Fall 1997

Access and Interconnection Issues in the Move towards the Full Liberalization of European Telecommunications

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Cover Page Footnote
International Law; Commercial Law; Law
Access and Interconnection Issues in the Move Towards the Full Liberalization of European Telecommunications

Leonard W.H. Ng†

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I. Introduction

With the European Union (EU) racing towards the January 1, 1998 full liberalization of telecommunications, the European Commission (the Commission) has faced a large number of technical issues and policy disputes. Because liberalization and deregulation have the underlying objective of introducing competition into this sector, the Commission's Competition Directorate (DGIV) has been formulating the appropriate competition policies. This article examines the competition issues

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2 Organisation for Economic Co-operation and Development ("OECD") member countries with the longest experience in liberalization of international and trunk services provide increasing evidence of the achievement of substantial gains for users, including reduced prices, improved quality of service, innovative service offerings, and greater customer choice. See ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, TELECOMMUNICATION INFRASTRUCTURE: THE BENEFITS OF COMPETITION (1995).

3 The European Court of Justice (ECJ) more clearly defined and strengthened the Commission's regulatory policies in two cases where Member States challenged the Commission's powers to act under, inter alia, Article 90 of the EC treaty (infra note 20). See Commission Directive 88/301 on Terminal Equipment, 1988 O.J. (L 131) 73; Commission Directive 90/388 on Telecommunications Services, 1990 O.J. (L 192) 10 [hereinafter Services Directive]. These two judgments empowered the Commission to
that arise in connection with access and interconnection to
the networks of the incumbent Telecommunications Organizations
(TOs),\(^4\) which have always held positions in the Member States as
public monopolies. As Dr. Herbert Ungerer has noted,
"interconnection represents the most important manifestation of
the call for a finely tuned and flexible balance between telecoms
regulation and competition rules . . . .\(^5\)" Because of the need to
balance regulation and competition rules and the impossibility of
obtaining the full picture of European telecommunications
liberalization otherwise, this Article will consider not only the
operation of the competition rules but also the complementary
operation of the regulatory mechanisms which traditionally have
been seen as separate from competition concerns.\(^6\) Liberalization

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\(^4\) The term "PTT," which refers to the Post, Telegraph and Telephone monopolies
in the EU, is no longer used, as postal services have been separated from
telecommunications services in the Member States.

\(^5\) Herbert Ungerer, Head of Division, Telecommunications, Posts R, Information
Society Coordination, Directorate General for Competition, European Commission
Telecommunications, Competition & Strategic Partnerships, Speech at the 1996
European Communications Summit (visited May 15, 1997) <http://europa.eu.int/

\(^6\) Traditionally a distinction has been drawn between classical regulation and
competition, or antitrust, laws. While regulation tries to replicate the results of
competition or correct for the defects of competitive markets, competition laws seek to
create or maintain the conditions of a competitive marketplace. For an excellent
treatment of these issues of regulation and antitrust, see Stephen Breyer, Regulation
And Its Reform ch. 8 (1982). Some claim that the telecommunications industry is not
experiencing deregulation per se, but rather a shift in the form of regulation of the
telephone industry from the "bottom-up" approach of cost-based rate regulation to a top-
down approach relying upon antitrust and other laws to regulate the industry through
after-the-fact punishment of anti-competitive conduct. See John J. Flynn, Legal
Approach to Market Dominance: Assessing Market Power in Antitrust Cases, in
Telecommunications Deregulation (John R. Allison & Dennis L. Thomas, eds.,
1990). During this period of transition to full competition, the TOs may remain
dominant, and such dominance demands some form of transitory regulation. The
"demands for some form of temporary or continuing regulation during the transition to
deregulation can be explained almost entirely as a response to the strength of the entry
threat relative to the magnitude of sunk costs incurred by the affected parties in the
in the world's telecommunications sectors has paralleled the American divestiture of AT&T in 1982\(^7\) and the subsequent regulatory reforms. Thus, this Article will take a comparative approach in order to shed some light on the Commission's approach and the possible alternatives in light of this parallel.

Section II provides an introduction to the importance of interconnection in telecommunications liberalization, while Section III examines the regulatory framework thus far established by the institutions of the EU. Section IV provides a substantive analysis of the European Commission's latest draft Notice on access to incumbent TOs networks within the context of the well-established principles of European competition law. Section V considers the latest directive on interconnection drafted by the European Council, and Section VI concludes this Article.

II. The Meaning and Nature of Interconnection in the European Union

The Commission has defined "interconnection" as "the physical and logical linking of the telecommunications facilities of organizations providing telecommunications networks and/or telecommunications services, in order to allow the users of one organization to communicate with the users of the same or another organization or to access services provided by third organizations."\(^8\) Interconnection is clearly the *sine qua non* of a telecommunications industry seeking to function with competing operators and service providers.

Several features of the telecommunications industry encourage the perception of the industry as a natural monopoly.\(^9\) First, like other utilities and network industries, the telecommunications

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industry exhibits economies of scale in output of the service. Second, the industry also experiences economies of scope, wherein the TO can employ the existing trenches and ducts used to supply telecommunications services for the provision of new services. Finally, the telecommunications industry embodies network externalities; the utility each customer reaps by participating in a network rises with the number of other customers with whom he or she can communicate. For these reasons, the telecommunications industry was long considered to be a good example of a “natural monopoly.” This view, however, no longer carries any weight.

Because these features of the European telecommunications

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10 See id. Economists like J.S. Bain have shown that economies of scale can operate as barriers to entry. See J.S. Bain, Barriers to New Competition (1956). A barrier to entry may be defined as “a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry.” G.S. Stigler, The Organization of Industry 67 (1968), quoted in Oliver Stehmann, Network Competition for European Telecommunications 57 (1995).

11 See Cave et al., supra note 9, at 5. This is particularly true since the boundaries between the various forms of media and communication (telephone, cable, and television) are blurring.

12 See id.

13 In a “natural monopoly,” the entire demand for a good or service can be supplied at a lower cost by one firm rather than by several. The industry can take the form of a public monopoly, as in the case of the Member States of the European Union, or it can take the form of a private regulated monopoly, like AT&T in the United States prior to its divestiture in 1982. However, at least one view under traditional economic analysis asserts that little empirical evidence can be found for a natural monopoly in telecommunications networks. See Stehmann, supra note 10, at 50; see also Alfred E. Kahn, The Economics of Regulation: Principles and Institutions, Vol. 2: Institutional Issues ch. 4 (1971) (providing a classic discussion of the concept of “natural monopolies” as applied to the telecommunications industry).

14 Several events contributed to the downfall of the natural monopoly argument. These include: technological change; the convergence of telecommunications and information technology that led to an increase in potential market entrants (e.g., a cable company offering both video and telephony over its networks); the spill-over of international regulatory change, in particular coming from the changes in the United States after the divestiture of AT&T (The United Kingdom, however, was also active in the earlier part of the 1980s in reforming its regulation of telecommunications.); the internal market program which exposed the PTTs as inefficient and as a source of competitive disadvantage for European industry; and the influence of powerful industrial lobbies. See Sauter, supra note 1.
industry continue to characterize the industry as liberalization occurs, the shared use of infrastructure, i.e., interconnection, provides the key to viable competition in the industry. For years, the incumbent TOs have occupied positions of dominance obtained through years of natural vertically integrated monopolistic control. Industry competition will not realistically develop if new entrants are to be expected to independently construct the infrastructure required for the operation of a telecommunications system. New providers of voice telephony must be allowed, for call completion purposes, to interconnect their service with the existing network controlled by the TOs. Furthermore, if there is to be any effective competition, other services, such as directory assistance by the TOs, must also be supplied.

Contracts, in the form of interconnection agreements, govern the relationship created between the new entrant and the incumbent TO. One of the central issues in the analysis of such agreements turns on the interconnection tariffs charged by the TOs. Regulators should question whether the interconnection tariff charged by the TO is too high to allow the entry of an efficient and otherwise profitable firm whose entry would increase total economic welfare and increase consumer utility. Of course, this question is not easily answered, since the rates for interconnection affect the amount of entry, and the amount of entry can affect the socially optimal price of interconnection. At

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15 The TOs may control facilities that are essential for the operation of the telecommunications system as a whole. See Draft Notice, infra note 31, at 18-19. See infra notes 77-153 and accompanying text for a discussion of the doctrine of “essential facilities” in competition law.

16 Without access to the directories held by the TOs, the new entrant cannot hope to provide services to customers competitively.

17 See Alexander C. Larson, Reforming Telecommunications Policy in Response to Entry into Local Exchange Markets, 18 HASTINGS COMM. & ENT. L.J. 1, 28 (1995). Larson also notes that “socially optimal interconnection terms should serve as a check against inefficient entrants and ensure that firms that accept them can reasonably be expected to increase consumer surplus (e.g. through lower prices) in the downstream market. The difficult part, of course, is knowing what the socially optimal terms of interconnection are.” Id. at 29.

18 See id. at 26. In economic terms, the question for the regulatory authority is whether to choose the optimal allowed interconnection rate or the number of entrants to
the very least, the amount of entry can determine observed prices.\textsuperscript{19}

III. An Introduction to the Regulation of Access and Interconnection

While the notions of "access" and "interconnection" both apply to the introduction of competition in European telecommunications, it may be helpful to draw a distinction between the two terms. For the purposes of this Article, "access" revolves around the need for new entrants to have physical access to facilities, currently controlled by the TOs, that are essential for effective competition. The discussion will focus on possible violations of Articles 85 and 86 of the Treaty Establishing the European Community (EC Treaty).\textsuperscript{20} As for "interconnection," the main issues involve the actual terms and conditions of interconnection agreements, for example, interconnection pricing and collocation.

The EC’s regulatory scheme for access and interconnection can be found in several different documents.\textsuperscript{21} The development of the regulatory framework can be traced to the 1990 Council Directive on the Establishment of the Internal Market for Telecommunications Services Through the Implementation of Open Network Provision (the ONP Directive).\textsuperscript{22} The ONP

maximize total surplus, which includes total consumer surplus and the profits of both the incumbent monopolist and the entrants. \textit{See id.}

\textsuperscript{19} Ultimately, marginal costs would determine optimal pricing. \textit{See id.}


\textsuperscript{21} The general rule of EC lawmaking is that “the Commission proposes, the Parliament advises, and the Council adopts.” Judge Diane P. Wood, Lecture at the University of Chicago (Winter Quarter 1996-97). The Commission also has rather significant power under Article 90(3) of EC Treaty to issue directives to Member States to ensure that public enterprises (called “undertakings” in the EC Treaty) operate within the boundaries of Treaty rules. The Commission also regularly issues Notices and Communications in the Official Journal.

