REMEDIES IN THE EUROPEAN ELECTRONIC COMMUNICATIONS SECTOR

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In 1987, the European Commission initiated an ambitious liberalisation program aimed to foster the emergence of a single EU telecommunications market securing the necessary critical mass for a dynamic telecommunications sector and improving the competitiveness of the European economy in an increased globalised world[1]. Thus the industry went under a fundamental restructuring process with lots of new operators entering in the market and existing players coming together through joint ventures and mergers. However, electronic communications are characterised by important economies of scale and scope, hence mere opening of the markets does not remove the prevalence of market power. The exercise of such market power had to be strongly controlled by public authorities because of risk that strong players would use their power to manipulate the restructuring process at their advantages and at the expense of the overall social welfare and because of the importance of the sector in economic and social terms[2].

To control such market power, public authorities may rely on three sets of legal instruments: (1) European competition law (ex ante mergers control and ex post prohibition of anti-competitive behaviours); (2) national competition law, which very often mirror European rules; and (3) national sector regulation transposing European Directives. Each set of instruments is applied by different institutions: European antitrust by the Commission (under the control of the Community Courts), national competition authorities (NCAs), national Courts, and in some countries the national regulatory authorities (NRAs); the national antitrust by the NCAs, the national Courts, and possibly NRAs; and sector regulation by NRAs (under the control of national Courts).

This paper studies the remedies imposed under two of the three mentioned instruments and illustrates their convergence over time. After this introduction,

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[*] European University Institute, Florence. This paper is based on joint presentation that I did with T. Shortall, while experts at the European Commission. However, any error remains mine and the paper does not necessarily reflect the views of the Commission. It states the law as of 1 April 2004, unless stated otherwise.

[1] Communication by the Commission of 30 June 1987, Towards a Dynamic European Economy: Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, COM(87) 290.

[2] On the economic situation of the European electronic communications sector and future challenges, see: Communication from the Commission of 3 February 2004, Connecting Europe at high speed: recent developments in the sector of electronic communications, COM(2004) 61; Communication from the Commission of 19 November 2003, Ninth Report on the Implementation of the Telecommunications Regulatory Package, COM(2003) 715; OECD, *Communications Outlook 2003*.

Section 1 reviews the antitrust practice of the Commission during this last ten years. It shows that the use of competition law has been very far reaching, such that some speak about a new (more interventionist and regulatory) competition law when applied to the electronic communications. Section 2 describes how sector-specific regulation controls market power (in particular the recently reformed Significant Market Power Regime). It shows how regulation integrates antitrust principles and evolves towards a 'pre-emptive' competitive law analysis. Bringing the previous sections together, Section 3 studies the convergence and the remaining divergences between antitrust and sector regulation. It shows that burden of proof to intervene and the institutions in charge are different and that as long as some particular features will be present in electronic communications, sector regulation will be applied as a complement to competition law.

1. Remedies under European competition law[3]

1.1. Overview of the system

The main objective of antitrust is to ensure an overall economic efficiency[4], and therefore its intervention is focused on the acquisition and the exercise of market power. Under European law, the main threshold for a competition authority to intervene is the presence of a level of market power equivalent to a dominant position, which has been defined as the position of economic strength which gives the power to behave to an appreciable extent independently of competitors, consumers and ultimately consumers[5]. Competition authorities control market power, and when necessary impose obligations to undertakings, in two ways. First, they intervene *ex post* in a repressive way when anti-competitive agreements or abuses are committed (Articles 81 and 82 EC), and impose fines, behavioural or even structural remedies[6]. Second, they intervene *ex ante* in a preventive way when firms come together to form autonomous joint ventures or concentrations (Merger Regulation[7]). If the operation

[3] Note that this contribution does not deal with Article 86 EC. For the application of EC Competition Law to electronic communications, see: A. Bavasso, *Communications in EU Antitrust Law: Market Power and Public Interest*, Kluwer, 2003; C.D. Ehlermann and L. Gosling (eds), *European Competition Law Annual 1998: Regulating Communications Markets*, Hart, 2000; J. Faull & A. Nikpay (eds), *The EC Law of Competition*, O.U.P., 1999, Ch. 11; L. Garzaniti, *Telecommunications, Broadcasting and the Internet: EU Competition Law and Regulation*, 2nd ed, Sweet & Maxwell, 2003; C. Koenig, A. Bartosh and D. Braun (eds), *EU Competition and Telecommunications Law*, Kluwer, 2002; P. Larouche, *Competition Law and Regulation in European Telecommunications*, Hart, 2000; P. Roth (ed), *Bellamy and Child: European Community Law of Competition*, 5th ed, Sweet & Maxwell, 2001, Ch. 14; J. Temple Lang, "Media, multimedia and European Community antitrust law", in B. Hawk (ed) *Fordham Corporate Law Institute*, 1997, 377-448; H. Ungerer, "EU Competition law in the telecommunications, media and information technology sectors", in B. Hawk (ed) *Fordham Corporate Law Institute*, 1995, 465-519.

[4] C.D. Ehlermann and L.L. Laudati (eds), *European Competition law Annual 1997: The Objectives of Competition Policy*, Hart, 1997.

[5] *United Brands* 27/76 [1978] ECR 207, para 65; *Hoffman-La Roche*, 85/76 [1979] ECR 461.

[6] With the decentralisation Regulation applicable in May 2004, it is now clarified that structural remedies may be imposed in the context of an ex-post control: Article 7 of the Council Regulation 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Article 81 and 82 of the Treaty, O.J. [2003] L 1/1.

[7] Council Regulation 4064/89 of 21 December 1989 on the control of concentrations between undertakings, O.J. [1989] L 395/1, as amended in June 1997. In May 2004, this Regulation will be

would create market power such that competition would be significantly impeded, the authority should block it or impose remedies to remove any competitive concerns. As merger control is mainly about market structure, structural remedies should be preferred[8], but behavioral remedies may be accepted provided they have some sort of structural effects on the market[9].

The relationship between European competition law and other legal instruments is complex. European antitrust applies across the board to all economic sectors, including electronic communications[10]. The fact that some markets are under the jurisdiction of specific regulation does not remove the jurisdiction of antitrust. Moreover, European competition law pre-empt national antitrust but also national sector regulation. NRAs should may not infringe antitrust when applying sector regulation and in case of diagonal conflict (between European antitrust and national sector law), the NRAs should even dis-apply sector regulation[11]. Thus, European antirust is a powerful instrument for the Community institutions (Commission or the Courts) to control national institutions.

1.2. Assessment of market power in electronic communications

(a) Market Definition

As competition authorities control market power, their first task is to detect this power which has been defined by the economists as the ability to raise price above the competitive level[12]. Unfortunately, such market power can not be measured directly as the competitive price is unknown. Therefore, authorities assess the market power indirectly by relying on other observable indicators like market shares or barriers to entry. For the market shares to give any relevant indications, markets should first be appropriately defined to catch the boundaries of competition between firms. In antitrust practice[13], a relevant market combines a product/service dimension with a geographical dimension. To determine both dimensions, the competitive constraints

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replaced by the new Council Regulation 139/2004 of 20 January 2004 on the control of concentrations between undertakings, O.J. [2004] L 24/1.

[8] Commission Notice on remedies acceptable under Council Regulation 4064/89/EEC and under Commission Regulation 447/98/EC, O.J. [2001] C 68/3. See also M. Monti, *The Commission's Notice on Merger Remedies*, Speech 18.1.2002; G. Drauz, "Remedies under Merger Regulation", in B. Hawk (ed), *Fordham Corporate Law Institute*, 1997, 219-238. In general: F. Lévêque and H. Shelanski (eds), *Merger Remedies in American and European Union Competition Law*, E. Elgar, 2003.

[9] *Gencor* T-102/96 [1999] ECR II-753, para 319; *Babyliss* T-114/02 [2003] ECR II-1279, para 170; *ARD* T-158/00 [2003] not yet reported, para 193.

[10] *Italy/Commission (British Telecommunications I)* 41/83 ECR [1985] 873

[11] *Van Eycke* 267/86 [1988] ECR 4769; *Ahmed Saeed* 66/86 [1989] ECR 1839; *Delta Schiffahrtsges* [1994] ECR I-2517; *Fiammiferi* C-198/01 [2003] not yet reported, para 49; J. Temple Lang, "Community antitrust and national regulatory procedures", in B. Hawk (ed), *Fordham Corporate Law Institute*, 1998, 297-334; J. Temple Lang, "Ahmed Saeed – National authorities must not approve practices or prices contrary to EC Competition law", in M. Dony (coord.), *Melanges Waelbroeck*, v. II, Bruylant, 1999, 1539-1560; S. Martinez Lage and H. Brokelmann, "The application of Articles 85 and 86 EC to the conduct of undertakings that are complying with national legislation", in M. Dony (coord.), *Melanges Waelbroeck*, v. II, Bruylant, 1999, 1247-1295.

[12] S. Bishop and M. Walker, *The Economics of EC Competition Law*, 2nd Ed, Sweet & Maxwell, 2002, Ch. 3; M. Motta, *Competition Policy: Theory and Practice*, C.U.P., 2004, Ch. 2.

[13] Commission Notice on the definition of relevant market for the purposes of Community competition law, O.J. [1997] C 372/5.

(i.e. the demand and supply substitutions) that will discipline the firms' behaviours should be identified with the so-called 'hypothetical monopolist test'.

In electronic communications sector[14], there are at least two main types of relevant markets to consider, that of services or facilities provided to end users (retail markets) and that of access to facilities necessary to offer such services provided to the operators (wholesale markets). Antitrust authorities should start by defining the retail product markets taking into account demand-side and supply-side substitutions. This definition should be primarily based on the respective needs of each customer categories (large, medium and small corporate customers as well as individuals) and not necessarily on the technology used. Clearly, customers needs and preferences may depend on specific technologies. For instance, fixed and mobile telephony are not in the same market because of the additional mobility feature offered by the latter[15], or voice over Public Switch Telecom Network and voice over Internet Protocol may be in separate markets due to the additional quality of the former[16]. But as technological convergence takes place, consumers preferences are not any more linked to technologies. For instance, consumers may be indifferent to receive their broadband Internet connections via Digital Subscriber Line technologies over telecom copper pair or via cable modem over broadcast cable infrastructure.

On the basis of retail markets definition, the authorities define the linked wholesale or intermediate product markets as the wholesale customers are -by identity- the retail suppliers: authorities have to determine the necessary service or the infrastructure for an operator to enter a specific retail market. For instance, if it is considered that Digital Subscriber Lines and cable modem are part of the same retail Internet broadband access market, then it could be deduced that, for that purpose, telecom and cable infrastructures are part of the same wholesale market[17]. At this stage, the consideration of supply-side substitution is of the utmost importance for the markets should not be defined too narrowly.

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[14] See Commission Guidelines of 9 July 2002 on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, O.J. [2002] C 165/6, hereinafter *Guidelines on market analysis*, para 33-69. Up to now, the Court did not give many indications on the markets definition in the specific sector of electronic communications. In *Endemol* T-221/15 [1999] ECR II-1299, the Court of First Instance stated at para 106 that the Commission enjoy a important discretion with respect to assessment of economic nature and consequently the Court's review is limited and then endorsed the markets defined by the Commission in its decision *Endemol I*. Similarly in *Cableuropa* T-346/02 and T-347/02 [2003] not yet reported, the Court of First Instance noted at para 119 that the control of the Court is the one of manifest error and then endorsed the markets defined by the Commission in its decision *Sogecable/Via Digital*. See also three studies made for the Commission services: Squire-Sanders-Dempsey and WIK Consult, *Market Definitions for Regulatory Obligations in Communications Markets*, July 2002; Europe Economics, *Market Definition in the Media Sector - Economic Issues*, November 2002; and Bird and Bird, *Market Definition in the Media Sector: Comparative Legal Analysis*, December 2002. Most of the studies cited in this contribution are available at: <http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Study-en.htm>.

[15] This has been a constant practice of the Commission, see inter alia: *Pirelli/Editizione/Telecom Italia*, para 33.

[16] Communication from the Commission on the Status of voice on the Internet under Community law, O.J. [2000] C 369/3.

[17] In the U.S., some consider that DSL and cable should be part of the same relevant market: R.W. Crandall, J.G. Sidak, H.J. Singer, "The Empirical Case Against Asymmetric Regulation of Broadband Internet Access", *Berkeley Technology Law Journal* 17, 2002, 953-987.

Turning now to the geographical scope of the market, it is used to be determined by the existence of legal and other regulatory instruments and by the area covered by the network[18]. Even if there is a tendency towards a Pan-European dimension of the markets due to the liberalisation and the harmonisation of technical standards and licensing procedures across Europe, the majority of electronic communications markets still maintain a national[19] or even infra-national[20] dimension.

Some difficulties may arise due to the specific features of the electronic communications sector. First, the sector is characterised by externalities that may lead to very narrow market definition. For instance, in the European mobile industry, the prevalent tariff principle is the so-called 'calling-party-pays': the called party -who chooses the network which has to be called- does not have to pay for the call, whereas the calling party -who usually can not choose the network- has to pay for the call. There is a dichotomy between the person who pays and the one who chooses, or in other words, the called party imposes a negative externality on the calling party. It is thus plausible that the called network may increase profitably its termination charges[21] because on the one hand, the calling network (and ultimately the calling customer) has no choice but to use the network of the called person, and on the other hand the called customer will not switch to another network as he does not pay the termination charge. Each network may thus be defined as a separate market with regard to wholesale termination[22]. Obviously, the market definition is an empirical exercise and others factors may constrain the pricing behaviour of the called network. For example, the person called may be sensitive the price to be reached (in case of close users groups or family and friends when the called party actually pays the invoice of the calling party), or there may be a choice between the different networks to be used (using call back or multiple SIM cards if available[23]). If these factors are present, termination may be defined more broadly and comprise all the mobile

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[18] See references in the Guidelines on market analysis, para 59.

[19] Markets have been considered national for call termination (*Telia/Sonera*, para 51), the local loop (*Telia/Telenor*, para 121); international roaming (*Telia/Sonera*, para 49). They have been considered to be national or covering linguistic region for broadcast transmission networks and the linked ancillary services (*MSG Media Service*, para 45; *Nordic Satellite Distribution*, para 71; *DeutscheTelekom/Beta Research*, para 23-24; *BiB/Open*, para 44).

[20] Markets for national leased lines may be narrower than national (possibly consisting of 'larger metropolitan' and 'rest of country' segments) given the geographically unequal development of competition in most Member States. On the other hand, markets for international leased lines appear to be at least European if not global (Commission Working Document of 8 September 2000on the initial results of the Leased Lines Sectoral Inquiry, p. 11).

[21] The termination charges are the wholesale charges that the calling network pays to the called network to terminate a call. For instance, if a customer of Vodafone calls a customer of Orange, Vodafone will pay to Orange a charge for the call to be terminated on the Orange's network.

[22] *Telia/Sonera*, para 31. That is also the position adopted *inter alia* by the British regulator in 2001, and confirmed on appeal by the Competition Commission in 2003, see: Reports on references under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O2, Orange and T-Mobile for terminating calls from fixed and mobile networks, February 2003. The single network definition is not based, nor does imply, that mobile termination is an essential facility. Mobile networks do not have the characteristics of the essential facility as there are numerous in each country. In addition, the market failure related to mobile termination, i.e. negative externality, is not the same as the market failure related to essential facility, i.e. natural monopoly. In addition, the literature and case-law on secondary markets is irrelevant here. Termination can not be considered as a secondary product because the customer does not pay for it.

[23] The call back means that the called party will call back the calling party on the latter's network. The multiple SIM cards means that the mobile handset of the person called contains several SIM cards, hence several networks may be used to reach him.

networks of a specific country. But the general point is that market may be defined very narrowly due to the specific tariff structure.

Second, electronic communications is a network industry, which implies that each product is geographically bound. In others words, there is a geographical aspect in the product dimension definition that should not be confused with the geographical dimension definition. The product definition may be based on the route to be followed, or on the network to be used. Ultimately, the route-by-route approach implies that every combinaison of two points (like the link between two telecom customers) is a separate product market. This has been adopted in some airlines competition cases[24] because the time to travel is substantial and even the most frequent flyers do not fly more than several times a week. This approach makes less sense in telecom because the signals travel very quickly on networks (hence a customer may be indifferent if his conversation is routed directly between London and Paris or have to go via Amsterdam), and the tariffs are usually averaged across different routes for economic and legal reasons[25]. Therefore, it is more appropriate to adopt an approach by network, possibly sliced according to the economic conditions to deploy its different parts (distinction between local and trunk segments)[26].

