

INCIDENTAL PAPER

**Access Issues Under EU Regulation
and Antitrust Law: The Case of
Telecommunications and Internet Markets**

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Executive Summary

In the Internet age, access has become a key issue for regulation and antitrust. Many Internet libertarians count on low costs of entry and a robust competitive environment, but many segments of the new Internet-based economy, driven by the perceived requirement to show worldwide presence to reach scale economies, might develop towards structures controlled by highly dominant enterprises. This paper reviews three issues which are fundamental to driving theory and practice with regard to access to telecommunications and the Internet in the European Union: (1) the current EU framework of access and interconnection to the basic layer of Internet access, the telecommunications network; (2) recent (1999–2000) changes to the system, even though the current reform process has not yet concluded; and (3) access and control of the Internet and the concept of “top-level Internet connectivity,” which have become central in this context.

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Chapter One

Introduction

In the Internet age, access has become a central issue for regulation and antitrust. Firstly, the new communications infrastructure is, by definition, a layered system,¹ on the top of which e-based transactions—commonly called e-commerce—take place. Essential layers of this new infrastructure are either still under bottleneck control or threaten to fall under such control, local telecommunications access being an example of the first and access to “top-level Internet connectivity” of the second, both of which are discussed in this paper.

The shift of the economic foundation to a networked-based economy on a broad scale—the essential characteristic of what has come to be called the New Economy—is for the first time making markets global in real terms. In essence, this shift means that not only have economic activities—and potential anticompetitive behaviour—become more difficult to regulate and check in the different geographical markets and jurisdictions but also that the behaviour itself and its possible anticompetitive effects can be judged only by appreciating them on a global level. These effects represent a new challenge to cooperation between regulators and antitrust authorities at a global level. Beyond these effects, the shift also implies the requirement for re-appreciating the adequacy of institutional arrangements for dealing with all of these developments.

There have been suggestions that the New Economy implies a fundamental change in the operation of competitive markets and the principles that describe the behaviour of economic agents in such markets and which are at the very basis of antitrust.

The way companies buy and sell is changing. The way they collaborate is changing. And these are scale businesses; they do tend to be “winner takes most.” Information, transactions, tend to accrue to the No 1 player in the

¹The Internet has been defined as follows: “The ‘Internet’ refers to the global information system that (i) is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons; (ii) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons and /or other IP compatible protocols; and (iii) provides uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein.” See Barry M. Leiner, Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts, and Stephen Wolff, “All About the Internet: A Brief History of the Internet,” at 16, Federal Networking Council, Resolution 10/24/1995, Internet Society (ISOC). Available at URL: <http://www.isoc.org/internet-history/brief.html>

This technical definition requires explanation in economic and market terms. See Chapter Four here.

market, whether it is because they set the standards or they have critical mass.²

Or, in even stronger terms: “[T]he constant pursuit of that monopoly power becomes the driving thrust of the New Economy. And the creative destruction that results from all that striving becomes the essential spur of economic growth.”³

By the end of 1999, some 260 million users were connected worldwide to the Internet, of which 111 million were in the United States, 65 million in Europe, and 18 million in Japan.⁴ At this stage, nearly three-quarters of Internet use is accounted for by the triad of the United States, Japan, and the European Union (EU).

In a world increasingly determined by network effects and the related externalities⁵ it is not astonishing that major recent antitrust cases have been dominated by these issues. In the major antitrust case currently dealt with in the United States, the issue of Internet access software has been critical. In the EU, the debate on local access to the telephone networks has become a major element in the European Commission’s overall drive towards developing the Internet economy.⁶ In EU antitrust, the issue of access to “top-level Internet connectivity” (see **Chapter Four**) has been the subject of two major cases in 1998–2000. In Japan, the issue of local access and interconnection to the Nippon Telegraph and Telephone (NTT) network and the conditions attached to it has been a continuing theme in the domestic market and in its trade relations.

²Ken Fox, Internet Capital Group, quoted by Alan Murray in “For Policy Makers, Microsoft Suggests Need to Recast Models,” *The Wall Street Journal*, 9 June 2000, [On-line]. Available at URL: <http://interactive.wsj.com>

³Treasury Secretary Lawrence H. Summers, in “The New Wealth of Nations,” remarks at Hambrecht&Quist Technology conference, San Francisco, 10 May 2000. Available at URL: <http://www.ustreas.gov/press/releases/ps617.htm>

⁴Cyber Atlas: Internet Statistics and Market Research for Web Marketers. Available at URL: <http://cyberatlas.internet.com>

⁵Positive “externalities are the benefits that accrue to parties other than the parties that produce them.” See Paul R. Krugman and Maurice Obstfeld, “Technologies and Externalities,” *International Economics, Theory and Policy*, 5th ed. (Reading, Mass.: Addison-Wesley-Longman, 2000), p. 280. A network externality “is the benefit gained by incumbent users of a group when an additional user joins the group. The group can be thought of as a ‘network’ of users, hence the term network externality. When the economic benefit of an additional user is positive, it is a positive network externality” (Lee W. McKnight and Joseph P. Bailey, eds., *Internet Economics* [Cambridge, Mass.: Massachusetts Institute of Technology Press, 1999], p. 6). As a consequence, industries with network externalities are characterised by positive critical mass, i.e., users prefer large networks in order to reap the benefits offered by network externalities, and networks of small sizes cannot attract a sufficient number of users. The Internet exhibits strong positive externalities. See J. Gong and P. Srinagesh, “The Economics of Layered Networks,” in *Internet Economics*, p. 66; and see Chapter Four here.

⁶“Europe—An Information Society for All,” Communication on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000. Available at URL: <http://www.europa.eu.int>

Against this background the paper reviews three issues which are fundamental to driving theory and practice regarding access to telecommunications and the Internet, at least in the European Union.⁷

The first issue is the current framework of access and interconnection to the basic layer of Internet access, the telecommunications network, in particular, the current (2000) relationship of sector-specific telecommunications regulation, as it has been built in the EU since full liberalisation of the sector on 1 January 1998,⁸ and EU antitrust law.

The second issue is the recent changes to this system, which are examined even though the current reform process has not yet concluded.⁹ A major aspect of this reform is the recognition that

⁷Given the close relationship of the approach taken under the EU's regulatory framework on telecommunications access with the so-called Regulatory Annex (also known as the Reference Paper) developed in the context of the World Trade Organisation (WTO) negotiations on the WTO Basic Telecommunications Agreement (subsequently integrated by the EU, as well as the United States, Japan, and other countries, into their commitments under that agreement), many of the issues discussed here will emerge in all three jurisdictions, though in different forms, owing to the different setup of sector regulation and antitrust law in these jurisdictions.

See *Legal Texts and Commitments, GATS* [General Agreement on Trade in Services (1994)], *Commitments by Sector, Communications Services—Telecommunications Services* and “Additional Commitment by the European Communities and Their Member States.” Available at URL: <http://gats-info.eu.int/gats-info/g2000.pl>

⁸The EU framework for telecommunications consists, roughly speaking, of the so-called sector-specific Open Network Provision (ONP) framework operated by the European Commission and the National Regulatory Authorities (NRAs) of the fifteen Member States of the EU, and EU competition law applied by the European Commission and the national competition authorities and the national court system.

Corresponding authorities in the United States are the Federal Communications Commission (FCC) and the U.S. antitrust system. In Japan, they are the Ministry for Posts and Telecommunications (MPT) and the Japanese Fair Trade Commission. For a recent comparative analysis of telecom regimes in the United States, Japan, the EU, Canada, Australia, New Zealand, and other telecommunications markets, see Dianne Northfield, *The Information Policy Maze: Global Challenges—National Responses* (Melbourne: RMIT University Press, 1999).

The EU telecommunications sector was liberalised by a series of measures (liberalisation directives issued under EU competition law, Article 86 of the TEC [Treaty Establishing the European Community] [former Article 90, as renumbered by the Amsterdam Treaty] and harmonisation Directives issued by the European Parliament and the Council on the basis of Article 95 TEC [former Article 100a]).

The measures culminated in the adoption by the European Commission of the Full Competition Directive, Commission Directive 96/19/EEC, Full Competition in Telecommunications Markets, OJ L 74/13 (1996), mandating full liberalisation of telecommunications in the EU on 1 Jan. 1998. Five Member States were allowed various transition periods under special Decisions by the Commission under Article 86, the last deadline (Greece) ending on 31 Dec. 2001.

The importance of the EU Full Competition Directive to the European market was similar to that of the enactment by Congress of the Telecommunications Act of 1996 to the U.S. market.

For a recent comparison of telecom deregulation in Europe and the United States, see Viktor Mayer-Schoenberger and Matthias Strasser, “A Closer Look at Telecom Deregulation: The European Advantage,” *Harvard Journal of Law and Technology* 13, 3 (2000).

⁹The Commission has carried out a series of reviews of the sector, essentially aiming at taking account of changes required by convergence of markets and the Internet. The recent review process started with *Green Paper on the Convergence of the Telecommunications, Media, and Information Technology Sectors and the Implications for Regulation*, COM(1997)623, and a series of subsequent communications by the Commission. It culminated with the

the new environment outdates a number of traditional sector regulatory concepts and requires increased reliance on, and integration of, competition law approaches,¹⁰ in particular, those concerning concepts of dynamic market definitions, in order to deal effectively with access issues in the future.

The third issue concerns the development of the concept of “Internet connectivity” and access to connectivity, as that has emerged in Europe, notably, on the basis of the investigation and decision in 1998 on *WorldCom/MCI*.¹¹ This investigation became a key step in the competitive analysis of Internet access and Internet control. The case developed for the first time in Europe a coherent system of market definitions taking full account of the network effects fundamental in the Internet age, notably, the concept of a global market for “top-level Internet connectivity.”