Directive, issued pursuant to Article 100a of the EC Treaty, "is concerned with the harmonization of conditions for open and efficient access to and use of public telecommunications networks and, where applicable, public telecommunications services,"23 particularly technical interfaces, usage and tariff conditions. "The ONP Directive was intended to allow competitive service providers the use of the monopoly network."24 The ONP Directive establishes the following principles. ONP conditions must: (1) "be based on objective criteria;" (2) "be transparent and published in an appropriate manner;" (3) "guarantee equality of access[,]" and (4) "must be non-discriminatory, in accordance with Community law."25

The ONP framework particularly focuses on public telecommunications networks.26 Accordingly, the ONP Directive would not apply to interconnection agreements between private networks and service providers.27 On the other hand, competition rules are fundamentally applied to any competition problem, whether it arises in a public or private network.28 Although the

The companion directive issued by the Commission did not deal with access and interconnection as originally issued; rather, it addressed the general liberalization of the services market within certain time frames, and dealt with the scope of licensing conditions. See Services Directive, supra note 3, arts. 2, 7, at 15-16. It was only when it was amended by the Full Competition Directive that interconnection was considered. Article 4a was added to require that "Member States shall ensure that the telecommunications organizations provide interconnection to their voice telephony service and public switched telecommunications network to other undertakings authorized to provide such services or networks, on non-discriminatory, proportional and transparent terms, which are based on objective criteria." Article 4a goes on to require that Member States ensure that TOs publish the terms and conditions of interconnection by July 1, 1997, and adopt reasoned decisions where commercial negotiations as to interconnection do not lead to an agreement. Article 4b requires Member States to ensure that all exclusive rights with regard to directory services within their respective territories are lifted. Id. arts. 2 & 7.

23 ONP Directive, supra note 22, art. 1.1.
24 Sauter, supra note 1, at 106.
25 ONP Directive, supra note 22, art. 3.1.
26 See ONP Directive, supra note 22.
27 Considering that privatization usually follows liberalization, this point proves significant.
ONP framework and its implementation by national regulatory authorities in national interconnection regimes should be the "first port of call," a more specific regulatory mechanism is required to address access and interconnection issues. The Commission should apply competition rules to the regulation of access and interconnection in order to directly subject telecommunications to Commission sanctions, including fines. Recently, the Commission noted that, given the detailed nature of ONP rules, which may go beyond competition rules, "undertakings operating in the telecommunications sector should be aware that compliance with the Community competition rules does not absolve them of their duty to abide by obligations imposed in the ONP context, and vice versa." Perhaps the relationship between the ONP framework and the competition rules is best seen simply as a complementary regulatory mechanism, although competition rules do not quite fit into the commonly understood realm of "regulation."

Two important documents illustrate this complementary relationship. First, the Commission issued the Notice on the Application of the Competition Rules to Access Agreements in the Telecommunications Sector—Framework, Relevant Markets and Principles, 1997 O.J. (C 76) 9 [hereinafter Draft Notice].

"[C]ompetition rules may be applied to check the effectiveness of ONP principles as they are interpreted by national regulators, to ensure full conformity with competition policy goals." Ungerer, supra note 5.

[It] is obvious that Community Acts adopted in the telecommunications sector are to be interpreted in a way consistent with competition rules, so as to ensure the best possible implementation of all aspects of the Community telecommunications policy . . . . This applies, inter alia, to the relationship between competition rules applicable to undertakings and the ONP rules.

Telecommunications Sector\textsuperscript{33} (Draft Notice) on March 11, 1997.\textsuperscript{34} The Draft Notice illustrates how competition rules \textit{per se} will be applied to issues of access to the telecommunications network, which is currently dominated by the incumbent TOs.\textsuperscript{35} Second, the final text of the long-awaited Interconnection Directive (Interconnection Directive) was passed by the European Parliament and Council on June 30, 1997.\textsuperscript{36} The Interconnection Directive applies the ONP framework to the terms and conditions of interconnection agreements.

Why have a directive\textsuperscript{37} for interconnection terms, but only a Notice on the application of competition rules? Perhaps the existing European case law has not developed sufficiently to deal with competition issues relating to access and interconnection. For the moment, the Commission has decided to refrain from adopting binding legal rules regarding the application of Articles 85 and 86 and, instead, has chosen to utilize a non-binding Notice until the

\textsuperscript{33} See Draft Notice, \textit{supra} note 31.


\textsuperscript{35} The Draft Notice "sets competition policy within the context of the broader overall EU framework in the area of interconnection; that is, it defines and clarifies the relationship between competition law and sector specific legislation under the Article 100A framework which, in this case, is set out in the draft ONP interconnection directive." Ungerer, \textit{supra} note 5.


\textsuperscript{37} The generally accepted position in EC law is that where provisions of directives appear to be unconditional and sufficiently precise, they have direct effect in the Member States, implying that Member States may not implement laws or regulations which are incompatible with such provisions of the directive.
Commission's position is more clear. However, although the Notice *per se* may not be binding, a National Regulatory Authority (NRA) cannot approve terms of access that are contrary to the EC competition rules. Such approval would place Member States in breach of Articles 3(g) and 5 of the EC Treaty, and Article 169 of the EC Treaty would apply.

**IV. Competition Aspects of Access and Interconnection**

This Article aims first to identify the competition issues that arise on questions of access to networks of TOs and then examines them in the wider context of EC competition rules. This section discusses two main areas. First, it will consider the Article 86 analysis of actions by the TOs, which may include refusal to allow access to their networks, discriminatory pricing, and tying arrangements. Second, it will discuss the Article 85 analysis of interconnection agreements between undertakings.

As noted, the Commission has produced a Draft Notice on the application of the competition rules to access agreements in the telecommunications sector. This Draft Notice was intended to build upon the 1991 Telecommunications Guidelines on the application of competition rules in the telecommunications sector.

**A. Analysis Under Article 86**

The approach to any potential Article 86 problem is quite settled and is comprised of two steps. First, the Commission determines if an undertaking has achieved a dominant position.

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38. The Commission seems to have adopted the suggestion by Coudert Bros. in their report to the Commission on this matter. See Coudert Bros., *Competition Aspects of Interconnection Agreements in the Telecommunications Sector* (1995).


41. It should be noted that the Draft Notice does not derogate from the rights of the individual or undertaking under Community law, and is without prejudice to any interpretation of the EC competition rules by the Court of First Instance (CFI) or ECJ.

42. See Telecommunications Guidelines, *supra* note 32, at 9. It should be noted that the Guidelines do not create enforceable rights and do not bind the Commission, the European Court of Justice, or the NRAs. See id.
Second, the Commission determines if the undertaking has abused that dominant position.

1. Dominance of Telecommunications Organizations

In *Hoffmann-La Roche v. Commission*, the European Court of Justice (ECJ) defined dominance as:

a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customer and . . . consumers . . . . [It] enables the undertaking to have an appreciable influence on the conditions under which competition will develop . . . .

As noted in this definition, dominance must occur within a defined, "relevant" market. In *Europemballage Corporation v. Commission*, the ECJ emphasized that the definition of relevant market is of "essential significance," since "the possibilities of competition can only be judged in relation to those characteristics of the products in question by virtue of which those products are particularly apt to satisfy an inelastic need and are only to a limited extent interchangeable with other products." The relevant market is usually defined from the point of view both of the product and services involved and its geographic context.

In the telecommunications sector, firms operated as legal monopolies in the Member States for many years. However, the ECJ has held that national laws that precipitate or encourage the absence of competition or its restriction on the relevant market are

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43 The concept of "joint dominance," a possibility recognized by the Commission in section 1.3 of the Draft Notice, will not be discussed in this article.


45 *Hoffman-La Roche*, 1979 E.C.R. at 520. This was also essentially the definition given in an earlier ECJ judgment. See Case 27/76, United Brands Co. v. Commission 1978 E.C.R. 207.


47 Id. at 247.

still subject to Article 86.\textsuperscript{49}

In the realm of access and interconnection, it is still not entirely clear how the "relevant market" should be defined, since the fully liberalized telecommunications industry is still inchoate, and there is as yet no judicial guidance.\textsuperscript{50} However, the Commission or NRAs could assess how the present industry fits into the traditional relevant market analysis by examining both the products and services at issue and the geographic market. In any case, the classic test of demand substitutability\textsuperscript{51} will remain critical.\textsuperscript{52}

\textit{(a) The Relevant Product or Services Market}

In the Draft Notice, the Commission has defined the relevant product market to "comprise[ ] all those products and/or services which are regarded as interchangeable and substitutable by the


\textsuperscript{50} This author is not aware of any judicial decisions on this point at the time of writing.

\textsuperscript{51} Although the Draft Notice does not state precisely what test will be used to determine demand substitutability, the test is identified as that of the cross-elasticity of demand. See COUDERT BROS., supra note 38, at 89. Cross-elasticity of demand is defined as the rate at which consumers would switch from one product to the other in response to a price increase. See, e.g., ROBERT S. PINDYCK & DANIEL L. RUBENFELD, MICROECONOMICS 31-35 (1998). This approach may be contrasted with that taken in the American antitrust test of own elasticity of demand, where the analysis does not involve any reference to other products; the focus is simply on how much the demand for the firm's product would decrease if the firm increases its price. See id. This latter approach is arguably more reliable, particularly in the early stages of telecommunications liberalization, since it would be very difficult, if not impossible, considering the TO's monopoly positions, to find substitutes which consumers would switch to in response to a TO's increase in prices under the test of cross-elasticity of demand.

\textsuperscript{52} See Draft Notice, supra note 31, at 16. The Commission has stated, however, that in the definition of relevant markets, supply-side substitutability will generally not be used. See id. This attitude towards supply-side substitutability must be correct because the TOs are in effect the only suppliers of the products and services in the industry. Even though the capacity of existing infrastructures, such as CATV networks, may be enhanced to expand the capacity to carry a variety of telecommunications signals, such infrastructure will likely prove incapable of establishing the market position necessary to satisfy the short-term needs of new entrants. See COUDERT BROS., supra note 38, at 90-91.
consumer, by reason of the products' characteristics, their prices and their intended use."\(^{53}\) Considering that the TOs control the only currently existing network infrastructures for access and interconnection, can it be said that there is a true "market" for the facility itself,\(^{4}\) even though the infrastructure, as built, can be seen as an input of the firm? The definition chosen by the Commission for the purposes of the Draft Notice, taken from traditional Article 86 analysis, does not appear to fit comfortably with the concept of access to networks. On the other hand, the Commission has recognized that in addition to physical access to the network "facility," new entrants also need access to other service facilities in order to market these services to customers.\(^{5}\) Directory assistance is a good example of this "other" type of facility. The Commission needs to recognize this need, as it widens the scope of the market definition to include not just the need for access to the infrastructure of the TOs, but also any relevant telecommunications services which, being held by the TO, would put it in a position to prevent effective competition in the market for those services.

The Commission has also noted that there are really \textit{two} types of relevant product markets to consider: (1) the service to end users; and (2) the access to facilities necessary to provide that service.\(^{56}\) The recognition of access to facilities as a relevant market is necessary to determine the interchangeability of certain types of telecommunications infrastructure. For example, a new entrant may want to provide cable television and telephony, but the TO's infrastructure may not be able to carry such signals. Nevertheless, on a local fixed network, a new entrant desiring to provide standard telephony services would be forced to interconnect with that network operator, and that would clearly be

\(^{53}\) Draft Notice, \textit{supra} note 31, at 16. This is consistent with the notion of relevant markets as stated by the ECJ in \textit{Hoffman-La Roche}: "[t]here is a sufficient degree of interchangeability between all the products forming part of the same market insofar as a specific use of such products is concerned." Case 85/76, E.C.R. Hoffman-La Roche \textit{v.} Commission, 1979 E.C.R. 461, 516. However, the Commission has included services within this definition.

