

Telecommunication Regulation in the United States and Europe: The Case for Centralized Authority

William Lehr¹
Columbia University & MIT
Wlehr@mit.rpcp.edu

Thomas Kiessling
Global One & Harvard University
Thomas.Kiessling@GlobalOne.net

Paper presented to the
Twenty-sixth Telecommunications Policy Research Conference
Alexandria, VA

First Draft, Comments Welcome

October 3-5, 1998

Telecommunications regulators in both the US and the European Union are facing a year 2000 problem: how best to reform the current dual regulatory regime (Federal/State in the US; European Commission/Member States in Europe) in light of industry convergence, globalization, and liberalization. These trends are perhaps best exemplified by the emergence of the Internet as a global communications platform for communications services, as well as, electronic commerce and what it entails. This paper argues that in both the US and the European Union there are important economic reasons why the regulatory balance needs to tilt in favor of a stronger centralized authority. In the US, this means affirming the Federal Communication Commission's (FCC's) ability to preempt State authority in areas relating to the promotion of wholesale-level carrier competition; while in Europe, this means interpreting the subsidiarity principle more narrowly to permit the European Commission (EC) to assert more authority over the National Regulatory Authorities (NRA) in the member states.

This paper is organized into five sections. Section 1 provides an overview of our main arguments, explaining why it is important to have a stronger centralized authority. Section 2 reviews the economic and legal justification for the dual-regulatory system of centralized/local regulation that exists in both the US and Europe. Section 3 elaborates the three arguments for centralized authority summarized in Section 1. Although we argue that there are many similarities in between the situation in the US and Europe, there are also differences that make the need for a centralized authority less important in Europe. Section 4 focuses on how the US and European environments differ. Section 5 offers concluding remarks.

Section 1: Introduction

The twin goals of telecommunications liberalization and promotion of integrated infrastructure require a centralized regulatory authority, however, concerns over local autonomy conflict with this need. In Europe, the debate focuses on the allocation of jurisdiction between

¹ William Lehr would like to acknowledge the support of the MIT Internet Telephony Consortium. In addition, many of the ideas presented here were developed in discussions with my colleague Glenn Hubbard at Columbia University.

National Regulatory Authorities (NRAs) in the member states and the European Commission (EC); in the United States, the conflict is between state Public Utility Commissions (PUCs) and the Federal Communications Commission (FCC). While the tension between local and national regulatory institutions is not new, the issue is both more important and more difficult to resolve today.

First, a centralized regulatory authority is needed today if efforts to promote increased local competition and deregulation (US) -- or liberalization (European Union) -- are to be successful. The policy challenge is to manage the transition from monopoly regulation of a dominant incumbent carrier to a competitive market with a level-playing field for both the incumbent and new entrants. Creating this level-playing field means eliminating both regulatory and economic barriers to entry. When most of the strongest potential competitors to the incumbent operate in multiple local jurisdictions, heterogeneous local rules tilt the field in favor of the *status quo* and the dominant incumbent local carrier. In the US, this favors the Incumbent Local Exchange Carriers (ILECs) such as Bell Atlantic, SBC, or US West; while in Europe, it favors the national incumbent operators (called Telecommunications Organizations (TOs) in the European Union (EU)) such as France Telecom or Deutsche Telekom.² An ILEC or TO can take advantage of heterogeneous rules and multiple regulatory fora to deter or delay increased competition.³ A centralized regulatory authority can help minimize opportunities for such behavior.

Second, a strong centralized authority is needed to facilitate deregulation. It is preferable to role up the regulatory carpet from the edges. The process of liberalization is likely to proceed more rapidly and easier to manage and coordinate if authority is centralized first. On the other hand, if the centralized authority is eliminated first, there is a significant risk that local deregulation will proceed asymmetrically, if at all.

Third, the emergence of the Internet and the goal of promoting an integrated global information infrastructure reduce the validity of assigning regulatory jurisdiction based on geographic boundaries. The Internet is inherently footloose, increasing the difficulty of asserting local control. Allocations of jurisdiction on the basis of intrastate/interstate (US) or national (Europe) boundaries made more sense in a telephone-only world, but are not sensible in the Internet Age. Attempts to apply asymmetric local regulations may prove futile, but they may also distort or deter investment that is needed if the Internet is to continue to grow and evolve.

While the need for a strong centralized authority may be greater, prospects for satisfying this need are dimmer, largely for political rather than economic reasons. In the US, the FCC's ability to serve effectively as the centralized authority has been called into question by a series of decisions by the 8th U.S. Circuit Court of Appeals (8th Circuit). In Europe, there is no such thing as a Euro-FCC and creating one in the present political environment is likely to be extremely

² It is also possible for a local authority to tilt the field in favor of entrants. This may be equally disruptive to the goal of promoting efficient and sustainable competition.

³ Since the divestiture of the Bell System in the US, local and long distance services are structurally separated, by regulation, into separate regulated markets. The ILECs are only allowed to carry traffic within their Local Access Transport Area (LATA), while Interexchange carriers (IXCs) such as AT&T or Sprint carry interLATA traffic. In Europe, local and long distance markets are not structurally separated. The TO operates in both markets.

difficult. In both the U.S. and Europe, strengthening or creating an effective centralized regulatory authority will require overcoming significant legal and institutional challenges. In this paper, we do not address these issues, focusing instead on presenting the economic arguments for why a weak or non-existent central regulatory authority is detrimental to promoting competition and liberalization, and is more harmful today than in the past.

Section 2: Economics of Dual Regulation

This section reviews the economic and legal justification for the dual-regulatory system of centralized/local regulation that exists in both the US and Europe. We examine the economics of dual regulation; provide a brief historical overview as well as the current status of dual regulation in the US and the EU; and propose major principles of how centralized / local regulatory authority should be split. Each of these discussions is presented in the following four sub-sections.

2.1 *Economics of Dual Regulation*

Dual regulatory systems exist in various forms in both Europe and the US, as will be described further below. In the abstract, we may view these systems as comprised of a collection of local regulatory authorities and a centralized authority. The focus of our discussion will be on the relative merits of assigning responsibility to the centralized authority. There are a continuum of potential institutional arrangements, ranging from full decentralization (only local authorities) to full centralization (only a centralized authority). As we explain further in subsequent sections, both the US and Europe have moved along this continuum from decentralized towards centralized authority, with the US having progressed substantially further

Except at the extreme points, a dual regulatory system remains and the potential for jurisdictional conflict arises. When both types of authorities have similar preferences or if there is an obvious and logical way to separate responsibilities, then conflict may be avoided. This is the best case, but often not applicable in the real world. When conflicts arise over who has authority to decide an issue that has implications for both central and local jurisdictions (*i.e.*, is not separable), then there needs to be a procedure to reconcile these disputes. In the US, there has been a presumption that the central authority has a right to preempt local authority, with the burden of proof being on the local authorities to demonstrate that such preemption is not appropriate. In the EU, the subsidiarity principle embodied in the EC constitution,⁴ implies the opposite approach: there is a presumption that authority resides at the local level, with the burden of proof being on centralized authorities to justify their role. As we explain later, while we advocate stronger centralized authority in both cases, these alternative approaches are appropriate to the differing circumstance in the US and Europe.

A review of the economic and regulatory literature on dual regulation suggests that there are two major economic arguments in favor of (and one against) centralizing authority, as follows:

- Coordination and spillover externalities: *yes*, especially now with Internet.

⁴ This principle is embodied in a number of provisions of the EC Treaty, for example in the European Union antitrust legislation Art. 85 and 86 EC Treaty. These rules only apply to Member States if cross-border trade is impacted to a considerable extent. If this is not the case, Member States' antitrust rules apply instead. For further discussion of the regulatory landscape in Europe and the role of the subsidiarity principle, see Kiessling et al (1998).