Within the framework of the EU’s overall political goals, as expressed at the Lisbon European Council in March of 2000, access to the new communications structures in the Internet age is of fundamental importance for the European Union. Access to the new communications structures is also a major measure that the European consumer applies in appreciation of the success of European policies and, in particular, of EU antitrust policies. As European Competition Commissioner Monti declared on the occasion of the opening of the Competition Day 2000, “opening up the telecommunications sector to competition has cut telephone charges in some cases by up to 35%, increased the range of services provided and created new jobs.”¹²

Commission’s issue of *Towards a New Framework for Electronic Communications Infrastructure and Associated Services: The 1999 Communications Review*, COM (1999)539, and *The Results of the Public Consultation on the 1999 Communications Review and Orientations for the New Regulatory Framework*, Communication from the Commission, COM(2000)239, 26 April 2000. Available at URL:

http://www.europa.eu.int/comm/information_society/policy/telecom/index_en.htm

On the basis of the orientations, on 12 July 2000 the Commission adopted a package of legislative proposals. See “Commission Proposes Overhaul of Rules for Electronic Communication,” European Commission press release IP/00/749, 12 July 2000. Available at URL: <http://europa.eu.int>

For a general discussion of convergence, see also P. H. Longstaff, *New Ways to Think About the Visions Called “Convergence”*: A Guide for Business and Public Policy (Cambridge, Mass.: Harvard University Program on Information Resources Policy, June 2000). Available at URL: <http://www.pirp.harvard.edu>

¹⁰Similar issues are arising in other jurisdictions. Compare William H. Read, Ronald A. Weiner, *FCC Reform: Does Governing Require a New Standard* (Cambridge, Mass.: Harvard University Program on Information Resources Policy, P-99-1, April 1999), where the authors suggest that the FCC should “adopt a public interest standard that incorporates procompetitive antitrust principles.” Available at URL: <http://www.pirp.harvard.edu>

¹¹99/287/EC: Commission Decision of 8 July 1998, declaring a concentration to be compatible with the common market and the functioning of the EEA [European Economic Area] Agreement (Case IV/M.1069–*WorldCom/MCI*), OJ L 116, 4.5.1999, pp. 1-35. Available at URL: <http://www.europa.eu.int/comm/dg04/merger/closed/en/dec98.htm>

¹²See “Mario Monti Launches ‘Competition Day’ in Lisbon on 9 June,” European Commission press release IP/00/590, 8 June 2000. See also XXIXth Report on Competition Policy—1999, SEC(2000)720, 5 May 2000, Commission of the European Communities, and Foreword. Available at URL: http://www.europa.eu.int/comm/dg04/annual_reports/1999/

This statement emphasizes the basic message that “European citizens have everything to gain from competition policy.”¹³

¹³Ibid.

Chapter Two

The Duality of Sector Regulation and Antitrust Law: The Current EU Approach to Access to Telecommunications Networks

Since the inception of EU telecommunications liberalisation in 1987,¹⁴ a comprehensive framework of sector-specific regulation has been developed, both at the EU level as well as at the EU Member State level (the EU Open Network Provision [ONP] framework).¹⁵ In parallel, telecommunications is the sector where the European Commission has to date developed its most

¹⁴With the publication by the European Commission of *Towards a Dynamic European Economy: Green Paper on the Development of a Common Market for Telecommunications Services and Equipment*, COM(87)290.

¹⁵The history and development of telecom markets and regulation in the European Union are extensively covered elsewhere. See, for example, Herbert Ungerer, “EU Competition Law in the Telecommunications, Media, and Information Technology Sectors,” in *International Antitrust Law and Policy, 1995: Annual Proceedings of the Fordham Corporate Law Institute*, edited by Barry E. Hawk (Yonkers, N.Y.: Juris Publications; London: Sweet & Maxwell, 1996), p. 465. In the same volume, see also Antoinette Cook Bush (moderator), Giuliano Amato, Timothy Cowen, John Hendricks, Frédéric Jenny, Thomas J. Ramsey, Mario Siragusa, and Herbert Ungerer, Roundtable Discussion, “Privatization and EU Competition Law,” p. 587.

EC telecommunications liberalisation developed mainly as a consequence of three factors. Firstly, by the end of the 1980s, the growing digitisation of European telecommunications networks began to transform them into multipurpose information infrastructures. The opportunities offered by telecommunications networks and services started to extend into markets substantially beyond the traditional telephone service, particularly the so-called value-added-services—the precursors of today’s Internet services and Internet service providers (ISPs). As a result, access to the traditional monopoly networks in the telecommunications sectors became a major issue in all EU Member States, and there was a growing conviction that without a loosening of monopoly rights—and a consequential definition of access conditions—it could neither be assured that new markets could develop nor that the new services offered could be made available to consumers. Secondly, in *British Telecommunications* (Case C-41/83 (1985) ECR 873,(1985)2 CMLR 382), the European Court of Justice confirmed that EU competition rules applied to the telecommunications sector. Thirdly, the impact of developments in the United States, in particular, the AT&T divestiture consent decree in 1982 and the resulting transformation of the U.S. market, began to be felt in Europe. At the same time, the progressive deregulation of the telecommunications sector and the privatisation of British Telecom (later normally referred to as BT) in the U.K. since 1982 made Europe more receptive to the concept of market deregulation.

The combination of these factors led the Commission in 1987 to issue its Telecommunications *Green Paper*, which set forth a comprehensive policy framework for EU action in the telecommunications sector. The *Green Paper* envisaged a number of changes in EU telecommunications leading towards progressive liberalisation. Most notably, in the context of this debate, already at the time of the *Green Paper*, definition of harmonised access conditions (the ONP concept) became central.

By 1993, an EU Telecom Review led to an agreement on the full liberalisation of the EU telecommunications market by 1 Jan. 1998, including the remaining public voice telephony and telecommunications network infrastructure/facilities monopolies.

The 1993 Review led to, among other things, an agreement by the EC Council to adjust the ONP framework to fully liberalised market conditions and to establish a regulatory framework for interconnection and access to services and networks.

consistent position concerning the application of EU competition law to bottleneck access, with the adoption of the *Access Notice*.¹⁶

With the development of this framework, both sector regulation and antitrust became, in a complementary manner, the two pillars on which the regulatory framing of the development of the sector was based.¹⁷

In the course of implementing the telecommunications policy concept, the application of EU competition law was of primary importance from the very beginning.¹⁸ Access and its relationship to competition law figured centrally on the sector agenda as early as *British Telecommunications*, often called a legal cornerstone of the EU telecommunications framework. Already in *British Telecommunications* the European Court of Justice hinted at a number of main issues in access which were fully worked out only subsequently: the Court confirmed the requirement to give access to a “value-added” service provider,¹⁹ and it also specifically addressed the issue that development of new technologies in this context was in the public interest.

¹⁶*Notice on the Application of the competition rules to Access Agreements in the Telecommunications Sector* (OJ C 265, 22.8.1998, p. 2); hereafter *Access Notice*. Available at URL: <http://www.europa.eu.int/eur-lex/en/index.html>

The introduction to the EU’s access and interconnection framework here is based in part on an article by the author in connection with *Third Competition Law Annual 1998: Regulating Communications Markets*, edited by Claus Dieter Ehlermann and Louisa Gosling (Oxford, Eng.: Hart Publishing, 2000).

¹⁷This situation is similar to the basic regulatory approach in the two other jurisdictions, particularly the United States, though emphasis has been different due to the different jurisdictional context. In the US, major starting points of liberalisation and competition were the FCC’s Computer Inquiries I and II, with a long preceding history of gradual liberalisation since the first FCC decision in 1948 on attachment of terminal equipment (recording devices) other than AT&T’s. On the antitrust side, the AT&T divestiture decision (consent decree) of 1982 determined the competitive structure of the US telecommunications market up to the Telecommunications Act of 1996 which established the basic principles for a fully competitive U.S. telecommunications market (as did the Full Competition Directive for the EU market).

For a recent comparative analysis, see Mayer-Schoenberger and Strasser, “A Closer Look at Telecom Deregulation: The European Advantage,” supra. See, in particular, their analysis of different approaches in the two jurisdictions to the relationship between the federal and state levels in the United States and between the EU level and the fifteen Member States in Europe, which turned out to be quite decisive in determining the speed of the transformation (and the legal hurdles encountered).

¹⁸In December of 1989, a basic policy compromise defined the respective role of measures based on EU competition law (Article 86, associated with application of Articles 81 and 82, as well as other EU Treaty Articles), and harmonisation through internal market legislation based on Article 95 of the EC Treaty. The compromise reached between the Commission and the Member States on the occasion of the adoption of the *Telecommunications Services Directive* and the *ONP framework Directive* established the principle of a complementary role of liberalisation under Article 86, EU competition law, and harmonisation under Article 95.

The *Full Competition Directive* was based on Article 86 and the associated competition law principles. The *ONP Interconnection Directive* is based on Article 95, internal market legislation.

¹⁹Case C-41/83 (1985), supra. The case concerned the activities of certain private messaging forwarding agencies via the BT network at the time (1982). In its Decision, the Commission found that BT (at that time still in a monopoly position and in public ownership) had abused its dominant position in the telecommunications systems market by taking measures to prevent certain private messaging agencies from offering a given type of service. The service

As early as *British Telecommunications*, three elements emerged which are also prevalent in the current debate on access:

- the key role of access to the network of the incumbent;
- the issue of non-discriminatory access; and
- the issue of the development of new technology markets/new services.

As value-added services were progressively liberalised in Europe, access to bottleneck network facilities started to become both a recurrent theme and a central issue in the telecommunications, media, and information technology markets.

The issues of access and interconnection acquired a key role in the big alliance cases that, in the mid-1990s, began to dominate attention in the application of EU competition law (and, more generally, at the global level in antitrust) as a prelude to full liberalisation of telecoms in the EU with the *Full Competition Directive* of 1996, in the United States with the adoption of the 1996 Telecom Act, and at the global level with the World Trade Organisation (WTO) agreement on basic telecom services of 1997.