\(^{54}\) See \textit{COUDERT BROS.}, \textit{supra} note 38, at 89.

\(^{55}\) See Draft Notice, \textit{supra} note 31, at 17.

\(^{56}\) See \textit{id.} at 16.
considered the relevant market. The Commission has sensibly noted that, given the pace of technological change, "[t]he definition of particular product markets is best done in the light of a detailed examination of an individual case." 

(b) The Relevant Geographic Market

Article 86 of the EC Treaty prohibits abuse of a dominant position "within the common market or in a substantial part of it." In *Suiker Unie v. Commission*, the ECJ stated that to determine whether a particular area could be considered to be a "substantial part" of the common market, it is necessary to examine "the pattern and volume of the production and consumption of the said product as well as the habits and economic opportunities of vendors and purchasers." The ECJ held in *United Brands v. Commission* that a geographic market can exist where "conditions of competition are sufficiently homogeneous for the effect of the economic power of the undertaking concerned to be evaluated . . . . [T]he objective considerations of competition applying to the product in question must be the same for all traders."

In the Draft Notice, the Commission defined the relevant geographic market as "the area in which the undertakings concerned are involved in the supply and demand of products or

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57 That assumes, of course, interchangeability of the telecommunications infrastructure of the local network operator and the new entrant.

58 Draft Notice, *supra* note 31, at 16. In addition, the Commission intends to employ a test where a market is considered a separate relevant market if, when all the suppliers of the services in question raised their prices by five to ten percent, their collective profits will rise. *See id.* at 16. A similar test is employed in the U.S. Merger Guidelines, where, in most contexts, a price increase of five percent would be deemed to constitute a "small but significant and nontransitory" increase, employed by monopolists where it would be profitable to do so. *See Horizontal Merger Guidelines, 4 Trade Reg. Rep. CCH ¶ 13,104, at 20,569 (Sept. 10, 1992).*

59 EC TREATY, art. 86.


61 *Id.* at 1977.


63 *Id.* at 270, 274.
services, in which the conditions of competition are sufficiently homogenous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas. Applying this definition in the context of access and interconnection in the telecommunications industry, the relevant geographic market would be the area to which the new entrants need access and which includes their potential customers, or simply the area in which the objective conditions of competition applying to service providers are similar.

(c) Determination of Dominance

The TOs have always been protected by exclusive and special rights and have held monopolies over the telecommunications infrastructures in the Member States. The Commission recognizes that merely ending legal monopolies does not put an end to market dominance. During the initial phase of liberalization, the TOs will maintain dominant positions; the development of effective competition will take time. In the Draft Notice, the Commission has indicated that it will consider three factors in determining whether a TO is dominant. First, the Commission scrutinizes the operator’s market share. An absolute market share of over fifty percent is "usually sufficient to demonstrate dominance." Of course, under EC competition rules, a market share of less than fifty percent may also indicate dominance. The Commission has even noted that a dominant position "cannot even be ruled out in respect of market shares between 20% and 40%." The Commission notes that, since under the ONP framework a TO with a market share of more than twenty-five percent would normally be considered to have "significant market power," the Commission "will take account of whether an undertaking has been notified" as having significant market power under the ONP

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64 Draft Notice, supra note 31, at 17.
65 See id. at 18.
66 See id. at 18-20.
67 Id. at 19.
68 COMMISSION OF THE EUROPEAN COMMUNITIES, REPORT ON COMPETITION POLICY (Tenth Report) 103 n.4 (1980).
69 It should be borne in mind that notification here refers to the situation whereby
rules in its appraisal under the competition rules." It is not quite clear how such consideration would affect the analysis of dominance. Under the provisions of the Interconnection Directive, NRAs may determine that an organization with a market share of less than twenty-five percent in the relevant market has significant market power; they may also determine that an organization with a market share of more than twenty-five percent in the relevant market does not have significant market power. Perhaps the Commission is ensuring that it will not rule that an undertaking occupies a position of dominance within the relevant market if the NRA has held that the same undertaking does not have significant market power.

Second, the Commission considers market data on the coverage of the network. Because access revolves around the need of new entrants for access to the TO's networks, the Commission will consider "the number of customers who have subscribed to services comparable with those which the requesting access intends to provide." This data is obtained as the number of subscribers "connected to termination points of the telecommunications network of the undertaking" under scrutiny, and is "expressed as a percentage of the total number of subscribers connected to termination points in the relevant geographic market."

The third factor studied in the determination of dominance is the TO's control of "essential facilities." The Commission has categorically stated that "[a] company controlling the access to an essential facility enjoys a dominant position within the meaning of Article 86." Because controversy still surrounds this particular doctrine, the doctrine is considered in detail below.

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70 Draft Notice, supra note 31, at 19.
71 See Interconnection Directive, supra note 36, art. 4.3, at 37.
72 See Draft Notice, supra note 31, at 19.
73 Id.
74 Id.
75 Id. at 19. The Commission also recognizes that a company may enjoy a dominant position without controlling an essential facility. See id. at 18.
2. Abuse of Dominance

The Draft Notice clearly indicates that the Commission considers a TO's refusal to grant access to essential facilities, and the application of unfavorable terms to such access, to be the most important abuses of a dominant position. The novelty of the essential facilities doctrine to the European telecommunications sector merits a detailed discussion of the doctrine as applied in the EU.

(a) The Essential Facilities Doctrine—American Roots on Community Soil

The essential facilities doctrine developed under American antitrust theory. In *MCI Communications Corp. v. A.T.&T. Co.*, the Seventh Circuit set forth four elements necessary to establish liability under the essential facilities doctrine: (1) control of the essential facility by a monopolist; (2) a competitor's inability

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76 Certainly, it has been prophesied that "[t]he 'essential facility' is one of the concepts most likely to be elaborated, or litigated, soon." Herbert Ungerer, *EC Competition Law in the Telecommunications, Media and Information Technology Sectors*, 19 *Fordham Int'l L.J.* 1111, 1173 (1996) [hereinafter Ungerer, EC Competition Law].


78 Sources in the United States often cite *United States v. Terminal Railroad Ass'n* as the foundation of the "essential facilities" doctrine. In that case, several railroads controlled the only bridge into St. Louis and denied access to the bridge to nonmember railroads. The Supreme Court declared that the bridge was a bottleneck and ordered the defendants either to give the nonmember railroads the option of becoming owners or to allow them access to the facility on nondiscriminatory terms. See *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912); see also *Otter Tail Power Co. v. United States*, 410 U.S. 366 (1973); *Associated Press v. United States*, 326 U.S. 1 (1945).

practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing access to the facility.\textsuperscript{80}

The Supreme Court of the United States has neither accepted nor rejected the essential facilities doctrine.\textsuperscript{81} Many commentators have criticized the doctrine as having no real substantive legal basis and have charged that it provides an easy way for plaintiffs to establish liability, diluting traditional antitrust principles in the process.\textsuperscript{82} This criticism is well founded. A plaintiff surely should not be relieved of the burden of establishing the traditional elements of antitrust. Like any plaintiff invoking section 2 of the Sherman Act,\textsuperscript{83} a plaintiff utilizing the essential facilities doctrine should still be required to show actual monopolization or attempted monopolization, including intent, in a relevant market.\textsuperscript{84} Some argue that many cases cited as examples of the doctrine’s purported application could or should be analyzed under some accepted section two theory, such as monopoly leveraging\textsuperscript{85} or abuse of monopoly power.\textsuperscript{86} The mere denial of access to an “essential facility” should not of itself lead to a presumption of anticompetitive intent and necessarily imply that the facility-owner’s market power in the downstream market has increased as

\textsuperscript{80} See id. at 1132.

\textsuperscript{81} In \textit{Aspen Skiing}, the Supreme Court noted that it was “unnecessary to consider the possible relevance of the ‘essential facilities’ doctrine, or the somewhat hypothetical question whether nonexclusionary conduct could ever constitute an abuse of monopoly power if motivated by an anticompetitive purpose.” \textit{Aspen Skiing Co. v. Aspen Highlands Skiing Corp.}, 472 U.S. 585, 611 n.44 (1985).

\textsuperscript{82} See, e.g., Areeda, \textit{supra} note 77; Kezsbom & Goldman, \textit{supra} note 77.

\textsuperscript{83} 15 U.S.C. § 1 et. seq.

\textsuperscript{84} See Kezsbom & Goldman, \textit{supra} note 77, at 34-36.

\textsuperscript{85} “Monopoly leveraging” refers to the use of monopoly power in the relevant product market to achieve an unfair competitive advantage in an ancillary market. This approach, however, has received little favor. See, e.g., Alaska Airlines, Inc. v. United Airlines, Inc., 948 F.2d 536, 546-49 (9th Cir. 1991). The more accepted view seems to be that, in order to establish the offense, the defendant must not only have a monopoly position in the first market, but it must also engage in conduct which threatens to \textit{monopolize} the second market. See PHILIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION (1996).

\textsuperscript{86} See Kezsbom & Goldman, \textit{supra} note 77.
a result of that denial. As Judge Posner has said, "[A] firm with lawful monopoly power has no general duty to help its competitors, whether by holding a price umbrella over their heads or otherwise by pulling its competitive punches."\(^{87}\)

While courts in the United States have not exactly embraced the essential facilities doctrine, the situation in Europe is quite different. It appears from the comments in the annual competition reports that the Commission "took a conscious decision . . . to introduce the 'essential facilities' doctrine into Community law."\(^{88}\) In fact, it has even been claimed that the "doctrine has been present, in substance if not in name," in EC competition law for many years.\(^{89}\) Why has the doctrine been embraced so readily in the European Union, while American courts question its pedigree? The main reasons lie in the difference in attitudes towards the objectives of competition policy on the two side of the Atlantic. In the United States, antitrust law has always had the purpose of encouraging allocative and productive economic efficiency, resulting ultimately in benefits to consumers. Judge Posner has stated that "[s]ince efficiency is an important, although not the only, social value, this conclusion establishes a prima facie case for having an antitrust policy."\(^{90}\) Judge Easterbrook puts it more elegantly: "The goal of antitrust is to perfect the operation of competitive markets."\(^{91}\) These views form the "Chicago School" of antitrust economic analysis.\(^{92}\)

\(^{87}\) Olympia Equip. Leasing Co. v. Western Union Tel. Co., 797 F.2d 370, 375 (7th Cir. 1986), cert. denied, 480 U.S. 934 (1987).


\(^{89}\) Derek Ridyard, Essential Facilities and the Obligation to Supply Competitors Under UK and EC Competition Law, [1996] 8 ECLR 438.


\(^{92}\) The Chicago School's analysis is based on several premises. First, economic efficiency, specifically allocative efficiency, is paramount.