- Local information and participation: *no*, more important in Europe than US.
- Regulatory costs: *yes*, even more so with deregulation.

The following sub-sections explain these arguments in greater detail.

2.1.1 *Coordination and spillover externalities*

When there are spillover or coordination externalities across multiple local domains, then centralizing authority offers an obvious mechanism for assuring that these are appropriately internalized. In the case of telecommunications networks there are substantial externalities because the same facilities are used to support both local and interstate/international services. Indeed, local access facilities are an essential input, and currently a bottleneck facility, for long haul services.

The externalities and spillovers are even more apparent at the wholesale level (between carriers) than at the retail-level (services sold to end-users) when competing suppliers are active in multiple local markets. In that case, heterogeneous regulations may distort investment incentives or operating behavior as carriers are encouraged to venue shop or otherwise arbitrage regulatory distortions.

As we explain in Section 3.3, industry convergence and market integration – important goals of promoting a global information infrastructure – increase the size and diversity of potential externality and spillover effects. Therefore, in an Internet world, the need to coordinate coherent communications policy across multiple domains provides an important justification for centralized authority.

2.1.2 *Local information and participation*

There are two important reasons for decentralizing authority. First, decentralizing authority may be advisable to take flexible account of differences in local circumstances and to economize on information costs. For example, the costs of building a local telephone network are different in the mountains of Colorado and the plains of Kansas. In Europe, the differences are less a matter of construction costs than of different institutional, cultural, and economic legacies.⁵ In both cases, however, it is not inconsistent to allow the centralized authority to specify general rules (e.g., that pricing ought to be cost-based and to set guidelines for how this ought to be determined) while allowing local authorities to implement these rules with local information, as needed (e.g., basing costs on local construction costs).

Decentralization may also be advisable if information is most efficiently collected and maintained locally. For example, effective regulation of local incumbents requires collecting significant amounts of data. Local authorities may be in a better position to gather and synthesize this information. However, as we explain further below, decentralized information management becomes more problematic during liberalization and when the incumbents are active in multiple local markets (*i.e.*, the information is no longer local).

⁵ As we explain in Section 4, this is not a reason for decentralization in the US, where interstate cultural, institutional, and economic differences are small.

A second, and related reason for decentralizing authority is to facilitate local participation. For telecommunications, this is most important with respect to issues of especial local concern such as the retail-level pricing of local services and the quality of local customer service. Local oversight of these issues may be justified on these grounds. On the other hand, to participate in issues that affect multiple local domains, may impose lower participation costs if centralized, thereby eliminating the costs of duplicate participation. Issues that concern carrier competition affect multiple local jurisdictions and require an understanding of technical, regulatory, and economic issues that may not be readily available locally.

Therefore, while the need to accommodate local information and participation provides an important justification for retaining a dual-regulatory process, the scales tilt currently towards increased centralized authority.

2.1.3 Regulatory costs

- Regulatory costs of administration: yes, but minimal.
- Regulatory learning/experimentation: no because of “laboratory of states,” but less now.
- Regulatory capture: no, generally, but not an issue today because of balance of vested interests.
- Regulatory flexibility: yes, generally, especially now when desire is to change status quo.

The costs of regulation affect an assessment of the appropriate level of centralization in three ways. First, to the extent that local authorities confront similar problems that result in similar decisions, the administrative costs of regulation may be reduced by centralization that eliminates duplicate efforts. In principle, these benefits could also be realized by allocating responsibilities among specific local authorities that incur the costs of determining the best outcome and then share this conclusion with all the other local authorities. This approach, however, would not reduce the shared and common costs of maintaining multiple local authorities. These costs may be larger as the regulatory challenge becomes more complex and requires more specialized and expensive human capital resources and the funds available to sustain such resources become more scarce. For this reason, liberalization and industry convergence are likely to increase the need to centralize authority.

Second, when regulators confront an environment of great uncertainty, there are advantages to experimentation. Decentralization of authority that allows flexible heterogeneity in approaches may be useful in discovering the best policy approach. This is sometimes referred to as the “Laboratory of the States.”⁶ While this may prove very useful, a strong centralized authority is desirable when it comes time to disseminate and implement the optimal solution to overcome resistance from laggard local authorities. In the case of promoting local competition in the US, the laboratory experiments were run for over a decade, and with passage of the Telecommunications Act of 1996 it was time to implement the national solution. In the case of the Internet, we still do not even know how these markets will evolve, so regulation seems premature at both the local and centralized level.

⁶ See Noll and Smart (1989).

Third, *ceteris paribus*, decentralized regulatory authority is likely to be more cumbersome than centralized authority, making it more difficult to change the *status quo*. This is desirable when there is a risk of regulatory capture⁷ by a narrow interest group. It is not desirable when the goal of policy is to change the *status quo*. This is the case with respect to promoting liberalization and increased competition. Overall, therefore, the economics of regulation suggest that increased centralization is desirable.

In the following sub-sections, we provide a brief overview of dual regulation and its current status in the US and Europe.

2.2 *Dual Regulation in the US*

The telecommunications regulatory landscape in the US is quite complex, and convergence is making it even more so. The focus here, however, is on the roles of the Federal Communications Commission (FCC) and the state-level Public Utility Commissions (PUCs).⁸ For a more complete discussion, see the excellent paper by Vogelsang (1993) tracing the history of dual regulation in the United States.⁹

The FCC was created by the Communications Act of 1934 as a quasi-independent agency of the federal government with responsibility for communications policy. With respect to telecommunications, the FCC inherited the responsibilities of the Interstate Commerce Commission (ICC) which previously had regulated both telecommunications and rail roads. At the state-level, the PUCs oversee regulation of utilities within the state (usually, this includes water, gas, and electricity, in addition to telecommunications).

Historically, the PUCs have been responsible for regulating intrastate telecommunications services, while the FCC has been responsible for interstate services.¹⁰ This demarcation of responsibilities has always been somewhat arbitrary because the same facilities that support local calling services also provide access to interstate toll services. Allocating the costs of these facilities between intrastate and interstate jurisdictions has been a continual source of problems. This gave rise to the formal separations process, according to which costs were allocated to services based on an adjusted measure of minutes. According to this plan, rates were set so that interstate services contributed substantial subsidies to local services.¹¹

⁷ For a discussion of regulatory capture, see Section 3.2.

⁸ We will largely ignore the important role of other institutions in setting telecommunications policy. This includes the Courts; industry and other associations like the National Association of Regulatory Utility Commissioners (NARUC); the National Telecommunications Information Agency (NTIA) in the Executive Branch; Congress and state legislatures; and municipalities (*e.g.*, with respect to CATV franchises). In addition, we will largely ignore the role of such important agencies as the Department of Justice (DOJ) and the Federal Trade Commission (FTC) in enforcing general competition policy.

⁹ The discussion here draws heavily from Vogelsang's (1993). For additional sources, see also Kellogg, Thorne, and Huber (1992), or Noll (1989).

¹⁰ Section 2 of the Communications Act of 1934 limits the responsibility of the FCC to interstate and international telecommunications.

¹¹ In 1970, what became known as the Ozark Plan allocated over 3% of the non-traffic sensitive costs of local access facilities to interstate services for each 1% of minutes (see Vogelsang, 1993, page 29).