Three aspects need to be emphasised:

1. With EU full liberalisation and the emerging sector-specific EU framework, the definition of access and interconnection within the ONP framework acquired more and more importance. This was particularly refined with the adoption of the ONP Interconnection Directive of 1997.
2. Under the sector-specific framework, independent National Regulatory Authorities (NRAs) were established in all Member States, acting as a decentralised regulatory implementation structure but within an EU-harmonised framework.²⁰

permitted telex messages to be received and forwarded on behalf of third parties at prices lower than those charged by BT for its international telex service.

One of the main issues in that case was how far Article 86(2) of the EU Treaty could be applied to exempt BT's abuse of its dominant position on the telecommunications system market by preventing access and the forwarding of the messages in question.

Firstly, the Court made clear that it was for the Commission to decide (subject to review by the Court) on any derogation to be granted from the application of the Competition rules on the basis of Article 86(2) (former Article 90[2]). Article 86 (2) stipulates that "undertakings entrusted with the operation of services of general economic interest...shall be subject to the rules contained in this Treaty, *in particular to the rules on competition*, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Community." (Emphasis added).

Secondly, the Court made it clear that it would favour a narrow interpretation of the scope of a derogation under Article 86(2) from obligations under competition law, in particular, taking into account possible resulting delays in the development of new technologies.

²⁰This framework was defined in, among other places, the ONP Interconnection Directive in substantial detail. European Parliament and Council Directive 97/33/EC, OJ L 199, p. 32, 26.7.1997. Available at URL:

3. Initially, owing to developments in other sectors, access to bottleneck facilities began to be defined more explicitly as an *essential facilities concept* in the context of EU competition law, in particular under Article 82. This concept found its current, most explicit formulation in the *Access Notice*, which drew its conclusions from a broad range of Commission decisions on access to bottlenecks under competition rules and from Court Rulings in this context.

It is worthwhile taking a quick look at the relationship of the working of sector-specific regulations under the ONP framework and general competition law. This relationship is defined in substantial detail in the *Access Notice*. The *Notice* states that a party concerned with access to a telecommunications network or another critical bottleneck network resource in the EU faces essentially two main choices:

- specific national regulatory procedures now established in accordance with Community Law and harmonised under ONP; and
- an action under national and/or Community Law, in particular, competition rules, before the Commission, a national court, or a national competition authority.

In the *Notice*, the Commission recognised that Community competition rules are not sufficient to remedy all the various problems in the telecommunications sector. The (sector-specific) NRAs therefore have a significantly wider ambit and far-reaching role in the regulation of the sector.

The ONP Directives impose on telecommunications operators (TOs) having significant market power (SMP) certain obligations of transparency and nondiscrimination that go beyond those that would normally apply under Article 82 of the Treaty. ONP Directives lay down obligations relating to transparency, obligations to supply, and pricing practices. These obligations are enforced by the NRAs, which also have jurisdiction in ensuring effective competition.²¹

<http://www.europa.eu.int/eur-lex/en/search.html>

As regards the application of EU competition rules, EU competition law can be enforced both by the European Commission (under the control by the European Court of Justice) and by the antitrust authorities (and courts) at Member State level, subject to the procedures established by the basic procedural Regulation 17 (Council Regulation No. 17, implementing Articles 81 and 82 of the Treaty, OJ 13, 21.2.1962, p. 204, and subsequent Notices).

The current reform process of Regulation 17, which implies a fundamental reform of the procedural provisions of EU competition law, decentralising enforcement to national antitrust authorities, as far as procedures following Regulation 17 are concerned (i.e., excluding procedures falling under the EU Merger Regulation [Regulation (EEC) No. 4064/89 as amended], and state aids). The aim is to increase efficiency of enforcement through decentralisation from EU level to Member State level.

See “White Paper on Modernisation of the Rules Implementing Application of Articles 85 [now 81] and 86 [now 82] of the EC Treaty,” Commission Programme No. 99/027, 28.4.1999. Available at URL: http://www.europa.eu.int/comm/dg04/entente/en/wb_modernisation.pdf

²¹This is, however, subject to important caveats: Firstly, under Community Law, national authorities, including regulatory authorities and competition authorities have a duty not to approve any practice or agreement contrary to

However, the *Access Notice* states that “if interim injunctive relief were not available, or if such relief was not likely adequately to protect the complainant’s right under Community Law, the Commission could consider that the national proceedings did not remove the risk of harm, and could therefore commence its examination of the case under EU competition rules.”

The Commission may also intervene if, for example, the issue is of sufficient pan-European interest to justify immediate action. More generally, if it appears necessary, the Commission can also open own-initiative investigations or launch sector inquiries where it considers them necessary.²²

Summarising, in the European framework a *dual* system has developed concerning treatment of access to bottleneck situations. Within the framework of sector-specific regulation of access—the ONP framework and the specific regulations at the national levels—the NRAs can act in a substantial *ex-ante* manner and mandate in substantial detail interconnection provisions concerning pricing, accounting, and the technical details of access.

In the current interpretation of EU competition law, application of competition rules to access issues is essentially limited to dealing *ex-post* with the abuse of a dominant position and the measures taken to terminate such abuse. According to the *Access Notice*, sector-specific regulation will generally take precedence with regard to action under competition law if such sector-specific action is procompetitive and efficient.

In practice, the current EU framework for obtaining access to telecommunications facilities and services rests on two competing concepts for remedying anticompetitive effects resulting from the existence of bottleneck structures:

- enforcement of access and interconnection provision under sector-specific regulation, essentially by the NRAs at the state level, within an EU harmonisation framework; and
- enforcement of access, as far as a plaintiff party can claim access under EU competition law, essentially under the European version of the essential facilities doctrine, as it is now evolving.

Community competition law. Secondly, an efficient procedure must be in place. According to the *Access Notice*, an access dispute before an NRA should be resolved within six months of the matter first being drawn to the attention of that authority. This resolution should take either the form of a final determination of the action or another form of relief which would safeguard the rights of the complainant. And, thirdly, there must be availability of and criteria for interim injunctive relief.

²²Under Regulation 17, an issue relating to access agreements could be brought before the Commission by way of a notification of an access agreement by one or more of the parties involved, by way of a complaint against a restrictive access agreement or against the behaviour of a dominant company in granting or refusing access, by way of a Commission own-initiative procedure into such a grant or refusal, or by way of a sector inquiry. In addition, a complainant may request that the Commission take interim measures in circumstances where there is an urgent risk of serious and irreparable harm to the complainant or to the public interest.

Under sector-specific regulation (the ONP framework), a general obligation to supply access is imposed on public network operators with significant market power (SMP), principally defined as operators with more than a 25 percent market share (thus, SMP operators).²³ This makes the SMP concept central to the ONP framework.²⁴

However, the full and speedy enforcement of fair interconnection and access under this regime was mainly achieved by combination with Recommendations (“soft legislation”).²⁵

A Recommendation on Interconnection Pricing established price ranges for interconnection rates across the EU, based on the “best practice” of the three Member States with the lowest interconnect rates at the time of the issuing of the Recommendation. These ranges have largely determined the incumbents’ interconnection offerings submitted and approved by the national regulators in the Member States. This benchmarking of interconnection pricing against “best practice” (“regulatory competition”) has made the EU an area with some of the lowest interconnection rates in the world market, with local access in the range of 0.5 to 1 Eurocents per minute.²⁶

Therefore, it seems that *sector-specific regulation based on the ONP framework* has been highly effective in achieving rapidly low-priced access to the incumbents’ local telephone networks across the EU. In major cases where procedures had been opened under competition rules, the Commission therefore has tended to stay procedures in favor of sector-specific proceedings under ONP or derived national regulations that were likely to resolve the issue (see the *Mobile Interconnect*²⁷ proceeding and the *Accounting Rate*²⁸ proceeding). That procedures

²³According to the *ONP Interconnection Directive*, the notification (by the NRA) of an organisation as having SMP depends on a number of factors, but the starting presumption is that an organisation with a market share of more than 25 percent will normally be considered to have significant market power. Other factors which can be taken into account by the NRA are turnover relative to the size of the market, ability to influence market conditions, control of the means of access to end-user, international links, access to financial resources, and experience in providing products and services in the market, as well as the situation of the relevant market. In practice, to date, the traditional telephone incumbents have been notified as having SMP. Some Member States have notified certain public mobile operators as having SMP, or are considering this.

²⁴Essential articles of the *Interconnection Directive* in this context are: Article 4.2: obligation to supply access; Article 6: nondiscrimination; Article 7: cost orientation; Article 8: accounting separation for “interconnection services.” Available at URL: <http://www.europa.eu.int/eur-lex/en/search.html>

²⁵Soft legislation are measures nonbinding on Member States under the EU Treaty: in general, Recommendations and Resolutions. See *Commission Recommendation 98/195/EC on Interconnection in a Liberalised Telecommunications market: Interconnection Pricing*, as amended. OJ L 228, 15.8.1998, p. 30. Available at URL: <http://www.europa.eu.int/eur-lex/en/search.html>

²⁶This combination of (binding) Directives with soft legislation was already pointing to the course taken in the current reform; see Chapter Three here.

²⁷*Mobile Interconnect* proceeding: press release (IP/98/707) 27.7.1998. Available at URL: <http://www.europa.eu.int>
In January of 1998, the Commission launched an inquiry into interconnection charges between fixed and mobile

operators, opening fifteen cases, i.e., one for each Member State, owing to growing concern about persistently high prices for mobile communications, particularly for fixed to mobile calls. The objective of the inquiry was to check the following: whether prices charged by the incumbent fixed network operator for terminating mobile calls into its fixed network were excessive or discriminatory; whether termination fees charged by mobile operators, which have joint control among themselves over call termination in their networks, were excessive; and whether the revenues retained by the incumbent fixed network operator on fixed to mobile calls were excessive.