Second, most markets are competitive. Third, monopoly tends to be self-
The goals of the competition rules in the EC, however, are multiple. Article 2 of the EC Treaty defines the task of the Community as implementing the policies referred to in Article 3 and 3a to promote "a harmonious and balanced development of economic activities... a high degree of convergence of economic performance, a high level of employment and of social protection, the rising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States."  

The EU's Competition Commissioner has said that "[t]he aims of the European Community's competition policy are economic, political and social. The policy is concerned not only with promoting efficient production but also achieving the aims of the European treaties... promoting harmonious growth [and] raising living standards."  

Because of these different emphases, EC competition law differs from American antitrust law in its application and analysis. For example, under the Sherman Act section 2, monopoly power is not normally found unless there is a market share of two-thirds of the relevant market, with a spectrum of uncertainty between forty percent and sixty percent. In contrast, the market share upon which "dominance" is found in the EU is fifty percent, and in correcting because the monopolist's higher profits attract new entrants into the monopolist's market. Fourth, most business firms are profit maximizers. Fifth, antitrust should operate to penalize conduct precisely to the point that it is inefficient, but to tolerate or encourage it when it is efficient. Sixth, normally barriers to entry are low or non-existent over the long term.


93 Article 3(g) refers to "a system ensuring that competition in the internal market is not distorted," while there is a reference in Article 3a to an "open market economy with free competition." EC Treaty art. 3a(1). Articles 85 and 86 are the main instruments by which these particular objectives are to be attained.

94 Id. art. 2 (emphasis added).

95 Commissioner Karel Van Miert, Frontier-Free Europe (May 5, 1993), quoted in Jebsen & Stevens, supra note 92, at 449.


some cases, less than that.98

Under American antitrust law, a monopolist is immune from liability99 where it owes its monopoly to "natural advantages (including accessibility to raw materials and markets) [and] economic or technological efficiency (including scientific research)."100 A European undertaking in those same circumstances, however, may be held to be in a position of dominance. In *Hoffman-La Roche v. Commission,*101 for example, technological superiority was a factor that helped to establish dominance.102 Thus, it has been suggested that the European Union feels the need to protect both competition and competitors,103 even though the Commission has, in the Draft Notice, stated that "Community law protects competition and not competitors."104

In any event, it seems clear that the strict doctrinal rules that dominate U.S. antitrust proceedings105 and the concerns over the potential breadth of the essential facilities doctrine may not be of

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98 See *supra* note 68 and accompanying text.
99 Assuming, of course, that the monopolist takes no improper steps to maintain the monopoly.
102 See Case 6/72, Europemballage Corp. v. Commission, 1973 E.C.R. 207. The ECJ seemed to place emphasis on the fact that Continental Can had superior access to the international financial markets.
103 See *Jebsen & Stevens,* *supra* note 92, at 493. It is also worth noting that while section 2 of the Sherman Act is concerned with the manner in which firms unlawfully *obtain* or *maintain* monopoly power, Article 86 of the EC Treaty controls the *exploitation* of monopoly power. See *EC Treaty* art. 86.
105 The rules applied in American antitrust law reflect the need to protect the "rule of the marketplace;" an efficient firm should not be penalized for capturing unsatisfied customers from an inefficient rival, whose ability to compete may suffer as a result. As the Supreme Court noted in *Copperweld*,

because it is sometimes difficult to distinguish robust competition from conduct with anticompetitive effects, Congress authorized Sherman Act scrutiny of single firms only when they pose a danger of monopolization. Judging unilateral conduct in this manner reduces the risk that the antitrust laws will dampen the competitive zeal of a single aggressive entrepreneur.

such great importance in Europe.

Finally, a comprehensive study of the doctrine in the European context has noted that in Europe, dominant state-owned companies, as instruments of national or industrial policy, are more likely to refuse to deal for protectionist reasons than private companies in the United States. These regulated or state-owned companies often own facilities that are essential for their own downstream operations. Thus, it may be said that "[t]he essential facilities principle is, in effect, the follow-up of Article 90 of the EC Treaty."  

In the EU, the doctrine developed out of the early "refusal to supply" cases, analyzed under Article 86 of the EC Treaty. For example, in Commercial Solvents v. Commission ("Commercial Solvents"), the ECJ held that Commercial Solvents, as the sole producer of aminobutanol, abused its dominant position when the company refused to supply the product to Zoja, a competitor, for the manufacture of derivatives. The ECJ held that

an undertaking which has a dominant position in the market in raw materials and which, with the object of reserving such raw material for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore risks eliminating all competition on the part of this customer, is abusing its dominant position within the meaning of Article 86.

In B&I Line v. Sealink, Sealink-Stena owned Holyhead Harbour and operated a car ferry. B&I was a competing car ferry

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106 See Lang, supra note 77.
107 Id. at 483.
operator. By changing the port’s ferry schedules, Sealink was able to disrupt B&I’s ferry operations. The Commission held that because the central corridor of ferry journeys between Great Britain and Ireland formed the relevant market and Holyhead was the only available port in that market, Holyhead was an “essential facility.” This division marks the first explicit use of the term in EC competition law. The Commission stated that a dominant undertaking that owns, controls, and uses an essential facility and places competitors at a disadvantage by refusing competitors access to that facility or granting access only on terms less favorable than those which it gives its own services, infringes Article 86. The Commission ordered Sealink to provide port facilities to B&I on conditions no more or less favorable than those given to its own customers.

While Commercial Solvents and B&I involved existing competitors, the Commission’s attitude toward situations involving new or potential competitors is more relevant in the present analysis. As will be seen in the discussion of the doctrine as utilized in the Draft Notice, the full potential of the doctrine and potential difficulties lie with this issue.

In Sea Containers v. Stena Sealink, Sea Containers wanted to start a new high-speed service on the same central corridor route between Great Britain and Ireland as in B&I. The Commission ordered Sealink to provide port facilities to Sea Containers on conditions no more or less favorable than those given to its own services. The Commission made it clear that the principle applied in B&I also “applies when the competitor seeking access to the essential facility is a new entrant into the relevant market.”

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111 See id. at 264-66. An “essential facility” is a facility or infrastructure required by competitors to provide services to customers. See id.

112 See id. at 265. The Commission cited Commercial Solvents and other relevant cases as authorities for the doctrine. See id. at 266.

113 See id. at 265.

114 See id. at 271.

115 Commission Decision No. 94/19/EC, 1994 O.J. (L 15/8).

116 See id. at 16.

117 Id. at 17.
In the *Port of Rodby,* the Commission held that the refusal by the Danish Minister for Transport to allow Stena to access the facilities at Rodby strengthened the dominant position of the Danish Railway (DSB) as the port authority of Rodby. The Commission found that the port was an essential facility, a facility or infrastructure without which competitors would be unable to offer their services to customers. The Commission decided that the refusal to grant a ship owner that wanted to operate on the same maritime route access to that essential facility would infringe Article 86.

The ECJ's most recent pronouncement on the applicability of the essential facilities doctrine in EC competition law came in *RTE & ITP v. Commission.* The ECJ, like the Commission and the Court of First Instance (“CFI”), decided that TV listings were an essential facility in the publication of weekly television guides. Accordingly, the BBC and ITP could not refuse to grant licenses to publish their listings. While the exact scope of the essential facilities doctrine in the realm of intellectual property rights is not entirely clear, the significance of *RTP & ITP* lies in the ECJ's willingness to adopt and apply the doctrine as an integral part of EC law.

In the telecommunications context, there is good reason for the acceptance of the essential facilities doctrine. At least in the American context, Professors Areeda and Hovenkamp have suggested that the doctrine should at most extend to facilities that are a natural monopoly, once regulated monopoly utilities, and perhaps those large projects, like sports arenas, that are publicly

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119 See id.; see also British Midlands-Aer Lingus, Commission Decision No. 92/213/EEC, 1992 O.J. (L 96/34, 96/40).


121 The case was actually decided on Article 90(1), since the refusal came from the Member State.

122 Joined Cases C-241/91 P and C-242/91 P, 1995 E.C.R. I-743, 808. These cases involved intellectual property rights. See id.

123 See id. at 764.

124 Intellectual property rights are by their nature exclusive. However, this does not assume that the owner of those rights is in a dominant position for Article 86 purposes.
subsidized and thus could not be built privately.\textsuperscript{125} Because state promotion of public natural monopolies in telecommunications, not economic or technological efficiency, gave the TOs in Europe control over such facilities, telecommunications cases may require the application of the essential facilities doctrine.

Since the publication of the Telecommunications Guidelines in 1991, the Commission has clearly taken the position that a refusal to supply is an abuse of dominant position.\textsuperscript{126} While that was consistent with the reserved rights afforded to the TOs at that time, a general obligation is placed on the TOs to provide access to essential facilities to new entrants.

(i) \textit{The Doctrine in the Draft Notice}

The Draft Notice defines an “essential facility” in the European telecommunications context as “a facility or infrastructure which is essential for reaching customers and/or enabling competitors to carry on their business, and which cannot be replicated by any reasonable means.”\textsuperscript{127} Examples given include the “public telecommunications networks for voice and/or data services, leased circuit [and/or] related network terminating equipment, basic data regarding subscribers to the public voice telephony service, numbering schemes, and other customer or technical information.”\textsuperscript{128}

According to the Draft Notice, a refusal to grant access to an essential facility will only be considered abusive if it “affects competition.”\textsuperscript{129} Because the services markets will initially contain “few competitive players, refusals will generally affect competition” in those markets.\textsuperscript{130}

The Commission has identified three possible scenarios for the application of the essential facilities doctrine.\textsuperscript{131} First, there may

\begin{itemize}
  \item \textsuperscript{125} See AREEDA \& HOVENCAMP, supra note 85, ¶ 772.
  \item \textsuperscript{126} See Telecommunications Guidelines, supra note 32, at 18-19. The Commission cites Commercial Solvents and United Brands. See id.
  \item \textsuperscript{127} Draft Notice, supra note 31, at 18-19.
  \item \textsuperscript{128} Id.
  \item \textsuperscript{129} Id. at 21.
  \item \textsuperscript{130} Id.
  \item \textsuperscript{131} See id.
\end{itemize}
be a refusal to grant access for the purposes of a service “where another operator has been given access by the access provider to operate on that services market.”132 This refers to the situation where an existing company and the incumbent TO essentially compete in the same services market. The TO in question would have a duty to provide access to the competing company in the downstream market on terms “no less favorable than those given to other parties, including its own corresponding downstream operations.”133 However, enforcement is difficult due to problems of generating accurate internal transfer pricing. The TO may conceivably argue that it faces an overly large burden.