Until about 1960, the PUCs and the FCC agreed that the monopoly Bell System ought to be protected from competitive entry and that interstate subsidies should continue. Starting with the *Above 890* decision in 1959 in which the FCC allowed companies to set up microwave private line facilities, however, the FCC became steadily more pro-competitive. This and other issues lead to jurisdictional disputes between the FCC and various state commissions. Typically, the FCC asserted the right to preempt state regulatory authority on issues that the FCC claimed had implications for interstate services.¹² The FCC interpreted this broadly and was successful in extending its authority over time.¹³ Because the FCC has tended to be more pro-competitive than the PUCs on average, the assertion of increased FCC authority assisted in competition emerging sooner in the US than in Europe or elsewhere in the world. For example, the FCC forced the opening of the Customer Premise Equipment (CPE) market to competition and deregulated enhanced services, over the opposition of state commissions.¹⁴

Although the FCC strengthened its overall control of communications policy, there remained a relatively clear demarcation of regulatory responsibilities between interstate and local services. This continued following the divestiture of the Bell System in 1984. Under the terms of the Modified Final Judgement (MFJ),¹⁵ the Bell System was structurally separated into AT&T, the long distance carrier, and the local service companies, which were owned by the seven Regional Bell Operating Companies (RBOCs). The RBOCs all operated in multiple states, but were restricted from participating in services outside of what were defined as Local Access Transport Areas (LATAs). All interLATA traffic had to be passed off to Interexchange Carriers (IXC) such as AT&T or MCI. From the perspective of FCC/PUC jurisdiction issues, the most important change associated with divestiture was the important policy role created for Judge Greene of the US District Court who retained responsibility over the implementation of the terms of the MFJ. Until the passage of the Telecommunications Act of 1996, that superseded the MFJ, Judge Greene was probably the single most important individual policy-maker for the telecommunications sector, and was involved directly or indirectly in the majority of the most important regulatory debates following divestiture.

The 1996 Act was the first major revision of the Communications Act of 1934. It called for competition in all telecommunications markets, especially in local markets which remained de facto monopolies. To promote this goal, the 1996 Act required dominant ILECs to open and unbundle their networks under fair and non-discriminatory rates and conditions to competing carriers and to allow competing carriers to resell incumbent retail services at a discount equal to the ILEC's avoided cost. Moreover, the Act specified that the FCC should be responsible for

¹² Vogelsang (1993, page 22) traces the origin of the FCC's federal preemption authority to a the Supreme Court's 1914 "Shreveport" decision in which the Court affirmed the right of the ICC to set intrastate rates for rail road services because of the impact of these on the interstate market.

¹³ The FCC was not always successful. For example, in *Louisiana Public Service Commission vs. the FCC*, in 1986, the Supreme Court denied the FCC's ability to impose federal depreciation rules (see Vogelsang, 1993, page 24).

¹⁴ The FCC mandated separation and opening of the CPE market in its Computer II decision in 1980.

¹⁵ The MFJ of 1982 was a modification of the consent decree which settled an earlier antitrust suit against the AT&T Bell System in 1956. This earlier suit resulted in AT&T divesting itself of its equipment arm, Western Electric, and that AT&T confine itself to regulated common carrier telecommunications services.

specifying the terms under which this unbundling should occur and the framework for setting prices for bottleneck facilities provided by the ILECs to competing local exchange carriers (CLECs). Furthermore, the 1996 Act specified an aggressively short time frame for the FCC to issue an interconnection order (specifying how local networks would be unbundled), an access order (reforming interstate access charges to remove the implicit subsidies), and a universal service order (specifying how universal service plans would be revised to be compatible with competition).

As we explain further in Section 3, a strong role for the FCC was appropriate in order to promote competition in the face of anticipated resistance from the ILECs. Because all of the largest ILECs were subsidiaries of carriers that competed in multiple states and because most of the strongest potential CLECs (*e.g.*, the IXCs such as MCI and AT&T) were also active in multiple states, it is not reasonable to specify heterogeneous network unbundling/opening policies at the local level. While it may be appropriate for prices to differ by state because of differences in local costs (*e.g.*, mountains versus plains, urban versus rural), the basic framework for pricing and the technical implementation standards for network unbundling needed to be uniform across states.

In the summer of 1996, the FCC issued its first Order specifying how the network interconnection provisions of the Act ought to be implemented. Several states appealed this decision to the Eighth US District Court of Appeals, which decided in a series of decisions starting July 21, 1997 to overrule components of the FCC's rules, arguing the FCC had overstepped its authority.¹⁶ Following the first decision, Senator McCain, a Congressional leader in the area of communications policy, expressed his concern that "this serious setback to the FCC's regulatory plan may mean that the Telecom Act will now be even more ineffective in bringing about increased competition."¹⁷ In a subsequent decision, Judge Hansen wrote that the law "remains a Louisiana-built fence that is hog tight, horse high and bull strong, preventing the FCC from intruding on states' intrastate turf."¹⁸

These 8th Circuit decisions limiting the authority of the FCC have dealt a serious blow to the FCC's ability to act effectively as a centralized authority, and thereby have significantly weakened prospects for successful implementation of the pro-competitive provisions of the 1996 Act.¹⁹ Ever since the first appeal to the 8th Circuit was filed following the 1996 FCC Order, the ILECs have protested in PUC proceedings that the PUC need not adopt the provisions recommended by the FCC. As we explain further below, this strategy by the ILECs has helped

¹⁶ On July 21, 1997, the 8th Circuit ruled that the FCC did not have authority to impose pricing rules on the states; on October 14, 1997, the 8th Circuit ruled that the FCC could not require the ILECs to provide network elements as a bundle; and on January 23, the 8th Circuit ruled that the FCC could not condition its decision regarding whether an ILEC should be allowed to compete in interLATA services on the ILEC's adherence to FCC pricing guidelines. Finally, on August 19, 1998, the 8th Circuit decided to uphold an FCC decision, rejecting ILEC claims that shared transport is not a single network element that they must provide as ordered by the FCC.

¹⁷ See "Senator McCain Plans Second Look at Telecom Act," *TelecomAM*, July 22, 1997.

¹⁸ See Joan Biskupic and Mike Mills, "Supreme Court Accepts Phone Rivalry Case," *Washington Post*, January 28, 1998.

¹⁹ The Supreme Court is scheduled to hear the appeal of the 8th Circuit's decisions limiting the authority of the FCC in October 1998.

them delay the implementation of the 1996 Act and slowed the emergence of effective competition.

2.3 Dual Regulation in the European Union

Until the early 80s, telecommunications was basically absent from the European Commission's policy agenda. The sector was exempted from EU level competition policy and the European Commission had not established a policy approach for the sector. The telecommunications market was exclusively regulated at the level of EU Member States. The Commission applied its competition policy to telecommunications for the first time in 1985, when it found that British Telecom had abused its dominant position in the market.²⁰ In parallel, a telecom Task Force that had been set up in 1983 began to draft a framework for future regulation and liberalization in the telecommunications sector, leading to the 1987 Green Paper on the Development of the Common Market for Telecommunications Services and Equipment.²¹ Since then the Commission has attempted to impose itself as the EU level regulator in telecommunications. In order to understand the current scope of dual regulation, it is important to review the evolving institutional framework at EU and Member State level.

In contrast to the US, there is no single central (=EU level) regulatory body in telecommunications. Regulatory policy is conducted in parallel by several, relatively independent policy-making authorities that often pursue conflicting goals. The most important entities and their political objectives are presented below.

The European Commission – Directorate General IV (Competition). DGIV is responsible for EU competition policy. DGIV is the main architect of the Commission's liberalization policy in telecommunications. The central instrument of DGIV's liberalization policy is the Art. 90 EC Treaty. This article allows the Commission to reverse policy measures passed by Member States relating to exclusive or special rights (for example, monopoly rights) if the policy measures in question violate (an)other article(s) of the EC Treaty. On the basis of this article the Commission imposed most market opening measures in telecommunications. In 1988, the Commission found that national dominant network operators' exclusive rights to distribute telecommunications terminal equipment violated the EC Treaty²² and invoked Art. 90 (3) to abolish these rights.²³ The European Court of Justice confirmed the authority of the Commission to use Art. 90 EC Treaty to liberalize telecommunications markets when it dismissed a case introduced by France against the terminal equipment directive in 1991.²⁴ This exemplifies that the Commission had to gradually impose its deregulation measures against vested interests of Member States. Since

²⁰ See Piero Ravaoli: La Communauté Européenne et les Télécommunications: Développements récents en matière de Concurrence, in: *Revue Internationale de Droit Economique*, Nr. 2, 1991.