In the press release, the Commission concluded that at least fourteen cases warranted in-depth investigation, given preliminary indications of possibly excessive or discriminatory prices. These cases comprised: four cases of mobile-to-fixed termination charges by Deutsche Telekom (DT), Telefónica, KPN Telekom (Netherlands), and Telecom Italia, which would be *suspended for six months in favour of action by national regulators*; two cases of termination fees charges by mobile operators in Italy and Germany; and eight cases regarding the retention on fixed-to-mobile calls by public switched telecommunications networks (PSTN) operators Belgacom, Telecom Éireann, BT, P&T Austria, Telefónica, KPN Telekom (Netherlands), Telecom Italia, and Deutsche Telekom. The Commission would *suspend the case involving BT* given an ongoing inquiry by the U.K. Monopolies and Mergers Commission (MMC) on this issue. (Emphasis added.)

The approach of close cooperation with national regulators turned out to be largely successful. In May of 1999, the Commission announced that it had decided to conclude the EU-wide investigation. This announcement followed an assessment of the substantial price reductions, of more than 80 percent in some cases, in response to the investigation. The Commission recalled that “in conducting the inquiry, launched in February 1998, the Commission co-operated closely with national competition agencies and national regulatory authorities (NRAs) in the EU Member States.” See press release, “Commission Successfully Closes Investigation into Mobile and Fixed Telephony Prices Following Significant Reductions Throughout the EU,” (IP/99/298) 4.5.1999. Available at URL: <http://www.europa.eu.int>

On the occasion, however, the Commission stated that it intended “to pursue the scrutiny of competitive conditions within an overall sector enquiry of telecoms on key issues, including current roaming conditions between mobile operators.”

The Commission has acted similarly in other cases. For example, in early January of 1998, it proceeded under Article 86, EC competition rules against DT’s high fees concerning the provision of carrier-preselection and number portability. Given that a parallel procedure was opened before the German NRA, and that fees were considerably reduced, the Commission terminated its own procedure. See press release, “Commission Terminates Procedure Against Deutsche Telekom’s Fees for Preselection and Number Portability and Transfers the Case to National Authorities” (IP/98/430) 13.05/1998.

²⁸*Accounting Rate* proceeding: press release (IP/98/763) 13/08/1998. Available at URL: <http://www.europa.eu.int> The Commission opened procedures in the autumn of 1997 concerning European operators with a potentially dominant position, regarding the accounting rates (transfer prices) charged to terminate international calls. Following a preliminary assessment, the Commission announced in the press release that it appeared that “the international accounting rates charged within the EU by seven operators may result in excessive margins.” The seven operators were: OTE of Greece, Post & Telekom Austria, Postes et Télécommunications Luxembourg, SONERA (formerly Telecom Finland), Telecom Eireann, Telecom Italia, Telecom Portugal.

The Commission concluded that it would further investigate into the prices for international phone calls paid to these operators. On the occasion, the Commission stated that “the issue...may also be tackled under the ONP rules.... In line with its *Notice on the Application of Competition Rules to Access Agreements in the Telecommunications Sector*, the Commission has informed the national regulatory authorities of the findings of its first phase of investigation. In cases where the relevant authority will decide to pursue the issues under its own jurisdiction, *the Commission will stay its own proceedings, and assess in six months* whether it should continue its proceedings.” (Emphasis added.)

By April of 1999, the Commission stated that, “following the swift action by the national regulators,” it could close its investigation in respect of a number of the operators concerned. See press release, “Commission Sees Substantial Progress in Its Investigation into International Telephone Prices” (IP/99/279) 29.4.1999. Available at URL: <http://www.europa.eu.int>

were stayed confirms the Commission’s basic position that sector-specific regulation should take precedence where efficient procedures that can terminate the abuse exist.²⁹

As regards mandating access to telecommunications facilities under an essential facilities approach under EU antitrust,³⁰ the *Access Notice* set out basic principles in substantial detail. The *Access Notice* uses the expression “essential facilities” to describe a facility or infrastructure that is essential for reaching customers and/or enabling competitors to carry on their business, and which cannot be replicated by any reasonable means.³¹ The Commission

must ensure that the control over facilities enjoyed by incumbent operators is not used to hamper the development of a competitive telecommun-

²⁹This has not, however, prevented the Commission from intensifying its supervision under antitrust powers of the most critical segments of the sector. It has initiated a sector inquiry into general competitive conditions in local network access (“local loop”), the roaming (mobile communications) services market and the pricing of private lines. These Inquiries are still ongoing. See press releases, “Commission Launches First Phase of Sectoral Inquiry into Telecommunications: Leased Line Tariffs” (IP/99/786) 22.10.1999; and “Commission Launches Second Phase of Telecommunications Sector Inquiry Under the Competition Rules: Mobile Roaming” (IP/00/111) 4.2.2000; both available at URL: <http://www.europa.eu.int>

³⁰There have been a number of complaints concerning the refusal of access or the conditions attached to it. A number of these were settled by action of NRAs, pointing to the success of the sector regime set up.

There have also been commitments by the parties in a number of merger cases to provide access, in order to make these mergers compatible with competition rules; see Chapter Four here.

³¹The essential facilities doctrine is a relatively recent concept under EC competition law. It derives from a line of cases originally in sectors other than telecommunications. See, in particular: Joined Cases 6/73 and 7/73 *Commercial Solvents v. Commission* [1974] ECR 223 (chemicals); Commission Decision 94/19/EC of 21.12.1993, *Sea Containers v. Stena Sealink* (OJ L 15, 18.1.1994, p. 8), and Commission Decision 94/119/EEC of 21.12.1993, *Port of Rodby* (Denmark) (OJ L 55, 26.2.1994, p. 52) (transport); Joined cases C-241 / 91P & C-242/91P, *Radio Telefis Eireann v. Commission* (“Magill”), [1995] ECR, I-743. See also John Temple Lang, “Defining Legitimate Competition, Companies Duties to Supply Competitors, and Access to Essential Facilities,” in *International Antitrust Law and Policy, 1994: Annual Proceedings of the Fordham Corporate Law Institute*, edited by Barry E. Hawk (Irvington-on-Hudson, N.Y.: Transnational Juris Publications; The Hague, The Netherlands: Kluwer Law and International, 1995), p. 245. For a recent survey, see, for example, Wolfgang Jauk, “The Application of EC Competition Rules to Telecommunications—Selected Aspects: The Case of Interconnection,” *International Journal of Communications Law and Policy*, 4 (1999–2000), 57. Available at URL: <http://www.ijclp.org>

Of particular relevance for the most recent interpretation of the essential facilities concept under EU antitrust law is the Judgment by the European Court of Justice of November of 1998, *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co KG*, Case C-7/97, where the Court defined conditions for the application of the principle. Available at URL: <http://www.europa.eu.int/eur-lex/en/index.html>

For a comparative analysis of the essential facilities doctrine under U.S. regulatory and antitrust law, and EC competition law under Article 82, see James S. Venit and John J. Kallaugher, “Essential Facilities: A Comparative Law Approach,” p. 315, and Temple Lang, *supra*, p. 245, both in *International Antitrust Law and Policy, 1994: Annual Proceedings of the Fordham Corporate Law Institute*, *supra* (1995).

In the *Additional Commitments on Regulatory Principles by the European Communities and Their Member States* (Regulatory Annex or Reference Paper) in the context of the WTO Basic Telecom Agreement, essential facilities are defined as “facilities of a public telecommunications transport network and service that: (a) are exclusively or predominantly provided by a single or limited number of suppliers; and (b) cannot feasibly be economically or technically substituted in order to provide a service.”

ications environment. A company which is dominant on a market for services and which commits an abuse contrary to Article 86 [now Article 82] on that market may be required, in order to put an end to the abuse, to supply access to its facility to one or more competitors on that market. In particular, a company may abuse its dominant position if by its actions it prevents the emergence of a new product or service.³²

The *Access Notice* addresses the balance to be drawn between the rights of those requesting access and those who have to give access, the crucial point in any essential facility concept.³³

However, the basic principle to be kept in mind is that the bottleneck holder—given its dominant position—must not act to prevent competition from emerging.

Drawing a balance at this stage, the dual regime in the EU concerning access to telecommunications bottlenecks was highly successful as regards its basic purpose: making full EU-wide liberalisation of telecommunications networks and services since 1 January 1998 a rapid success. The rapid establishment of a decentralised but harmonised access and interconnection regime under the Member States' oversight, combined with soft legislation by recommendations and the ultimate threat of intervention under antitrust powers if sector regulation would not resolve issues, led to an effective opening of core segments of the telecommunications network infrastructure, which was just emerging from monopoly control. The opening allowed rapid development of competition in both long-distance and international services and in the long-distance network backbone, by reassuring market entrants and investors about access and interconnection with the incumbents dominating the networks in the local access market. In the long-distance and international markets, within two years prices fell in some cases by a factor of 10.³⁴

³²See *Access Notice*, supra.

³³Main principles are (to be taken cumulatively): it will not be sufficient that the position of the company requesting access would be more advantageous if access were granted. Refusal of access must lead to the proposed activities being made “either impossible or seriously and unavoidably uneconomic”: (1) there is sufficient capacity available to provide access; (2) the facility owner “fails to satisfy demand on an existing service or product market, blocks the emergence of a potential new service or product, or impedes competition on an existing or potential service or product market”; (3) the company seeking access is prepared to pay a reasonable and nondiscriminatory price and will otherwise in all respects accept nondiscriminatory access terms and conditions; and (4) there is no objective justification for refusing to provide access, “such as an overriding difficulty of providing access to the requesting company, or the need for a facility owner which has undertaken investment aimed at the introduction of a new product or service to have sufficient time and opportunity to use the facility in order to place that new product or service on the market.”