Second, a TO may refuse to grant access to a new entrant who wishes to operate in a new, related services market.134 This is most likely to occur in the first phase of full liberalization after January 1, 1998. In essence the scenario is very much like the one faced in Sea Containers.135 The Commission cites cases in the transport field, including Sea Containers v. Sealink and Port of Rodby, and states that principles applied in those cases apply in the telecommunications sector as well.136 This second situation also anticipates the possibility, given rapid technological changes in the sector, that new entrants may want to provide new services or products that are not in competition with those offered by the dominant TO, but for which the TO is reluctant to provide access. If there are no commercially feasible alternatives to the access being requested, then a refusal by the incumbent TO to grant access would contravene Article 86: “in particular, a company may abuse its dominant position if its actions prevent the emergence of a new product or service.”137 Even under the arguably more narrow rationale of American antitrust principles, such refusal promotes inefficiency in the market through a reduction in output and a reduction in consumer choice.

132 Id. B&I Line illustrates this scenario.
133 Id.
134 See id.
137 Draft Notice, supra note 31, at 22.
In assessing whether there is a breach of Article 86 under this second situation, the Commission considers whether (1) there is sufficient capacity available to provide access; (2) the facility owner fails to satisfy demand on an existing market and blocks the emergence of a potential new service or product; (3) the company seeking access is prepared to pay a reasonable and non-discriminatory price for access; (4) there is no objective justification for refusing to provide access;13 and (5) access to the facility is “generally essential” in order for the new entrant to compete in that related market.139 This last factor will probably result in the most contention. The question will be, “What is essential”? In the Draft Notice the Commission states that refusal of access must make the proposed activities “either impossible or seriously and unavoidably uneconomic.”140 Furthermore, the Commission also states that it “will not be sufficient that the position of the new entrant would be more advantageous if access were granted.”141 This phrase seems to contradict opinion that analysis should stem from the side of the facility owner, and not the competitor.142 One possible explanation for this position is that the new entrant will be arguing that a particular facility is “essential.”

Still, the issue of access should be determined by deciding whether a dominant facility owner, by refusing access to an essential facility, is in breach of Article 86. The question should address the level of advantage the facility owner should be allowed to maintain over its competitors. A breach of Article 86 should

138 Relevant justifications would include an overriding difficulty of providing access. The justifications will be examined on a case-by-case basis. See id.

139 See id. Apart from these five factors, the Commission has also stated that in the determination of abuse of dominance it will consider undue and unexplained delays in responding for requests to access, the refusal to grant interconnection at the “most suitable point” for the requesting party, and excessive pricing for access. See id. at 23.

140 Id. at 22.

141 Id.

142 Consider, for example, Professors Areeda and Hovenkamp’s suggestion that the essential facilities doctrine should at most extend to natural monopolies. Otherwise, competitors could claim that any desired facility is “essential” as long as it gives “its possessor a substantial cost advantage over rivals or new entrants,” even if that advantage has been obtained through superior skill or effort. AREEDA & HOVENKAMP, supra note 85.
only occur with a refusal to supply beyond that point of advantage. Factors such as the facility owner’s market share would be important.\textsuperscript{143} The Commission states that “[c]ommunity law protects competition and not competitors.”\textsuperscript{144} However, as suggested earlier, the European approach in practice may focus more on the position of the competitor.\textsuperscript{145}

New entrants should not be able to force the TO to allow access merely by claiming that the dominant TO is in control of some necessary facility. This result would reduce incentives to superior performance, a concern which is addressed in the following sections.

The third possible scenario identified by the Commission in the Draft Notice relates to a withdrawal of access from an existing customer.\textsuperscript{146} This is the \textit{Commercial Solvents} situation.\textsuperscript{147} The Commission notes that although \textit{Commercial Solvents} dealt with the withdrawal of a product, “there is no difference in principle between this case and the withdrawal of access.”\textsuperscript{148}

\begin{itemize}
\item[(ii)] \textbf{Problems with the Doctrine in the Telecommunications Context}
\end{itemize}

While it is clear that the Commission has embraced the essential facilities doctrine in its competition decisions, the precise scope of its application remains unclear. As discussed above, questions remain as to what constitutes “essentiality.”\textsuperscript{149} The Commission has compiled the existing case law on Article 86 that may relate to the issue of access to essential facilities. Since it is uncertain, however, whether the ECJ will apply the case law, the Commission has probably acted wisely in using a non-binding Draft Notice. At least the Draft Notice has given a strong indication that the Commission accepts the essential facilities

\textsuperscript{143} Low market share may imply that there could be other options in the market for that facility.

\textsuperscript{144} Draft Notice, \textit{supra} note 31, at 30.

\textsuperscript{145} See \textit{supra} note 103 and accompanying text.

\textsuperscript{146} See Draft Notice, \textit{supra} note 31, at 21.

\textsuperscript{147} See \textit{supra} note 108 and accompanying text.

\textsuperscript{148} Draft Notice, \textit{supra} note 31, at 23.

\textsuperscript{149} See \textit{supra} p. 28.
doctrine and intends to apply it to issues of rights of access. Parties involved should be able to develop a sense of the Commission's attitude without needing to analyze an entire body of case law to guess the Commission's stand.

Important concerns also exist regarding the delicate balance that must be maintained between the need to introduce competition into the sector, via interconnection, and the need to maintain incentives to invest in innovation. Of course, in the case of the European technological sector, neither skill, technological innovation nor efficiency necessarily resulted in the creation of such "essential" assets. To a large extent, the essentiality of these assets is attributable to the fact that the TOs were public/natural monopolies. The problem lies in assessing how large a role each factor plays in the creation of essential assets.

In point 79 of the Draft Notice, the Commission recognizes that although alternative infrastructures may be used for liberalized services beginning July 1, 1996, such an alternative infrastructure does not "at present" offer the same dense geographic coverage as that of the incumbent TOs. How long will the Commission view the TOs' infrastructures as "essential?" Because the EU's concern with competition is arguably broader in scope than the American antitrust rationale of pure economic efficiency, there is a danger that new entrants may try to take advantage of the doctrine for as long as possible. Therefore, there may not be the same incentives to innovate as there might be if the competitors were forced to compete purely on an economic basis. For example, new entrants will now have little incentive to risk large amounts of capital to duplicate the infrastructure that the TOs presently control. In many ways, innovation and research for cheaper telephone services, which would ultimately benefit the consumers, will not be encouraged if the threshold requirements for the operation of the essential facilities doctrine are too low.

150 See Draft Notice, supra note 31, at 22.

151 The Commission is aware of the potential problems regarding investment incentives. "The critical factor is creating the optimal incentives for investing by sending out the right signals to the market. Upstream, an ideal pricing policy would be one which resulted in a clear recognition of the natural bottlenecks, and an economically viable bypass of others." Ungerer, supra note 5. New regulations in Spain, for example, will require the new competitor, Retevisión (the incumbent TO being Telefónica), to
In order to determine whether the duplication of the infrastructure is economically feasible for the new entrant, the new entrants’ investment in duplication must be determined before requiring the incumbent TO to provide access.\textsuperscript{152} This may not be too difficult in the initial stages of liberalization, because the TOs currently own the entire infrastructure. However, as multiple infrastructures develop over time, the calculation will become more complicated. The determination is made all the more complicated by multiple factors. Technological change in the telecommunications industry is rapid. In addition, the ways in which competitors may duplicate portions of the facility, and the access points to the facility, may change frequently.\textsuperscript{153}

\textit{(b) Other Forms of Abuse}

Apart from refusals by TOs to provide access, the Draft Notice also anticipates abuses that may arise where access has been granted.

\textit{(i) Network Configuration}

A dominant TO may configure its network to make access objectively more difficult for service providers.\textsuperscript{154} The Commission could find abuse based on the traditional Article 86 principle prohibiting discrimination.

\textit{(ii) Tying}

The dominant TO may require the party requesting access to purchase one or more services without adequate justification.\textsuperscript{155} This situation, called “tying,” is clearly prohibited by Article 86.
86(d). The application of this principle to the telecommunications sector in terms of access and interconnection should not differ from the traditional analysis of the concept. The classic “tying” practice in the telecommunications context is the “bundling” of services. For example, the TO may require a party needing only national access to accept a tariff for interconnection that includes an international carriage component for message conveyance.

This issue of “bundled access” is dealt with under the ONP framework and is discussed below in the discussion on the Interconnection Directive.

(iii) Pricing

TOs wishing to maintain a dominant position can use two possible tactics: excessively high pricing and unfairly low pricing. Either, if established, would violate Article 86(a). It should be remembered that a TO, as a monopolist, can significantly influence the costs of a new competitor by manipulating interconnection charges.

In United Brands v. Commission, the ECJ laid down a possible standard for what would be considered excess pricing:

[C]harging a price which is excessive because it has no reasonable relation to the economic value of the product supplied may be [an abuse of the dominant position within the

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156 See, e.g., Case T-30/89, Hilti AG v. Commission, 1991 E.C.R. II-1439 (noting Commission decision that Hilti, which produced nail guns, cartridges and nails, abused its dominant position by forcing customers to either buy the cartridge strips together with nails, or buy the cartridges alone for a higher price).

157 See COUDERT BROS., supra note 38, at 118.

158 See infra note 251 and accompanying text.

159 The issue of considering universal service obligations in the determination, in particular, of excessive pricing, forms a separate analysis that will not be discussed here. Article 5 of the Interconnection Directive provides rules upon which a mechanism for sharing the net cost of universal service, if needed, may be established. See Interconnection Directive, supra note 36, art. 5, at 37.

160 See EC TREATY, art. 86(a). “[D]irectly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions” is an example of abuse of dominant position under Article 86(a). Id.

meaning of subparagraph (a) of Article 86]. This excess could, inter alia, be determined objectively if it were possible for it to be calculated by making a comparison between the selling price of the product in question and its cost of production, which would disclose the amount of the profit margin . . . .\textsuperscript{162}

The ECJ, however, indicated that “other ways may be devised . . . of selecting the rules for determining whether the price of a product is unfair.”\textsuperscript{163} The ECJ and the Commission have not, however, successfully constructed a consistent test for the determination of “excessive pricing.”\textsuperscript{164} The simple cost-based test suggested by the ECJ in \textit{United Brands} is hardly satisfactory, because it leaves open the question of how large a profit margin should be allowed. Further, in interconnection pricing there are several different cost elements that may be considered, such as embedded costs, joint costs, incremental costs, and common costs. Thus, the idea of a “cost-based” test is much more complicated than that necessitated by the situation in \textit{United Brands v. Commission}.\textsuperscript{165}

Further, the fact that the “production costs” of the TO were incurred at a time when there was no competition to ensure economic efficiency also makes the computation of such costs more difficult. In cases like \textit{Ministère Public v. Tournier},\textsuperscript{166} the ECJ used a comparative approach, which amounted to examining comparable charges levied by comparable copyright collecting societies in other Member States.\textsuperscript{167} In theory, this approach would enable the adjudicating body, such as the Commission or the ECJ, to exclude costs incurred because of the dominant undertaking’s

\textsuperscript{162} \textit{Id.} at 209 (noting that the ECJ annulled the Commission’s decision because the commission adduced adequate proof of the analysis of the cost structure of United Brands in declaring that United Brands infringed Article 86 by charging excessive prices).

\textsuperscript{163} \textit{Id.} at 302.

\textsuperscript{164} See Jebsen & Stevens, \textit{supra} note 92; COUDERT BROS., \textit{supra} note 38, at 107-112.