²¹ Commission of the European Communities, Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, 30.6.1987, COM(87), Brussels.

²² The Commission found that the exclusive distribution rights violated Art. 3 (f) EC Treaty that stipulates the construction of a competition-oriented economic system in the European Community.

²³ Commission of the European Communities, Directive of 16 May 1988 on competition in the markets in telecommunications equipment. *OJ L 131(88/301/EEC)*, 1988, Point 13, 75.

²⁴ European Court of Justice, Decision of 19 March 1991 - France against the Commission of the European Communities, *Case C 202/88 (19.3.1991)*.

then, the Commission has used Art. 90 to successively liberalize all telecommunications markets. Major liberalization steps were: July 1990, when services other than voice telephony were liberalized; and 1 January 1998, when voice telephony and infrastructure provision for voice telephony were liberalized.

Article 90 of the EC Treaty gives the Commission considerable power with respect to the Council of the European Union and the Member States since it allows the Commission to impose liberalization measures without the concurrence of the Council. However, the Commission cannot push through liberalization measures on the basis of Art. 90 against strong Member State resistance. Disregard of Member States' objections would undermine the political support that is vital to the Commission's policy initiatives.²⁵ Art. 90, as well as Art. 85 EC Treaty, vest DGIV with substantial power to determine the basic market supply *structure*.²⁶ However, the Council and Directorate General XIII (Telecommunications) both play a more important role than DGIV in issuing legislation that facilitates the *transition* to competitive markets. As shown below, essentially all of the more transition-related measures (interconnection regulation, licensing policy) were passed by the Council, not by the Commission.

The European Commission – Directorate General XIII (Telecommunications, Information Market, and Exploitation of Research). DGXIII is responsible for the execution of the EU research and development programs in telecommunications, the Open Network Provision (ONP) legislation and control of implementation of ONP measures by Member States, as well as various harmonization and standardization measures. DGXIII also plays an important role in the transition regulation to a competitive marketplace. The draft process of both the 1997 Interconnection Directive²⁷ and the 1997 Licensing Directive²⁸ was driven by DGXIII.

Council of the European Union. The Council of Ministers is comprised of the Ministers of Member States that are responsible for telecommunications policy, and therefore represents the Member States' interests. Regulatory measures of the Council often express political compromises between the Member States. Additionally, the Council has to take into account the views of the European Parliament.²⁹ The Council plays a more important role than the Commission in passing legislation that defines the framework for the transition to competitive markets. This can be explained by the fact that competitive market structures will only develop if

²⁵ By imposing liberalization measures in telecommunications against Member States' will, DGIV risks to lose Member States' support for competition policy measures in other industry sectors. Furthermore, the Commissioner for Competition Policy risks his re-nomination by the Member States if he provokes a fundamental dissent.

²⁶ Art. 90 allows the Commission to abolish entry barriers as explained above. Art. 85 has been repeatedly used by the Commission to authorize or block operator alliances, including Global One, Unisource and Concert.

²⁷ European Parliament and Council of the European Union, Directive 97/33/EC of 30 June 1997 on interconnection in telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provision (ONP). *OJ L 199/32 (97/33/EC, 26.7.97)*, 1997.

²⁸ European Parliament and Council of the European Union, Directive 97/13/EC of 10 April 1997 on a common framework for general authorizations and individual licenses in the field of telecommunications services. *OJ L 117/15 (97/13/EC, 7.5.97)*, 1997.

²⁹ The European Parliament is taking an increasingly active role in telecommunications policy making, based on the co-decision procedure with the European Council which was introduced by the Maastricht Treaty on the European Union in 1992.

the Member States support the Commission's liberalization measures and transpose them into effective national legislation. The Council has adopted important regulatory measures in the area of open network provision (ONP). The ONP Framework Directive of 28 June 1990 stipulates EU-wide harmonized supply conditions and standardized technical interfaces.³⁰ More recently, the Council and the European Parliament have passed the core regulatory framework enabling the transition to competitive markets in telecommunications, i.e. the Licensing Directive³¹ and the ONP Interconnection Directive.³²

Member States and National Regulatory Authorities (NRAs). The central objective of Member States is to control the evolving national regulatory and market environment. It is therefore in the interest of Member States to keep the Commission from extending its regulatory powers into areas which the Member States consider to be under national regulatory responsibility.³³ As a result, the NRAs are currently working to impose themselves as the prime regulatory authorities for the transition towards competitive markets. As illustrated throughout this paper, the national interests of Member States and expanding NRAs often conflict with the European Commission's attempt to install EU-wide rules to manage the newly competitive markets in a harmonized way.

2.4 *Sensible dual regulation in Europe and the US*

In section 2.1, we summarized the three major arguments to determine the appropriate split between local and central regulatory authority. In section 2.2 and 2.3, we provided an overview of the institutional reality of dual regulation in the US and the EU. Traditionally, the principle of federal preemption (US)/subsidiarity (EU) has been applied to determine the scope of local versus central regulatory authority. As explained above, central regulators typically have prime authority in areas with a substantial impact on cross-border markets, whereas state regulators have prime responsibility for predominantly local markets. We believe that this split is not adapted to today's market structures in telecommunications. Rather, a review of the major economic arguments of dual regulation in the light of evolving market structures in the US and the EU suggests that the authority of central regulators should be extended: They should by default have the prime authority on issues relating to the fundamental supply structure in the carrier market, including multimarket as well as intrastate competitive strategies of carriers. On the other hand, local regulators should be the default authorities for retail issues. As we show throughout the paper, examples abound where Member States in the EU seek to block

³⁰ Council of the European Union, Directive of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision. *OJ L 192/1 (90/387/EEC, 24.07.90)*, 1990. Furthermore, the Council in the late 1980s and 1990s has passed important regulation in the area of Trans-European Networks and subsidy programs (RACE and ACTS programs).

³¹ European Parliament and Council of the European Union *op cit* Ref 28.

³² European Parliament and Council of the European Union *op cit* Ref 27.

³³ Analysys, *Network Europe: Telecoms Policy to 2000*. Analysys Publications, Cambridge, 1994, 8f.

economically desirable regulatory measures relating to the overall market structure, justifying their primacy with the subsidiarity principle.³⁴

We believe that the default prime responsibility of central regulators should include the determination of barriers to market entry, especially in a pro-competitive world where networks typically span multiple regulatory domains (multi-state in US; multi-member state in Europe). This includes the permission to enter the market in a given service region (licensing policy), the scope of universal service obligations and coherent and consistent standards for setting prices for essential facilities. The latter implies using cost-based pricing which may reflect local decisions with respect to determining what those costs are. In both the US and the EU, there are substantial regional cost differences but these should be able to be incorporated in a common cost-proxy model. Therefore, the central authority should determine the price setting and estimation methodology, which the local regulators should apply.

Local regulators should have the default responsibility for end-user price and customer service regulation. Typically, local regulators are better suited to day to day manage competitive price and customer service responses in a competitive market.