The last expresses the delicate balance which must be found between the interest of the party seeking access (who will generally want to achieve access at low rates and according to its own requirements) and the rights of the bottleneck holder (who will focus on obtaining benefits from the investment undertaken for the development of its own product).

³⁴In a number of Member States, prices fell to U.S. levels in the long-distance and international call markets within that short period.

In terms of Internet access, the opening meant that Internet service providers (ISPs) could freely develop. Competition in the long-distance backbone market implied that for the first time there were indications of a significant development of a European-based backbone for Internet traffic.

However, by the end of 1999 it had become clear that major problems persisted:

- The ONP regime and the derived national sector-specific regimes had become highly dependent on definitions, which implied a high degree of technicality and therefore a high potential for legal conflict. The regime as established is largely dependent in its impact on two concepts: the “category” within which the party seeking access and the bottleneck holder fall; and, in particular, the SMP determination.

In a number of Member States, there were threats of major conflicts concerning the interpretation of these concepts. The questions of who qualifies as public network operator (and therefore for the low network-interconnect rates) and who should be designated an SMP operator (and therefore become subject to substantial regulatory scrutiny and to regulatory rate approval) had become central.

- The issue of competition in the local access market (the local loop: the “last mile”) remained unresolved, with a persistent market dominance by the incumbents with market shares of 90 percent and more. In practical terms, lack of competition meant that access to the Internet in Europe remained substantially more expensive than in the United States.³⁵ In competition terms, it meant that the development of alternatives such as cable and wireless access remained uncertain, as long as these means were either under control of the incumbent³⁶ or the conditions for the full unbundling of the local loop could not be addressed.

³⁵High per-minute-call charging for the local loop impeded ISPs from offering comprehensive and cheap flat-rate access arrangements as available in the United States.

³⁶On the eve of full liberalisation on 1 Jan. 1998, nearly 60 percent of cable customers were served by a cable operator wholly or partly owned by the local telecommunications incumbent.

- During the prolonged debate on the consequences of convergence,³⁷ the application of the existing framework to the highly complex new markets of convergence and the Internet remained uncertain.

With the focussing of the debate in Europe on the creation of a future oriented e-environment as the main engine of future growth and employment,³⁸ that debate culminated in the spring of 2000, when, after a series of consultations, the outline of a new approach seemed to develop.

³⁷*Green Paper on Convergence*, supra.

³⁸See Conclusions of the European Council at Lisbon, 23-24 March 2000. Available at URL: <http://www.europa.eu.int>

Chapter Three

Integrating Sector Regulation and Antitrust: The Further Development of the Approach

By the spring of 2000, it had become clear that the critical issue of Internet access at the basic layer (local telecommunications access) could not be adequately resolved in the EU within the framework developed by then, and that the broader access issues resulting from convergence could not be properly tackled. While the Commission continued to promote the cable³⁹ and wireless (fixed and mobile)⁴⁰ alternatives for access to the Internet as longer term options, it focussed immediate priority on opening full access to the local networks of the incumbents. “Unbundling of the local loop aims to foster competition in local access networks, currently dominated by incumbent operators. New entrants do not have the investment capacity to duplicate the local network. Therefore, they must be allowed to use the incumbents’ local loop.”⁴¹ “This

³⁹Subsequent to a cable review completed in 1998, in June 1999 the Commission adopted an Article 86 Directive under its antitrust powers mandating the legal separation of cable networks from the incumbent telephone companies’ networks. This was seen as a minimal condition for developing cable networks towards broadband Internet access.

The measure resulted in partial sell-offs of cable networks by incumbents, or the announcement of plans to do so, by a number of incumbents in EU Member States, in particular, DT and FT, the German and French incumbents, respectively. See “Commission Communication Concerning the Review Under Competition Rules of the Joint Provision of Telecommunications and Cable TV Networks by a Single Operator and the Abolition of Restrictions on the Provision of Cable TV Capacity over Telecommunications Networks,” OJ C 71 (1998); and Commission Directive 1999/64/EC of 23 June 1999, OJ L 175/ 39 (1999). Both available at URL: http://www.europa.eu.int/cgi-bin/eur-lex/search_oj.pl

⁴⁰The European Commission promoted energetically the development and deployment of broadband mobile communications systems (referred to as third-generations [3G] systems or, in Europe, as the Universal Mobile Telecommunications System [UMTS]), building on its success in the deployment of the Global System for Mobile (GSM) Communications in Europe. By the spring of 2000, a number of UMTS licences had been allocated (e.g., Finland, U.K.), and the licensing process was under way or planned in others (e.g., Germany, France, and Spain). The main motivation was to prepare Europe’s mobile system for the Internet age.

According to Erkki Liikanen, the European Commissioner responsible for Enterprise and the Information Society: “Europe is moving towards the knowledge-based economy. And Europe will have a strong position in some key areas. One of them will be the mobile Internet. Europe is the undisputed world leader in mobile communications.... There are already some 140 million mobile users in Europe—that’s over one-third of the EU population.... New innovative services are rapidly gaining momentum, in particular WAP [Wireless Application Protocol] services and m-commerce [mobile commerce] And this gives us only a foretaste of what third-generation—or 3G-mobile systems—have in store for us: the mobile broadband Internet.” See Liikanen, “Is There a Third Way for the Internet in Europe?” a speech delivered at the Global Internet Summit, Barcelona, 22 May 2000. Available at URL: <http://www.europa.eu.int>

⁴¹Ibid. Access to (unbundling of) the local loop of the regional Bell operating companies and their successors (subsequent to the merger wave following the Telecommunications Act of 1996) has been a prevailing issue also in the United States. For a recent analysis of the complex tradeoffs between the common carrier tradition in U.S. telecommunications regulation and the maintenance of investment incentives for both telephone and cable companies, see John C. B. LeGates, *Open Access in the Local Telephone Loop: A Grand Tour of the Entangled Issues* (Cambridge, Mass.: Harvard University Program on Information Resources Policy, I-00-1, April 2000). Available at URL:

will lead to lower local tariffs. And it will speed up the *provision of affordable high-speed services based on DSL* [digital subscriber loop] *technologies*.”⁴² (Emphasis added.)

Given the short-term requirement to speed up large-scale deployment of Internet access at affordable rates in Europe and to open up development towards high-speed multimedia Internet applications, the Commission chose a two-pronged approach:

- immediate action with regard to unbundling the local loop,⁴³ developing further the combined use of “soft law” under sector regulation and of antitrust, which had already been successful in tackling interconnection rates in Europe; and
- commitment to broad reform, in the context of the 1999 review,⁴⁴ of the access framework, and the close integration of sector regulation and antitrust principles, particularly of the market definitions used under both frameworks.

With regard to the first, the Commission issued a Recommendation⁴⁵ (i.e., soft legislation) and a communication⁴⁶ updating its approach to obligations under EU antitrust law for providing access to unbundled network elements.⁴⁷ Its intention was to establish a fast-track procedure towards unbundling, by using a soft-law approach under the form of a recommendation directed

<http://www.pirp.harvard.edu>

Note also the continuing debate in Japan on the access conditions to NTT’s local network.

⁴²Liikanen, “Is There a Third Way for the Internet in Europe,” supra. DSL is a family of technologies that allow upgrades of the normal telephone wire to high-speed access.

⁴³See Commission press release, “Commission Acts to Liberalise the ‘Last Mile.’ Local Loop Unbundling Will Boost High-Speed Internet Access” (IP/00/408), 26.4.2000. “Commissioners Liikanen and Monti declared that ‘the local access network’ remains one of the least competitive segments of the liberalised telecommunications sector . The measures addressed by the Commission to Member States on unbundled access to the local loop will help stimulate competition in the local access network, giving businesses and consumers access to an affordable advanced communications infrastructure and a wide range of services.”

⁴⁴See “Towards a New Framework for Electronic Communications Infrastructure and Associated Services,” COM(1999)539, supra, and “Results of the Public Consultation,” COM(2000)239, supra.

⁴⁵*Commission Recommendation on Unbundled Access to the Local Loop*, C(2000)1059, 26 April 2000. Available at URL: http://www.europa.eu.int/comm/information_society/policy/telecom/index_en.htm

⁴⁶Communication from the Commission: “Unbundled Access to the Local Loop,” COM(2000)237, 26 April 2000. Available at URL: http://www.europa.eu.int/comm/information_society/policy/telecom/index_en.htm

⁴⁷Permitting “unbundled access to the local loop” is defined as “allowing other operators to use, partially or fully, the local loops installed by incumbent telephone operators, enabling them to install new cost-effective technologies such as DSL.... Under full unbundled access to the local loop new entrants would have full control of the commercial relationship with their customers, and in this way, new market entrants would be able to deploy all type of new technologies and to provide competitive services to consumers, including new broadband services. “This will facilitate the deployment of high speed Internet services.” See IP/00/408, supra.

For a recent discussion of options for the “bottom-up” development of the local loop particularly in the local and municipal area see Deborah Hurley and James H. Keller, eds., *The First 100 Feet: Options for Internet and Broadband Access* (Cambridge, Mass: The MIT Press, 1999); see <http://www.ksg.harvard.edu/iip/>

at the NRAs and the incumbent telecommunications operators, while making it clear that the Recommendation would be used as a measure in proceedings under Articles 81/82 of TEC establishing abusive behaviour or, more particularly, refusal of access to an essential facility.⁴⁸

The Recommendation recommended implementation of full unbundling for 31 December 2000 at the latest. Building on the *Access Notice* (see **Chapter Two**), the Communication went into some detail on certain aspects, in order to integrate conclusions from the *Bronner Judgment*,⁴⁹ in which the European Court of Justice had made clear that it would favour a narrow interpretation of the essential facilities doctrine in Europe, in order to safeguard investment incentives.