Finally, electronic communications are often characterised by high fixed sunk costs and continuous innovation. A benchmark price based on the marginal cost and a small mark-up (5 to 10%) as in the hypothetical monopolist test may be insufficient to recoup these fixed costs, and therefore would lead to an overly narrow market definition (and consequently a finding of market power where actually there is none). As put by Gual[27], the benchmark and the mark up should generates sufficient revenues to cover fixed costs without leading to excess profit. Moreover, the sector is often driven by important and continuous innovation and the competition often takes place *for* the market instead of *in* the market[28]. The hypothetical monopolist test leads to a static measure of the degree of competition in the market and is a poor guide to dynamic competition, often more relevant in electronic communications. Again, it may lead to a too narrow market definition, or at least a too frequent finding of market power.

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[24] *Ahmed Saeed*, cited at note 11, para 40-41.

[25] Nevertheless, if these elements are not present, markets may be segmented on a route basis. For instance, international voice telephony services may be broken down by individual call traffic routes between any country pair (*BT/MCI (II)*, para 19; *BT/AT&T*, para 84; *BT/Esat*, para 19; Commission Decision of 24 September 2003, UK/2003/6, *UK wholesale international services*).

[26] Product market may also be defined according to the geographical component of the customer requirements, which is related to the coverage, the quality, the pricing and the nature of the service under review. For instance, residential customers have low or average quality requirements that can be met by interconnecting different networks, hence they tend to be less sensitive to the network coverage of their telecom suppliers. On the other hand, business customers can be very sensitive to the quality of the call, hence pay a lot of attention to the network coverage under direct control of their suppliers. Therefore, the product market for large customers should be limited to large international networks, whereas the market for residential customers should encompass more geographically limited networks: P. Larouche, "Relevant Market Definition in Network Industries: Air Transport and Telecommunications", *Journal of Network Industries* 1, 2000, 419.

[27] J. Gual, *Market Definition in the Telecoms Industry*, CEPR Working Paper 3988, July 2003, p. 12.

[28] D. Evans and R. Schmalensee, *Some economic aspects of antitrust analysis in dynamically competitive industries*, NBER Working Paper 8268, May 2001.

If all these difficulties do not invalidate the use of antitrust principles in electronic communications sector[29], they should be kept firmly in mind. In this sector more than elsewhere, authorities should ensure that market definition is only used as a mean to assess market power and not as an end in itself.

(b) Measurement of Dominance

Once the relevant market has been defined, the market power should be measured to determine if operator enjoy dominant position. A dominant position may be held by one firm (single dominance) or several ones (collective dominance). The assessment of single dominance[30] is not an easy task that is limited to a review of an exhaustive check list, but requires a thorough and overall analysis of the economic characteristics of the relevant market to determine if one undertaking enjoys sufficient market power to behave independently. An important and starting criterion is the market share: below 25%, absence of dominant position may be presumed, whereas above 40%, dominant position may be presumed, both presumptions being refutable[31]. The market share should preferably be measured in value because telecom services are differentiated, and not in volume or with the number of lines or termination points[32]. Other criteria are also important[33]: overall size of the undertaking, technological advantage or superiority, absence or low countervailing buying power, easy or privileged access to capital markets, product diversification, economies of scale and scope, vertical integration, highly developed distribution network, absence of potential competition, barriers to expansion, or the control of essential facilities.

The assessment of collective dominance is more complex and amounts to the case where two or several firms, which remain independent, behave as if they were only one dominant firm[34]. This parallel behaviour may be due to structural links (like agreements) between the firms, or to a market structure such that firms align their behaviours without any concertation or link (pure tacit collusion)[35]. In this latter case, markets should satisfy a number of characteristics like concentration, transparency, or retaliatory mechanisms. The Commission has already adopted several merger decisions where the concept of collective dominance has been applied to the electronic communications sector. For instance, it was considered that the characteristics of mobile telephony market in Germany and in Belgium[36] may lead to

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[29] M. Monti, *Competition and Information Technologies*, Speech 18.9.2000. Commissioners' speeches cited in this contribution are available on the European Commission website.

[30] Guidelines on market analysis, cited 14, para 72-82.

[31] *Akzo* C-62/86 [1991] ECR I-3359, para 60; *Irish Sugar* T-228/97 [1999] ECR II-2969, para 70.

[32] Guidelines on market analysis, para 76-77; Notice on market definition, para 53-55; Note from the Commission services/DG XIII of 1 March 1999, Determination of Organisations with Significant Market Power, available at <http://europa.eu.int/ISPO/infosoc/telecompolicy/en/SMPdeter.pdf>.

[33] Guidelines on market analysis, para 78.

[34] Guidelines on market analysis, para 86-106; *Gencor* T-102/96 [1999] ECR II-753, para 276-277; *Compagnie Maritime Belge* C-395/96, C-396/96P [2000] ECR I-1365, para 39; *AirTours*, T-342/99 [2002] ECR II-2585, para 62. See also: P. Rey, "Collective Dominance and the telecommunications industry", in P. Buiges and P. Rey (eds), *The Economics of Antitrust and Regulation in Telecommunications*, E. Elgar, 2004.

[35] C. Shapiro, "Theories of Oligopoly Behaviors", in R. Schmalensee, R. Willig (Ed.), *Handbook of Industrial Organization V. I*, North-Holland, 1989, 329-414.

[36] Respectively *Vodafone/AirTouch*, para 28 (the criteria to find collective dominance were: highly regulated market entry because licences were limited by reference to the amount of available radio

tacit collusion. But in general, few electronic communications appears to fulfil the conditions of collective dominance, particularly since the concerns about the likelihood of tacitly collusive behaviours by operators in setting bilateral termination charges have been abated by recent economic researches[37].

1.3. Remedies

(a) Ex-post intervention: Abuse of dominant position

Once market power has been identified, the antitrust authority may intervene ex post by sanctioning any abuse. In electronic communications, the Commission intervened mainly in two ways: first by issuing guidelines of general application explaining how it would apply antitrust if it were to open a case, and secondly by collecting systematic information on specific problem in the industry and on that basis opening individual cases.

Since the beginning of the liberalisation, the Commission adopted three explanatory guidelines. In 1991 when the sector was only partially liberalised, the Commission issued guidelines[38] dealing in a very general way with the application of competition rules to the telecommunications sector: application of ex ante control in the context of the restructuring of the industry, and application of ex post control to the agreements or unilateral conducts of the incumbents still enjoying monopoly rights on the majority of telecom services markets (and able to leverage their protected market power to newly liberalised markets).

In 1998 when the sector was just fully liberalised, the Commission adopted a more focused Notice[39] on the application of antitrust to infrastructure's access, which was the most critical problem to ensure effective competition. This Notice listed the multiple behaviours that may be abusive, ranging from access' refusal to access granted under unfair conditions. An outright refusal would be abusive in three cases. The two first hypothesis are relatively easy because access has already be given and either is withdrawn to the same firm (termination of an agreement) or is refused without justification to another firm (discrimination). The third hypothesis is more complex because access has not been granted and yet can be made compulsory in case of essential facilities. Under this doctrine[40], a facility is deemed to be essential if its access is indispensable to enter the retail market because there is no actual alternative

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frequencies, and market transparency); and *France Telecom/Orange*, para 26 (the criteria were: behaviours parallelism for the previous four years and transparent pricing).

[37] M. Armstrong, "The theory of Access Pricing and Interconnection", in M. Cave, S. Majumdar, I. Vogelsang (eds), *Handbook of Telecommunications Economics v.I*, North-Holland, 2002, 297-384; J.J. Laffont and J. Tirole, *Competition in Telecommunications*, MIT Press, 2000.

[38] Commission Guidelines on the application of EEC Competition rules in the Telecommunications sector, O.J. [1991] C 233/2.

[39] Commission Notice of 31 March 1998 on the application of competition rules to access agreements in the telecommunications sector, O.J. [1998] C 265/2, hereinafter *Access Notice*.

[40] J. Temple Lang, "Defining Legitimate Competition: Companies' Duties to Supply Competitors and Access to Essential Facilities, in B. Hawk (ed) *Fordham Corporate Law Institute*, 1994, 245-313; J. Temple Lang, "The principle of essential facilities in European Community competition law – The position since Bronner", *Journal of Network Industries* 1, 2000, 375-405; M.A. Bergman, "The role of essential facilities doctrine", *Antitrust Bulletin*, 2001, 403-434.

facility, even less favourable (no existing substitute), *and* it is not legally or economically possible to built an alternative facility (no potential substitute)[41]. In addition, granted access may be abusive if its conditions are anti-competitive. Prices may be excessive (when they bear no relation to cost)[42], predatory (when they are below the dominant company's average variable costs, or below average total costs and part of an anti-competitive plan)[43], or creating margin squeeze (when the margin between the access fee on the upstream wholesale market and the final price of the dominant operator on the retail downstream market is insufficient for a reasonable efficient service operator to make a normal profit)[44]. Conditions may also be discriminatory[45], or amount to an illegal tie-in of two separate products[46].

Finally in 2000 at a time when high-speed Internet access was taking up in Europe, the Commission adopted an even more focus Communication[47] dealing with the specific problem of the unbundled access to the local loop (in effect, compulsory third party access to the least competitive bit of the telecom infrastructure). It stated that incumbents should in general give access to their local loop under reasonable conditions to comply with Article 82 EC (in particular the essential facilities doctrine). However, this Communication was not effective enough to ensure the success of unbundling. The same issue was taken again in July 2000 under antitrust with the launching of a sector enquiry, and in December 2000 under sector regulation

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[41] *Ladbroke* T-504/93 [1997] ECR II-923 para 131; *Bronner* C-7/97 [1998] ECR I-7791, para 41, 45, 46; *European Night Services* T-374/94, T-375/94, T-384/94, T-388/94 [1998] ECR II-3141, para 208-209; *IMS Health* C-418/01 [2004] not yet reported, para 52.

[42] *General Motors* 26/75 [1975] ECR 1367, para 12; *United Brands*, cited 5, para 251; *Access Notice*, para 105-109. See also: M. Haag and R. Klotz, "Commission practice concerning excessive pricing in telecommunications", *Competition Policy Newsletter* 1998/2, 35-38; M. Motta and A. de Streel, "Exploitative and Exclusionary Excessive Prices in EU Law", in C.D. Ehlermann and I. Atanasiu (eds), *European Competition Law Annual 2003: What is an Abuse of Dominant Position*, Hart, 2004.

[43] *Akzo* 62/86 [1991] ECR I-3359 para 69-74. Contrary to the US, no proof of recoupment possibility has yet been required by the case-law: *Tetra Pak II* C-333/94P [1996] ECR I-5951, para 144-149; *Access Notice*, para 110-116. The application of the Akzo criteria in multi-services industries may be problematic, as it has to be decided if the average variable cost (the benchmark under which the dominant firm could no go) should cover fixed costs and/or common costs. The Commission considered that the benchmark should be the long term average variable cost: Commission Decision 2001/354, *Deutsche Post*, O.J. [2001] L 125/27, para 35. See further: T. Lüder, *A new standard for predatory pricing*, Speech 18.6.2002; D.E. Sappington and J.G. Sidak, "Competition Law for State-Owned Enterprises", *Antitrust Law Journal* 71, 2003, 479-523.

[44] *Poudres sphériques* T-5/97 [2000] ECR II-3755, para 178-179; *Access Notice*, para 117-119. See also: P. Croccioni and C. Veljanovski, "Price Squeezes, Foreclosure and Competition Law: Principles and Guidelines", *Journal of Network Industries* 4, 2003, 28-60; M. Motta and A. de Streel, cited in note 42.

[45] Differences may only be justified if the supply conditions are not the same (in particular different supply costs) or if the customers are not offering equivalent services, i.e. are not active in the same or closely related relevant markets: *Corsica Ferries* C-18/93 [1994] ECR I-1783, para 43; *Access Notice*, para 120-121 which clarifies that a discrimination may be abusive when customers are active on different but related markets (like mobile and fixed telephony).

[46] *Hugin* 22/78 [1979] ECR 1869; *Hilti* T-30-89 [1990] ECR II-163, para 118-119, upheld in appeal by *Hilti* C-53/92P [1994] ECR I-667; *Tetra Pak II* C-333/94P [1996] ECR I-5951, para 37 judging that tying may be abusive even where tied sales of two products are in accordance with commercial usage or there is a natural link between the two products.

[47] Communication from the Commission of 26 April 2000 on the unbundled access to the local loop, O.J. [2000] C 272/55. See also: T.C. Vinje and H. Kalimo, "Does Competition Law Require Unbundling of the Local Loop?", *World Competition* 23(3), 2000, 49-80.

with the adoption of a Council and European Parliament Regulation making unbundling compulsory as of January 2001[48].

Unsurprisingly, these three general guidelines were not sufficient to avoid any abuse from the incumbents. When alleged abuses were particularly harmful to the success of the liberalisation program or to European consumers' interests, the Commission collected systematic information on incumbents behaviours and opened individual cases. Commission intervention may be arranged according to the market segment in which they took place: fixed narrowband and broadband, leased lines, mobile, and associated services.

In the fixed narrowband segment, the Commission opened a case upon complaint against Deutsche Telekom in 1996[49]. It considered that the new retail business tariffs of DT would (1) have price squeezing effects on new entrants when compared with wholesale interconnection charges, (2) discriminate in favour of business vis-à-vis residential customers, and (3) represent a bundling of services, some being under legal monopoly and others being open to competition. Thus, the Commission made the introduction of the new tariffs conditional to the allocation of two alternative infrastructure licences, the offer of access agreements at cost oriented prices and the separation of voice and Virtual Private Network services. In 1998, the Commission opened another case against Deutsche Telekom. It considered that DT's fees for carrier pre-selection and number portability[50] were excessive (in comparison with those charged in other Member States) thereby raising switching costs for final customers and impeding entry of new competitors. The file was closed when DT considerably reduced the fees (by 50% for carrier pre selection fees) and the German NRA agreed to take the case.

In 1997, the Commission collected data among all dominant operators in Europe on the tariffs for international phone calls in order to determine if the underlying wholesale charges paid between operators (the so-called accounting rates) were cost-oriented[51]. On that basis, the Commission opened in 1998 seven cases for excessive accounting rates. They were passed to the NRAs for them to impose substantial reduction in the prices (by an average of 27% in Finland, Austria and Portugal for example)[52].

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[48] Regulation 2887/2000 of the European Parliament and of the Council of 18 December 2000 on unbundled access to the local loop, O.J. [2000] L 336/4.

[49] IP/96/543 of 25 June 1996; IP/96/975 of 31 October 1996.

[50] IP/98/430 of 15 May 1998. The Selection refers to the possibility for an end-user to rely on another operator to offer telephone services than the operator that provide the line connection, by dialling a short code of number. In case of pre-selection, the short code is registered in the end-user terminal who should then not dial the code. The number portability refers to the possibility for the end-user to keep her phone number when changing operator.

[51] IP/97/1180 of 19 December 1997. To do so, Commission compared these accounting rates with the national interconnection charges (using operators' rates and the EU best practice) plus additional costs specific to the international routes.

[52] IP/98/763 of 13 August 1998 with list the cases: OTE of Greece, Post & Telekom Austria, Postes et Télécommunications Luxembourg; Sonera of Finland, Telecom Eireann of Ireland, Telecom Italia, and Telecom Portugal; IP/99/279 of 29 April 1999.

In the fixed broadband segment, the Commission relied in July 2000 on the rarely used sector enquiry provision[53] (which allows the Commission to enquire on a whole market rather than specific companies) to collect data on the provision of access to and use of the residential local loop. In March 2002, an external expert report was presented[54]. On that basis in April 2003, the Commission adopted the first 82 condemning decision since the beginning of the liberalisation of the sector against *Deutsche Telekom* because of a margin squeeze between the wholesale price of the local loop (which was regulated by the NRA) and the retail prices. Later in July 2003, the Commission condemned *Wanadoo* (the ISP subsidiary of France Telecom) because of predatory prices in the retail market for Internet access. Unsurprisingly, both decisions[55] have been appealed at the Court of First Instance due to the paucity of the case-law in telecommunications and the consequent many legal uncertainties. Finally, in December 2003, the Commission opened a case against TeliaSonera[56] for predatory price in a bidding for the construction and operation of a fibre-optic broadband network for the provision of high-speed Internet access and other services on behalf of a regional housing association.

In the leased lines segment, the Commission launched another sector enquiry in October 1999 because leased lines are an important building block of the information highways (as they are used by fixed new entrants and mobile telecom operators, Internet Service Providers and large business users). In September 2000, the Commission presented its preliminary assessment[57]. On that basis in November 2000, the Commission opened five cases for excessive international leased lines prices[58] because the control of the prices of international leased lines were not covered by the sector regulation[59] (hence NRA could not act), and they were inherently of Community interest. These cases were progressively closed after significant decrease in the price of the international leased lines[60]. The Commission had also concerns for short distance leased lines (in terms of prices and services provisioning) but relied on the NRAs to act. The enquiry was closed in December 2002.

In the mobile telephony segment, the Commission collected in 1998 systematic information on the high prices for fixed to mobile and mobile to fixed calls[61]. On that

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[53] Article 12 of the Council Regulation 17/62, as carried over by Article 17 of the Decentralisation Council Regulation 1/2003.