\textsuperscript{165} The Commission does not seem to have used this cost-based test very much to challenge allegedly excessive prices.

\textsuperscript{166} Case 395/87, 1989 E.C.R. 2521.

own inefficiencies. However, such comparison does not ensure certainty, particularly in interconnection, since there must be some consistent basis for calculating interconnection charges applicable in all the Member States.

To that end, the Interconnection Directive aims to provide a much-needed computational basis. In *Ahmed Saeed Flugreisen v. Zentrale zur Bekämpfung Unlauteren Wettbewerbs*, the ECJ posited that in determining tariff principles, which are set out in a Community directive, criteria can be used interpretively to determine if undertakings affected by the directive charge "excessive" rates. This implies that the pricing rules set out in the Interconnection Directive (a Council Directive) that are not based on competition rules *per se*, may be considered for interpreting excessive pricing under Article 86.

As for unfairly low or "predatory" pricing, the text of the Draft Notice indicates that the Commission has accepted the test set out in *AKZO v. Commission*. Thus, "[i]n general, a price is abusive if it is below the dominant company's average variable costs or if it is below average total costs and part of an anti-competitive

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168 In the United Kingdom, the telecommunications industry has been liberalized since 1984. The latest development in the regulation of interconnection charges is that under some new proposals, British Telecom (BT) will have the right to set the charge itself, subject to rules depending on the competitiveness of the service concerned. BT will be able to price competitive interconnection services subject to the generally applicable conditions of its license: "RPI + 0%" (where RPI is the Retail Price Index), safeguard caps to protect against excessive pricing of interconnection services that are expected to become competitive during the lifetime of the controls, and the "RPI - X" formulae applied to those interconnection services that will not be competitive during the lifetime of the controls. See *Greater Pricing Freedom for BT*, EUR. TELECOMMUNICATIONS, Jan. 10, 1997, available in 1997 WL 8803496. For a detailed consideration of what such a proposal would amount to and a thorough analysis of the "X" factor in the "RPI - X" formula, see ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *PRICE CAPS FOR TELECOMMUNICATIONS: POLICIES AND EXPERIENCES* (1995).


170 See COUERDT BROS., *supra* note 38, at 110.

171 The Directive is based on ONP principles rather than EC competition rules on the interplay between ONP and the competition rules. See *supra* notes 1-7 and accompanying text.

The rationale for the first prong of the test is that an undertaking in a dominant position has no interest in applying prices below average variable costs except to eliminate competitors and subsequently to raise prices. Application of such prices will generate a loss, namely, the total amount of fixed costs and at least part of the variable costs relating to the unit produced. As for the second prong, prices below average total costs which are part of an average cost plan can exclude from the market companies that may operate as efficiently as the dominant TO but maintain lower financial capacity and cannot compete with such predatory pricing.

Predatory pricing may arise in another context. A dominant TO may also charge unfairly low prices for access in order to eliminate competition from emerging infrastructure providers. The focus is, thus, not on the rights of a new entrant desiring access to an incumbent TO's infrastructure, but on the rights of a rival infrastructure provider.

The Commission recognizes that the average variable cost rule cannot be applied in many situations in the telecommunications sector, since the variable costs of providing access to an already existing network are almost zero. Therefore, the Commission is considering a test that seems to fall between the two prongs of the AKZO test. Even where there is no intent to exclude a competitor, a dominant TO can be held to have priced predatorily. If the price of a good is below the average total cost of producing the good on a continuing basis, a TO may be held liable for predatory pricing. This rule applies even when the price of the good exceeds the average variable cost of producing that good.

The Interconnection Directive deals mainly with the needs of

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173 Draft Notice, supra note 31, at 24. In AKZO v. Commission, the ECJ defined variable costs as those that vary depending on the quantities produced and defined fixed costs as those which remain constant regardless of the quantities produced. AKZO, 1991 E.C.R. I-3455.


175 See id. at 3455-56.


177 See id.

178 See id. at 30 n.66.
new entrants who need to access the incumbent TO's infrastructure. However, the provisions as to transparency and account separation\textsuperscript{179} effectively monitor the pricing practices of the TOs that may affect competing infrastructure providers.

\textit{(iv) Discrimination}

A TO may apply "dissimilar conditions to equivalent transactions"\textsuperscript{180} as among new entrants desiring access to that TO's infrastructure, or as between new entrants and the TO itself in the secondary market. The Draft Notice notes that such discrimination may take the form of price discrimination in terms of different charges for interconnection, "delays, technical access,\textsuperscript{181} routing, numbering, restrictions on network use exceeding essential requirements and use of customer network data."\textsuperscript{181} The analysis of alleged differential treatment will be taken on a case-by-case basis.\textsuperscript{183} As with the other requirements set out in the Draft Notice, there may be objective justifications for discrimination.\textsuperscript{184}

Since interconnection arrangements are likely to result from commercial negotiations rather than NRA direction, individual agreements between the TO and the parties obtaining access are likely to be very party-specific and complex. As such, comparing the terms of two different access agreements to determine if "discrimination" exists will be a very difficult task. These difficulties, however, may be alleviated by the fact that the TOs in all the Member States must publish the standard terms and conditions of access by July 1, 1997.\textsuperscript{185} Further, all interconnection

\textsuperscript{179} See Interconnection Directive, supra note 36, art. 8, at 39.
\textsuperscript{180} EC TREATY, art. 85(d).
\textsuperscript{181} See Draft Notice, supra note 31, at 24. Technical access discrimination would include the level of technical sophistication of the access, the number and/or location of connection points, and the ability of the new entrant's customers to obtain services provided by the incumbent TO by using the same number of dial digits. See id. at 25.
\textsuperscript{182} Id. at 24.
\textsuperscript{183} See id.
\textsuperscript{184} "These could include factors relating to the actual operation of the network owned by the access provider, or licensing restrictions consistent with, for example, the subject matter of intellectual property rights." Id. at 25.
\textsuperscript{185} See Full Competition Directive, supra note 8, at 23.
agreements must be communicated to the relevant NRA. This will at least give the adjudicating body a basis from which to start the discrimination analysis.

There is generally more transparency to the whole process of producing interconnection agreements. Thus, discrimination analysis may be easier in the interconnection area. However, as Dr. Ungerer has indicated, as the relevant markets become more competitive, standard tariffs and uniform pricing rules may be relaxed in favor of increasing price flexibility for competing operators. "Unfair discrimination by dominant operators will always be an offence but a degree of discrimination based on real differences in demand and objective costs should ultimately be allowed for."  

B. Analysis of Access and Interconnection Agreements Under Article 85

Considering the state of the telecommunications sector, access agreements can have significant pro-competitive effects. Such agreements form the basis for the "interoperability of services and infrastructure, thus increasing competition in the downstream market for services, which is likely to involve higher added value than local infrastructure." That does not mean, however, that no Article 85(1) concerns exist. The Commission has identified

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186 See Interconnection Directive, supra note 36, art. 6(c), at 38. "It should be noted, however, that notification of an agreement to an NRA does not make notification to the Commission unnecessary. The NRA must ensure that actions taken by them are consistent EC competition law." Draft Notice, supra note 31, at 13. They must not approve arrangements which are contrary to the competition rules, as the Member State may be liable in damages to those harmed. See id.

187 Ungerer, supra note 5; see also Interconnection Directive, supra note 36, art. 7.3, at 38.

188 The Commission's reference to "access agreements" is really that of interconnection agreements; in this section the two terms are used interchangeably. To avoid confusion, the Commission should consider adopting the same term as that used in the Interconnection Directive.


190 Access agreements are generally outside the scope of the Merger Regulation (Council Regulation 4064/89 on the control of concentrations between undertakings) because they do not result in the creation of a distinct and autonomous entity. See id. at 13.
four possible anti-competitive effects which may arise out of interconnection agreements, namely, that they may: (1) serve as a means of coordinating prices; (2) serve as a means of market sharing; (3) have exclusionary effects on third parties; and (4) lead to an exchange of commercially sensitive information between the parties. Generally, the more symmetric and reciprocal the relationship between interconnecting parties, the greater the need for monitoring the danger of collusion.

1. **Risk of Price Coordination**

The Commission has always considered price agreements among the most serious infringements of Article 85(1). Because interconnection charges often amount to fifty percent or more of the total cost of services provided, the scope of price competition is quite limited. Thus, a TO and new entrant may synchronize their cost structures and fix the prices of services for which they compete. During the early stages of liberalization when there are few competitors in the telecommunications sector, there is a concern that a duopoly or oligopoly situation may arise. Hence, an agreement on artificially high interconnection charges may arise, which has the dual effect of creating higher prices for consumers and providing a difficult basis for assessing the presence of discriminatory pricing. The Commission intends to “pay particular attention to scrutinizing access agreements in the context of their likely effects on the relevant markets in order to ensure that such agreements do not serve as indirect means for fixing and coordinating end-prices for end-users.”

The Interconnection Directive deals with this problem to a certain extent by requiring that all interconnection agreements are

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191 See id.

192 See WIK, NETWORK INTERCONNECTION IN THE DOMAIN OF ONP—STUDY FOR DG XIII OF THE EUROPEAN COMMISSION, FINAL REPORT (1994), cited in COUDERT BROS., supra note 38, at 123. Conversely, “the more asymmetric the relationship between interconnecting parties, the more need there is for direct regulatory intervention.” Id.

193 See EC TREATY, art. 85.

194 See Telecommunications Guidelines, supra note 32, at 10.

195 See COUDERT BROS., supra note 38, at 124.

to be communicated to the relevant NRA and made available on request to interested parties with the exception of those parts which deal with the commercial strategy of the parties.\footnote{197}{See Interconnection Directive, \textit{supra} note 36, art. 6(c), at 38.} The cost accounting systems used would be subject to scrutiny by the NRA.\footnote{198}{The observations made in relation to the control mechanisms in the Interconnection Directive against excessive pricing also apply here.}

\section*{2. Market Sharing}

The Commission provides scant comments in the Draft Notice on the concern of market sharing.\footnote{199}{See Draft Notice, \textit{supra} note 31, at 26.} However, the usual Article 85 case law on collusion would be applicable here, since the concept of market sharing is not one that has unique features in terms of access agreements.\footnote{200}{See EC TREATY, art. 85.} Thus, the aim would simply be to ensure the emergence of network competition, as opposed to a sharing of the market between the TO and the new entrant.

\section*{3. Exclusionary Effect on Third Parties}

Third parties requesting access may suffer discrimination, particularly regarding price\footnote{201}{The discussion above on discriminatory pricing in relation to Article 86 is relevant here as well. \textit{See id.} art. 85(c).} and quality.\footnote{202}{See \textit{id.} art. 85(d).} The publication of each TO’s standard terms and conditions of access by July 1, 1997\footnote{203}{See \textit{Full Competition Directive, supra} note 8, at 23.} should address this concern. Moreover, the Interconnection Directive’s provisions relating to transparency of proceedings in interconnection agreements should further frustrate efforts to discriminate between new entrants.