The Communication argued⁵⁰ that the “incumbents’ local network are the only networks which have been developed nation-wide in each of the Member States.”⁵¹ It described in some detail why the case of unbundling satisfied the *Bronner* test, in particular:⁵²

- “Given the size of the investment required, the absolute cost of nation-wide duplication of the incumbents’ network with a similar population coverage is likely to be a barrier to entry for any competitor. This infrastructure appears to be with present technologies economically unfeasible,⁵³ or unreasonably difficult to duplicate at a nation-wide level, in a reasonable time period.”
- “A refusal from an incumbent to give access to competitors on its local loop is thus likely to eliminate the possibility for new entrants to compete at all on the nation-wide market.”⁵⁴

The Communication reemphasised a number of principles resulting from EU competition rules (set out in the *Access Notice*) with regard to the conditions of access, in particular, those concerning delays, discrimination, and price abuses.

The Communication made clear that with the introduction of soft legislation on a key issue for access to the future Internet infrastructure in the EU, the Commission favoured a shift away

⁴⁸A number of Member States have already undertaken, or announced, unbundling of the local loop.

⁴⁹Case C-7/97, *supra*, which concerned access to home delivery services for print media by a competitor.

⁵⁰The Commission also found that the telephone networks of the incumbents “still deliver the bulk of access services to end-users—the connection and the line rental—and held a share of the local call market which, except in the UK, is well above 90% and in most cases close to 100%.”

⁵¹Communication from the Commission: “Unbundled Access to the Local Loop,” *supra*, Chapter 3.2.

⁵²*Ibid.*

⁵³*Oscar Bronner GmbH&Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH&Co KG*, Case C-7/97, par. 44. Available at URL: <http://www.europa.eu.int/eur-lex/en/index.html>

⁵⁴*Ibid.*, par 38.

from traditional telecom regulation towards a more flexible scheme,⁵⁵ while, with the emphasis on antitrust action to offer remedy in case of noncompliance, it initiated a gradual shift towards basing the future regulation of the sector on EU competition law principles.

This shift became even clearer in the announced shift of emphasis for the general reform,⁵⁶ as put forward in the general Communication on the consultation on the 1999 review.⁵⁷

⁵⁵Though the Commission indicated at the time that a firm regulatory obligation may subsequently be introduced in the final regulatory package.

Indeed, the package of legislative proposals, as announced on 12 July 2000 (supra), included the proposal of a (directly applicable and binding) Regulation to enforce unbundling in all EU Member States by 31 Dec. 2000. The statement published referred to the soft-law approach announced in April, but stated that “since then...it has become increasingly apparent that, despite progress made in some Member States, non-binding measures are unlikely to achieve local loop unbundling on a sufficiently harmonised basis across the EU by 31 December 2000.”

The Regulation is based on Article 95, TEC, and requires approval by the European Parliament and Council to enter into force. See press release, “Commission Proposes Unbundling Local Loop by End of Year” (IP/00/750), 12.7.2000. Available at URL: <http://www.europa.eu.int>

With this proposal, it became clear that, in spite of the preference for a more flexible approach, the Commission would not hesitate to back up “soft legislation” with “hard” law measures in case of need, especially during the critical transition towards full effective competition in all segments of the EU’s telecommunications market.

⁵⁶At the Global Internet Summit, 24 May 2000, supra, Commissioner Liikanen defined the goals of the review and the outcome as follows: “First, simplify and clarify the existing framework—bringing the number of regulatory measures down to 6 from currently 20; second, introduce greater flexibility in the framework—by relying more heavily on accompanying non-binding measures; third, adapt the 1998 telecoms framework in the light of technology and market development; four, introduce greater competition, in particular in the local loop. As competition grows further, it will be possible to rely increasingly on competition rules.”

The package of legislative proposals finally announced on 12 July 2000 followed these lines. The package aims at consolidating the existing EU telecommunications legislation into a more limited number of directives. The press release published on that occasion stated that the new regulatory framework would “significantly simplify and clarify the existing regulatory framework.” The proposed consolidated framework comprises:

- “Five harmonisation Directives, including a Framework Directive and four specific Directives on authorisation, access and interconnection, universal service and user rights, and data protection in telecommunications services [essentially consolidating the current ONP directives [see Chapter Two here], and certain measures applying to television standards and protection of privacy in telecommunications].
- “A Regulation on the unbundling of the local loop [supra].
- “A draft Commission Liberalisation Directive [consolidating the existing Article 86 Directives issued under EU competition law] [see Chapter Two here].
- “A Decision on Community radio spectrum policy.”

See COM(2000)393 (Framework), COM(2000)386 (authorisation), COM(2000)384 (access and interconnection), COM(2000)392 (universal service and user rights), COM(2000)385 (data protection and privacy), COM(2000)394 (unbundling), and COM(2000)407 (radio spectrum). Available at URL:

http://europa.eu.int/comm/information_society/policy/framework/index_en.htm; and Draft Competition Directive consolidating existing Directives on competition in the telecommunications markets, 12.07.2000. Available at URL: <http://www.europa.eu.int/comm/competition/whatsnew.html>

See press release, “Commission Proposes Overhaul of Rules for Electronic Communications” (IP/00/749), supra. Commissioner Erkki Liikanen confirmed on the occasion the previously set goals. He stated: “Less regulation, easier market entry and a level playing field across [the] EU are prerequisites for development of world class telecommunications and Internet services in Europe.”

⁵⁷Communication on the results of the public consultation COM(2000)239, 26 April 2000, supra.

The central shift in emphasis concerns access and interconnection obligations. The European Commission proposed to change the cornerstone of the current framework by modifying

the concept of significant market power and [using] it as the underlying concept for imposing ex-ante obligations relating to access and interconnection. In particular the market share threshold of 25% would no longer be part of the definition. Instead, the definition would be based on the *concept of dominant position in particular markets*, calculated in a manner consistent with EC competition law practice, as a trigger for the heavier ex-ante obligations, and would cover all aspects including joint dominance and leverage of market power into associated markets.⁵⁸ (Emphasis added.)

In practice, this shift would mean that, in the future, the basis of sector-specific regulatory intervention would be application of antitrust theory, at least as far as market definitions and the determination of market power were concerned. The approach would eliminate a major potential source of conflict between the current approach under EU-sector regulation and the antitrust approach concerning access to the communications infrastructure.⁵⁹ At the same time, this more flexible approach, based on analysis of actual market power, would seem to open the way towards a potentially more generalised application of access obligations, and their application also to higher levels of access, beyond the basic telecommunications infrastructure. The growing convergence of the communications markets, and the resulting requirement for a more flexible framework, have made this rebalancing towards (the more generalised) antitrust principles inevitable.

⁵⁸Communication from the Commission, *supra*, Chapter 3.3.

The proposed legislative package (*supra*) confirmed this approach. It said that “the definition of significant market power...now needs to be adapted to suit more complex and dynamic markets, and for this reason is being modified to be based on the concept of dominance as defined in the case law of the Court of Justice and the Court of First Instance of the European Communities.” See “Proposal for a Directive of the European Parliament and of the Council on a Common Regulatory Framework for Electronic Communications Networks and Services,” COM(2000)393, 12 July 2000, point 20. Available at URL: http://europa.eu.int/comm/information_society/policy/framework/index_en.htm

Articles 13 and 14 of the proposed new Framework Directive set out principles and market analysis procedure in further detail.

⁵⁹It will be interesting to see how a number of consequences of this major change will be tackled. In practice, arrangements will have to be worked out at the enforcement level between sector-specific entities and antitrust authorities—both at the EU and the national level, particularly concerning market definitions and determination of dominant positions.

Given the close relationship between the EU’s ONP (sector regulation) framework and its obligations under the WTO telecommunications “Regulatory Annex,”⁶⁰ it will be interesting to see how the concept of “major supplier” in that Annex will be interpreted in the future.

The “major supplier” concept is the basic concept concerning access and interconnection obligations entered into by all parties which have committed to the “Regulatory Annex” under the WTO basic telecom agreement.⁶¹ The Annex states, in particular: “*Interconnection to be ensured: Within the limits of permitted market access, interconnection with a major supplier will be ensured at any technically feasible point in the network...*”⁶² The commitments have been entered into by the United States, Japan, and the EU, as well as a number of other countries. Shared efforts will be required to ensure common interpretation, as access concepts evolve.

⁶⁰WTO Basic Telecoms Agreement. “Additional Commitments” taken in the schedules committed to by a number of countries, including the United States, Japan, and the EU, also known as the Reference Paper.

⁶¹Ibid., supra, point 2.

⁶²Ibid., point 2.2.

Chapter Four

Going Global: Access to Top-Level Connectivity in Global Markets

Although securing access to the basic telecom infrastructure is the very basis for ensuring access to a global network, even though it falls under national regulatory approaches,⁶³ access to “top-level connectivity” has turned out to be a phenomenon that can be analysed only in a global context and with a global market definition.

In the EU, access to “top-level Internet connectivity” was investigated for the first time, in 1998, in substantial detail in the *WorldCom-MCI* case.⁶⁴ The investigation was carried out under the EU merger regulation.⁶⁵ It focussed on concerns “about the parties’ combined market share in relation to the supply of Internet backbone services.”⁶⁶ In the course of the investigation, the Commission identified for the first time the hierarchical market power structure and the effect of network externalities in the Internet to substantial detail—a finding quite contrary to the belief that the Internet is by nature a highly distributed structure.⁶⁷

As described in the *Decision*, when the National Science Foundation (NSF; see **Chapter One**) withdrew in the mid-1990s from financing the Internet backbone, private companies took over the role of supplying the underlying long-distance lines that link the different networks in the “inter-net.” Some of the initial regional networks began to operate as ISPs, offering access services on a commercial basis to paying subscribers. “From the time of withdrawal of the NSF,

⁶³Though national regulatory approaches are correlated to a substantial extent via the obligations to ensure access taken under the WTO Basic Telecom Agreement, *supra*.