[54] IP/00/765 of 12 July 2000. Report done by Squire-Sanders-Dempsey, Legal Study on Part II of the Local Loop Sectoral Inquiry, February 2002, available at <http://www.europa.eu.int/comm/competition/antitrust/others/sector_inquiries/local_loop/>.

[55] R. Klotz and J. Fehrenbach, "Two Commission decisions on price abuse in the telecommunications sector", *Competition Policy Newsletter* 2003/3, 8-13. Note also that in March 2004, the Commission settled another case with Deutsche Telekom without adopting a formal decision, regarding a price squeeze between wholesale price for line sharing and retail prices: IP/04/281 of 1 March 2004.

[56] IP/03/1797 of 19 December 2003.

[57] IP/99/786 of 22 October 1999; Commission services Working Document of 8 September 2000 on the initial results of the leased lines sector inquiry,; IP/00/1043 of 22 September 2000; IP/02/1852 of 11 December 2002.

[58] Against the incumbents of Belgium, Greece, Italy, Portugal and Spain: W. Sauter, *The Sector Inquiries into Leased Lines and Mobile Roaming: Findings and follow-up*, Speech 17.9.2001.

[59] In particular, the Directive 92/44 as amended.

[60] Average price decrease of 30 to 40% for the 2Mbits lines, the most commonly used bandwidth: IP/02/1852 of 11 December 2002.

[61] IP/98/1036 of 26 November 1998. In the case of mobile-to-fixed calls, the fixed termination charge is the fee paid by the mobile operator to the fixed operator for terminating the call. In case of fixed-to-mobile calls, the mobile termination charge is the fee paid by the fixed operator to the mobile operator

basis, cases were opened for excessive fixed termination charges[62], excessive fixed retention charges[63], and excessive mobile termination charges[64] The cases were passed to NRAs when they had jurisdiction to intervene under national telecommunication law, and otherwise were closed after the operators agreed substantial reduction of their charges (from 30 to 80%)[65]. The particular issue of excessive mobile termination charges came again in 2002 in the Netherlands when the Commission opened a case against the incumbent KPN following a complaint of WorldCom. However this time, the Commission decided to tackle the case under constructive refusal to access to KPN mobile network, margin squeeze between mobile termination charges and retail prices offered to VPN customers and discrimination on the mobile termination charge in favour of KPN[66]. It did not rely on the (supposedly more difficult to prove) unfair pricing abuse.

Again in the mobile sector, the Commission launched in January 2000 another sector enquiry on the high international roaming prices[67]. In November 2000, the Commission presented its preliminary findings and identified several possibilities of excessive prices (on the basis of discrimination, benchmarking, and an analysis of the pattern of changes of the price over a four years period). Moreover in July 2001, the Commission carried out dawn raids at the premises of nine mobile operators in the UK and Germany, and had thought at some point to open cases for excessive price exercised by collective dominant operators. However, no formal case has been opened yet.

Finally in the associated services segment, the Commission[68] sent in 1995 a statement of objection against Belgacom because of unfair prices related to access to subscribers' data for the publication of telephone directories (which had the effect to exclude competitors on the directory market). After a detailed cost analysis, Belgacom settled the case with the Commission in 1997, and agreed to substantially reduce its tariff (by more than 90% of the original price).

(b) Ex-ante intervention: Control of mergers and joint ventures

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for terminating the call, and the fixed retention charge is the fee kept by the fixed operator for originating the call.

[62] Four cases: Deutsche Telekom, KPN of the Netherlands, Telefonica of Spain, Telecom Italia: IP/98/707 of 27 July 1998.

[63] Eight cases: Belgacom of Belgium, Telecom Eireann of Ireland, Deutsche Telekom, KPN of the Netherlands, Telefonica of Spain, Telecom Italia, BT, P&T Austria: IP/98/707 of 27 July 1998.

[64] Cases opened in two countries: all the mobile operators in Germany and in Italy: IP/98/141 of 9 February 1998; IP/98/707 of 27 July 1998.

[65] IP/98/1036 of 26 November 1998; IP/99/298 of 4 May 1999.

[66] IP/02/483 of 27 March 2002. The case is still pending at the Commission.

[67] IP/00/111 of 4 February 2000; Commission services Working Document of 13 December 2000 on the initial findings of the sector inquiry into mobile roaming charges; MEMO/01/262 of 11 July 2001. Note that in 1997, the Commission gave its approval in a comfort letter to the GSM MoU standard international roaming agreement, whose some clauses may be the source of the current concerns: *XXVIIth Commission Report on Competition Policy 1997*, p. 139. International roaming tariffs are the charges that a mobile customer has to pay while giving and receiving call abroad using another network that the one to which he is affiliated.

[68] IP/97/292 of 11 April 1997; *ITT Promedia/Commission* T-111/96 ECR [1998] II-2937. See also: P. Richards, "Competition issues on access to databases for the provisions of directory information services in the EU", *Telecommunications Policy* 27, 2003, 563-583.

In case of market power, the Commission may intervene ex post to prohibit anti-competitive abuse, but it may also intervene ex ante to control mergers and joint ventures. In electronic communications, this second possibility has been used much more extensively than the first for several reasons. First, the Commission was faced with numerous notifications of alliances as the industry went under massive restructuring[69]. Second, the Commission adopted a more interventionist stance in electronic communications than in other sectors. As shown in Table 1 of the Annex which listed all cases adopted under the Merger Regulation, the rate of remedies decisions in electronic communications (9.8%) is higher than the average (7.5%). The difference is even more striking for prohibitions decision (2.5% instead of 0.7%, in particular in the media sector. Yet, most of the cases have been cleared without the imposition of any remedy. Indeed, from 1990 to 2003, the Commission adopted only 23 remedies decisions and 6 prohibitions, out of a total of 236 decisions.

In the remaining part of this section, the main decisions adopted under the Merger Regulation and also those adopted under Article 81 EC are presented according the market segment (listed in Tables 2 and 3)[70].

Fixed segment

In the mid-nineties, the European incumbents notified to the Commission several alliances between themselves and with US operator to provide global telecom services. Three clusters of ventures were concluded. The first was initiated in 1994 by BT (not surprisingly as the UK was the first Member State to liberalise its market), which joined the American long distance company MCI to set up the Concert venture for the provision new international value added telecom services for large multinationals. In *Concert*, the Commission had concerns on the market for global telecom services as BT and MCI were potential competitors on that market. However, the venture was exempted for some years with very light conditions because Concert would be able to offer better global services than either BT or MCI alone, the venture would face significant competition from strong players, and the existing telecom regulation to which BT and MCI were subject in their own countries would prevent cross-subsidisation and discrimination in favour of the joint venture. Later this deal was abandoned following WorldCom's successful take-over bid over MCI, and BT turned in 1999 to the other long distance American operator AT&T to create a joint venture (again branded Concert) to provide global telecom services to multinationals and international carriers services to other telecom companies. In *BT/AT&T*, the Commission did not any more had concerns for the competition on the global telecom services because of the increase competition on international route and the increased regulation of the last mile infrastructure. It had only concerns for the co-ordination of

[69] P. Curwen, "Formation and development of international alliances" in G. Madden (ed), *International Handbook of Telecommunications Economics V. III*, E. Elgar, 2003; G. Le Blanc and H. Shelanski, "Telecommunications Mergers in the EU and US: A Comparative Institutional Analysis", in F. Lévêque and H. Shelanski (eds), cited at note 8, 172-207.

[70] For a full description of all the cases, L. Garzaniti, cited at note 3, Ch. VIII. Note that until the amended Merger Regulation entered into force in March 1998, its scope was narrower, hence the scope of Article 81 EC broader: all joint ventures, even the full function autonomous ones, that had the object of effect to co-ordinate the competitive behaviours of the parents fall under Article 81. This explains why the joint ventures set up between incumbents during mid-nineties to provide global telecom services were analysed under Article 81 EC.

the behaviours of the parents BT and AT&T on neighbouring markets than those where Concert would be active (mainly several UK telephony markets). To exclude any risk of co-ordination, AT&T undertook to divest some of its UK assets (like ACC UK providing long distance telecom services). The venture broke up again in 2001 and the Concert assets were divested back to its parents.

The second strand of alliances was reflecting the Franco-German couple, where France Télécom and Deutsche Telekom set up in 1996 the Atlas venture to provide non reserved –at that time- global telecom services to large users in Europe. In parallel, Atlas and Sprint from the US notified the Phoenix/Global One venture, which was an extension of Atlas services world-wide. In its twin decisions *Atlas* and *GlobalOne*, the Commission had concerns on the market for global telecom services as FT and DT were potential competitors and could use their dominance in national markets to favour the venture. These alliances was exempted for five and seven years under much more stringent conditions than *Concert* due to the different regulatory context[71]: France and Germany (at the time, the major shareholder of FT and DT) undertook to liberalise alternative infrastructures to make Atlas' competitors less dependant of the networks of its parents; the parties agreed to postpone the transfer of their domestic data transmission networks to Atlas pending full liberalisation of French and German infrastructures and, in addition, took several behavioural commitments (no discrimination or cross-subsidisation in favour of Atlas, no exchange of confidential information, no tying and use of separate analytical accounts). Three years later in 1999, the Commission intended to remove some obligations and allow GlobalOne to provide all telecom services (including voice telephony), due to the market developments and in particular the entry of substantial competitors such as the BT/AT&T venture[72]. Later on, the deal was abandoned and Global One network was merged with the one of Equant, solely controlled by FT.

The third strand of incumbents alliance was the Unisource venture in 1997 between Telia from Sweden, KPN from the Netherlands and Swiss Telecom to provide mobile, satellite, data and corporate services on a global basis. In parallel, Unisource and AT&T notified the Uniworld venture, which was an extension of Unisource services world-wide. In its twin decisions *Unisource* and *Uniworld*, the Commission granted an exemption for five years after the parties took similar commitments than those imposed in *Atlas*. Four years later in 2001, the Commission repealed in *Unisource II* all the obligations previously imposed following the reduction of Unisource's scope to valued added services to multinationals, the increased competition on the markets, and the additional regulatory safeguards in the Netherlands and Sweden.

However, these alliances were limited to new international services and in fact have been very unstable over time, as most of the initial deal have been abandoned by now. They did not match the objectives of the Commission when liberalising the market, i.e. the creation of fully integrated pan-European group. The first of these more ambitious operations took place only in the 1999, when Telia decided to merge all its activities with Telenor of Norway in a deal of 47 $bn. In *Telia/Telenor*, the

[71] Contrary to the UK, at the time of the notification, telecom and alternative infrastructures were not yet liberalised in France and Germany and telecom regulators were in their infancy.

[72] *XXIXth Commission Report on Competition Policy 1999*, Global One II, p. 141. However, the Commission did not intend to review the conditions relating to the behaviour of the parent companies (like the requirements not to cross-subsides or discriminate in favour of GlobalOne).

Commission had concerns on several Swedish and Norwegian markets for telecom services and for television services[73] because of the loss of potential competition and the possibilities of the merging entity to foreclose entry by raising rival costs (with increase of interconnection tariffs) and bundling products across a wider geographical area. The Commission only approved the merger after the parties agreed to divest any overlapping telecom interests and their cable TV activities. Moreover, the Swedish and Norwegian governments (which were the major shareholders of the merging parties) committed to implement local loop unbundling in their countries, which was then imposed on 1 January 2001 on a more general basis in all Members States. However, due to a disagreement between the boards of directors of the parties, the deal was abandoned.

Two years later in 2002, Telia turned to Sonera of Finland to integrate their activities. In *Telia/Sonera*, the Commission considered that the merger would strengthen the dominant position on several Finnish and Swedish telecom markets[74] because of overlapping activities, loss of potential competition and the possibility to leverage market power from the mobile and fixed markets. Therefore, the Commission only cleared the merger after the parties agreed to divest any overlapping business (mobile and WLAN activities of Telia in Finland) and their cable TV in Sweden. In addition as the unbundling was not very successful to alleviate leverage from the local loop to other telecom markets, the Commission went further than in *Telia/Telenor* and imposed a legal separation between the operation of networks and services of their fixed and mobile activities in Sweden and in Finland, as well as a non discriminatory access to fixed and mobile termination for three years with a fast track dispute resolution procedure[75].

In parallel of this European consolidation, the big American Internet companies were also restructuring themselves, in particular under predator WorldCom. In 1998, it merged with MCI, a deal of 40 $bn. In *WorldCom/MCI*, the Commission was concerned that merging firms would control a critical mass (more than 50%) of the market for the provision of 'top-level' or 'universal' Internet connectivity so that they would be able to secure and reinforce their dominant position through network effects and quality degradation. Indeed once a network reaches a certain size or if there is a marked disparity between it and other networks, it grows further because it may have incentives and possibilities to offer its customers a better and more varied services[76]. The merger was cleared on the conditions that the MCI's Internet network would be divested. The network was sold to Cable & Wireless, but with many problems due to the high integration between Internet and non-Internet business of MCI[77]. Two years

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[73] Telecom markets: fixed switched telephony, PABX distribution, mobile telephony, Internet access, and local telephone directories; and media markets: wholesale rights to content, content buying, satellite transponder capacity, technology for scrambling and unscrambling of TV signals, retail distribution of TV services.

[74] Finnish markets (mobile services, international roaming and WLAN) due to the overlapping activities of the parties, and on the Swedish and Finnish markets (for fixed international calls, fixed termination, mobile services, international roaming and mobile termination, and business data communications)

[75] The remedies were accepted by the Commission on 19 May 2003: IP/03/702.

[76] J. Crémer, P. Rey and J. Tirole, "Connectivity in the commercial Internet", *Journal of Industrial Economics*, 2000/4, 433-472.

[77] See the testimony of the CEO of Cable & Wireless M. McTighe before the Commerce Committee of the US Senate on 8 November 1999.

later in 2000, WorldComMCI wanted to absorb the other US operator Sprint. In *WorldComMCI/Sprint*, the Commission considered again that the merger would create a dominant position in the market for top-level universal Internet connectivity. Due to the problems of the previous MCI's Internet business divestiture, the Commission considered that the parties proposal to divest Sprint's Internet business was insufficient, and in agreement with the US competition authorities prohibited the merger.

Thus, in its appraisal of the early global telecom services joint ventures, the Commission tried to reach a delicate balance by exempting the alliances as they permitted global services to be offered more quickly, and imposing severe conditions to alleviate any leveraging from the control of basic infrastructure into the emerging markets of global telecom services. In practice, as the Commission noted[78]:

> The Commission is favourably disposed towards this process of adjustment. Such restructuring is on the whole necessary if firms are to benefit fully from liberalization, carry out the necessary research and development, launch new services and reduce costs. On the other hand, the liberalization process must not be called into question by restructuring operations which would have the effects of perpetuating excessive price levels, preventing new companies from entering previously monopolistic markets, or any other abuse or strengthening of a dominant position. Competition policy as it relates to the information society is therefore a balance between, on the one hand, a liberal attitude towards restructuring and, on the other, the need to keep a watchful eye on how such restructuring is carried out, or even impose a ban in some case; There is also a link between the degree of actual liberalisation of the relevant markets, which evolves over time, and the conditions which may be attached to restructuring operations.

For full mergers between incumbents, the Commission had to reach a similar balance. It favoured such mergers as enhancing the internal market but feared that they would create or strengthen dominant position in several telecom and media markets because of overlapping activities, loss of potential competition, and possibility of leveraging the dominant position in the home country of one incumbent to increase market power in the home country of the other merging incumbent. Thus such mergers were cleared under very stringent conditions: divestiture of any overlapping business, divestiture of cable TV in order to stimulate infrastructure competition, and third party access to telecom infrastructure (with additional conditions ensuring compliance) to stimulate service and infrastructure competition.

Mobile segment

Even though the mobile industry developed under different and much more competitive conditions than the fixed industry, it went also under a heavy restructuring process at the end of the nineties, mainly under the English predator

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[78] *XXVIth Commission Report on Competition Policy 1996*, para 66; and Commission Guidelines of 1991, cited at note 38, para 129-138. See further: P. Larouche, "EC competition law and the convergence of the telecommunications and broadcasting sectors", *Telecommunications Policy* 22, 1998, 219-242; M. Pena Castellot, " The application of competition rules in the Telecommunication sector: Strategic Alliances", *Competition Policy Newsletter*, 1995/4, 1-6; M. Styliadou, "Applying EC competition law to alliances in the telecommunications sector", *Telecommunications Policy* 21, 1997, 47-58.

