Sector specific regulation will be needed as long as the constraints on a service provider are limited to a specific network, for example the fixed network. As seen above a service provider using the PSTN face no or very little competition from providers using other types of network. The fact that convergence is feasible does mean that services are considered to be substitutes. Although the technology used in cable networks has increased in recent years it has to be better in order to meet the quality and the reliability that the fixed network offers. Furthermore, it is not sufficient that the technology is improved as it has to lead to a shift in demand. This will require that more customers have access to the different networks, for example broad-band internet access which is a requirement for voice over the Internet. The conclusion is that the sole application of competition law is not realistic in the near future for the sector as a whole.

---

www.ofcom.org.uk, and Proposal from PTS, the Swedish NRA, on call termination in mobile networks, 5 February 2004, available at www.pts.se.

[166] A sub-objective of the regulatory framework is to promote the interests of the European citizens, article 8(4) Framework Directive. However, this is not a reason for applying sector specific regulation as the interest may be protected under general competition law.

[167] This was the case in Sweden where obligations were imposed on the former incumbent Telia with the effect that Telia had lower call termination charges than the other two network operators active on the market.

[168] The two remaining operators were free to charge a higher price which they also did.

4 Different results in general competition law and SSR

As mentioned in the introduction, an undertaking that is dominant does not necessarily have SMP and vice versa.[169] Furthermore, the fact that the relevant market is to be defined in accordance with the principles used in general competition law does not mean that the definitions under both systems will be identical. [170] Market definitions "*will in most cases* correspond to the definitions that would apply under competition law" but not always (emphasis added). [171] What are the possible reasons for the differences that may appear?

Differences may be due to the fact that the market definition is not carried out in the same manner under both systems although the same methodologies are used. This is a difference that is intrinsic in SSR. In addition, there are differences that a caused by the different objectives behind the provisions in SSR and in general competition law. The former affect the market definition whereas the latter may affect both the market definition and the assessment of dominance and SMP.

4.1 A difference intrinsic in SSR

Market definition in SSR is carried out in a two step process that does not exist in general competition law. In the first step, the Commission selects a number of markets where SSR is justified according to the three criteria mentioned above. Markets where sector specific regulation is justified due to the insufficiency of general competition law remedies are consequently listed in the Recommendation on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation. However the markets listed are only defined in the service dimension and not in the geographical scope. In the second step, an NRA is to define relevant markets taking national circumstances into consideration. [172]

4.1.1 Market definition by the National Regulatory Authority

According to article 15(3) of the Framework Directive an NRA shall take *the outmost account* of the SMP Guidelines and the Recommendation when defining markets appropriate to national circumstances. [173] In practice, this means that the market analysis is to be carried out on the markets listed in the Recommendation. [174] However, an NRA may deviate from the markets identified in the Recommendation. If the deviation concerns a market that affects trade between Member States the Commission may use its veto in article 7(4) of the Framework Directive. The Commission has in these cases the discretionary power to make an NRA withdraw a draft measure if it considers that the market definition is incompatible with Community law and the objectives for sector specific regulation. If the deviation concerns a market where only intra-state trade is

---

[169] Cf. SMP Guidelines, para. 30, Farr, p. 36, De Streel, p. 511.

[170] Cf. SMP Guidelines, para. 24.

[171] Cf. SMP Guidelines, para. 25.

[172] Art 15(3) Framework Directive.

[173] It is to be noted that both the Recommendation and the Guidelines are instruments of soft law. However, the reference to both these instruments in the Framework Directive give them additional weight.