⁶⁴The case concerned a merger between WorldCom, Inc., and MCI Communications Corp. (MCI). The two companies were described as “US-based international telecommunications companies offering a range of services including telecommunications services and Internet services”(press release IP/98/213). See Commission press releases, “Commission to Carry Out Detailed Inquiry into Proposed Merger Between WorldCom and MCI” (IP/98/213), 4.3.1998; and “Commission Clears WorldCom and MCI Merger Subject to Conditions” (IP/98/639), 8.7.1998; both available at URL: <http://www.europa.eu.int>; and 99/287/EC: Commission Decision of 8 July 1998, declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement (Case IV/M.1069-*WorldCom/MCI*), OJ L 116, 4.5.1999, pp. 1-35; hereafter, the *Decision*. Available at URL: <http://www.europa.eu.int/comm/dg04/merger/closed/en/dec98.htm>

⁶⁵Regulation (EEC) No. 4064/89 of 21 Dec. 1989, on the control of concentrations between undertakings, OJ L 395, 30.12.1989, p. 1; corrigendum OJ L 257, 21.9.1990, p. 13, as last amended by Regulation (EC) No. 1310/97, OJ L 180, 9.7.1997, p. 1. Available at URL: <http://www.europa.eu.int/comm/dg04/lawmerg/merger.htm>

⁶⁶Press release (IP/98/213), 4.3.1998, *supra*. The Commission found significant overlaps in this market.

⁶⁷During the investigation the parties argued that the “Internet was originally conceived to be non-hierarchical in form, in order to avoid the strategic vulnerabilities associated with network architectures based on centralised and hierarchical switching and tiered structures.” *Decision*, point 50. The original Internet developed in the 1970s, out of the Advanced Research Projects Agency network (ARPAnet), under U.S. Defence programs.

the Internet could no longer be regarded as a hierarchy of networks joined by a single unifying backbone, but as a number of networks connected to different backbones requiring mutual interconnection if the dependent networks (or ISPs) were to be able to continue sending traffic to each other.”⁶⁸

As a consequence, the commercial operators of the network split into two groups: a highly concentrated leading group of backbone providers who “peer” (interconnect on a traffic exchange basis)⁶⁹ and those who pay access charges⁷⁰ to this “top-level” group of companies who “can provide connectivity anywhere on the Internet solely through their own peering agreements with other networks⁷¹...without having to rely on the purchase of a ‘transit’ service from any provider.”⁷² The investigation established that the difficulty for the smaller networks in obtaining peering with the top-level networks meant that “the number of ISPs who enjoy the status of top-level networks is kept relatively small.”⁷³

The investigation defined the relevant market, that is, the market for the provision of “top-level” or “universal” Internet connectivity, as effectively a global market.

The major finding that emerged during this investigation was that the Internet was controlled by a highly concentrated group of providers dominating that market,⁷⁴ quite independent from the geographical location of their physical backbones.

The Commission also found that the parties would, through their merger, hold over 50 percent of that market on the basis of the chosen methodology for market sizing and for share based on revenue and traffic flow.⁷⁵ It concluded that the merged entity (i.e., MCI/WorldCom) “would control market entry by denial of new peering requests, foreclosure or the threat of foreclosure of peering agreements and/or their replacement with paid interconnection.”⁷⁶

⁶⁸*Decision* point 23, *supra*.

⁶⁹I.e., settlement- or payment-free.

⁷⁰Called “transit” arrangements and transit charges.

⁷¹I.e., agreements with other network operators for mutual termination of traffic.

⁷²IP/98/639, *supra*. For an explanation of top-level networks, see also *Decision*, point 41, *supra*.

⁷³*Decision*, point 45, *supra*.

⁷⁴By the time of the investigation, the following “big four” were seen as being in a stronger position than all others in this market: WorldCom, MCI, Sprint and GTE/BBN; see *Decision*, point 102.

⁷⁵*Ibid.*, point 114.

⁷⁶*Ibid.*, point 119.

Without going into further details of the case here,⁷⁷ three points can be made:

1. The definition of a global market for Internet connectivity and the critical role of access to that connectivity⁷⁸ was recognised for the first time as a central concept.
2. The investigation pinpointed one of the core changes in the Internet economy, which has been dubbed “winner take most”:⁷⁹ “The merger might well create a ‘*snowball effect*’, in that MCI WorldCom would be better placed than any of its competitors to capture future growth through new customers, because of the attractions for any new customer of direct connection with the largest network, and the relative unattractiveness of competitors’ offerings owing to the threat of disconnection or degradation of peering which MCI/WorldCom’s competitors must constantly live under.”⁸⁰ (Emphasis added.). It has been suggested that in the world of the New Economy, “the avalanche, rather than the thermostat, becomes the more attractive metaphor for economic policy.”⁸¹
3. Investigation and enforcement in the global Internet market require cooperation on antitrust policy closer than ever before. In the *WorldCom/MCI* case, there was an exchange of letters,⁸² “whereby the Commission requested the DoJ’s cooperation regarding the

⁷⁷The investigation concluded that in the absence of competitive constraints and effective potential competition the merger would “if not altered, lead to the creation of a dominant position in the market for the provision of top-level or universal Internet connectivity,” *Decision*, point 135.

The merger was cleared on the basis of structural remedies offered by the parties, i.e., “their commitment to divesting MCI’s Internet assets, thus eliminating the overlap with WorldCom’s Internet business,” press release IP/98/639, *supra*.

⁷⁸The central role of top-level connectivity as a future concept was reconfirmed on the occasion of the subsequent notification and investigation of the planned MCI WorldCom/Sprint merger. “The Commission has raised serious doubts as to the compatibility of the proposed merger between MCI WorldCom and Sprint mainly because of its impact on competition in the market for top-level Internet connectivity.” See Commission press release, “Commission Opens Full Investigation into the MCI WorldCom/Sprint Merger” (IP/00/174), 21.2.2000. Available at URL: <http://www.europe.eu.int>

On 28 June 2000, the Commission prohibited the merger “as it would have resulted in the creation of a dominant position in the market for top-level universal Internet connectivity.” “An in-depth investigation by the Commission showed that the merger would, through the combination of the merging parties’ extensive networks and large customer base, have led to the creation of such a powerful force that both competitors and customers would have been dependent on the new company to obtain universal Internet connectivity.” The investigation was carried out in close cooperation with the U.S. Dept. of Justice (DOJ). See press release, “Commission Prohibits Merger Between MCI WorldCom and Sprint” (IP/00/668), 28.6.2000. Available at URL: <http://www.europe.eu.int>

⁷⁹Ken Fox, quoted by Alan Murray in “For Policy Makers, Microsoft Suggests Need to Recast Models,” *The Wall Street Journal*, 9 June 2000, [On-line]. Available at URL: <http://interactive.wsj.com>

⁸⁰*Decision*, point 131.

⁸¹Treasury Secretary Lawrence H. Summers in “The New Wealth of Nations,” remarks at Hambrecht&Quist Technology conference, San Francisco, 10 May 2000. Available at URL: <http://www.ustreas.gov/press/releases/ps617.htm>

⁸²Between the Director-General of the Directorate-General for Competition and the Assistant Attorney General in charge of the Antitrust Division, U.S. Dept. of Justice (DOJ), in accordance with Article IV of the Agreement between the European Communities and the Government of the United States of America regarding the application of their

undertakings which were mutually offered to both the Commission and the DoJ. The DoJ confirmed that it will take whatever steps are necessary and appropriate to evaluate, and if it finds them to be sufficient, to seek the effective implementation of these undertakings.”⁸³

A similar announcement of close cooperation was made for the subsequent MCI-WorldCom/Sprint case.⁸⁴

Given the strong network externalities of the New Economy, access to global connectivity is bound to become a major and permanent issue in international antitrust. Many layers of the Internet are potential bottleneck candidates. A well-known example is access to the Internet address space, the logical core of the Internet and the root servers.⁸⁵ Other effects of high concentration of market power at the “top-level” may be seen at the level of the so-called certification and trust services,⁸⁶ the billing and payment systems being built up to underpin worldwide transactions for e-commerce both by existing credit card companies and others, and, of course, in the well-known case of browser access software. Even in the e-commerce field—on top of the Internet proper—which is generally seen as an area of low entry costs and, therefore,

competition laws. See Agreement, OJ L 95, 27.4.1995, p. 47. Available at URL: <http://www.europa.eu.int/eur-lex/en/index.html>

⁸³Decision, point 164.

⁸⁴See press release IP/00/174, supra.

⁸⁵The root servers are the basis for routing calls (packets) via the Internet. Originally, the top root servers were operated under a contract between the U.S. Department of Commerce and academic and private institutions, in particular, Network Solutions, Inc. (NSI), a private company.

Subsequent to the publication of a White Paper, a nonprofit organisation was set up under California law, under an agreement with the U.S. Dept. of Commerce (ICANN—Internet Corporation for Assigned Numbers and Names). It started to introduce competition into the allocation of “top domain names” (the dot-names: .com, .gov, .org, .net, .edu, .int, etc.) and of Internet address blocks. In the spring of 2000, the top root server, the physical basis for implementing the address space and related data bases (e.g., the WHOIS database), were still operated by NSI, which was taken over in a major deal by Verisign, Inc., a major actor in Internet trust and certification services. See U.S. Department of Commerce, “Management of Internet Names and Addresses,” Docket Number: 980212036-8146-02, 6.5.1998 DNS Statement of Policy. Available at URL: <http://www.ntia.doc.gov/ntiahome/domainname> For an account of the development of the management of Internet domain names and related issues, see Milton Mueller, “Technology and Institutional Innovation: Internet Domain Names,” *International Journal of Communications Law and Policy*, 5 (Summer 2000). Available at URL: <http://www.ijclp.org>

See, also, the ICANN Web site, at URL: <http://www.icann.org>; and the Berkman Center for Internet Society, Harvard Law School, at URL: http://www.law.harvard.edu/programs/center_law/

For a recent overview of the discussion of Internet governance issues, see Christopher T. Marsden, “Information and Communications Technologies, Globalisation, and Regulation,” in *Regulating the Global Information Society*, edited by Christopher T. Marsden (London: Routledge, Warwick Studies in Globalisation, forthcoming December 2000).