Vodafone. In 1999, Vodafone acquired the US mobile operator AirTouch in a deal of 74.7 $bn. In *Vodafone/AirTouch*, the Commission had concerns on the German mobile market because the merging entity would have had interest in two of the main three German mobile operators (D2 partially owned by AirTouch and E-Plus partially owned by Vodafone) which would have led to a duopolistic market situation amounting to a collective dominant position. Thus, the merger was cleared under condition that E-Plus was divested (sold to BellSouth and then to KPN). One year later in 2000, the British predator continued its expansion and in the most important concentration between mobile operators (amounting to 180 $bn), acquired the German Mannesmann. In *Vodafone/Mannesmann*, the Commission had concerns on three markets: creation of dominance in the English and Belgian mobile markets because of the overlapping activities; and creation of a dominant position on the emerging market for seamless pan-European mobile services to corporate customers because of the footprint of the parties in most of the European countries and their ability to integrate their national mobile networks to develop pan-European services. The merger was cleared on conditions that Orange (operating on UK and Belgium) was divested, and third party access was granted for three years on a non-discriminatory basis to their integrated networks (wholesale services like interconnection and roaming) with a fast track dispute resolution procedure.

Next to the industrial consolidation, the other major event of the mobile sector was the introduction of the third generation (3G or UMTS) mobile services which provides a much higher data transmission capacities than the previous second generation (2G or GSM). This new technology is very promising, but its roll-out has been much slower than expected[79] due to the financial difficulties of the sector, the huge sums paid in getting the spectrum licences and the delay of the equipment manufacturer. To save costs and ensure a quicker roll-out of 3G services, several operators decided to joint their forces by sharing some parts (like the masts) of a network built together or by concluding national roaming agreement (such that one party built the network and the customers of the other party may use this network to give and receive their calls). Thus, T-Mobile of Deutsche Telekom and mmO2 of BT entered into agreements to share site and to roam on their 3G networks in the UK and Germany. In its 2003 twin decisions *UK Network Sharing* and *Network Sharing Rahmenvertrag*[80], the Commission considered that site sharing did not restrict competition because the part of the network to be shared were limited to basic infrastructure such as masts and power supply not involving network intelligence part. On the other hand, it considered that national roaming restricted network-based competition, but may be exempted for some years (4 to 5 years depending of the areas) because it was limited to less economic areas (like rural or small cities) where it led to better and quicker 3G coverage.

Content-related segment

[79] Communication from the Commission of 11 June 2002, Towards the Full Roll-Out of Third Generation Mobile Communications on 3G, COM (2002)301.

[80] D. Gabathuler and W. Sauter, "Network sharing in 3rd generation mobile telecommunications systems: minding the coverage gap and complying with EC competition rules", *Competition Policy Newsletter* 2003/3, 43-46.

The third broad segment of the electronic communications sector involves infrastructure and content, which is more politically sensitive as it touches upon pluralism and cultural diversity. After two early ventures that were famous as they were blocked, mainly two streams of ventures have been notified to the Commission; first, alliances relating to the TV to develop new digital pay-TV platform and emerging advanced interactive digital TV services[81], and second alliances relating to Internet.

The two early ventures took place in the Netherlands and in Scandinavia. RTL (from the broadcasting Group CLT), Veronica (a Dutch commercial broadcaster) and Endemol (the largest independent producer of TV programmes in the Netherlands) set up the venture Holland Media Groep to pack and broadcast television programme. In *RTL/Veronica/Endemol I*, the Commission considered the alliance would create dominance on three markets (free-to-air broadcasting, TV advertising, and independent production) because of the broad range and the vertical links of the venture's activities. The transaction was prohibited in 1995 as no sufficient remedies were proposed. The parties appealed the decision at the Court of First Instance because they had already implemented the concentration at the time of the prohibition, and in 1999, the Court confirmed the Commission decision. In the meantime, the parties also modified their transaction as Endemol withdrew from the venture and got the approval of the Commission in 1996 in *RTL/Veronica/Endemol II*. In Scandinavia, Norsk Telecom (with interest in cable, satellite capacity, and pay-TV operation), TeleDenmark (Danish telecom incumbent, with the largest cable capacity in its country), and Kinnevick (a Swedish conglomerate, which is the most important provider of Nordic satellite TV programmes and a major pay-TV distributor) set up the Nordic Satellite Distribution venture to transmit satellite TV programmes in the Nordic region. In *Nordic Satellite Distribution*, the Commission found that venture would create a dominant position on three markets (transponder capacity for TV broadcasting to the Nordic region, the Danish cable market, satellite pay-TV channels distribution) because the vertically integrated nature of the operation would have allowed the parties to foreclose the Nordic satellite TV markets. The merger was blocked in 1995 as no suitable remedies were proposed.

As regard to the stream of alliances related to digital TV, the first venture took place in Germany. In 1994, Bertelsmann and Kirch (two media group controlling the main pay TV Premiere) and Deutsche Telekom formed the Media Service GmbH venture to provide technical and administrative handling of pay TV services (for instance the management of the set-top boxes). In *MSG Media Service*, the Commission had concerns on three markets: MSG would acquire a dominance on administrative and technical pay-TV services because it would be the first supplier of such services and the parties could leverage their market power from the content, infrastructure and pay-TV markets to foreclose any entry by third party; Premiere would reinforce its dominance on the German pay-TV and DT would strengthen its dominance on the German cable TV market because the parties controlling technical services (hence enjoying a sort of gate keeper function) could impede any entry on related markets. The merger was prohibited as no sufficient undertakings were proposed. Four years later in 1998, the same three German actors joined their forces again and notified two

[81] L. Mc Callum, "EC Competition Law and Digital Pay Television", *Competition Policy Newsletter* 1999/1, 4-16; A. Schaub et A. Lovergne, "La télévision numérique: l'approche de la Commission", *Cahiers de droit européen*, 1999, 49-60.

agreements: joint control of the Premiere channel by Bertelsmann and Kirch, and joint control of BetaResearch (holding IPRs on set top boxes) by the three parties. This double operation was thus even more extensive than MSG as it covers pay-TV in addition to technical services. In the twin decisions *Bertelsmann/Kirch/Premiere* and *Deutsche Telekom/Beta Research*[82], the Commission had concerns on three markets following the same rational than in MSG: Premiere would become the only German pay-TV operator, BetaResearch would become the main supplier of set top boxes technology; and DT would reinforce its dominance on German cable-TV. Again, the concentration was blocked as the parties (in particular Bertelsmann) were not ready to accept sufficient commitments.

Then, the Kirch group continued to develop on its own pay-TV channel. However, due its financial constraints at a time when money was needed to develop interactive digital services, BSkyB (from Murdoch's NewsCorp) acquired 24% of KirchPay TV in 1999. In *BSkyB/KirchPayTV*[83], the Commission had concerns on two markets: reinforcement of dominance on the established markets for pay-TV because of the financial influx of BSkyB; and creation a dominant position on the emerging markets for interactive services and the related technical services as Kirch would benefit from the experience of BSkyB and could foreclose any entry due to its control of technical access services and pay-TV markets. The merger was cleared on condition aiming at securing entry on interactive services market with compulsory third party access to technical services (via access to API, use of open standardised API, simulcrypt, and compulsory licence), and entry to the pay TV market. Despite this influx of capital and experience from the UK, the Kirch Group went bankrupt in 2002 partly due to the very high sums paid for premium events rights, and Premiere was sold in 2003 to a group of financial investors.

In the United Kingdom, BSkyB (the dominant UK pay TV operator), BT (the dominant telecom operator owing most of the copper loops and some cable TV), Midlands (now HSBC, an important banking institution) and Matsushita (a producer of electronic equipment and technology) were setting up in 1999 the venture British Interactive Broadcasting (later renamed Open) to provide digital interactive TV services (like information services, home shopping, home banking) by means of digital satellite broadcasting with a telecommunication return path, and the related technical services with a set-top box to be provided to consumers on a subsided basis. In *BiB/Open*[84], the Commission had concerns on four markets: the venture would be dominant on the emerging set-top boxes market and could maintain this position through leverage from the parents' position on the pay-TV and interactive TV services markets; this control on the set-top boxes would allow the parties to foreclose any entry on the emerging market of interactive TV services; the market power on pay TV market could be enhanced by the power on interactive services by bundling both products together; and finally BT would have less incentive to upgrade its cable TV or copper pairs in order to enable them to provide interactive services. The joint venture

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[82] P.D. Camesasca, "Mayday or Heyday? Dynamic Competition Meets Media Ownership Rules after Première", *European Competition Law Review* 2, 2000, 76-93; C. Veljanovski, "Competitive Regulation of Digital Pay TV", in Grayston (ed), *European Economics and Law*, 1999, 54-85.

[83] A. Hobbs, "The Commission's assessment of the participation of BSkyB in the pay-TV operations in Germany", *Competition Policy Newsletter* 2000/3, 56-60.

[84] A. Font Galarza, "The British Interactive Broadcasting Decision and the application of competition rules to the new digital interactive television services", *Competition Policy Newsletter* 1999/3, 7-15.

was exempted in 1999 for seven years under several conditions to ensure equal entry on TV interactive services markets: open access to the set top boxes (including simulcrypt agreement and supplying of technical information) and a legal separation between Open's activities with respect to the boxes and those related to interactive services; possibility of BSkyB channels to include other interactive services than the one of Open; no bundling of Open and BSkyB's services; and divestiture of BT cable interest (with Commission monitoring whether the BT's participation was not impeding the supply of broadband service on telecom infrastructure and a possibility to require if necessary for BT to choose between its continued participation in Open and the provision of unbundled access to its local loop).

In Italy, Stream (the Italian pay TV controlled by NewsCorp and Telecom Italia) acquired in 2003 Telepiù (the other Italian pay TV owned by Vivendi) to form the main combined satellite pay-TV platform (later re-branded Sky Italia). In *NewsCorp/Telepiù*, the Commission[85] considered that the merger would create a quasi-monopoly in the Italian pay-TV market with adverse effect on related markets like conditional access systems or acquisition of programming rights and channels. The concentration was cleared after imposing extensive remedies aimed to ensure competition from other satellite platforms and other digital TV platforms like terrestrial: divestiture of terrestrial broadcasting activities, compulsory third-party access to premium content and to the new Sky's platform, with an arbitration procedure to ensure their effective implementation. Interestingly, the Italian NRA would supervise the remedies for the matters within its competence.

With regard to the stream of alliances related to Internet services, the French communications group Vivendi (controlling Canal+) set up with Vodafone the Vizzavi venture to provide a multi-access Internet portal thorough Europe (providing customers with a seamless environment for web-based interactive services, across a variety of platforms such as fixed and mobile telephones, PCs and palm-tops and TV sets). In *Vodafone/Vizzavi/Canal+*, the Commission had concerns on two markets: Vizzavi would get a dominant position on the emerging markets for TV-based Internet portals and for pan-European mobile phone based internet portals because of the range of parties activities in mobile networks, content and television platforms, allowing them to foreclose competing content providers and portal providers. The merger was cleared on condition that consumers may access third party portal, and even change the default portal if they wish to do so.

Then in the midst of the convergence hype, Time Warner (one of the world's biggest media and entertainment companies) and AOL (the leading Internet access provider, with links with the content provider Bertelsmann) merge in a deal of 160 $bn their activities in 2000 to create the first Internet vertically-integrated content provider, distributing TW banded content through AOL's Internet distribution network. In *AOL/TimeWarner*, the Commission had concerns on two markets: the new entity would acquire a dominant position on the emerging markets for Internet delivery on-

[85] V. Baccaro, "The Commission closes probe into pay-TV industry in Italy approving NewsCorp/Telepiù merger deal", *Competition Policy Newsletter* 2003/2, 8-11; C. Caffara and A. Coscelli, "Merger to monopoly: NewsCorp/Telepiu", *European Competition Law Review*, 2003, 625-627. A similar merger was referred to the Spanish authorities in Commission Decision of 14 August 2002, *Sogecable/Via Digital*, M. 2845, upheld in *Cableuropa* T-346/02 and T-347/02 [2003] not yet published.

line music and music player software because of the privileged access to Time Warner and Bertelsmann's content). The merger was cleared with a package of remedies whose ultimate goal was to break the links between AOL and Bertelsmann[86].

In a parallel move, Vivendi (which had links with Fox studio via its interests in BSkyB) bought in 2000 Seagram (a Canadian conglomerate, controlling the Universal Studio) in a deal of 40 $bn. In *Vivendi/Canal+/Seagram*, the Commission had concerns on three markets. Canal+ would strengthen its dominance on the established market for pay-TV because the integrated group could leverage its position from the films content rights of Universal and Fox; and Vizzavi would acquire a dominant position on the emerging pan-European market for portals and market for on-line music because of the privileged access to Universal's music content. The merger was cleared with extensive remedies aiming at alleviating any leverage: pay-TV competitors' compulsory access to Universal's film production and co-production, divestment of stake in BSkyB (thus breaking the link with Fox), and rival portals access to Universal's online music content for five years.

In 2003, DaimlerChrysler and Deutsche Telekom set up the Toll Collect venture to operate a system for the collection of road toll from heavy trucks in Germany, which may be used in the future as a platform to provide telematics services. The Commission had concern on one market: DaimlerChrysler would become dominant on the emerging market for telematics systems for transport and logistics businesses in Germany. The merger was cleared under conditions aiming at guaranteeing a level playing field for all providers of telematics systems: the parties commit to the formation of an independent Telematics Gateway company (not controlled by the parties) operating a central interface through which telematics services can be fed into the Toll Collect System, to the development an interface for connection to third party peripherals, and to the development a toll collection module to be integrated into third party telematics devices. Interestingly, DailmerChrysler was prohibited to offer any telematics services until the above mentioned remedies were in place.

Thus for the digital TV cases, the Commission was first extremely cautious (and interventionist) as it was concerned that the parties would leverage their market power from the traditional content or infrastructure markets to the new TV services, foreclose entry on these markets and mutually reinforce their dominant positions. Moreover, the Commission aimed for intra platform competition, and wanted to ensure that condition for such competition were in place. However, in the more recent Italian decision (as well as the Spanish referral), the Commission was less strict as it understands that competition within each platform sounds economically unfeasible and that inter platform competition may be sufficient to ensure the bets possible to consumers. In any case, the Commission is stricter in media than in telecom because the geographical dimension of most markets are still national for cultural reasons, regulation and monopoly are still prevailing, and important objectives of cultural

[86] The *AOL/Time Warner* was also cleared in the US, but with several additional conditions. On 14 December 2000, the FTC imposed an open access on the TimeWarner cable to competing ISPs; and on 11 January 2001, the FCC imposed in addition compulsory access to the 'advanced' instant messaging of the merging parties.

diversity and pluralism are at stake. For the Internet cases[87], the Commission was concerned that the vertically integrated group would leverage its market power on the content side to foreclose entry on the emerging Internet distribution markets, and then mutually reinforce their position on these two type of markets. Thus remedies were imposed to impede any possibilities of leveraging and ensure an equal access to Internet distribution markets.

1.4. Towards a regulatory antitrust

To conclude this overview of the cases, we may observe that the use of competition law in electronic communications has been very extensive, surely much more than in traditional sectors[88]. That is blurring the lines between antitrust and regulation, and between the different roles of the Commission as a competition authority or as regulator. The evolution may thus be analysed at the substantive and the institutional level.

At the substantive level, the ex post antitrust intervention of the Commission in telecommunications was peculiar. First, the type of cases were different than in other sectors. Indeed, the Commission opened many exploitative excessive prices cases although in general the Commission does not wish to behave as price setting authority[89] and understands to be particularly ill-equipped to assess excessive prices. Second, the way of intervening was also different. The Commission mainly adopted guidelines that were not based a stock of previous cases, or collected data on a broad basis. That makes its intervention closer to a policy making body or an industrial regulator. It is only in a second stage that the Commission opened individual cases, whose the vast majority have been passed to the NRAs or settled with the Commission.

On the other hand with ex-ante control, the consistent line of the Commission has been to prevent a dangerous circle of self re-inforcing market power between related markets, whereby parties leverage their power from established markets to secure a dominant position on emerging markets and, in turn, leverage from the emerging market to strengthen their power on the established markets. This vicious circle is particularly worrying in ICT sector for three reasons at least. First, a lot of markets are only emerging and their development should not be controlled by a particular company. Second these markets are evolving very quickly and any anti-competitive behaviour could have rapid and irreversible effects. Third, most of the markets are characterised by network effects, that lead to path dependency with early developers (first mover advantage) becoming dominant by capturing new growth (bandwagon affect) so inefficient solution may be adopted[90]. To alleviate the vicious circle, the

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[87] G.B. Abbamonte and V. Rabassa, "Foreclosure and Vertical Mergers - The Commission's Review of Vertical effects in the Last Wave of Media and Internet Mergers", *European Competition Law Review* 6, 2001, 214-226.

[88] Larouche, cited at note 3, pp. 316-321; L. Garzaniti, cited at note 3, p. 545.

[89] *Vth Commission Report on Competition Policy 1975*, para 76; *XXIVth Commission Report on Competition Policy 1994*, para 207; *XXVIIth Commission Report on Competition Policy 1997*, para 77.