[174] Cf. Farr, p. 13.

affected an NRA has more freedom to use different market definitions than the ones listed.[175] This may be done under condition that the alternative definition is compatible with general competition law and that the three conditions justifying SSR are met. [176]

The opening for different market definitions is to be interpreted as an exception. As implied in article 15(3) of the Framework Directive, the definition of relevant markets at this stage where national circumstances are taken into account concerns mainly the geographical dimension of the relevant market. According to Farr, an NRA is *only* to define the geographical scope of the market if it is listed in the Recommendation.[177] However, this can only be true if the relevant service market is correctly defined in the first place. The locution "in particular relevant geographical markets" [178] does not exclude the service dimension. Farr's opinion has some support in the Guidelines where it is implied that an NRA can not deviate from the service markets listed in the Recommendation, only define *new markets* not mentioned in the Recommendation if justified by national circumstances. [179] This narrow interpretation is not compatible with article 15 (3) of the Framework Directive as the possibility for an NRA to deviate from the markets identified in the Recommendation mentioned above is not restricted to new product markets. In fact, it explicitly includes "markets *that differ* from those defined in the recommendation" (emphasis added).

The conclusion is thus that in theory an NRA may define a market different than the ones selected by the Commission whereas in practice it will limit the definition to the geographical scope of the markets listed in the Recommendation. [180]

4.1.2 Problems with the two step approach

Does it matter in what way the markets are defined as long as they are defined according to the principles of competition law? It is true that the distinction is of little importance in the majority of cases. However, this is not a reason for neglecting the differences that actually exist, and which may be of importance in a specific case.

The markets defined by the Commission which are listed in the Recommendation build on the assumption that all national markets within the Community are the same, i.e. that the conditions of supply and demand are identical in all Member States. The result is *a typical market* for the *general European country*. The Commission has looked at the structure of supply and demand in Europe as a whole. From an economical point of view it is highly unlikely that this type of market reflects the current conditions in the different national markets. Clearly the constraints on a service provider can not be the same all over Europe, there has to be regional differences as to what kind of telecommunications

---

[175] However, the phrase affect trade between Member States is extensive whereas it includes trade that may have a direct or indirect, actual or potential, influence on trade. Cf. Case 56/65, *Maschinenbau Ulm,* 30 June 1996. As a consequence the discretionary powers of an NRA are considerably limited.

[176] Commission Recommendation, para. 19.

[177] Cf. Farr, p. 36.

[178] Art 15(3) Framework Directive.

[179] Cf. SMP Guidelines, para. 9. The Guidelines have been designed for NRAs to use when defining the geographical scope of the markets identified in the Recommendation as well as when an NRA is to define a service market that is not listed in the Recommendation.

[180] Cf. SMP Guidelines, para. 36, and Garzaniti, p. 13.

services the customers, as well as the providers, consider as substitutes. National markets develop in different pace, something that is especially important in an innovation driven sector like the electronic communications sector. What is a relevant service market in one Member State may not be a relevant market in another.

It is quite another thing that the Commission has applied competition law principles when defining these model markets, no objections may be raised in this regard. The question is rather, if a system where the product dimension is defined at the European level whereas the geographical dimension is defined at the national level is in accordance with competition law principles. There is a discrepancy in the methodology used. According to general competition law a market is defined based on the specific circumstances at place. The product market and the geographical market are defined simultaneously not consecutively. This two step approach used in SSR is for the reason just mentioned questionable. Well, there is always the possibility that an NRA modifies the definition of the service market so it better corresponds to national circumstances. However, the risk remains that this safety-valve will seldom be used.

4.2 Differences due to different objectives

In addition to the differences that are intrinsic in SSR, there are some differences due to the different objectives behind the two systems. As mentioned above, the objective of general competition law is to ensure that competition in the internal market is not distorted whereas the objective of SSR is to promote competition. The objective permeates several decisions and it may have an effect on the assessment of dominance as well on the market definition.

4.2.1 *Ex ante* versus *ex post* regulation

Article 82 is applied *ex post*, i.e. in a repressive manner whereas the provisions in SSR are applied *ex ante*, i.e. in a preventative way. This has to do more with the nature of the specific provisions and less with the different objectives behind them. The merger control which is part of general competition law is for example applied *ex ante*, and not *ex post* like article 81 and 82.