For an EU position on ICANN-related issues, see Communication from the Commission to the Council and the European Parliament, “The Organisation and Management of the Internet / International and European Policy Issues 1998–2000 COM(2000)202. Available at URL:

http://www.europa.eu.int/comm/information_society/policy/telecom/index_en.htm

⁸⁶Certification and trust services guarantee the security of transactions via the Internet.

highly competitive, strong externality effects may start to work and global access issues may arise. On-line auction markets may become an example,⁸⁷ while business-to-business (B2B) exchanges grouping major companies at a global level for negotiating supply and demand may become another.

Given the global and pervasive nature of the Internet, which in many cases will void national market definitions of real meaning, coordination in investigation and enforcement of antitrust will be vital. Developing common principles in international antitrust in dealing with the New Economy effects will become a first-priority issue. This issue is complicated because in a number of cases the development of innovative markets passes through a temporary strong market position or monopoly by lead actors.⁸⁸ In many cases, antitrust regulators will search for an optimal mix of structural and behavioural remedies, in order to guarantee the development of competitive market structures on the one hand and the fair remuneration of the innovator's high-risk investment (the motor of the New Economy) on the other.⁸⁹ Antitrust decisions of the future

⁸⁷Alan Murray, "For Policy Makers, Microsoft Suggests Need to Recast Models," *The Wall Street Journal*, 9 June 2000, [On-line]. Available at URL: <http://interactive.wsj.com>: "Ebay Inc. dominates the online-auction market because it is the biggest. Sellers go there to reach the most buyers; buyers go there to reach the most sellers."

⁸⁸A problem well known in the Intellectual Property Rights field.

⁸⁹Recent regulatory and antitrust decisions tend to be a mix of structural and behavioural measures.

In the case of the *Vodafone Airtouch/Mannesmann* merger in the mobile communications sector, the largest merger ever, the European Commission requested divestiture of mobile networks in two national markets to eliminate overlap; it accepted undertakings by Vodafone Airtouch aiming at enabling third-party nondiscriminatory access to the merged entities integrated network, so as to respond to the Commission's serious concerns about access for competitors to the market for competitive seamless pan-European mobile services. Undertakings were limited to three years, given the roll-out of third-generation (3G) mobile networks and the expected growth of real alternatives to Vodafone/Airtouch's network footprint. See press release, "Commission Clears Merger Between Vodafone Airtouch and Mannesmann AG with Conditions" (IP/00/373), 12.4.2000. Available at URL: <http://www.europa.eu.int> Decision: Case No. COMP/M.1795–*Vodafone Airtouch/Mannesmann*, 12.4.2000. See point 58. Available at URL: http://www.europa.eu.int/comm/dg04/index_en.htm

A similar line was taken in major cases on local access concerning cable networks. In the Decision on the *Telia/Telenor* merger concerning the telecom incumbents in Sweden and Norway, respectively—later abandoned by the parties—the Commission accepted a number of divestiture commitments, in particular, of the cable TV networks in Sweden and Norway, and requested, in addition, access commitments (local loop unbundling) in both countries.

On the occasion, the Commission stated that it "will have a very close look at access to local telecommunications and cable TV networks when assessing any future notifications of mergers or joint ventures between those incumbent operators. It may be the case that the Commission will again require cable TV network divestitures and/or local loop unbundling in future cases in order to resolve competition issues." It continued, "this policy is consistent with the line taken in the Cable Review in 1998, where legal separation as the minimum was required between cable TV networks and Telecommunications networks owned by the same incumbent operator." See Chapter Three here and Commission press release (IP/99/413) 13.10.1999.

See, also, the FCC decision (5 June 2000) on the *AT&T/MediaOne* merger, where the FCC insisted on divestitures, in order to decrease the effect of the merger on the cable TV market, and noted that it expected "AT&T to fulfill its voluntary commitments to give unaffiliated Internet service providers...access to its cable systems to provide broadband services to consumers." The FCC also noted "that AT&T has entered a proposed consent decree with the U.S. Department of Justice, which requires the merged firm to divest its interest in the cable broadband ISP Road Runner and to obtain Justice Department approval prior to entering certain types of broadband arrangements with Time Warner

will increasingly have global implications and will raise increasingly complex global enforcement issues. Securing access to all levels of the new networked economy for market actors will be in the focus of international antitrust development.

and America Online.” Available at URL:

http://www.fcc.gov/Daily_Releases/Daily_Business/2000/db0605/nrcb0015.html

Chapter Five

Conclusions

Access issues in the New Economy are bound to grow in importance. Services often involve very large up-front investments, be they in networks, organisation, or brand building, but often low distribution costs. According to commentators,⁹⁰ “in such business it is inexpensive to expand rapidly into a dominant position, and dangerous [from the company’s perspective] not to.”

Quite contrary to many of the beliefs of Internet libertarians, who count on low costs of entry and a robust competitive environment, many segments of the new Internet-based economy—driven by the any-to-any principle and the requirement in many instances to show worldwide presence to reach scale economies—could develop towards structures controlled by highly dominant enterprises. Although the current concentration of much of the Internet economy in the United States⁹¹ still may allow tackling certain of these effects in a national framework, as does the localised nature of the local access layer of the Internet, the implications of measures taken will in many cases be global.

This paper has limited itself to discussing briefly two layers directly related to the Internet: local telecom access and the issue of access to global Internet connectivity.

In the first instance, as developments in the European Union show, convergence and the emergence of the new Internet markets will make antitrust considerations increasingly important. Approaches taken on local access are already linked into a multilateral framework, given the obligations the United States, Japan, the European Union, and others have taken under the WTO Basic Telecommunications Agreement (see **Chapter Three**).

In the second instance, bilateral antitrust cooperation, such as that within the U.S.-EU agreement, was the only way to come to common positions in tackling the antitrust issues involved (see **Chapter Four**). In all cases, at this stage of development of the world market, the members of the triad United States-Japan-EU will be called upon to act primarily because together they currently account for 75 percent of the world’s Internet access.

This paper has not addressed other main issues involved in Internet access where “top-level” (see **Chapter Four**) effects could develop. One set of such issues is the platforms formed

⁹⁰Alan Murray, “For Policy Makers, Microsoft Suggests Need to Recast Models,” *supra*.

⁹¹“The Internet traffic currently originates disproportionately from the United States, where the large majority of web sites are based. Most web pages are in English and most of them are hosted in the United States. *Of the 100 most visited web sites, 94 are located physically in the United States.*” (Emphasis added.) See Commission press release, “Commission Proposes Programme to Stimulate Presence of European Digital Content on the Internet” (IP/00/513), 24.5.2000. Available at URL: <http://www.europa.eu.int>

in B2B e-commerce between major suppliers or buyers with a global impact. Others concern access to content. One of the main issues in the major current antitrust case in the United States concerns control of the access software to the World Wide Web. In all of these areas, more international cooperation and coordination will be needed to define common principles in market definitions and remedies, as well as in enforcement. In many cases, the implications of decisions will be global.

As stated by European Commission President Prodi, the Commission follows “a focused strategy to address the key barriers to the further uptake of the Internet in Europe and ensure that the framework conditions are established for a decisive move towards the new knowledge-based economy”⁹². A global Internet economy will need a global view of antitrust and its enforcement mechanisms. Suffice it to say in conclusion that the Internet and the New Economy have the promise of more competition and more consumer benefit. But, as with any promise, it must still be realised. Global cooperation on antitrust will be a major element in that realisation.

⁹²Commission President Romano Prodi, in “Commission Proposes Ambitious eEurope Action Plan,” press release (IP/00/514), 24.5.2000. Available at URL: <http://www.europa.eu.int>

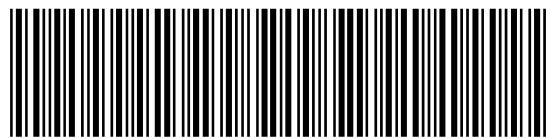
Acronyms

ARPAnet	Advanced Research Projects Agency network
B2B	business-to-business
BT	British Telecom
DSL	digital subscriber loop
DT	Deutsche Telekom
e-commerce	electronic commerce
EEA	European Economic Area (Agreement)
EU	European Union
FCC	Federal Communications Commission
GATS	General Agreement on Trade in Services (1994)
GSM	Global System for Mobile Communications (GSM Association)
ICANN	Internet Corporation for Assigned Numbers and Names
IP	Internet Protocol
ISOC	Internet Society
ISP	Internet service provider
m-commerce	mobile commerce
MCI	MCI Communications Corp.
MMC	Monopolies and Mergers Commission
MPT	Ministry for Posts and Telecommunications
NRAs	National Regulatory Authorities
NSF	National Science Foundation
NSI	Network Solutions, Inc.
NTT	Nippon Telegraph and Telephone
ONP	Open Network Provision
PSTN	public switched telecommunications network
TCP/IP	Transmission Control Protocol/IP
TEC	Treaty Establishing the European Community
3G Systems	Third Generations Systems
TOs	telecommunications operators
TV	television

U.K.	United Kingdom
UMTS	Universal Mobile Telecommunications System
U.S.	United States
WAP	Wireless Application Protocol
WTO	World Trade Organisation



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