[90] M. Monti, *Competition and Information Technologies*, Speech of 18.09.2000: “Competition rules are all the more necessary in the area of the Internet (…) The rapid growth of Internet may unduly reward first movers onto these markets, closing down subsequent competition, and it is this that we should be

Commission imposed structural remedies that stimulate infrastructure competition (like cable divestiture or unbundling of the local loop) for the parties to lose their dominant position on the traditional markets and their ability to leverage and foreclose entry on emerging markets. As the effects of these measures could only take place with time, the Commission complemented them with behavioural remedies aiming at forcing access to key facilities like content, fixed telecom infrastructure (in particular the local loop), mobile infrastructure, technical services for pay TV or interactive TV services. Moreover in some circumstances, these behavioural remedies may be preferable than structural ones when there is large fixed costs and a limited number of participants (like in some instances of the *Telia/Telenor* merger) [91].

To use antitrust actions more extensively in electronic communications than in other sectors is clearly blurring the line between antitrust and regulation. That may be justified on economic grounds as the sector is characterised by the prevalence of market power acquired under legal monopoly time[92]. Heavy intervention is justified on static grounds (lots of dominant operator) and this argument is not undermined by dynamic considerations (because dominance is not the result of private investment decisions taken in a competitive environment and whose incentives should be preserved). Moreover in sectors where effective competition does not exist but is possible for the future, there may be a case for antitrust to actively promote competitors entry because it may pay in the long run to have many actors in the market competing with each other[93]. However when taking these arguments into account, the Commission practice (in particular the ex ante control of vertical alliances) appears to be too stringent or at least insufficiently motivated[94]. Economic literature[95] has shown that leverage should be based on a monopoly and is only rational when there is no other way to reap the monopoly rent. Therefore, the Commission should have based its analysis on the markets where access obligations were imposed (content, fixed and mobile networks) by showing that they were enduringly monopolised, instead of focusing on the new emerging markets (like

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concerned about"; C. Shapiro and H. Varian, *Information Rules – A Strategic Guide to the Information Society*, Harvard University Press, 1999.

[91] P. Rey, "Economic Analysis and the Choice of Remedies" and F. Jenny, "Design and Implementation of Merger Remedies in High-Technology Industries", in F. Lévêque and H. Shelanski (eds), cited at note 8.

[92] L. Hancher and J.L. Buendia Serra, "Cross-Subsidization and EC Law", *Common Market Law Review*, 1998, 943; M. Motta and A. de Streel, cited at note 42.

[93] Conseil de la Concurrence français, "Etudes thématiques: L'orientation des prix vers les coûts", in *Rapport d'activités 2002*, 2003, p. 72. Similarly, Grout notes that in an industry where it is anticipated that there will be an enormous degree of competition, regulator is justified to positively enhance competitors in its choice of regulatory devices (for example, using LRIC model instead a ECPR to set access price, relying extensively on price squeeze actions): P.A. Grout, *Competition Law in Telecommunications and its Implications for Common Carriage of Water*, CMPO Working Paper 02/056, July 2002

[94] In particular with regard to the high standard of proof set in *TetraLaval/Commission* T-5/02 ECR [2002] II-4381.

[95] O. Hart and J. Tirole, "Vertical Integration and Market Foreclosure", *Brookings Paper, Microeconomics*, 1990, 205-286; P. Rey, P. Seabright, J. Tirole, *The Activities of a Monopoly Firm in Adjacent Competitive Markets: Economic Consequences and Implications for Competition Policy*, Working Paper, University of Toulouse 2001; P. Rey and J. Tirole, "A Primer on Foreclosure", in M. Armstrong and R. Porter (eds), *Handbook of Industrial Organization V.III*, North-Holland, 2004; S.C. Salop, "Vertical Mergers and Monopoly Leverage", in P. Newman (ed), *The New Palgrave Dictionary on Economics and the Law*, 1999, 669-673.

global telecom services, interactive TV services, Internet distribution platforms) and their risks of foreclosure.

At the institutional level, the Commission used its strong antitrust power to maintain the existing competitive level, but also to increase that level. If it is undisputed than maintaining competitive level is part of the political mandate of the Commission, going as far as increasing competition with antitrust competence is more debatable. Moreover, the Commission used its power to support its regulatory liberalisation agenda. As noted by Ungerer, one of the key senior Commission official[96]:

> The (exploitative excessive prices actions) aimed particularly at passing on rapidly the advantages of liberalisation in terms of price reductions and service developments to consumers – a major objective in order to show as rapidly as possible the effective consumer benefits and to *secure sustained public support for liberalisation* (p. 11).
>
> A major factor in the success of the liberalisation programme was the screening of the major strategic alliances which started to take shape during the mid-nineties in anticipation of liberalisation and which commanded substantial Member States interests and attention (…). The basic situation was that in the existing pre-1998 market environment (with monopolies still persisting) these preparatory moves by the large incumbents would not have qualified for exemption under Article 81(3), given the potential of leveraging existing monopoly power into the new markets shaped by liberalisation and technological development. However, instead of taking a static approach, a dynamic solution was chosen. The Member States concerned were encouraged to change market conditions (by accelerating liberalisation), in order to make a clearing of the alliances (with conditions) possible. The dynamics of the process thus created a parallelism of interest (in accelerating liberalisation) between incumbents (in order to have their alliances cleared), Member States (in order to allow the development of the potential of their national markets) and the Commission (in order not to be obliged to block new services and new technologies). This was probably the turning point in the liberalisation exercise. *It created substantial political impetus for rapid implementation of the legislative liberalisation framework by key Member States*, both in Council and at national level for preparing national legislation in time and creating a national infrastructure of National Regulatory Authorities (p. 7-8).

Thus, merger remedies have been used help the adoption of sector-specific legislation by the Member States. They have also paved the way for the future regulation. For instance, local loop unbundling was first imposed in *Telia/Telenor* and two years later by a European Regulation. Remedies could also go further than regulation but aim at the same objective. For example, the cable divestiture imposed in *Telia/Telenor*, in *Telia/Sonera* or in *BiB/Open* goes one step further than the cable Directive that just imposes separate legal entities[97]. Conversely, regulation has been taken into account when deciding the appropriate remedies. If the behaviours of the parties to a joint venture are strictly controlled by a sector specific authority, there is less risk of abuse and leverage, hence remedies could be less intrusive like in *Concert* or *Unisource II*.

[96] H. Ungerer, *Use of EC Competition Rules in the Liberalisation of the European Union's Telecommunications Sector*, Speech 6.5.2001.
[97] Commission Directive 1999/64/EC of 23 June 1999, amending Directive 90/388/EEC, O.J. [1999] L 175/39.

The Commission also used its antitrust power to control NRAs in diagonal conflicts. Indeed, the three antitrust guidelines mentioned above aimed to influence the practice of the NCAs but also the NRAs when applying antitrust concepts. Moreover, the Commission closed abuse cases only after the NRAs had intervened satisfactorily from the Commission view. Otherwise, the Commission settled the case itself or even condemned the dominant undertaking (like in *Deutsche Telekom*[98]). Thus, the Commission behaved as a complement to the national regulators when they may not act under national law but also as a regulator of the regulators.

These various uses of Commission antitrust power may be problematic for at least two reasons. First, the political mandate and the not fully open procedure to be followed by DG Competition when dealing with a case are not suited for such an pro-active role in the market[99]. Indeed, operators are very often under no position to negotiate, and the clearance process turns into a game of regulatory extortion[100]. Second, it upsets the institutional balance at the European level, as the Commission is taking power from the Member States and their NRAs and behaving as European regulatory authority, even though such authority was rejected by the European legislator during the recent review of sector regulation to which we now turn.

2. Sector-Specific Regulation

2.1. Overview of the system

As we have seen above, next to European competition law which applied across the broad to all economic sectors of the economy and prevail over any contrary national provisions, electronic communications are also regulated by a whole set of European sector rules that should be transposed into national laws. These sector rules aim to ensure the best possible deal for the European consumers and complement antitrust in ensuring that companies would not abuse their market power.

The sector-specific regulation of the electronic communications has been recently reformed by the European legislature. The new European regulatory framework[101] is now mainly composed of one liberalisation directive[102] and four harmonisation directives[103] whose national transposition measures were due to be applicable in July

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[98] In this margin squeeze case, the German NRA was regulating the wholesale charge and a basket of retail prices. The Commission condemned DT as it considered that it had enough discretion within the retail basket to alleviate or reduce the squeeze. However, DT decision is above all a critique of the NRA policy.

[99] Larouche, cited at note 3, pp. 353-358.

[100] D. Geradin and J.G. Sidak, "European and American Approaches to Antitrust Remedies and the Institutional Design of Regulation in Telecommunications", in M. Cave, S. Majumdar, I. Vogelsang (eds), *Handbook of Telecommunications Economics v.II*, North-Holland, forthcoming in 2004.

[101] On the new framework, see: references in note 3; and S. Farr and V. Oakley, *EU Communications Law*, Palladian Law, 2002; W. Maxwell (ed), *Electronic Communications: The New EU Framework*, Oceana Publications, 2002; P. Nihoul and P. Rodford, *EU Electronic Communications Law: Competition and Regulation in the European Telecommunications Markets*, O.U.P., 2004.

[102] Commission Directive 2002/77/EC of 16 September 2002 on competition in the markets for electronic communications networks and services, O.J. [2002] L 249/21.

[103] Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), O.J. [2002] L 108/33; Directive 2002/20/EC of the European Parliament and of the Council

2003[104]. As suggested by its denomination and to take into account the technological convergence, the framework covers[105] not only telecommunications but also all electronic communications networks, services and associated facilities. It applies thus to all networks permitting the conveyance of signals (being wire or wireless, circuit or packet switched, used for telecom, broadcasting or other services), all the services consisting of the conveyance of signals on these networks, and all facilities that are associated with them (like conditional access systems contained in the set-top boxes used to receive digital television or electronic program guides). On the other hand, the directives do not cover the content of services delivered over electronic communications networks such as broadcasting or e-commerce services[106].

The part of the regulation devoted to the control of market power is the so-called Significant Market Power (SMP) regime[107]. The aim of the regime is twofold: (1) stimulate effective competition in market segments where it is possible, and (2) ensure sufficient access to wholesale inputs and protect against any behavioural abuses in the other segments where monopoly is inevitable. As illustrated in Figure 1, regulatory obligations are imposed in three steps which should be repeated periodically (every two to three years) to reflect market evolution. In the first step, markets to be analysed are defined in two sequences. The Commission adopts a Recommendation[108] that defines, in accordance with the principles of competition law, the product and service markets within the electronic communications sector, the characteristics of which may be such as to justify the imposition of regulatory

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of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive), O.J. [2002] L 108/21; Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and services (Access Directive), O.J. [2002] L 108/7; Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), O.J. [2002] L 108/51.

[104] On the status of implementation: Ninth Report on the Implementation of the Telecommunications Regulatory Package, cited at note 2; and IP/04/510 of 21 April 2004 which notes that the Commission has taken to Court six member States (Belgium, Germany, Greece, France, Luxembourg, and the Netherlands) for failing to implement fully the new rules on electronic communications.

[105] Article 2 of the Framework Directive.

[106] These are covered inter alia by the Council Directive 89/552/EEC of 3 October 1989 on the co-ordination of certain provisions laid down by Law, Regulation or Administrative Action in Member States concerning the pursuit of television broadcasting activities (Television Without Frontiers) O.J. [1989] L 298/23, as amended by Directive 97/36; and the Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce) O.J. [2000] L 178/1.

[107] For an overview: A.F. Bavasso, "Electronic communications: a new paradigm for European regulation", *Common Market Law Review* 41, 2004, 87-118; M. Bak, "European electronic communications on the road to full competition: The concept of Significant Market Power under the new regulatory framework", *Journal of Network Industries* 4, 2003; A. de Streel, "The Integration of Competition Law Principles in the New European Regulatory Framework for Electronic Communications", *World Competition* 26(3), 2003, 489-514.

[108] 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 communications networks and services, O.J. [2003] L 114/45, hereinafter *Recommendation on relevant markets*; and the Explanatory Memorandum available at: <http://www.europa.eu.int/information_society/topics/ecomm/useful_information/library/recomm_guidelines/index_en.htm>. For an analysis of this Recommendation, A. de Streel, "Market Definitions in the New European Regulatory Framework for Electronic Communications", *Info* 5(3), 2003, 27-47.

obligations. In practice, the Commission has to select the markets justifying ex ante regulation because of their structural problems and then, delineate the boundaries of these markets on the basis of antitrust methodologies. Taking account[109] of this Recommendation on relevant markets and the Commission Guidelines on market analysis[110], the NRA then defines markets appropriate to national circumstances, in particular their geographical dimension within its territory, in accordance with the principles of competition law[111].

In the second step, the NRA analyses the defined markets to determine whether they are, or are not, effectively competitive, which amounts to determining whether one or more operators enjoy SMP on the market. In turn, this SMP assessment amounts to determining whether one or more undertakings enjoy a dominant position or could leverage a dominant position from a closely related market.

In the third step, if the market is effectively competitive, the NRA must withdraw any obligation that may be in place and shall not impose or maintain any new one. Conversely, if the market is not effectively competitive, the NRA imposes on the SMP operators the appropriate specific regulatory obligations to be chosen from a menu provided in the Directives[112]. In case of an SMP operator on a wholesale market (i.e. relationship between the providers of electronic communications network and services), the regulator should rely on the menu of remedies provided in the Access Directive. In case of an SMP operator on a retail market (i.e. relationships between operators and end-users), the conditions of regulation are much more stringent as it has to be shown in addition of dominance that an intervention on a wholesale market could not solve the identified retail problem. Indeed, as most of retail anti-competitive behaviours stem from the exercise of market power on a upstream wholesale market, it is more appropriate to regulate this intermediate market (source of the problem) than the retail market (manifestation of the problem). When justified, NRA should rely on the non-exhaustive list of remedies provided in the Universal Service Directive.

At the institutional level, the primary actor is the NRA that should undertake the market analysis and choose the appropriate remedies. To balance this important

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[109] Any Recommendation or soft law instruments should be taken into account by national authorities and national Courts, see *Grimaldi* C-322/88 [1989] ECR I-4407, para 18. The legal force of the Recommendation on relevant markets is further reinforced as the Commission may veto any different product and service market that an NRA may wish to define.

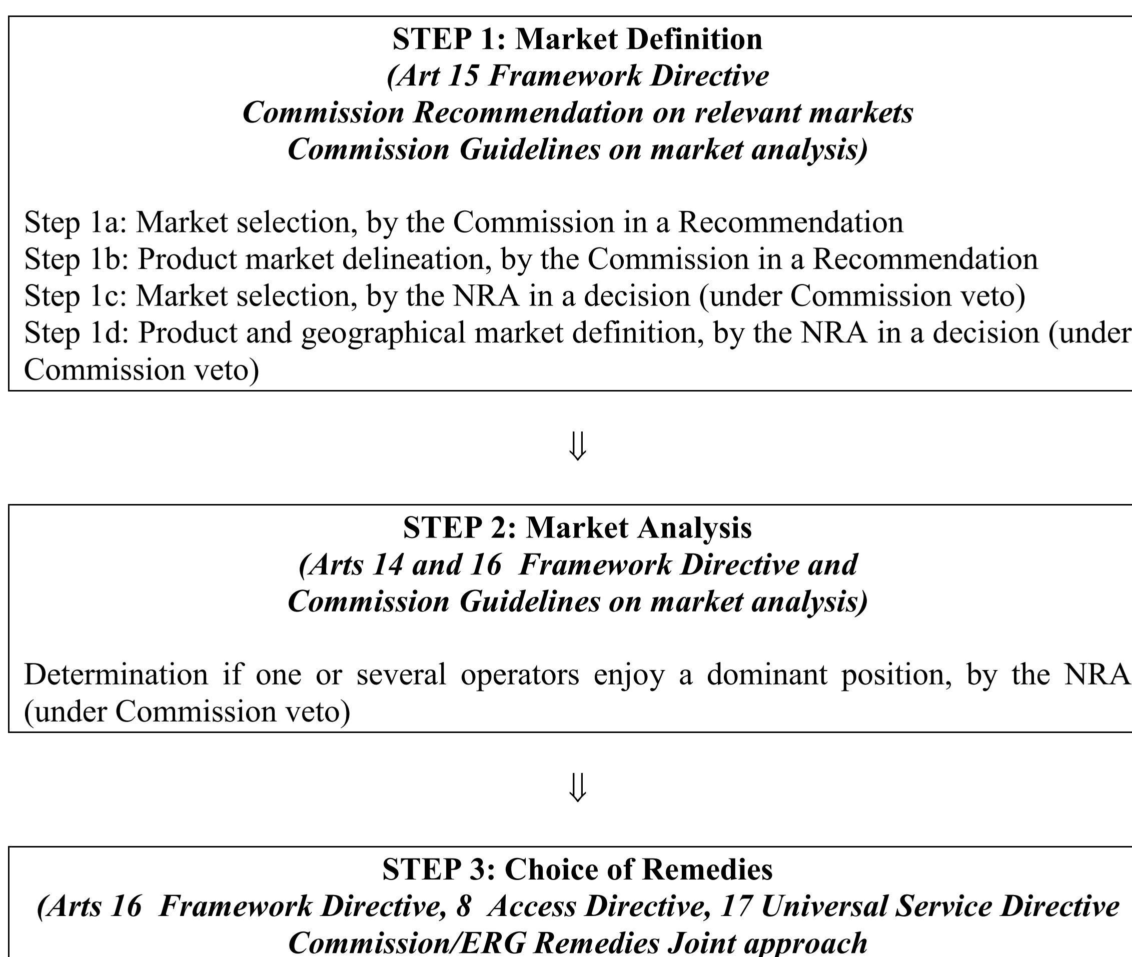
[110] Guidelines on market analysis, cited at note 14.