An appropriate system should combine bottom up state regulatory laboratories with top down central authority mandates of overarching principles. An analysis of the major regulatory issues in the US and the EU suggests a ‘natural’ division of labor between state and central regulatory authorities. As explained in section 2.1., state authorities often experiment with novel regulatory approaches. Local information and working relations with carriers typically allow them to pursue detailed and resource consuming proceedings. Central regulatory authorities on the other hand are specialized in seeking consensus among state regulatory approaches and mandating regulatory principles which have been proven effective by state regulatory experiments. Examples of this complementary approach abound in the US and are now becoming visible in the EU. In the US state regulation has been efficiently complemented by federal regulation in the areas of price cap, ONA and interconnection policies (e.g., New York, Illinois).³⁵ In the EU, the European Commission is beginning to act as an arbitrator in a similar way. Examples include the cost accounting methodology used in EU telecommunications. Oftel, the UK regulator has spent substantial resources in the detailed preparation of a LRIC (Long-run incremental cost) methodology with the UK carriers. The Commission is now preparing to mandate the LRIC approach EU-wide, based on the UK methodology. Other examples include licensing and universal service policy (see below). It is important to note that this approach is consistent with diverse regulatory policies at the state level. In the area of Internet for example, no regulatory principles have emerged that should be pursued in all states. Therefore central regulation is not indicated here.³⁶

³⁴ As discussed earlier, the states in the US have not been successful in resisting competition because the FCC has been largely successful in asserting federal preemption of local authority when conflicts arise.

³⁵ See Vogelsang (1993), chapter 6, 46ff.

³⁶ The optimal approach might even be to leave experimentation to the market and to postpone regulation at any level. This might be the best approach to force liberalization because of arbitrage between an unregulated Internet sector and traditional regulated telecommunications.

Section 3: The Need for a Centralized Authority

In the introduction, we offered three reasons for why a centralized regulatory authority is more important today. These included the promotion of local competition in the face of resistance from an entrenched incumbent, more efficient management of overall deregulation, and the changes in networks implied by the emergence of the Internet. In the following three sub-sections, we explore each of these arguments in greater length.

3.1 Promoting Competition

A strong centralized authority is needed to promote telecommunications competition. The biggest challenge facing policy-makers in the US as well as in the EU is how to promote efficient competition for local services, which remain a de facto monopoly virtually everywhere. Heretofore, the economics and the regulatory legacy has protected the dominant position of the incumbent carrier. In the past, most analysts believed that provisioning telecommunications networks was a natural monopoly (either because of network interconnection externalities or scale and scope economies). This helped justify regulating telecommunications as a protected monopoly. In most of Europe, the telecommunications provider was typically publicly owned; in the US, the Bell System was private, but was subject to comprehensive regulatory oversight. With changes in the market and technology, it became feasible to introduce increased amounts of competition along the telecommunications value chain. Thus, recent regulatory efforts have rightly concentrated on introducing competition in the remaining monopoly areas (*i.e.*, local services in the US, and local as well as long-distance services in the EU).

Introducing local competition requires a change in the regulatory paradigm. Regulators need to remove regulatory and economic barriers that deter competition from other carriers. Instead of protecting the regulated incumbent's market from cream-skimming entry, the regulator must develop policies to promote the emergence of competition. This will require revisions to interconnection, universal service, licensing, and other policies. The dominant incumbent carrier has little incentive to cede market share to entrants willingly. By defending the *status quo* and resisting the implementation of new policies, the incumbent can forestall the implementation of market-opening, pro-competitive regulatory reform. The incumbent's interest in protecting the pre-competition regulatory status quo may be supported by regulators with a vested interest in the old regime. After all, deregulation will mean a shrinking of the regulatory bureaucracy and a reduction in power.

While regulatory reform is necessary to promote competition, there is also a danger that entrants may sponsor changes that would impose undue burdens on the incumbent, threatening its ability to compete effectively. No regulatory agency is immune from the danger of regulatory capture or influence costs as participants lobby to advance their private interests.³⁷ Shipan (1997) recounts how commercial broadcasters successfully influenced national US communications policy so as to protect their dominance of the market for radio and then television for a number

³⁷ Carriers have deep pockets and much at stake in regulatory decisions. Therefore, according to interest group theory, they may be expected to prevail in policy debates when their interests conflict with consumers who are less well informed, have less per-capita stake in the outcome, and have less resources available. Introducing cumbersome procedural rules, public disclosure requirements, and expert oversight may make it less likely that a small group with strong preferences could impose an inefficient regulatory outcome. See Alt and Shepsle (1990), Downs (1957), or McCubbins, Noll, and Weingast (1989).

of years.³⁸ Noll and Rosenbluth (1993) compare the institutional approach to telecommunications regulation in Japan and the US and explain the greater vulnerability of the Japanese system to interest group pressure, in part, because regulatory power is centralized and the debates were not public.³⁹ In contrast, they argue, the two tiered approach of federal and state-level regulation in the US helps explain why the US process is more cumbersome than the Japanese, but also less vulnerable to capture by a narrow interest group. The work of these and other economists highlight⁴⁰ the danger that increased centralized power may be more vulnerable to capture by a narrow interest group or become home to a new set of self-interested bureaucrats.

In the present context, however, the best solution to protect against regulatory capture is to centralize regulatory authority. In the absence of centralization, the incumbent carriers can misuse the multiplicity of regulatory fora to delay the implementation of reforms. For example, the US experimented with different state-level approaches to promote local competition for over a decade before passage of the Telecommunications Act of 1996. Passage of this act signaled general recognition that a national policy was needed if local competition is to be successfully promoted. However, although the Act was passed more than two years ago, it has still not been successfully implemented anywhere. The ILECs have been able to successfully delay implementation of the pro-competitive network unbundling provisions of the Act by exploiting the opportunity to debate an identical set of issues in state after state. It doesn't even matter if the states all decide identically on the same issues, as is often the case.⁴¹ Arguing the same contract provisions between the same parties with often the same expert witnesses in state after state serves only to slow the process of implementing the Act.

The need to centralize regulatory authority to protect against regulatory capture can also be illustrated by the liberalization process in the European Union. The central objective of Member States in the 90s has been to control the evolving national regulatory and market environment. It is therefore in the interest of Member States to keep the Commission from extending its regulatory powers into areas which the Member States consider to be under national regulatory responsibility.⁴² As a result, the NRAs in the 90s have been working to impose themselves as the prime regulatory authorities for the transition towards competitive markets. As illustrated below, the national interests of Member States and expanding NRAs often supersede the European Commission's attempt to install EU-wide rules in policy areas

³⁸ See Charles Shipan, Designing Judicial Review: Interest Groups, Congress, and Communications Policy, Ann Arbor, MI: University of Michigan Press, 1997.

³⁹ See Noll, R. and F. Rosenbluth, "Telecommunications Policy in Japan and the US: Structure, Process and Outcomes", CEPR working paper #349, May 1993.

⁴⁰ Cite other examples of regulatory capture literature, especially with respect to policy debate.

⁴¹ For example, in each of the 14 states in which US WEST is the ILEC, US WEST has argued that it should not be required to comply with the FCC's interconnection order (see *First Report and Order, In the Matter of Implementation of Local Competition Provisions in the Telecommunications Act of 1996*, Federal Communications Commission, CC Docket No. 96-98, Released August 8, 1996, hereafter, FCC Order). In each state, the PUCs have eventually upheld substantial portions of the Order. These include such things as requiring US WEST to permit resale of all services, unbundling at least the set of elements identified in the FCC's order, and implementing electronic interfaces at parity.

⁴² Analysys, *Network Europe: Telecoms Policy to 2000*. Analysys Publications, Cambridge, 1994, 8f.

where central regulation is called for. For example, the time schedule for liberalization of EU telecommunications was substantially delayed between 1988 and 1998, because national incumbent operators together with conservative Member State governments imposed their view on the Council of the European Union, effectively blocking initiatives by the European Commission to implement a more competition-oriented regulatory framework (see case study below).