\section*{4. Exchange of Sensitive Information}

Arrangements between undertakings for interconnection necessarily involve exchanges of commercially sensitive information. For example, to determine the scope of the agreement or the relevant interconnection charge, there must be
some consideration of the undertaking's intended geographic coverage and perhaps the intended current and future investments for expansion purposes.\textsuperscript{204} Such information can "influence the competitive behavior of the undertakings concerned" and facilitate interdependence.\textsuperscript{205} The Draft Notice observes that this may result in "collusive practices, such as market sharing."\textsuperscript{206}

While the Commission's stand regarding exchanges of price information was considered almost twenty years ago in \textit{Suiker Unie v. Commission},\textsuperscript{207} the legality of exchanges of non-price information was considered only recently by the CFI in \textit{John Deere v. Commission},\textsuperscript{208} which involved an oligopoly; the exchange of information did not directly concern prices and did not underpin a cartel or other anticompetitive agreement. The CFI agreed with the Commission that the information exchange agreement was caught by Article 85(1) because the information exchange (1) disadvantaged non-member competitors, (2) produced potential anticompetitive effects among members, and (3) made it possible for each participating manufacturer to monitor its dealers' sales and thus made it possible for the manufacturers to "confer absolute territorial protection on each of their dealers."\textsuperscript{209}

\textit{John Deere} marks the first occasion where the Commission clearly stated that information exchanges of non-price information would be prohibited under certain circumstances. It indicates the Commission's concern about the exchange of sensitive information between actual or potential competitors, especially where the market is concentrated, and is a good indication of how the Commission will deal with information exchanges between TOs and new entrants.\textsuperscript{210}

\textsuperscript{204} \textit{See} Draft Notice, \textit{supra} note 31, at 26.

\textsuperscript{205} \textit{Id.}

\textsuperscript{206} \textit{Id.}


\textsuperscript{209} \textit{Id.} ¶ 96.

\textsuperscript{210} Although some other outcome would be quite unlikely, the Commission reminds all undertakings that access agreements that have been concluded with an anticompetitive object are "extremely unlikely to fulfill the criteria for an individual
C. Conclusion on Articles 85 and 86

The Draft Notice serves as a basic guide to the Commission's expectations in the application of the EC's competition rules. Certain issues still need to be resolved, but resolution can only occur as more experience is gained in this area. Therefore, the case-by-case approach is probably best.

If access has been granted by the incumbent TO, a remaining issue concerns what rules should apply as to the mechanics of interconnection and interoperability with such access. The Council and Parliament's Interconnection Directive aims to address this issue.211

V. The Regulation of the Terms and Conditions of Interconnection Agreements

A. The Interconnection Directive

A variety of issues arise under the terms and conditions of interconnection agreements.212 First, to what extent should the TO and the new entrant be free to negotiate interconnection agreements? Second, what economic and accounting principles should be applied in the pricing of interconnection charges? Third, what are the responsibilities of the NRAs in the regulation of these agreements, in particular, with regard to dispute resolution? Fourth, how much collocation and facility-sharing are the TOs expected to allow? Fifth, what should be done about number portability?

Article 1 of the Interconnection Directive states that the Directive "concerns the harmonization of conditions for open and efficient interconnection" of and access to public


212 The issue of directory services is provided for in the Full Competition Directive which requires Member States to ensure "all exclusive rights with regard to the establishment and provision of directory services, including both the publication of directories and directory enquiry services, on their territory are lifted." Full Competition Directive, supra note 8, at 23.

213 The definition of "interconnection" in this Interconnection Directive differs
telecommunications networks and publicly available telecommunications services.

The central thrust of the Interconnection Directive, therefore, is to require TOs with "significant market power" to "meet all reasonable requests for access to the network including access at points other than the network termination points offered to the majority of end-users." Article 4.3 provides that an organization shall be presumed to have significant market power when it has a share of more than twenty-five percent of a particular telecommunications market in the geographical area of a Member State.

The Member States have to ensure that they remove any restrictions that prevent authorized organizations from freely negotiating interconnection agreements among themselves in slightly from the one adopted in the Services Directive; it is suggested that the two should be identical to preclude any doubt in interpretation. See Services Directive, supra note 3, arts. 1-2, at 15-16.

214 This concept of public networks is "comparable with the common carrier concept in the United States." Ungerer, EC Competition Law, supra note 76, at 1167 n.202.


216 Interconnection Directive, supra note 36, art. 4.2, at 37. Note, however, the exception afforded by Article 10, which applies the "essential requirements" as specified in Article 3(2) of the ONP Directive. See id. art. 10, at 41. Article 3(2) states that the restriction of access to the public telecommunications networks may be allowed if there are "essential requirements" namely, "security of network operations," "maintenance of network integrity," "interoperability of services, in justified cases," and "protection of data, as appropriate." ONP Directive, supra note 22, art. 3(2).

217 See Interconnection Directive, supra note 36, art. 4.3, at 37. This notion of an organization with "significant market power" was opposed by the European Telecommunications Network Operators' Association (ETNO), which dismissed the link between "market share" and "market power," and thus wanted the rights and obligations found in the proposal to be applied to all organizations providing public voice telephony. See Telecommunications: ETNO Raps Interconnection Directive, TECH EUR., Jan. 9, 1996, available in LEXIS, Intlaw Library, Eurtch File. Similarly, the EC's Economic and Social Committee felt that "the obligatory introduction of transparent cost accounting and interconnection charges determined by costs [in Article 7 of the Interconnection Directive] should be extended to all organizations which operated public telecommunications networks. It seems arbitrary to restrict them to organizations with 'significant market power'. . . ." Opinion of the Economic and Social Committee on the 'Proposal for a European Parliament and Council Directive on Interconnection in Telecommunications with Regard to Ensuring Universal Service and Interoperability through Application of the Principles of Open Network Provision,' 1996 O.J. (C 153) 21.
accordance with Community Law. The attitude is that commercial negotiation should form the primary basis for interconnection agreements, although Annex VII defines certain areas where the NRA may set ex ante conditions as part of the framework for negotiation on the interconnection agreements. These include requirements for, inter alia, the provision of equal access and number portability, collocation and a dispute resolution procedure.

Other requirements of the directive include non-discrimination and transparency in the terms of interconnection offered by the TOs, the requirement of public access to interconnection agreements, and six months advance notification of any changes in interconnection arrangements to the party considering interconnection. The Directive also requires introduction of number portability by January 1, 2003 and encourages collocation and sharing of facilities where the TO has the right under national legislation to expropriate or use public or private property for the installation of facilities.

Finally, the Directive sets the general responsibilities of the NRAs, including dispute resolution for interconnection

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218 See Interconnection Directive, supra note 36, art. 3.1, at 36.
220 See id.
221 See id. art. 6(b), at 38. Non-discrimination and transparency include the application of similar conditions in similar circumstances to interconnection organizations providing similar services.
222 Number portability will permit users to switch from one telecommunications carrier to another without having to change their existing telecommunications numbers. Thus, it is an extremely important consideration for customers (particularly businesses) thinking of switching from the services provided by a TO and those offered by a new entrant.
223 See Interconnection Directive, supra note 36, art. 3.1, at 36. Some of the Member States, such as Austria, Germany, Spain, Greece and Italy, consider this date "too early" and unrealistic. See Telecommunications: Council Experts Dissect Interconnection Directive, TECH EUR., Feb. 8, 1996, available in LEXIS, Intlaw Library, Eurtech File. However, number portability is absolutely essential to effective competition.
224 See id. art. 11, at 41. "The requirement for collocation applies 'where essential requirements deprive other organizations of access to viable alternatives.'" Id.
225 See id. art. 9, at 39-40.
agreements.\textsuperscript{226} In the original Interconnection Directive,\textsuperscript{227} either party in a dispute over the terms of interconnection had the right to refer the dispute to the Commission for conciliation. Alternatively, the NRA could, with the agreement of the parties, refer the dispute to the Commission for resolution.\textsuperscript{228} The removal of these provisions in the final joint text of the Directive indicates the Commission's desire to encourage decentralized application of the competition rules by national courts and NRAs unless a significant Community interest is implicated in a particular case. Although "complaints should, as a rule, be handled by the national courts or other relevant authorities,"\textsuperscript{229} the Commission may still become involved by utilizing Regulation 17, "by way of a notification of an access agreement," "by way of a complaint against a restrictive access agreement" or abuse of dominance, "by way of a Commission own-initiative procedure," or "by way of a sector inquiry."\textsuperscript{230}

\textbf{B. Interconnection Pricing}

\textit{1. The American Approach}

In the United States, the Federal Communications Commission (FCC) has undertaken a similar revolution in the regulation of interconnection\textsuperscript{231} through the implementation of the United States' Telecommunications Act of 1996 (the 1996 Act).\textsuperscript{232} The FCC

\begin{itemize}
\item \textsuperscript{226} See id. arts. 9.5, 17, at 40, 43. In Article 22.2 of the Directive there is a commitment by the Commission to examine the grounds for establishment of a European Regulatory Authority (ERA) and report to the Parliament and Council "not later than Dec. 31, 1999." Id. at 44. The issues surrounding the establishment of an ERA will be considered in a later section of this Article.
\item \textsuperscript{227} See 1995 O.J. (C 313) 7.
\item \textsuperscript{228} See id. art. 9.5.
\item \textsuperscript{229} Draft Notice, supra note 31, at 12.
\item \textsuperscript{230} Id. at 13.
\item \textsuperscript{232} See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (to be codified at 47 U.S.C. 151). The 1996 Act has requirements similar to the Interconnection Directive in terms of unbundled access, etc. As for interconnection pricing, section 252(d) provides that the "just and reasonable" rate for interconnection
\end{itemize}
Regulations dictate precisely how interconnection charges are to be calculated, mandating that all state commissions employ the "total element long-run incremental cost" (TELRIC) method to calculate the costs that an incumbent Local Exchange Carrier (LEC) incurs in making its facilities available to competitors. TELRIC allows the incumbent LEC to recover "the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs." The incumbent LECs have objected vociferously to the regulations for two reasons. First, the LECs argue that the regulations fail to consider their "historical" or "embedded" costs in calculating the cost figure to be used to determine interconnection rates. Second, the regulations require that an incumbent LEC's cost be measured as if the LEC were using the most efficient technology available at that time, regardless of the technology actually being employed. In *Iowa State Utilities Board v. FCC*, the Eighth Circuit granted a stay of the First Report and Order. The court also ruled that the FCC exceeded its jurisdiction by promulgating

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233 First Report and Order, *supra* note 231, at 45,544. This is a species of total service long-run incremental cost (TSLRIC). *See id.* The interconnection rate is determined to allow for a reasonable profit after the cost figure using TELRIC is established. *See id.*

234 *Id.* at 45,545.

235 *See Iowa Utils. Bd. v. FCC*, 109 F.3d 418, 422 (8th Cir. 1996). Historical or embedded costs are those that the incumbent incurred in the past.

236 *See id.* “Prices for interconnection and access to unbundled elements would be developed from a forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations.” First Report and Order, *supra* note 231, at 45,545. The FCC claims that this approach encourages facilities-based competition to the extent that new entrants are able to provide the service at a lower cost than the incumbent LEC by designing more efficient network configurations.