[111] Nevertheless, two types of markets have a special regime. First, if a selected market has a Trans-national dimension (i.e. covers the Community of a substantial part thereof), the role of the Commission is more important due to the additional European interest at stake. It should define the product but also the geographical dimension of the markets, and adopt a Decision that is legally binding for the NRAs. Second, some markets to be analysed by the NRAs are pre-defined in the Directives, hence should not be identified again in the Commission Recommendation: Article 6 of the Access Directive (conditional access systems), Article 18 of the Universal Service Directive (minimum set of leased lines), Article 19 of the Universal Service Directive (access to and use of the public telephone network at a fixed location).

[112] European Regulators Group Common Position of 1 April 2004 on the approach to appropriate remedies in the new regulatory framework, ERG (03) 30rev1, available at: <http://www.erg.eu.int>, hereinafter *Common Position on remedies*. See R.A. Cawley, "The new approach to economic regulation in the electronic communications sector in Europe: the application of regulatory remedies", *Journal of Network Industries* 5, 2004.

discretion, several check and balances (like broad appeal possibilities or compulsory consultation with the NCAs) and good governance mechanisms (like compulsory public consultation) have been put in place. The role of the Commission is crucial to ensure a common regulatory culture across Europe. It starts the process by adopting and updating the Recommendation on relevant markets. More importantly, the Commission may review[113] all the NRAs decisions that would affect the trade between Member States. After the opinion of the Communications Committee, the Commission may veto a product and service market definition that differs from those of the Recommendation and an SMP (or a non SMP) designation. It may also give a non-binding opinion on the choice of regulatory obligations. In addition, the Commission keep in standard competence of ensuring the correct application of European law by the Member States (including the NRAs), with the possibility of opening infringement proceedings under Article 226 EC.

Figure 1: The Significant Market Power Regime



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[113] Article 7 of the Framework Directive, and Commission Recommendation of 23 July 2003 on notifications, time limits and consultation provided in Article 7 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, O.J. [2003] L 190/13. R. Krüger and L. Di Mauro, "The Article 7 consultation mechanism: managing the consolidation of the internal market for electronic communications", *Competition Policy Newsletter* 2003/3, 33-36.

Commission Guidelines on market analysis)
- In case of SMP operator → Imposition of the appropriate obligations, by the NRA (with Commission opinion) - In absence of SMP operator → Removal of any obligation, by the NRA

2.2. Selection and assessment of market power

(a) Selection of the regulated markets

In electronic communications sector, lots of markets may be defined and several may lead to competition concerns, but only a sub-set of them are selected to be analysed by the NRAs. According to the Article 15 of the Framework Directive[114], this selection should be based on the characteristics of the market, and more precisely on the relative efficiency of competition law remedies compared to sector remedies to address possible competition problems. In the Recommendation on relevant markets[115], the Commission has interpreted this provision by referring to three cumulative criteria that should be fulfilled for a market to be selected. According the Commission and the ERG, the NRA should not re-assess these criteria when analysing one of the markets selected in the Recommendation, but rely on these criteria only when selecting an additional market[116]. Although this interpretation makes NRAs' analysis easier, nevertheless we submit that Article 15 of the Framework Directive apply equally to the Commission and the NRAs. Thus the NRAs should prove the insufficiency of competition law remedies before regulating a market.

The first criterion is static and relies on the presence of high and non-transitory barriers to entry. The barriers may be structural and result from original cost and demand economic conditions that create asymmetric conditions between incumbents and new entrants impeding or preventing market entry of the latter. The entry barriers may also be legal or regulatory and result from legislative, administrative or other state measures that have a direct effect on the conditions of entry. Both types of barriers are non-strategic (i.e. not artificially manufactured by the firms) as it was considered that strategic barriers like excessive investment or reinforcement of network effects would require idiosyncratic and episodic intervention, which would be better done under competition law.

The second criterion is dynamic and amounts to evaluating if the market does have the characteristics such that it will tend towards effective competition over the relevant time horizon considered. If it is the case, the market should not be selected. The application of this criterion involves examining the state of competition behind the entry barriers, taking account of the fact that even when a market is characterised by high entry barriers, other structural factors or market characteristics may mean that

[114] Article 15(1) and Recital 27 of the Framework Directive.
[115] Recitals 9 to 16 of the Recommendation on relevant markets, as explained by the Section 3.2 of the Explanatory Memorandum.
[115] Guidelines on market analysis, para 32.
[116] For instance, Commission decision of 11 December 2003, AT/2003/18, *Austrian broadcasting transmission services*.

it tends towards effective competition. This is for instance the case in markets with a limited, but sufficient, number of undertakings behind the entry barriers having diverging cost structures and facing price-elastic market demand. Entry barriers may also become less relevant with regard to innovation-driven markets characterised by ongoing technological progress. In such cases, competitive constraints often come from the threat of innovation by potential competitors that are not currently in the market.

The third criterion relies on the relative efficiency of competition law remedies alone to address the market failure identified according to the two first criteria compared to the use of complementary ex ante regulation. It is fulfilled when ex ante regulation would address more efficiently the market failure than antitrust. Such circumstances would for example include situations where the compliance requirements of intervention are extensive, where frequent and/or timely intervention is indispensable, or where creating legal certainty is of paramount concern. It is not possible to give an exhaustive list of all the circumstances where antirust would be less efficient than sector regulation. In practical application, NRAs should consult with their competition authorities and take account of that body's opinion when deciding whether use of both complementary instruments is appropriate to deal with a specific issue.

Thus, "the combined analysis of the three criteria suggests that markets characterised by the presence of high barriers to entry (first criterion), which is not compensated by a dynamic market structure (second condition) should generally be selected unless the situation can be dealt with adequately by competition law remedies (third criterion)"[117]. In fact, these three criteria aimed to detect the 'hard-core' market power that justifies regulation. It mainly boils down to two structural market problems where economic theory has shown that the market left alone would not achieve an overall long term efficiency and that public intervention would be needed on an on-going basis (hence sector-specific regulation would be more efficient than competition law). The first situation applies when the cost structure and the level of the demand are such that they create asymmetric conditions between market players, the topical situation being a natural monopoly case. That may be the case for local fixed infrastructure, in particular in rural areas where the level of fixed sunk cost may be such that only a single network provider could be profitable[118]. The second situation is the presence of externalities (either due to network effects or tariff principles) where one player may impose a cost or a benefit to others without having to pay/being rewarded accordingly. That may be the case for fixed and mobile call termination in Europe due to the externalities generated by the calling-party principle.

These three criteria show that the rationale justifying the regulation of SMP operators has been radically reformed. Under the 1998 framework, the SMP regime was mainly related to the competitive conditions under which infrastructures have been deployed. It mainly applied to markets previously under legal monopoly (fixed voice networks

[117] D. Géradin and J.G. Sidak, cited at note 100, 21.

[118] On the economic characteristics of local network access: M.A. Fuss and L. Waverman, "Econometric Cost Functions", in *Handbook of Telecommunications Economics V.I*, cited at note 37, 144-177; F. Gasmi, J.J. Laffont, W.W. Sharkey, "The Natural Monopoly Test Reconsidered: An Engineering Process-Based Approach to Empirical Analysis in Telecommunications", *International Journal of Industrial Organization* 20, 2002, 435-459; G.A. Woroch, "Local Network Competition", in *Handbook of Telecommunications Economics V.I,* cited at note 37, 642-716.

and services[119]) and was thus linked to the so-called original sin of the previous monopolist. Under the new directives, the SMP regulation is dis-connected from the original sin, and linked to the inefficiency of antitrust to control market power. It represents thus a radical shift of the regulatory paradigm. Ironically, this may lead to an extension or even a perpetuation of sector regulation, although the new directives were deemed to be de-regulatory.

Finally, it should be noted that new and emerging markets, in which market power may be found to exist because of 'first mover' advantages, should not in principle be selected[120]. This is because premature imposition of ex-ante obligation may unduly influence the competitive conditions taking shape in the market, even though the foreclosure of such emerging market by the leading operator should be prevented. However, the application of this principle may be tricky in practice[121]. When a new service requires a legacy infrastructure to be provided, NRA may regulate this legacy infrastructure to ensure a level playing field between incumbents and new entrants. In addition, a NRA may also regulate a emerging market when sufficient time has elapsed for the market to have become mature[122].

(b) Delimitation of the boundaries of the selected markets

Having identified the problematic areas, the precise boundaries of the market should be delineated in accordance with the principles of competition law. Therefore, the principles and difficulties identified in section 1.2. apply. Nevertheless, identical methodologies applied in different contexts may lead to different results[123]. The market is usually defined more broadly under sector regulation than under competition law because an NRA starts from a broader perspective and adopts a prospective approach, whereas the antitrust authority deals with a precise event that may be linked to one or more undertakings around which the market is defined. Note in addition that the first Commission Recommendation on relevant markets still very much define the markets on a technological basis, albeit to a lesser extent than under the 1998 regulatory framework, because markets have not yet fully converged. Therefore, customers' preferences (demand substitution) are still linked to technologies and different group of customers (like residential and business) may be served by different technologies. In addition, the possibilities for network suppliers to switch from networks (supply substitution) are limited. Only in a fully convergent world, markets would be defined on a purely service basis, freed from any technological limitations.

(c) Assessment of the Significant Market Power

[119] There was nevertheless a slight possibility to regulate the mobile sector, that has been used more and more over time by the regulators across Europe: Article 7(2) of the Interconnection Directive 97/33.

[120] Recital 27 of the Framework Directive and Guidelines on market analysis, para 32.

[121] Draft Remedies Joint Approach, pp. 71-73.

[122] Moreover, the market to be analysed is defined according to services offered substitutability and not according to the infrastructure. Thus the test is more related to the novelty of the service than to the novelty of the infrastructure.

[123] Guidelines on market analysis, para 24-32.

Once markets have been defined, the NRA analyse them to determine if one or more operators have a degree of market power equivalent to a dominant position, or would be able to leverage from a dominant position. As sector regulation intervenes ex ante, the market power should be appraised by the NRAs on a forward-looking basis by considering the expected or foreseeable development over a reasonable period linked to the characteristics and the timing of the next review, past data being taken into account when relevant[124]. The principles identified in section 1.2 thus apply, but again, the use of identical methodologies in different contexts may lead to different results[125]. Indeed, the SMP operator does not necessarily enjoy a dominant position under Article 82 EC because the relevant market may be defined differently and SMP is assessed more prospectively. Moreover, the SMP designation is based on structural criteria and do not lead, nor presume, that the operator has committed an abuse.

2.3. Remedies[126]

(a) Principles

If one or more operators enjoy a dominant position, and consequently have been designated as having SMP, the NRA must impose at least one obligation and may impose more than one, to be chosen among those provided in the Directives[127]. This choice might be constrained by the international commitments taken by the Member States, in particular in the WTO[128]. When an operator enjoys SMP on a wholesale or intermediate market, the choice should in principle be done among the menu of ascending remedies provided in Articles 9 to 13 of the Access Directive[129].

First, NRA may impose a *transparency obligation* (Article 9 of the Access Directive), requiring operator to make public specified information, such as technical specifications, network characteristics, accounting information, or terms and conditions for supply and use. In particular, the authority may require the publication

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[124] Guidelines on market analysis, para 20 and 75; see also in general: ERG Working Paper of May 2003 on the SMP concept for the new regulatory framework, ERG (03) 09.
[125] Guidelines on market analysis, para 24-32.
[126] See the three studies done for the Commission services: *Reports of the Economic Expert Group on Remedies*, September 2003; C. Veljanovski, *Remedies under the new EU regulation of the Communications Sector*, June 2003, available at: <http://www.casecon.com/data/pdfs/ETNOfinalreport.pdf>; M. Cave, "Economic Aspects of the New Regulatory Regime for Electronic Communication Services", September 2002, available at <http://users.wbs.warwick.ac.uk/group/cmur/publications/discussion_papers>.
[127] Guidelines on market analysis, para 114.
[128] Council Decision 97/838/EC on the results of the WTO negotiations on basic telecommunications services, and its annex containing the additional commitments take by the European Communities and their Members States, O.J. [1997] L 347/45. For the markets covered by the commitments, the NRAs should impose at least three obligations (transparency, non-discrimination, cost-orientation); and the first case decided under this Annex: Report of the WTO Panel of 2 April 2004, *Mexico v. USA*, WT/DS204/R. See also: P. Larouche and M. Bronckers, "The WTO Regime for Telecommunications Services', in A. Appleton and P. Macrory (eds), *The World Trade Organization: A Comprehensive Guide*, Kluwer, forthcoming in 2004; J. Scherer (ed), *Telecommunications in Europe*, 4th ed, Sweet & Maxwell, 1998, Ch. 24.
[129] Described in more detail in Section 3 of the draft Remedies Joint Approach.

of a reference offer[130], which shall be sufficiently unbundled, and it may even impose changes to these offers. The disclosure of technical information for a firm's access to technical facilities may be useful to achieve interconnection or network access, although the standardisation process may have already placed much of the information in the public domain. On the other hand, disclosure of price data may be an instrument of collusion or price leadership and hence is particularly unsuitable in cases of collective dominance.

Second, the NRA may impose a *non-discrimination obligation* (Article 10), requiring the operator to apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services. A vertically integrated firm should provide services and information to others under the same conditions and quality as it provides for its own services or subsidiaries. This obligation is primarily relevant in case of an SMP operator that is vertically integrated into a competitive market to prevent exclusionary behaviour through foreclosure of competition in the upstream or the downstream market. But the NRA should apply this remedy in a nuanced way, as it may be efficient to allow price discrimination according to the customers' willingness to pay or the product demand elasticity (like a Ramsey pricing)[131]. For instance, it may be efficient and not anti-competitive for a mobile operator to price the access to its network according to the different willingness to pay of the service providers seeking access. Indeed, the mobile operator may want to charge differently the providers of content over mobile phone, according to the value of their content for the end-users.

Third, the NRA may impose an *accounting separation obligation* (Article 11), requiring in particular a vertically integrated company to make transparent its wholesale and internal transfer prices[132]. The authority may also require that accounting records are provided on request, and it may even specify the format and accounting methodology to be used. As this obligation represents a considerable ratcheting up of the regulatory burden on the SMP operator, it is only justified when there is persistent network monopoly enjoying an entrenched competitive advantage.

Fourth, the NRA may impose an *access obligation* (Article 12), requiring the operator not to withdraw access, to negotiate in good faith or to give third party access to specific network facilities for fair compensation. This notion of access should be construed broadly[133], as it covers access to wire and wireless network elements (like access to the fixed local loop, or roaming on other mobile networks), access to associated facilities (like the conditional access system for digital television), access to physical infrastructure (like buildings, ducts and masts), or access to relevant software systems (like operational support system, or number translation system). The NRA could impose access when a refusal would hinder the emergence of a

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[130] According to Article 9(4) of the Access Directive, when an operator should give access to the twisted metallic pair local loop, the NRA should ensure the publication of a reference offer containing at least the elements set out in the Annex II of the Access Directive like prices or technical conditions.

[131] H. Varian, "Price discrimination", in R. Schmalensee and R. Willig (eds), *Handbook of Industrial Organization V. I*, North-Holland, 1989, 597-654. See in addition: M. Cave, "Can Regulators Get Smart about Discrimination?", 2002, available at: <http://users.wbs.warwick.ac.uk/cmur/publications/mec819.pdf>

[132] A. Tarrant, "Accounting Separation: The Hole in the Heart of EU Telecommunications Regime", *European Competition Law Review* 2003, 273-279.

[133] Article 2 of the Access Directive.

sustainable competitive market at the retail level or would not be in the end-users interests. Therefore the test to impose third-party access under sector regulation appears to be softer[134] -that is easier to meet by access seekers- than the one under competition law. Indeed under the essential facility doctrine, access may only be imposed when the facility is essential. But there is no compelling economic rationale justifying a situation whereby access should be more easily granted under sector-specific regulation than under antitrust[135], as the same conflict between short-run and long run competition holds. Indeed, short-run interests might best be furthered by the adoption of mandatory access on a wide scale, but such policy would reduce incentives to invest in competing facilities and would stifle innovation in the long term. Therefore, NRA should be very cautious before imposing access, and in any case, safeguard competition in the long run taking into account the investment and risks taken by the facility owner.