The difference between *ex ante* and *ex post* application is already recognized in general competition law. A prospective analysis and an analysis of present and past behavior may lead to different results regarding the market definition and the subsequent assessment of dominance. A consequence of *ex ante* regulation is that it is likely that it will entail wider market definitions. In addition, potential competition, which is rarely taken into account in a retrospective analysis, is more important in a prospective analysis which leads to the conclusion that dominance is relatively less likely in a forward-looking assessment.

There is a presumption that market definition in SSR will follow the market definition in merger cases which is also applied *ex ante*. Yet, several NRAs have expressed an intention that they will focus on the present structure of the market and not look too much on the forward-looking aspect.[181]

In addition to the different approaches just mentioned, there are some important differences that exist regardless of the approach used, *ex ante* or *ex post*.

[181] Garzaniti, pp. 540-541, footnote 14.

4.2.2 Different starting points

In general competition law there is a natural starting point for the definition of the relevant market. In article 82 cases it is the market where the alleged abuse was committed and in article 81 cases where the anti-competitive conduct was taking place. The starting point in merger cases is the markets where the parties are presently active or are likely to be in the foreseeable future. For the dominance assessment it is often enough to look at overlapping markets which limits the scope considerably.

There is no natural starting point for the SMP assessment in sector specific regulation. SSR requires an analysis of the structure and the functioning of the different markets in the whole sector, which is a much broader perspective. [182] A consequence of the different starting points is that wider market definitions are more likely under SSR than under general competition law including the definitions made in merger cases. [183]

4.2.3 Actual as opposed to hypothetical constraints

Another discrepancy is that the Commission when defining product markets for sector specific regulation has defined those only assuming the conditions on the market. It has based its definitions on the constraints on hypothetical undertakings apart from actual ones. As mentioned above, an NRA has a possibility to correct the discrepancy when defining markets in accordance with national circumstances taking the actual undertakings and their constraints into mind. The question is only if any faults that may occur will be detected at the national level.

4.2.4 Periodical assessments

SMP assessments are carried out periodically.[184] It is thus a more flexible type of regulation than what is found in general competition law where dominance is assessed only once. Repetitive abuses committed by an undertaking require new proceedings and the dominance assessment from an earlier case involving the same undertaking may not be taken for granted. Naturally, the same is true in concentrations where the assessment is carried out only once. The Commission does not have the opportunity to review its decision once a concentration is deemed compatible with the common market. It has for example no power to impose obligations of divestment once a merger is cleared, which makes further assessments useless.

The fact that the SMP assessment is renewed at regular intervals is likely to affect the market definition as well as the dominance assessment. The question is how? It would be possible that an SMP assessment, including the market definition, would be more cautious than an equivalent assessment under general competition law. Especially if it is linked to the fact that obligations are automatically imposed, despite any particular market conduct, once SMP is at hand. On the other hand a more harsh estimation would also be possible as any obligation may easily be withdrawn as soon as there is a change in the market. The thing that speaks for the former is that an obligation is somewhat comparable with a remedy and remedies should, as a general rule, be applied restrictively. Reversely, sector specific regulation would not be effective if it is not applied

[182] Cf. SMP Guidelines, para. 27.

[183] Cf. De Streel, p. 511.

[184] Cf. SMP Guidelines, para. 28.

as intended. The objective is to promote competition and restrictive application would thus be counterproductive.

4.2.5 Open definitions

The market definition is often left open in merger cases if the concentration does not give rise any competitive concerns even at a more narrowly defined market. This is a particularity only found in merger cases due to a requirement of speedy proceedings. A market under SSR that meets the three criteria mentioned above has to be defined correctly or the application of SSR is inefficient. Guidance from market definitions in merger cases may thus be misleading on this point.

4.2.6 Conclusion

"Although NRAs and competition authorities, when examining the same issues in the same circumstances and with the same objectives, should in principle reach the same conclusions, it cannot be excluded that, given the differences outlined above, and in particular the broader focus of the NRAs' assessment, markets defined for the purposes of competition law and markets defined for the purpose of sector-specific regulation may not always be identical".[185]

It is obvious that all these differences mentioned above will not be present in one and the same case. After all market definitions tend to be fairly similar regardless of the issue examined. Yet, the differences are important as referral to the new Framework and especially to the Recommendation on relevant service markets in this sector have recently been made under merger control regulation.[186]

[185] SMP Guidelines, para. 27.