Furthermore, the danger of regulatory capture is likely to be less if authority is centralized. In the absence of potential competitors with substantial resources and industry-specific knowledge and in the absence of an open regulatory process with public debate, a regulatory authority is vulnerable to capture by the incumbent carrier. However, since divestiture in the US and with liberalization in both Europe and the US, the likelihood that a single incumbent (or the incumbents acting in concert) could capture the centralized authority is remote. The risk is greater that a PUC (NRA) may be vulnerable to capture by the incumbent, which is likely to have a larger investment base and larger labor force in the state (country) and to have more experience with local regulatory authorities than potential competitors. The existence of competing interest groups reduces the risk of regulatory capture. While centralizing authority may make it more difficult for local consumers to participate in regulatory debates, a reduction in the number of fora is likely to reduce the costs of national consumer advocacy groups.⁴³

In addition to delay, heterogeneous entry rules create entry barriers for competitors who compete in multiple local areas. In the US, the ILECs operate in multiple states; as do most of their competitors. Requiring these competitors to develop state-specific infrastructure provisioning and marketing plans increase entry costs. The regulatory uncertainty and the staggered sequence of procedural decisions also contribute to higher entry costs.

In the following section, we illustrate the above analysis using case studies from the European Union and the United States.

3.1.1 The Process of Liberalization in the European Union

Compared to developments internationally, the European Union has been relatively slow in starting to liberalize the telecommunications market. It was only in 1987 that the European Commission published a framework for future regulation and liberalization in its Green Paper on the Development of the Common Market for Telecommunications Services and Equipment.⁴⁴ In contrast, in the USA the first license to compete for public switched long-distance services was

⁴³ Vogelsang (1993, pages 39-40) mentions the lower costs of participation for local citizens as one of the benefits of a dual regulatory system that may be sacrificed if authority is centralized. Local customers are likely to care most about such retail-level issues as customer service and end-user pricing. They are less likely to be able to intervene effectively in policy debates affecting carrier competition (*e.g.*, interconnection, access, licensing, network unbundling, etc.). Centralized authority is needed with respect to these latter policies, while local oversight may be maintained with respect to retail-level regulation (that does not distort unduly the operation of upstream carrier competition).

⁴⁴ Commission of the European Communities, Green Paper on the Development of the Common Market for Telecommunications Services and Equipment. *COM(87) 290 final*, 30 June 1987, Summary Report.

granted to MCI in 1969⁴⁵ (operational 1972), and in 1980 the market for long-distance services was effectively liberalized.⁴⁶ In Japan, the Telecommunications Business Law of 1985 liberalized most telecommunications markets, and competition has since then developed especially in the long-distance and international markets.⁴⁷

The liberalization measures in the EU have been introduced in a piecemeal fashion, starting with market segments of subordinate importance and gradually establishing the Commission's power to liberalize the core telecommunications markets. During the liberalization process, the Commission had to gradually impose itself as the centralized regulatory authority in telecommunications against the Member States.

The first market liberalized by the Commission on the basis of Art. 90 EC Treaty in 1988 was the terminal equipment sector. In 1990, the European Commission introduced another liberalization directive on the basis of Art. 90 EC-Treaty, effectively liberalizing most telecommunications services except voice telephony.⁴⁸ However, although the 'Services Directive' can be legally interpreted to have liberalized *all* services other than voice telephony by July 1990, in many cases Member States maintained exclusive rights for non-voice telephony services for several years unless legally challenged.⁴⁹ Further liberalization steps included the authorization of the provision of all non-reserved telecommunications services on cable TV networks by 1 January 1996⁵⁰ and the authorization of competitive infrastructure provision for already liberalized services by 1 July 1996.⁵¹

Similar to fixed networks, conservative Member States repeatedly attempted to undermine socially desirable liberalization measures. An example is the liberalization process in mobile communications. Although, following legal interpretation, the liberalization of mobile communications was already covered by the 1990 Services Directive, the Commission in the 1990s had to intervene several times in the licensing of alternative mobile operators in Member States in order to ensure fair competition. For example, in 1995 the Commission adopted a Decision based on Art. 90 EC Treaty against Italy, which had attempted to impose considerable license fees on the second Italian GSM operator, but not on the mobile operations of the

⁴⁵Garfinkel, Lawrence, 'The growth of competition in the US long-distance industry'. *Telecommunications Policy*, July 1993, 324.

⁴⁶Brock, Gerald W., *The Telecommunications Industry*, Harvard Economic Studies, Harvard, 1981, 227.

⁴⁷Naoe, Shigehiko, 'Japan's telecommunications industry'. *Telecommunications Policy*, 1994, **18** (8), 651–657.

⁴⁸Commission of the European Communities, Directive of 28 June 1990 on competition in the markets for telecommunications services. *OJ L 192/10 (90/388/EEC)*, 1990.

⁴⁹Examples include services which contain a voice service element, but are not voice telephony as narrowly defined by the Services Directive, for example voice to closed user groups, videotelephony or videoconferencing. In the early 1990s, many Member States still maintained exclusive rights for the provision of such services.

⁵⁰Commission of the European Communities, Directive of 18 October 1995 amending Directive 90/388/EEC with regard to the abolition of the restrictions on the use of cable television networks for the provision of already liberalized telecommunications services. *OJ L 256 (95/51/EC)*, 1995.

⁵¹Commission of the European Communities, Directive of 13 March 1996 amending Directive 90/388/EEC with regard to the implementation of full competition in telecommunications markets. *OJ L 74/13 (96/19/EC)*, 1996, Art. 1.

incumbent, Telecom Italia.⁵² It was only in January 1996 that the liberalization of mobile communications was confirmed by a Commission Directive on mobile and personal communications.⁵³

In March 1996, the Commission modified the 1990 Services Directive, abolishing all remaining exclusive or special operator rights by 1 January 1998, including monopoly rights for the supply of voice telephony services and the provision of public telecommunications infrastructure (transmission) services for voice telephony.⁵⁴ However, the agreement on the timetable for full liberalization included transitional periods for certain Member States. As a result of a case-by-case assessment by the Commission, the following periods have been confirmed: Luxembourg will fully liberalize its market from July 1998; Spain from December 1998, Ireland and Portugal from January 2000 and Greece from January 2001.

The substantial delay between the first liberalization measures in 1988 and the full liberalization of remaining voice telephony markets in 1998–2001 is due to the resistance of Member States, as well as national dominant network operators. This is illustrated by the following major events on the road to liberalization:

- May 1992: The Council refuses the Commission's proposal to rapidly eliminate the remaining monopolies. In its decision the Council expressed the will of the majority of Member States.⁵⁵
- April 1993: The Commission's proposal to liberalize cross-border telephony services in the EU on 1 January 1996 fails to gain support from Member States.⁵⁶
- July 1993: The Council confirms 1 January 1998 as the date for the full liberalization of all remaining monopolies. This date had been proposed by Member States.⁵⁷

However, although the EU began to liberalize telecommunications markets considerably later than the US or Japan, it is worth noting that the EU regulatory framework, in contrast to the US, does not make a distinction between local and long-distance services. As a result, all EU liberalization measures between 1990 and 1998 fully apply to local markets as well as long-distance markets. In comparison, most US local telecommunications markets have only been opened to competition by the 1996 Telecommunications Act.

3.1.2 Shortcomings in the liberalization program/legislation

Importantly, the liberalization program shows a number of significant gaps which can be attributed to Member States resistance to liberalization. The use of cable TV distribution

⁵²Commission of the European Communities, Decision of 4 October 1995 - GSM radiotelephony services in Italy. *OJ L 280/49 (23.11.1995)*.

⁵³Commission of the European Communities, Commission Directive 96/2/EC of 16 January 1996 amending Directive 90/388/EEC with regard to mobile and personal communications. *OJ L 20/59 (96/2/EC)*, 1996.

⁵⁴Commission of the European Communities *op cit* Ref 51, Art. 1.

⁵⁵Telecom Markets, 1992, 25 June 1992, 1–2.

⁵⁶Schenker, Jennifer L., 'EC Gives In To Pressure'. *Communications Week International*, 5 April 1993.