The NRAs have set their views on the application of these principles in the draft Remedies Joint Approach. The NRA should first assess if the infrastructure is likely to be replicated or not. If the duplication is not feasible nor desirable due to the persistent presence of significant economies of scale and scope or other entry restriction, the NRA must ensure sufficient access to wholesale inputs in order to secure maximum consumer benefits and should protect against any potential behavioural abuses. Conversely, if infrastructure duplication is feasible, remedies should assist the transition process to a sustainable competitive market and provide new entrants with incentives to climb the investment ladder (e.g. from bitstream to unbundling to no more regulation) with dynamic access point determination and price setting. Indeed, there is no conflict between infrastructure (facilities-based) competition and service (access-based) competition, when time dimension is taken into account. NRAs should provide incentive for competitors to seek access from the incumbent in the shorter term and to rely increasingly on building their own infrastructure in the longer term[136]. When the NRAs can not determine with sufficient certainty if infrastructure is duplicable, they should keep an open mind and continue monitoring to re-assess their views, while being aware of the possibility of inefficient investment.

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[134] One plausible explanation for the apparent easier compulsory access under sectoral law could be that access to infrastructure laid down with exclusive or special rights and/or financed with public funds should be more easily granted that access to facility developed in a competitive environment (see along these lines, para 66 of the Opinion of the Advocate General Jacobs in *Bronner*, cited at note 41). However, the difference should not be overstated. Intervention under sector regulation should pass an additional test (market selection) that antitrust intervention does not have. This test may encompass some sort of natural monopoly requirement, which is the main object of the essential facility doctrine.

[135] J.E. Haussman and J.G. Sidak, “A Consumer-Welfare Approach to the Mandatory Unbundling of Telecommunications Networks”, *Yale Law Journal* 109, 1999, 417-505. The authors suggest that an NRA imposing compulsory access should use a consumer-welfare test (as captured by the essential facility doctrine) and not a competitor-welfare test. As noted by Breyer, “Increased sharing by itself does not automatically mean increased competition. It is in the unshared, not in the shared portions of the enterprise that meaningful competition would likely to emerge. Rules that force firms to share every resource or element of the business would create, not competition, but pervasive regulation, for the regulators, not the market place, would set the relevant terms”, quoted in A.E. Kahn, *Whom the Gods Would Destroy or How not to Deregulate*, AEI Press, 2001, 7.

[136] M. Monti, *Remarks at the European Regulators Group Hearing on Remedies*, Speech 26.1.2004, p.3.

Fifth, the NRA may impose *price control obligations* (Article 13). The authority could prohibit anti-competitive pricing practices, like prices which are excessive, predatory, or creating margin squeeze. The NRA could also impose positive price control[137] provided it promotes efficiency and allows the operator a reasonable rate of return on adequate capital employed taking into account the risks involved. Different methods of price control are possible. The NRA can rely on benchmarking and set prices according to those applied in comparable competitive markets[138]. It can also follow a 'retail minus' methodology and set the wholesale price on the basis of a freely determined retail price, minus a mark-up compensating for the retail services (marketing, customer care, …). With sufficient information about the actual cost, the authority can use them to directly set prices, possibly relying on different accounting methods than those used by the regulated operator. For the pricing of fixed interconnection as well as for the pricing of unbundled access to the local loop[139], the Commission recommended the use of a Long Run Incremental Cost (LRIC) methodology, which consists of evaluating the network elements at the current or prospective value of an efficient operator and allocate them in accordance with the principle of cost causation. In addition, the NRA could also rely on a sophisticated pricing design. For example, given the very significant fixed costs in telecom and the consequent divergence between average and marginal cost, a non linear pricing structure consisting of a fixed fee combined with a unit charge equal to marginal cost may be appropriate[140].

When cost orientation is chosen, the burden of proving that prices are cost oriented lies with the regulated operator. As this last variation of price control is very intrusive, it should only be used with extreme parsimony and be confined to cases close to the existence of an essential facility. That may be the case for the different types of access to the fixed local network (call termination, unbundling of the local loop, bitstream) provided that one operator enjoys a monopoly or position of super-dominance in the relevant geographical area. On the other hand, when there is network duplication like in the mobile industry, non-discrimination or other forms of price control may be preferable.

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[137] OECD, *Access Pricing in Telecommunications*, 2004; B. Mitchell and I. Vogelsang, *Telecommunications Pricing: Theory and Practice*, C.U.P., 1991.

[138] The Commission recommended the benchmarking for the interconnection charges on fixed telecom networks from 2000 to 2002, when it was deemed no longer necessary due to the increasing availability of cost accounting systems: Commission Recommendation of 8 January 1998 on interconnection in a liberalised telecommunications market (Part 1 - Interconnection pricing), O.J. [1998] L 73/42, last amended by Commission Recommendation of 22 February 2002, O.J. [2002] L 58/56.

[139] Commission Recommendation on interconnection in a liberalised telecommunications market - Part 1 at para 3; and Commission Recommendation of 25 May 2000 on unbundled access to the local loop, O.J. [2000] L 156/44 at Article 1(6). See also: Europe Economics, *Study on the preparation of an adaptable bottom-up costing model for interconnection and access pricing in European Union countries*, April 2000. Independent Regulators Group (which is the association of all the NRAs of the Member States and some other European countries), Principles of implementation and best practice regarding FL-LRIC cost modelling, 2000, <http://irgis.icp.pt/site/en/index.asp>. These principles are currently being revised in: ERG Consultation Document Proposed ERG common position on FL-LRIC modelling, July 2003.

[140] On the relationship between access pricing and investment and entry, see the papers in *Telecommunications Policy* 27, 2003, 657-727 (special issue edited by M. Cave). These papers suggest an access price positively related to the replicability of the asset, and rising over time. This scheme aims to ensure static as well as dynamic efficiency.

In exceptional circumstances, the regulator may also impose other obligations than those listed in the Access Directive, provided it gets the prior agreement of the Commission[141]. For instance, if justified, the NRA could impose technical solutions (like the use of multiple SIM cards in mobile handsets) or changes in the tariff principles (like imposing receiving-party-pays instead of the current calling-party-pays principle) to address the mobile termination problem. More importantly, the fact that the obligations listed in the Access Directive are all behavioural does not exclude structural solution. The NRA could thus impose divestiture and the much discussed structural separation of the local loop[142]. Nevertheless, if possible in theory, this remedy would be very difficult to apply in practice as the Commission, and the Courts in case of legal challenges, should be convinced that the available remedies are insufficient and that a structural separation is the only way forward[143].

In contrast with wholesale markets, two conditions must be fulfilled in regulating a retail market: (1) one or more operators should enjoy an SMP position on a relevant market, and (2) the obligations that may be imposed on wholesale markets would not be able to achieve the three objectives of the new framework, in particular the effective competition. If it is the case, the NRA shall thus impose one or more obligations, to be chosen from the non exhaustive list provided in Article 17 of the Universal Service Directive. The NRA may impose the same type of price control listed above (prohibition of anti-competitive pricing practices or positive price control), possibly adapted to take account of the characteristics of the market to be regulated. Moreover, as the SMP regime mainly aims at ensuring effective competition, the retail tariffs control should only ensure competition, hence the orientation of prices towards costs. They should not guarantee other objectives such as general accessibility and affordability of certain services, hence tariffs below costs (which is the remit of the universal service). To ensure effective price control, the regulator could impose the implementation of appropriate cost accounting systems[144], with specific format and methodology and whose compliance would be verified by a qualified independent body. Going beyond price control, the NRA could also impose other types of obligations such as the prohibition of discrimination between end-users or unreasonable bundling of services[145], or any other remedies that may be appropriate.

The choice of obligations[146] made by the NRA should respect three general principles. First, the remedies should be based on the nature of the problem identified and appropriate to address it. Thus, the NRA first identifies the market failure and the underlying economic incentives and possibilities to behave anti-competitively. Four

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[141] Article 8(3) of the Access Directive.

[142] OECD, *Restructuring Public Utilities for Competition*, 2001; OECD Working Paper 3 November 2003, *The Benefits and Costs of Structural Separation of the Local Loop*, DSTI/ICCCP/TISP(2002)13.

[143] Several arguments militate against the separation of the local loop at this stage of market development, in particular the difficulty to identify a stable dividing line between potentially competitive and non-competitive activities and the related problem of co-ordinating investment activities between the network company LoopCo and the service company ServCo. See M. Cave, "Is LoopCo the Answer?", *Info* 4(4), 2002, 25-34

[144] See further the Study made for the Commission services: Andersen, *Implementation of cost accounting methodologies and accounting separation by telecommunications operators*, July 2002.

[145] See note 46.

[146] Article 8(4) of the Access Directive.

main problems have been identified by the NRAs[147]: single dominance leading to entry deterrence, allocative inefficiencies (like excessive price) and productive inefficiencies (like lack of investment); vertical leveraging leading to denial of access, price or non price leverage actions; horizontal leverage leading to anti-competitive bundling of cross-subsidisation; and call termination charges setting leading to tacit collusion and/or excessive prices. Second, the obligations should be justified in light of the three objectives of the new framework (effective competition, internal market, and interests of the European citizens[148]). Finally, remedies should be proportionate, which implies that they should be the least burdensome option possible to achieve the regulatory aim[149]. This 'proportionalisation' of the obligations is one of the key innovations of the new regulatory framework as previously the NRAs had to apply automatically the whole set of remedies provided in the directives (and corresponding to all the five obligations described above). Thus NRA should undertake a regulatory options assessment of alternative remedies (if available) so that the least burdensome remedies effective remedy will be selected. However, that does not necessarily lead to the high evidentiary standard of full cost-benefit analysis of an NRA intervention, as suggested by some[150]. In addition to these three principles, NRAs committed in the draft Remedies Joint Approach to ensure that obligation would be incentive compatible. Wherever possible, NRAs should formulate, remedies in such way that the advantages to the regulated party of compliance outweigh the benefits of evasion.

(b) Implementation

In its first Recommendation on relevant markets of February 2003, the Commission identified 18 markets (7 retail and 11 wholesale) to be analysed by the NRAs. That may lead to an increase of regulation as more market segments are covered than under the previous regulatory framework. However, it should not be inferred that the Commission is in favour of more regulation as its discretion in selecting markets was strongly constrained by the Annex I of the Framework Directive (which contains a list of markets to be identified in the initial Recommendation). In practice, the Commission had merely to re-define the markets listed in the Annex according to competition law methodologies and add the relevant markets related to the broadcasting sector.

On the basis of this Recommendation, NRAs started their market analysis, and adopted draft decisions to be notified to the Commission for review under the Article 7 procedure[151]. Moreover, to ensure smooth co-operation, several pre-notification meetings were held between the Commission and individual NRA. At the end of 2003, 42 draft decisions (mainly from the British and the Finnish regulators) have

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[147] Draft Remedies Joint Approach, pp. 23-45.
[148] Article 8 of the Framework Directive.
[149] Guidelines on market analysis, para 118. On the proportionality principle, see: P. Craig and G. de Burca, *EU Law*, 3rd ed, O.U.P., 2002; *Fedesa* C-331/88 ECR [1990] I-4023, para 13.
[150] C. Veljanovski, cited at note 126, 18. See also Recital L of Resolution of the European Parliament of 18 November 2003 on the Eight Report from the Commission on the implementation of the Telecommunications Regulatory package, A5-0376/2003.
[151] See the website of the Electronic Communications Consultation Task Force: <http://forum.europa.eu.int/Public/irc/infso/ecctf/home>.

been notified to the Commission, which has reviewed 31 of them[152]. These Commission decisions shed some light on the three steps of the SMP regime, although each decision is case-specific. With regard the market definition, more segmented markets than those of the Recommendation may be accepted provided it is strongly justified or that it would not lead to different result that those obtained with a broader market definition[153]. With regard the SMP/dominance assessment, NRAs should determine if the observed effective competition resulted (or not) from the regulation in place[154]. Indeed, if regulation is only due to regulation, there is no case to repeal obligations. With regard the choice of remedies, the NRA should justify an imposition of differentiated remedies (for instance, different remedies according to the size of the operator) addressing the same market failure[155].

Turning now to the NRA and the ERG, we observe a gap between their de-regulatory rhetoric and their actual decisions. First, the draft Remedies Joint Approach looks very interventionist. Many market failures are identified and for many of them lots (if not the whole list) of remedies will be applied. Second, the more specific policy papers on particular issues (such bitstream or mobile termination[156]) are also very interventionist. We may thus question if the new framework will truly lead to less regulation and over time a complete phasing out of sector regulation to the benefits of a mere application of antitrust, as the suggested by the political rhetoric of the three main European institutions[157]. The initial application does not seem to go in this direction, and some NRAs want to use their enhanced discretion to increase regulation[158]. The application of the new directives may end up liked the implementation of the 1996 Telecommunications Act: deemed to be de-regulatory, it led to a triplement of the number of pages in the official compendium of the FCC decisions and proceedings, while the membership in the Federal Communications Bar

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[152] COCOM 04-19 of 2 March 2004, available at: <http://forum.europa.eu.int/Public/irc/infso/cocom1/library>. Note that until now, the Commission has veto one NRA decision, related to a draft decision of the Finnish regulator not to regulate the retail fixed international telephone services: Commission Decision of 20 February 2004, FI/2003/24 and FI/2003/27, *publicly available international telephone services provided at a fixed location for residential and non-residential customers*.

[153] Commission Decision of 24 September 2003, UK/2003/7, UK/2003/8, UK/2003/9, UK/2003/10, *Fixed narrowband retail services*.

[154] For instance, Commission Decision of 17 December 2003, FI/2003/23 and FI/2003/26, *National telephone services provided at a fixed location for residential and non-residential customers*.

[155] For instance, Commission Decision of 17 December 2003, FI/2003/20 and FI/2003/21.

[156] ERG Common Position of 2 April 2004 on Bitstream Access, ERG (03) 33rev1; ERG/IRG Principles of Implementation and Best Practice of November 2003 on the applications of remedies in the mobile voice call termination market.

[157] Communication of the Commission of 10 November 1999, The 1999 Communications Review COM(1999) 623, p. 49; Resolution of the European Parliament of 13 June 2000 on the 1999 Communications Review of the Commission A5-0145/2000, O.J. [2001] C 67/53, Point A; Statement of Reasons of the Council Common Position 38/2001 of 17 September 2001 on the Framework Directive, O.J. [2001] C 337/51, para II.1.

[158] See in general on de-regulation and sunset clauses: M. Cave, "Ofcom and light touch regulation", in C. Robinson (ed), *Successes and Failures in Regulating and Deregulating Utilities*, E. Elgar, 2004; J. Stern, "Regulatory forbearance: why did Oftel find it so hard?", *Telecommunications Policy*, 2004, 273-294; L. Waverman, "Regulatory incentives and deregulation in telecommunications", in C. Robinson (ed), *Competition and Regulation in Utility Markets*, E. Elgar, 2003, 138-159.

Association increased by 73% between 1995 and 1998 and has remained essentially at that level[159].

2.4. Towards a pre-emptive antitrust

The SMP regime has been radically reformed with the new directives. Under the 1998 regulatory package, the market areas to be regulated were pre-defined in the directives on the basis of their technical characteristics[160] and the SMP threshold mainly equated to 25% market shares in these areas. The NRA had then to impose on the SMP operators the full set of obligations provided in the directives without being able to choose the most appropriate ones. If these crude rules and assumptions were adapted to the first phase of the liberalisation when market structure were still relatively simple, they were not suited any more in a second phase when effective competition appears in some market segments but not in others and technology evolves rapidly. Another system had to be found that guaranteed at the same time flexibility and legal certainty. As competition law methodologies seemed to fulfil these contradictory characteristics, the European legislature decided to align the SMP regime with these methodologies leading to an 'hybridisation' of sectoral regulation, which becomes a sort of 'pre-emptive competition law'[161].

This new system has several advantages. It makes the regime more flexible and based on solidly grounded economic principles that ensures regulatory decisions closer to the reality of the market. And this increased flexibility should not be at the expense of legal certainty (as decisions will be based on more than forty years of antitrust case-law), nor regulatory harmonisation (as NRAs' decisions are based on legal principles that are strongly "Europeanised" and the control of the Commission over the NRAs' decisions is reinforced). Moreover, the system ensures a progressive removal of obligations as competition develops in the different markets (market-by-market sunset clauses) and facilitates the transition towards the mere application of competition law when sector regulation will no longer be necessary. More fundamentally, regulation is adapting itself to suit the philosophy and the approach of competition policy. Indeed, regulation can not be seen anymore as an independent –or even opposite- to antitrust, but must be seen as a part of a broader set of tools based on competition analysis principles. These complementary instruments deal with a common problem (high level of market power and the likelihood of it being abused) and try to achieve a common aim (putting end-user at the centre of any economic activity)[162]. If successful, this type of regulation may be extended to other sectors in the future, thereby ensuring harmonisation across countries but also across sectors.