[186] Cf. Commission Decision, Case No COMP/M.3245, *Vodafone/Singlepoint*, 16/09/2203.

5 Conclusion

As seen above, sector specific regulation is necessary in order to create a level playing field in the telecommunications sector. The sole application of general competition law is not sufficient facing the asymmetric market conditions that are a result of the previous order of exclusive rights granted to public telecommunications operators. However SSR does not replace the applicability of article 82 prohibiting abuses committed by undertakings holding a dominant position. This means that provisions under both systems are applicable side by side.

Obligations under sector specific regulation are imposed on undertakings having significant market power in markets where SSR is justified according to the structure of the market and the insufficiency of general competition law. SMP is to be assessed in accordance with the principles used when assessing dominance. Furthermore, the same methodologies are used in both systems when defining the relevant market. This means that a duplication of procedures is likely if a dominant undertaking commits an abuse on a market subject to sector specific regulation. Nevertheless, a duplication of procedures is not self-evident. Regardless of the fact that the same methodologies are used when defining the relevant market and when assessing dominance and significant market power, the application of the specific provisions may lead to different results concerning the market definition or the assessment of dominance and SMP. Some differences exist due to the particularities found in the regulatory regime others due to the different objectives behind the two systems. The main objective of sector specific regulation is to facilitate the transition to general competition law. However, if this is a realistic objective remains to be seen. Whereas the sole application of general competition law is possible in some markets in the telecommunications sector it will take time before general competition law is sufficient facing the market failures that still exist in other markets.

6 Bibliography

Monographs

Bavasso, Antonio, Communications in the EU Antitrust Law: Market Power and Public Interest, Kluwer Law International, 2003.

Bellamy & Child, *European Community Law of Competition,* Fifth edition, 2001.

Bishop, Simon, Walker, Mike, *The Economics of EC Competition Law: Concepts, Application and Measurement,* 2nd edition, Sweet & Maxwell Ltd., 2002

Farr, Sebastian, Oakley, Vanessa, *EU Communications Law,* Palladian Law Publishing Ltd, 2002.

Garzaniti, Laurent, *Telecommunications, Broadcasting and the Internet: EU Competition Law and Regulation,* 2nd edition, Thomson Sweet & Maxwell, 2003.

Goyder, D.G, *EC Competition Law*, 4th edition, Oxford University Press, 2003.

Koeing, Christian, Bartosh, A, Braun, D, *EU Competition and Telecommunications Law,* Kluwer Law International, 2002.

Larouche, Pierre, *Competition Law and Regulation in European Telecommunications,* Hart Publishing, 2000.

Pindyck, Robert, Rubinfeld, Daniel, *Microeconomics,* 5th edition, Prentice Hall International Inc., 2001.

Ritter, Lennart, Braun, W. David, Rawlinson, Francis, *European Competition Law: A Practitioner's Guide,* 2nd edition, Kluwer International Law, 2000.

Walden, Ian, Angel, John, *Telecommunications Law,* Blackstone Press Limited, 2001.

Whish, Richard, *Competition Law,* 5th edition, LexisNexis UK, 2003.

van der Woude, Marc, Jones, Christopher, *E.C. Competition Law Handbook,* 2003/2004 Edition, Sweet & Maxwell Ltd., 2003.

Regulations

Regulation 4064/89 of 21 December 1989 on the control of concentrations between undertakings, OJ [1990] L 257, as amended by Regulation 1310/97 of 30 June 1997.

Regulation 2887/2000 on unbundled access to the local loop, OJ [2000] L 336/427.

Directives

Framework Directive, Dir. 2002/21/EC.

Authorisation Directive, Dir. 2002/20/EC.