⁵⁷Council of the European Union, Resolution of 22 July 1993 on the review of the situation in the telecommunications sector and the need for further development in that market. *OJ C 213/1 (93/C 213/01)*, 1993.

networks for the provision of telecommunications services was liberalized on 1 January 1996 for all non-reserved services which in most Member States meant services other than voice telephony, and on 1 January 1998, for all remaining services.⁵⁸ However, the provision of cable TV infrastructure itself was never subject to EU level liberalization. Studies contracted by the Commission provide evidence that integrated ownership of cable and telecommunications networks stifles innovation and leads to anti-competitive practices.⁵⁹ As a result, in late 1997, the Commission addressed the issue of cross-ownership in a Draft Directive. In early versions of this draft the Commission proposed to include the requirement for operators which are dominant in both the provision of cable and telecommunications networks to divest these two activities. Following resistance from Member States, especially from Germany, where Deutsche Telekom controls over 90% of the cable TV infrastructure, the Commission dropped the requirement to divest cable and telecommunications operations.⁶⁰ As a result, the Draft Directive only stipulates that dominant operators legally separate the operation of cable TV networks and public telecommunications networks.⁶¹ Divestiture between TV networks and telecommunications networks could then only be forced case-by-case on the basis of an abuse of a dominant position (Art. 85/86 EC Treaty). The failure to impose divestiture of cable TV and telecommunications networks EU-wide will result in more fragmented market structures, with some Member States fostering competition between cable and telecommunications access networks⁶² and others maintaining integrated market structures in the access network.

Another area where effective liberalization has only partially been achieved is wireless communications. As discussed below (see section ‘Licensing’), the EU Licensing Directive issued in 1997 permits national regulatory authorities to limit the number of licensees on the grounds of scarcity of radio frequencies.⁶³ This allows conservative Member States to protect national incumbents or other favored operators by refusing licenses to newcomers whose projects contain wireless service elements.

3.1.3 Cross-border licenses in the EU

License Policy in EU telecommunications is an example where national governments’ / national regulatory authorities’ interests supersede the European Commission’s attempts to install economically efficient EU-wide coordinated licenses.

⁵⁸Commission of the European Communities *op cit* Ref 50.

⁵⁹Arthur D. Little International, ‘Cable Review – Study on the competition implications in telecommunications and multimedia markets of (a) joint provision of cable and telecoms networks by a single dominant operator and (b) restrictions on the use of telecommunications networks for the provision of cable television services’, 1997.

⁶⁰Blau, J., ‘Brussels U-turn provides boost for Telekom’s cable strategy’. *Communications Week International*, 15 December 1997, 33.

⁶¹Commission of the European Communities, Draft Directive amending Directive 90/388/EEC with regard to its effective application in a multimedia environment, by legally separating the provision of telecommunications and cable TV networks owned by a single operator. 16 December 1997.

⁶²An example is the Netherlands, where the Dutch PTT was obliged at the end of 1997 to divest its cable network activities.

⁶³Commission of the European Communities *op cit* Ref 31, 117/15.

In 1992, the Commission proposed to extend the principle of mutual recognition already applied in the area of terminal equipment test and certification to telecommunications service licenses. Additionally, the Commission proposed replacing national license procedures by an EU-wide license for services which are mainly offered on an EU-wide cross-border basis.⁶⁴ The responsibility for issuing such an EU-wide license could have stayed with the Member States, under the condition that a license granted in one Member State would conform to the EU-wide license conditions and would have been automatically valid in all other Member States. The Commission initiative was blocked by the Member States which saw in the EU-wide license a violation of the subsidiarity principle. The Commission proposals were interpreted as an attempt to constitute supranational policy authority in an area of Member State prerogatives.⁶⁵ This argument is flawed because the subsidiarity principle only applies where the relevant markets are national, whereas the services in question here are mostly supplied to companies across several countries. An operator license to provide these services should therefore be valid in all countries covered. As a result of Member States' refusal the Commission had to fundamentally modify its proposals, leading to substantial delays. Only in 1995 did the Commission put forward a new regulatory licensing framework, in which the EU-wide license had been dropped. The final version of the Licensing Directive, adopted in 1997, only calls upon the NRAs to co-ordinate their licensing regimes in order for license conditions to become harmonized across the EU.⁶⁶ For this purpose early drafts of the Licensing Directive the Commission proposed the creation of the European Union Telecommunications Committee (EUTC).⁶⁷ The licensee would have been able to address the EUTC in the case of being unable to obtain harmonized conditions. However, the EUTC was removed from the final version of the Licensing Directive.

In practice, until 1997 the Commission's license regulation was limited to the creation in 1993 of ETO in Copenhagen. ETO has the task of supporting applicants to obtain authorizations throughout the EU, but has never been used widely by potential EU-license takers. Due to the fact that the authority to issue licenses stays with the Member States, it can only add little value, and its activities have mostly been limited to the provision of harmonized application forms or information on national license procedures.

3.1.4 Interconnection Policy in the EU

Country-specific interpretation, and thus market fragmentation, is likely to arise from the fact that the European Commission distinguishes – for purposes of interconnection - between the

⁶⁴Commission of the European Communities, Proposal for a Council Directive on the mutual recognition of licences and other national authorisations to operate telecommunications services, including the establishment of a Single Community Telecommunications Licence and the setting up of a Community Telecoms Committee. *COM(92)254*, 25 September 1992.

⁶⁵Analysys, *Network Europe: Telecoms Policy to 2000*. Analysys Publications, Cambridge, 1994, 33–34.

⁶⁶European Parliament and Council of the European Union, Directive 97/13/EC of 10 April 1997 on a common framework for general authorizations and individual licenses in the field of telecommunications services. *OJ L 117/15 (97/13/EC, 7.5.97)*, 1997, Section IV.

⁶⁷Commission of the European Communities, Proposal for a European Parliament and Council Directive on a Common Framework for general authorisations and individual licences in the field of telecommunications services. *COM (95) 545*, 14 November 1995.

market for telecommunications services and the market for interconnection services. The Commission proposed that the market for interconnection services should be taken as national in scope in order to ensure that Member States would not unduly declare smaller entrants to have significant market power. In contrast, the relevant service market can be regional or national. The distinction between the two markets raises the risk that the Interconnection Directive of June 1997 becomes a ‘shopping list’ Member States can choose from, depending on their interpretation of which relevant market applies to a given provision. An example is the UK’s proposal in November 1997 (decision in early 1998) to declare Vodafone and Cellnet as having significant market power in the retail market for mobile calls, but not in the national market for interconnection services. Based on this distinction, the UK applied Art. 4(2) and Art. 6 of the Interconnection Directive to these operators which contain the basic obligation to interconnect,⁶⁸ but not Art. 7 (which stipulates the publication of a Reference Interconnect Offer) and Art. 8 (which stipulates cost orientation).⁶⁹ Again, this is likely to increase supply fragmentation as EU-wide operators will be confronted with interconnection rights and obligations which differ between countries.

3.1.5 EU Case: Universal Service

Transparent universal service obligations which do not substantially vary between countries are important to ensure socially optimal incentives for new operators to enter the market.

In this section we analyze the European Commission’s policy approach in the area of universal service obligations (USO). There are indications that conservative Member States attempt to pursue broad definitions of universal service, which could result in large financial burdens that entrants have to bear. The current legal framework does not permit the Commission to sufficiently enforce their definition of universal service. Additionally Member States refused to accept a common financing scheme for universal service that the Commission had proposed. The result is cumbersome, non-transparent universal service schemes which have the potential to increase market fragmentation.

The core of the Commission’s universal service policy is defined in the 1996 Full Competition Directive,⁷⁰ the 1997 Interconnection Directive⁷¹ and the proposed Voice Telephony Directive.⁷²

Scope of universal service.