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[159] J.G. Sidak, "The Failure of Good Intentions: The WorldCom Fraud and the Collapse of American Telecommunications After Deregulation", *Yale Journal of Regulation* 20, 2003, 207.

[160] Mainly four markets were defined: fixed voice telephony (Directive 98/10 and Annex 1 Part 1 of the Directive 97/33), mobile voice telephony (Annex 1 Part 3 of the Directive 97/33), leased lines (Directive 92/44 and Annex 1 Part 2 of the Directive 97/33), national fixed and mobile interconnection (Article 7(2) of the Directive 97/33): Note from the Commission services/DG XIII of 1 March 1999, Determination of Organisations with Significant Market Power, cited at note 32.

[161] P. Buiges, "A Competition Policy Approach", in P. Buiges and P. Rey (eds), cited at note 34.

[162] M. Monti, *Competition and Regulation in the new Framework*, speech 15.7.2003; R. Krüger and L. Di Mauro, cited at note 113, p. 36.

However, the implementation of this new system, which is more based on theoretical thinking than practical experience, presents also several risks. At the outset, note that antitrust principles are useful but insufficient to base sector regulation. Indeed, these principles detect all kinds of market power and are not able to screen the subset among them –hard core market power- that justify regulation[163]. Thus, mere antitrust principles may be necessary but should be completed by other elements that have nothing to do with antitrust principles, i.e. the three selection criteria. Moreover, the use of antitrust principles may increase regulatory costs when compared to the previous regime as the concepts are more complex to apply (more economic analysis) and less certain (even after 40 years case-law some antitrust concepts remain unclear). This uncertainty may increase the number of legal challenges, all the more so that the new directives have increased the possibilities and incentives to appeal NRAs' decisions[164]. Finally, the convergence of the dominant and SMP concepts may have spill over effect in the antitrust practice. Indeed, NRA may want to define market narrowly to be able to find SMP operator and regulate them. In turn, that may lead to more frequent finding of dominance[165].

3. Conclusion: Comparison between the SMP regime and European Competition Law[166]

This paper shows that over time competition law and sector regulation converge towards each other such that the frontier between each legal instrument is becoming more and more fuzzy. However, divergences remain so that competition law and sector regulation do not coincide and should not be confused with each other. They should be seen as complementary and not substitute in the broader category of the economic regulation.

First, the *objectives* of both instruments converge to some extent. Traditionally, competition law controls market power where market structures are *a priori* satisfactory and aims solely to maintain the existing level of competition, whereas sector regulation controls market power where competition is not possible or desirable

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[163] A. de Streel, cited at note 108, p. 40.
[164] See Article 4 of the Framework Directive.
[165] L. Garzaniti, cited at note 3, p. 541.
[166] For a comparison between competition law and sector regulation: see references in note 3; and B. Doherty, "Competition Law and Sector-Specific Regulation", *Computer and Telecommunications Law Review* 8, 2001, 225-232; D. Geradin (ed), *The Liberalization of State Monopolies in the European Union and Beyond*, Kluwer, 2000; K.W. Grewlich, "Cyberspace: Sector-Specific Regulation and Competition Rules in European Telecommunications", *Common Market Law Review* 36, 1999, 937-969; ITU, *Competition Policy in Telecommunications* - Background paper for the workshop held on 20-22 November 2002, available at: <http://www.itu.int/osg/spu/ni/competition/documents.html>; M. Kerf and D. Geradin, *Controlling Market Power in Telecommunications: Antitrust vs Sector-Specific Regulation*, O.U.P., 2003; J.J. Laffont and J. Tirole, cited at note 37, 276-280; P. Nihoul, "Convergence in European Telecommunications: a case study on the relationship between regulation and competition law", *International Journal of Communications Law and Policy* 2, 1998; OECD, *Relationship between Regulators and Competition Authorities*, June 1999, DAFFE/CLP(99)8: E. Pitt, "Telecommunications Regulation: Is it Realistic to Rely on Competition Law?", *European Competition Law Review*, 1999, 245-248; P.J. Slot and A. Skudder, "Common Features of Community Regulation in the Network Based Sectors", *Common Market Law Review* 38, 2001, 87-129. For an US perspective: H.A. Shelanski, "From sector-specific regulation to antitrust for US telecommunications: The prospects for transition", *Telecommunications Policy* 26, 2002, 335-355.

(natural monopoly or oligopoly). In electronic communications, an additional role has been assigned to both legal instruments: increase the level of competition when possible. Thus, antitrust aims to maintain competition, but also to increase competition by stimulating entry. Regulation aims to increase competition when possible, and otherwise permanently control the non contestable monopolists.

Second, the *conditions for the public authorities to intervene* also converge. Antitrust applies to all market segments and is triggered by a specific behaviour of the firms (abuse of dominant position, agreement or concerted practice, concentration) that should be proved anti-competitive. On the other hand, the SMP regime is limited to certain markets fulfilling rigorous selection criteria and then applies generally each time there are dominant operators. There is a convergence as under both instruments, dominance is a key criterion to intervene, although its practical assessment may differ under antitrust and sector regulation. However, important divergences remain because antitrust intervention should be based on anti-competitive behaviour, whereas on the selected markets, sector intervention should not be justified by an anti-competitive behaviour. In other words, the burden of proof for an NRA is fairly high when selecting a market, but becomes quite low (and lower than antitrust) to intervene on the selected markets.

Third, the range of possible *remedies* converge. Under ex post antitrust, the recent decentralisation Regulation clarified that behavioural but also structural remedies may be imposed, with a priority for the former. Moreover, fines may be imposed by authorities and damages may be granted by Courts in private actions. Under ex ante merger control, remedies should be structural. This requirement has recently been interpreted so broadly by the Court that behavioural remedies having structural effects may be accepted and indeed have been used extensively in electronic communications mergers. Under sector regulation, the remedies listed in the directives are behavioural, but NRA may also exceptionally impose structural remedies. Thus, with the recent development of antitrust and sector law, structural and behavioural remedies may be imposed under both instruments. However, some divergences remain. First, the priority principles in the choice of remedies vary. Second, behavioural remedies under sector regulation may go further than the ones available under antitrust[167]. Third, fines and private damages are normally not available under sector regulation.

Fourth, the *institutions* in charge of each instrument still diverge. At the European level, there is a body applying antitrust whereas there is no equivalent to apply sector regulation. At the national level, different institutions are in charge of antitrust and sector laws in most Member States. However, in some countries two institutions may apply the same legal instrument (like in the UK where competition law may be applied concurrently by OFCOM and the OFT), whereas other countries want to place the NRA in the competition authority.

Table 2: Differences between SMP regime and competition law

	Competition Law – Ex ante	*Competition Law – Ex post*	*Sector Regulation*

[167] Access Notice, cited at note 39, para 15.

Objectives	Maintain competition Increase competition	Maintain competition Increase competition	Increase competition Mimic competition
Burden of proof to intervene	Significant Lessening of Competition (low)	Dominant Abuse (high)	Market selection (very high) SMP=dominance (low)
Remedies	Mainly structural	Mainly behavioural Fines, and damages	Mainly behavioural
Institutions	Commission, NCAs	Commission, NCAs, National Courts, (NRAs)	NRAs, (NCAs)

Therefore, even though antitrust and sector regulation tends to converge, some important divergences remain. The two main differences relate to the burden of proof to intervene and the institutions in charge. Because of the first divergence, sector regulation is particularly useful (and more efficient than antitrust) for markets needing on-going intervention[168], i.e. the market fulfilling the three criteria identified by the Commission in its Recommendation on relevant market (high barriers to entry, absence of dynamic elements behind the barriers, and relative efficiency of sectoral remedies).

Then we may ask whether in those market structures, competition law should also apply next to sector regulation? From a legal perspective, the answer is surely positive as antitrust apply across the broad and sector regulation does not remove its jurisdiction. From an efficiency perspective, the answer may be negative, with two caveats due to the second divergence between instruments (related to institutions). European antitrust should give precedence to national sector law solely if there is an effective intervention of the NRAs and if this intervention does not impede the achievement of the internal market. If one of these two conditions is not fulfilled, it may be appropriate for the Commission to take a case under its antitrust power and control NRAs actions. The competition practice under Article 82 EC seems to follow this rule, where Commission passed the case to the NRAs, and only pursued when NRAs could not intervene or was intervening unsatisfactorily. On the other hand, the more interventionist approach of the Commission under Merger Regulation and the multiple remedies imposed appears to be at odds with this rule. With a deeper analysis, that is not necessary the case as most of remedies imposed in the merger control were not available under the rigid 1998 regulatory framework. With the extended scope of the new regulatory framework and the increased possibility to rely on remedies under sector regulation, it is hoped that the use of remedies in merger control will decrease and that the cooperation between the Merger Department of the Commission and the NRAs will be enhanced[169].

To conclude, European legislation provides for an efficient balance between European (and national) competition law and national sector-specific regulation. If the NRA of each Member State uses their powers appropriately and in an harmonized way across Europe, the best possible deal will be delivered to the European consumers who could

[168] See also the not so successful experience in New Zealand which relied exclusively on competition law to regulate telecoms until 2001, and then decided to enact a sector specific regulation: D. Geradin and M. Kerf, cited at note 166, Ch. 5; and the Final Report of the Ministerial Inquiry into Telecommunications, Sept. 2000, available at <http://www.teleinquiry.govt.nz/reports/final/index.html>.
[169] As in Commission Decision of 19 September 2003, *Vodafone/SinglePoint*, M. 3245, para 24.

enjoy the benefits of the so promising *e*Society. Otherwise, regulatory costs will soar and other models will have to be invented.

ANNEX

Table 1: Statistic of merger decisions

Year	Cases all sectors			Cases electronic communications		
	Total	**With remedies**	**Prohibiti on**	**Total**	**With Remedies**	**Prohibiti on**
1990	7	0	0	0	0	0
1991	60	6	1	1	0	0
1992	61	7	0	3	0	0
1993	57	2	0	3	0	0
1994	91	4	1	6	0	1
1995	109	6	2	13	0	2
1996	125	3	3	13	1	0
1997	142	9	1	15	1	0
1998	238	16	2	26	2	2
1999	270	27	1	28	5	0
2000	345	40	2	57	9	1
2001	340	23	5	43	2	0
2002	274	15	0	17	1	0
2003	231	17	0	11	2	0
Total	2350 100%	175 7.5%	18 0.7%	236 100%	23 9.8%	6 2.5%

This database covers 4 cases listed in I.64 NACE (Post and telecommunications), all cases I.64.20 (Telecommunications), and all cases O.92.20 (Radio and television activities).

Source: DG Competition website

Table 2a: List of ex ante decisions with remedies (under Merger Regulation and Article 81 EC)

Case	**Date**	**No**	**Legal basis(*)**	**Publication (**)**	**Cat *****
Eirpage	18 Oct. 1991	32.737	81.3 EC	O.J. [1991] L 306/23	2
BT/MCI	27 July 1994	34.857	81.3 EC	O.J. [1994] L 223/36	1
Atlas	17 July 1996	35.337	81.3 EC	O.J. [1996] L 239/23	1
Phoenix/Global One	17 July1996	35.617	81.3 EC	O.J. [1996] L 239/57	1
RTL/Veronica/Endemol II	17 July 1996	M. 553	8.2 MR	O.J. [1996] L 294/14	3
BT/MCI (II)	14 May1997	M. 856	8.2 MR	O.J. [1997] L 336/1	1
Unisource *Obligations repealed in Unisource (II)*	29 Oct. 1997 29 Dec. 2000	35.830 36.841	81.3 EC	O.J. [1997] L 318/1 O.J. [2001] L 52/30	1
Uniworld	29 Oct. 1997	35.738	81.3 EC	O.J. [1997] L 318/24	1
WorldCom/MCI	8 July 1998	M. 1069	8.2 MR	O.J. [1999] L 116/1	1
NC/Canal+/CDPQ/BankAmerica	3 Dec. 1998	M. 1327	6.2 MR		1
BT/AT&T	30 March 1999	JV. 15	8.2 MR		1
TPS ***Upheld in Metropole***	3 March 1999 **18 Sept. 2001**	36.237 **T-112/99**	81.3 EC	O.J. [1999] L 90/6 **ECR [2001] II-2459**	3
Cégétel+4	20 May 1999	36.592	81.3 EC	O.J. [1999] L 218/14	1
Vodafone/AirTouch	21 May 1999	M. 1430	6.2 MR		2
AT&T/MediaOne	23 July 1999	M. 1551	6.2 MR		1
Télécom Développement	27 July 1999	36.581	81 EC	O.J. [1999] L 218/24	1
BiB/Open	15 Sept. 1999	36.539	81.3 EC	O.J. [1999] L 312/1	3
Telia/Telenor	13 Oct. 1999	M. 1439	8.2 MR	O.J. [2001] L 40/1	1
Orange/Mannesmann	20 Dec. 1999	M. 1760	6.2 MR		2
TelekomAustria/Libro	28 Feb. 2000	M. 1747	6.2 MR		1
BSkyB/KirchPayTV ***Upheld in ARD***	21 March 2000 **30 Sept. 2003**	JV. 37 **T-158/00**	6.2 MR	 **ECR [2003] II-XXX**	3
BT/Esat	27 March 2000	M. 1838	6.2 MR		1
EADS	11 April 2000	M. 1745	6.2 MR		
Vodafone/Mannesmann	12 April 2000	M. 1795	6.2 MR		2
Vodafone/Vizzavi/Canal+	20 July 2000	JV. 48	6.2 MR		3
FranceTelecom/Orange	11 Aug. 2000	M. 2016	6.2 MR		2
AOL/TimeWarner	11 Oct. 2000	M. 1845	8.2 MR	O.J. [2001] L 268/28	3
Vivendi/Canal+/Seagram	13 Oct. 2000	M. 2050	6.2 MR		3
YLE/TDF/Digita	21 June 2001	M. 2300	6.2 MR		3
Pirelli/Telecom Italia *Modification remedies*	20 Sept. 2001 5 Aug. 2002	M. 2574	6.2 MR	 IP/02/1183	1
Telia/Sonera	10 July 2002	M. 2803	6.2 MR		1
NewsCorp/Telepiù	2 April 2003	M. 2876	8.2 MR	O.J. [2004] L 110/73	3
DaimlerChrysler/DT	30 April 2003	M. 2903	8.2 MR	O.J. [2003] L 300/62	3
UK Network sharing	30 April 2003	38.370	81.3 EC	O.J. [2003] L 200/59	2
Network Sharing Rahmenvertrag ***Appeal pending***	16 July 2003 **T-328/03**	38.369	81.3 EC	O.J. [2004] L 75/32	2
Telenor/Canal+	29 Dec. 2003	38.287	81.3 EC		3

Table 2b: List of ex-ante decisions - prohibition

Case	Date	No	Legal basis	Publication	Cat
MSG Media Service	9 November 1994	M. 469	8.3 MR	O.J. [1994] L 364/1	3
Nordic Satellite Distribution	19 July 1995	M. 490	8.3 MR	O.J. [1996] L 53/20	3
RTL/Veronica/Endemol (I) ***Upheld in appeal Endemol***	20 September 1995 **28 April 1999**	M. 553 **T-221/95**	8.3 MR	O.J. [1996] L 134/32 **ECR [1999] II-1299**	3
Bertelsmann/Kirch/Premiere ***Appeal removed***	27 May 1998	M. 993 **T-123/98**	8.3 MR	O.J. [1999] L 53/1	3
Deutsche Telekom/BetaResearch	27 May 1998	M. 1027	8.3 MR	O.J. [1999] L 53/31	3
MCIWorldCom/Sprint ***Appeal pending***	28 June 2000	M. 1741 **T-310/00**	8.3 MR	O.J. [2003] L 300/1	1

Table 3: List of ex-post decisions (Article 82 EC)

Case	Date	No	Legal basis	Publication	Cat
British Telecom ***Upheld in appeal***	10 December 1982 **20 March 1985**	29.877 **41/83**	82 EC	O.J. [1982] L 360/36 **ECR [1985] 873**	1
Deutsche Telekom ***Appeal pending***	21 May 2003	37.451 **T-271/03**	82 EC	O.J. [2003] L 263/9	1
Wanadoo ***Appeal pending***	16 July 2003	38.233 **T-340/03**	82 EC	IP/03/1026	1

(*) 6.2 MR: Merger Regulation, Remedies in phase I
8.2 MR: Merger Regulation, Remedies in phase II
81.3 EC: EC Treaty, individual exemption

(**) If no mention, the decision is published on the web site of DG Competition

(***) Category 1: Fixed (incl. Internet or cable) or fixed and mobile services
Category 2: Mobile services
Category 3: Content-related services