Access Directive, Dir. 2002/19/EC.

Universal Service Directive, Dir. 2002/22/EC.

Data Protection Directive, Dir. 2002/58/EC.

Instruments and documents issued by the Commission

Guidelines

Guidelines on the application of EEC competition rules in the telecommunications sector, OJ [1991] C 233/02, 06/09/1991.

Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, OJ [2002] C 165/6, 11/7/2002.

Notices

Commission Notice on the definition of the relevant market for the purposes of Community competition law, OJ [1997] C 372/03, 09/12/1997.

Notice on the application of the competition rules to access agreements in the telecommunications sector, OJ[1998] C 265/02, 22/8/1998.

Recommendation

Commission Recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, OJ [2003] L 114/45, 8/5/2003.

Working document

On the Initial Findings of the Sector Inquiry into Mobile Roaming Charges, 13 December 2000.

Case law from ECJ and CFI

Case 56/65, *Maschinenbau Ulm,* 30 June 1966.

Case 27/76, *United Brands Company and United Brands Continentaal BV v. Commission of the European Communities,* 14 February 1978.

Case 85/76, *Hoffmann-La Roche & co. Ag v. the Commission of the European Communities,* 13 February 1979.

Case 41/83, *Italian Republic v. the Commission,* 20 March 1985.

Case C-62/86, *Azko Chemie BV v. the Commission,* 3 July 1991.

Case C-333/94, *Tetra Pak International SA v. Commission of the European Communities,* 14 November 1996.

Case T-102/96, *Gencor Ltd. v. Commission,* 25 March 1999.

Case T-342/99, *Airtours plc. v. Commission*, 6 June 2002.

Decision-making practice from the Commission

Case IV/M. 042, *Alcatel/Telettra*, 12 April 1990.

Case No IV/M. 856, *British Telecom/MCI II,* 14 May 1997.

Case No IV/M. 1430, *Vodafone/AirTouch,* 21 May 1999.

Case No IV/M. 1439, *Telia/Telenor*, 13 October 1999.

Case No IV/M. 1795, *VodafoneAirTouch/Mannesmann,* 12 April 2000.

Case No IV/M. 2016, *France Telecom/Orange,* 11 August 2000.

Case COMP/M. 2574, *Pirelli/Editizione /Telecom Italia*, 20 September, 2001.

Case No COMP/M. 2803, *Telia/Sonera,* 10 July 2002.

Case COMP/C-1/37.451 37.578, 37.579, *Deutsche Telekom,* 21 May 2003.

Case No COMP/M. 3245, *Vodafone/Singlepoint,* 16 September 2003.

Press releases from the Commission

IP/02/483, 27 March 2002, concerning a suspected abuse by KPN.

IP/02/686, 8 May 2002, concerning a suspected abuse by Duetsche Telekom.

IP/03/1025, 16 July 2003, concerning a committed abuse by Wanadoo, Case COMP/38.233, not published at this date.

IP/031797, 19 December 2003, concerning a suspected abuse by TeliaSonera.

Articles

De Streel, Alexandre, *The Integration of Competition Law Principles in the New European Framework for Electronic Communications,* World Competition 26(3), 2003, pp. 489-514.

De Streel, Alexandre, *The New Concept of "Significant Market Power" in Electronic Communications: the Hybridisation of the Sectoral Regulation iby Competition Law,* E.C.L.R. issue 10, 2003, pp. 535-542.

Larouche, Pierre, *Relevant Market Definition in Network Industries: Air Transport and Telecommunications,* Journal of Network Industries 1, 2000, pp. 407-445.

Rey, Patrick, *Collective Dominance and the telecommunications industry,* September, 2002.

Ryan, Michael, *Structural Separation: A Prerequisite for Effective Telecoms Competition?,* E.C.L.R. issue 6, 2003, pp. 241-250.

Tarrant, Andrew, *Significant market power and dominance in the regulation of telecommunications markets,* E.C.L.R. issue 7, 2000, pp. 320-325.