Several incumbent LECs want to use the opportunity cost/efficient component pricing rule (ECPR) as suggested by William Baumol. Under the ECPR, the price of an input should be equal to the incremental cost of the input plus the opportunity cost that the incumbent carrier incurs when the new entrant, instead of the incumbent, provides the services. The argument in favor of ECPR is that it would ensure that new entrants will gain access to the market only where they can operate at least as efficiently, or more efficiently, than the incumbent operator. This is an improper method for setting prices of interconnection "because the existing retail prices that would be used to compute incremental opportunity costs under ECPR are not cost-based.

2. The European Approach

The position in Europe regarding the use of the ECPR is similar. A report to the European Commission has pointed out that the problem with the ECPR is that "any level of opportunity cost could be calculated into a given access price with impunity," allowing an incumbent TO to control the structure of retail prices, and thus possibly act contrary to Article 86 of the EC Treaty. In addition, the ECPR assumes that the incumbent is "producing efficiently, earning no monopoly profit and finally that there is no product differentiation." As such, the report recommended that some form of average incremental costs (AIC) be used in the calculation of interconnection prices. Recognition of the EC proves most telling:

A number of pricing rules have been proposed in the literature, based on theoretical models . . . . [B]ecause of the wide range of possible outcomes and because of the complicated interaction of

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239 See id.


242 First Report and Order, supra note 231, at 45,548.

243 See CAVE ET AL., supra note 9, at 46.

244 Id.

245 Id.

246 See id.
variables that regulators find difficult to observe, the theoretical models are likely to provide insight but little practical applicability for the regulator.\(^{247}\)

Thus, the Commission has taken the most sensible approach—a flexible one. Article 7 of the Interconnection Directive, and Annexes IV and V, lay down the principles for interconnection charges and cost accounting systems.\(^{248}\) Therefore, the European approach is far less dogmatic than the American one.

Article 7.2 merely states that charges for interconnection "shall follow the principles of transparency and cost orientation," and that charges are to be derived from actual costs including a reasonable rate of return on investment.\(^{249}\) Annex V provides the NRAs, "by way of example," with a non-exhaustive list of elements that should be included in the cost accounting systems used by the TOs.\(^{250}\) These include "fully distributed costs, long-run average incremental costs, marginal costs, stand-alone costs, embedded direct costs, etc."\(^{251}\) It is significant that unlike the forward-looking American approach, Annex V states that the cost base(s) used can be "historic costs based on actual expenditure incurred for equipment and systems or forward-looking costs based on estimated replacement costs of equipment or systems."\(^{252}\) Further, Annex V does not necessarily imply that under the forward-looking approach prices would be based on the most efficient technology deployed in the incumbent TO’s current wire locations. The European TOs would not appear to have the same concerns raised by the LECs in the Iowa State Utilities Board litigation.


\(^{248}\) Article 4a of the Full Competition Directive requires incumbent TOs to publish their interconnection terms and conditions by July 1, 1997 and to continue publishing for a period of five years during the transition to a competitive environment. See supra note 22 and accompanying text.

\(^{249}\) Interconnection Directive, supra note 36, art. 7.2, at 38.

\(^{250}\) See id. Annex V, at 50.

\(^{251}\) Id.

\(^{252}\) Id. (emphasis added).
The approach taken by the Commission regarding interconnection pricing is more sensible than the one taken by the FCC. However, one potential weakness exists. Article 7.5 of the Interconnection Directive effectively leaves NRAs with the responsibility of ensuring that the cost accounting systems used by the TOs are “suitable for implementation of the requirements” of the article in the hands of the NRAs. The question remains whether the NRAs will consistently apply the economic and accounting principles across the European Community or whether such a task is better handled by a European Regulatory Authority (ERA). Of course, this concern applies to any aspect of decision-making by the NRAs, but it may be argued that NRAs should have less discretion in interconnection pricing, since it involves almost pure calculation. The current problem is that the state regulators have seen the fixing of interconnection tariffs purely as a matter of bilateral negotiation between operators, leaving the dominant TO in a very powerful negotiating position. While the aim of allowing commercial negotiation to serve as the primary basis for interconnection agreements is laudable, the effect may be detrimental to new entrants if the NRAs are unwilling to assume a more active role in the process leading to full competition in the sector.

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255 While the NRAs are being created, the ministers of posts and telecommunications often serve as state regulators.
Article 7.5 of the Directive does require the Commission to write recommendations on cost accounting systems and account separation in relation to interconnection, and it will prove interesting to note the extent to which the recommendations will crystallize the wide scope of Article 7 and Annexes IV and V.\(^257\) While the FCC's approach to interconnection pricing may be criticized for being too narrow and restrictive, the scope of Annex V is so wide that no sensibly consistent determinations can be made.\(^258\) For example, historic costs and forward-looking costs may be weighed in many ways. Allowing the TO in effect to choose the cost base gives it latitude that may result in a higher connection charge than a new entrant should reasonably have to pay. Again, Annex V allows costs standards including fully distributed costs (FDCs). Unfortunately, "mainstream economics has dismissed FDCs for years."\(^259\) Recently, two economists have charged that "FDCs have no theoretical foundation, are necessarily arbitrary, and cannot be used in any meaningful way to establish prices, or set upper of lower bounds for pricing. They are also useless for establishing a standard for cross-subsidy or anti-

\(^{257}\) At the time this Article went to print, the Commission had just published its Commission Recommendation on Interconnection in a Liberalized Telecommunications Market Part-I- Interconnection Pricing, (C97) 3148, 15 October 1997 (visited Oct. 25, 1997) <http://www.ispo.cec.be/infosoc/telecompolicy/en/r3148-en.htm>. The Commission clearly states that interconnection cost should be calculated on the basis of forward-looking long run average incremental costs (LRAIC) because these costs closely approximate those of an efficient operator employing modern technology. See id recommendation 3. Further, the use of LRAIC implies a cost accounting system using activity based allocation of current costs rather than historic costs. See id recommendation 6. Thus, the Commission has taken a more narrow and restrictive view of interconnection policy than is apparent from the Interconnection Directive. That will hopefully serve to alleviate the potential weaknesses of the statement on pricing in the Interconnection Directive identified in this Article. However, it should be remembered that while Directives are binding on Member States, recommendations are not. See id. Explanatory Memorandum. See generally EC TREATY art. 189. Further, the NRAs are still the central figures in the area of interconnection pricing despite the recommendation and the fact that fears of the lack of independence of these newly created NRAs may still exist. See infra notes 264-69.

\(^{258}\) Apart from the LEC's complaints, the state commissions themselves were displeased at what they perceive to be federal usurpation of their powers.

competitive practices.'\textsuperscript{260} Therefore, the Commission has the difficult task of formulating the expected recommendations. The NRA's tasks also prove less than straightforward.

Finally, Article 7.4 of the Interconnection Directive requires, like the FCC Regulations, that charges for interconnection shall be "sufficiently unbundled" so the new entrant will not be required to pay for anything not related to the service requested.\textsuperscript{261} The TOs must establish separate prices for components of services, instead of offering one "bundled" price for the total service.\textsuperscript{262} It remains unclear, however, if this will always create a desirable result for the new entrant. After all, it is generally known that prices for a "bundle" of services need not be equal to the sum of prices of each individual service comprising the package.\textsuperscript{263} The offering of discount prices for buying "in bulk" is a technique often used by supermarkets, for example. Perhaps the proper way to view the policy of "unbundling" is to consider whether such unbundling will actually result in a more competitive downstream market. The point is to ensure that unbundling is not pursued merely as an end in itself.

VI. Conclusion

The issues examined in this Article are by no means exhaustive. However, at this stage of the liberalization process, the Commission is fully stretched by its efforts to ensure coherence in the policies which must be adopted for full liberalization to succeed. Clearly, the Commission, particularly the DGIV, in its present form is not physically capable of overseeing and analyzing every aspect of access and interconnection.

The Draft Notice makes it clear that the NRAs will play a vital role in complementing the Commission's role at the national level. The Commission intends to concentrate on notifications, complaints and own-initiative proceedings: "having particular political, economic or legal significance for the Community . . .

\textsuperscript{260} Id.
\textsuperscript{261} See Interconnection Directive, supra note 36, art. 7.4.
\textsuperscript{262} See id.
\textsuperscript{263} See, e.g., Preston McAfee et al., \textit{Multiproduct Monopoly Commodity Bundling, and Correlation of Values}, 104 Q.J. ECON. 371 (1989).
complaints should, as a rule, be handled by national courts or other relevant authorities.\textsuperscript{264}

The ever-widening scope of the Commission's duties in the competition area has prompted some debate as to whether there should be a pan-European competition agency separated from the Commission. But the Commission is not enamored of the idea, mainly because of possible inconsistencies between competition and Community policies.\textsuperscript{265} There has also been some serious consideration of whether there should be a European Regulatory Authority (ERA) to oversee the liberalization process in the telecommunications sector.\textsuperscript{266} The Bangemann Report\textsuperscript{267} clearly recommended the creation of such an agency. Under Article 22 of the Interconnection Directive, by December 31, 1999, the Commission will have to submit a report on the added value of the setting up of an ERA to carry out those tasks which would prove to be better undertaken at Community level.\textsuperscript{268} This may be too long a time to wait for an ERA. After all, over time, competition rules will emerge as the dominant regulatory tool. The need for an

\textsuperscript{264} Draft Notice, supra note 31, at 12-13. At the time of writing, few Member States have established NRAs. Regulation at this point is left to the relevant ministry (usually that of posts and telecommunications, and occasionally transport). One of the pressing concerns is that NRAs must be independent in order to ensure fairness in the marketplace. In the Netherlands, for example, there are complaints from the main new entrant, Telfort (a joint venture between British Telecoms and the Dutch Railways), that Opta, the regulator being established, may not be independent because it is being created out of the existing supervisory department within the telecommunications division of the transport ministry. Telfort argues that if Opta is to have teeth it should be able to subject KPN's (the incumbent TO) calculations of interconnection charges to scrutiny by outside auditors. See Interconnection Snags for Telfort, EUR. TELECOMMUNICATIONS, Apr. 18, 1997, available in 1997 WL 8803578.


\textsuperscript{266} See FORRESTER ET AL., supra note 254. The study found that cooperation between NRAs, National Competition Authorities (NCAs) and the Commission is seriously limited, and also that the independence of certain NRAs is questionable. See id.


\textsuperscript{268} See Interconnection Directive, supra note 36, art. 22.2, at 44.
ERA, if there is one, would be felt most at the initial stages of liberalization. At any rate, the recommendation is to concentrate on closer and more effective cooperation between the NRAs, NCAs and the Commission, to ensure that there is a strong link maintained between the regulatory and the competition aspects of telecommunications.  

See FORRESTER ET AL., supra note 254. The Commission has indicated that “from a purely institutional point of view it is really up to the Member States where they want to draw the line between the responsibilities of their competition authorities in the telecoms area and that of the telecoms regulators.” Ungerer, supra note 28.