⁶⁸Art. 4(2) stipulates that all reasonable requests for network access must be met and Art. 6 contains a non-discrimination requirement.

⁶⁹Oftel, Identification of significant market power for the purposes of the EU Interconnection Directive, <http://www.oftel.gov.uk/competition-/smpi1197.htm>, November 1997.

⁷⁰Commission of the European Communities *op cit* Ref 51.

⁷¹European Parliament and Council of the European Union *op cit* Ref 27.

⁷²Common Position (EC) No 27/97 adopted by the Council on 9 June 1997 with a view to adopting Directive 97/ /EC of the European Parliament and of the Council on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment, *OJ C* 234, 9.6.1997.

The Directive does not define exactly what the scope of services will be, leaving it to each country to legislate according to its specific situation. But the Directive does limit the services which a Member State can *finance* through a universal service funding mechanism.⁷³ The objective of this provision is to limit the financial burden new entrants have to bear for universal services. The service category which can be funded is essentially restricted to the simple fixed public switched telephony line.⁷⁴

There is a tendency among Member States including Belgium and France to pursue broad definitions of universal service, which could result in large financial burdens that entrants have to bear. The Belgium government for instance has repeatedly stated that it has the intention of granting universal Internet access to public schools, hospitals and libraries. There are indications that the Belgian government is financing Internet access for public institutions and other universal services through mechanisms which run counter to the spirit of the Services Directive and the Interconnection Directive, including license fees for new operators. Although the Commission has stated that "... it would be disproportionate for National [Financing] Schemes to be used to recover costs associated with ... the provision of communications services outside the scope of universal service to schools, hospitals or similar institutions,"⁷⁵ it is doubtful if the National Schemes in question would ever be contested or reversed by the EU regulatory authorities.

Furthermore, an attempt by the Commission to prevent financing of broad universal service definitions would be unpopular. Opponents of liberalization could then easily argue that competition in telecommunications markets prevents the achievement of social policy goals such as the 'Information Society'. Thus there remains a risk that broad universal service definitions will to some extent delay the benefits of competition (more innovation, lower prices) by decreasing the incentives of new operators to enter the market.

Funding of universal service.

Member States have two options to finance universal service:⁷⁶ they can implement a system of supplementary charges which are levied on top of regular interconnection charges; and/or they can finance USO through a universal service fund.

Supplementary charges have the advantage of creating less administrative overhead than a universal service fund. The disadvantage is that the incumbent operator covers part of its cost through subsidies which it receives from its competitors. As a result, it has little incentive to

⁷³European Parliament and Council of the European Union *op cit* Ref 27, Art. 5 (1).

⁷⁴This line should be capable of receiving voice telephony, fax group 3 and low bandwidth data services (modem communications). The category may also include emergency services, operator assistance and directory services. In addition, operators can be required to contribute to the development of public payphones.

⁷⁵Commission of the European Communities, Communication from the Commission on assessment criteria for national schemes for the costing and financing of universal service in telecommunications and guidelines for the Member States on operation of such schemes. *COM(96) 608 final*, 1996, 7.

⁷⁶European Parliament and Council of the European Union *op cit* Ref 27, Art. 5 (2).

lower its costs. Furthermore, supplementary charges are based on the incumbent operator's own cost calculations, and the operator therefore has a strong incentive to overstate these costs.

A universal service fund overcomes the inefficiencies of supplementary charges. It ensures that incumbent and new operators can be treated equally. The cost of USO becomes more transparent, allowing the regulator to refine the methodology of cost calculation of USO over time and ensuring that it increasingly reflects the real USO cost. In line with this analysis, the Commission prefers the solution of a universal service fund as the EU-wide method for financing USO.⁷⁷ However, the Member States refused to accept a common financing scheme,⁷⁸ and the Directive on Interconnection and Universal Service therefore leaves the choice of funding method to Member States. This raises the following risks:

- *The cost of universal service might be overstated in countries where supplementary charges are used.* As explained above, such a system is used in France and to some extent in Belgium and the Netherlands (see discussion below).
- *NRAs / incumbents could bundle supplementary universal service charges with interconnection charges in a non-transparent way.* This can be illustrated using the examples of the Netherlands and Belgium. Both countries distinguish between interconnection charges for 'terminating access' and 'originating access'.⁷⁹ The Dutch and Belgian regulators approved charges proposed by the incumbents which are higher for originating access. Although not explicitly stated, this extra charge is no more than a supplementary access charge, lumped into the interconnection charge, whose purpose is to recover the local loop access deficit. Such non-transparent bundling can be interpreted as violation of the principle of transparency any system of supplementary charges must respect.⁸⁰ This example illustrates that new entrants can expect to be faced with cumbersome, non-transparent interconnection / universal service charges which vary between countries.
- *Diverging USO will impede the development of a harmonized EU market.* The following overview illustrates the wide range of approaches to funding universal service in Europe at the time of writing. The UK has decided not to establish a mechanism for sharing the cost of USO between BT and competing operators, but will review the issue in 1999. In Germany, such a mechanism can be established if Deutsche Telekom announces that it wishes to discontinue the provision of universal service.⁸¹ France established in 1996 that the cost of universal service for 1997 was FF6 billion (about \$1 billion) and implemented a combined

⁷⁷Commission of the European Communities, Green Paper on the Liberalisation of Telecommunications Infrastructure and Cable Television Networks, Part II. *COM(94)682 final*, 25 January 1995, 85.

⁷⁸There are indications that particularly the more advanced Member States are concerned that such a universal service fund would become a new permanent transfer mechanism which obliges them to channel subsidies to less advanced countries.

⁷⁹The following scenarios illustrate the difference. In both cases, the competing operator bills the customer. In the case of terminating access, a competing operator provides the access part of the customer connection, interconnects to a predefined interconnection point on the incumbents' network, and pays the incumbent for terminating the call. In the case of originating access, the incumbent provides the access and interconnects to the operator's long-distance network who pays for the access.

⁸⁰Commission of the European Communities *op cit* Ref 75, 16.

⁸¹WIK, *Costing and Financing Universal Service Obligations in a Competitive Telecommunications Environment in the European Union*. Study for DGXIII of the European Commission. Bad Honnef, October 1997, Executive Summary, 3.

universal service fund / supplementary charge system to finance this cost. Belgium decided to dry-run calculations of universal service cost without charging the operators in a first phase. Most of the Member States with lower telephone penetration have yet to take a firm decision on the issue of universal service. Proposed legislation in several Member States tends to allow both universal service fund and supplementary charge systems.

This overview suggests growing divergence of USO. USO systems that vary between countries and are often non-transparent will act to some extent as entry barriers for cross-border operators and will increase market fragmentation.

3.2 *Efficient Liberalization/Deregulation*

A centralized authority is needed to coordinate and manage telecommunications deregulation. Lack of coordination among local authorities in the pace and way in which deregulation proceeds may result in heterogeneous rules that will distort competition and incentives to invest or comply with regulations. Disparate regulatory regimes create opportunities for venue shopping whereby firms whose activities are regulated in one market may seek to move those activities to another, less regulated market. This makes it more difficult to enforce remaining regulations and raises the costs to competitors active in multiple markets.

In addition, as liberalization proceeds, regulators will relinquish resources and relax requirements for information sharing. This will reduce the regulators' capability to regulate at the same time that competition and convergence will be fueling the rise of increasingly complex supplier relationships and organizational forms. In this environment, scale and scope economies are likely to make it more efficient to concentrate regulatory expertise in the central authority.

The need for a centralized authority is perhaps best understood if one considers the alternative: deregulating from the center outwards. If followed to its conclusion, we may end up with local authorities intact, but no centralized agency capable of coordinating decisions, sharing information, and economizing on duplicative efforts. In this case, it will be even more difficult to effect policy reforms to the *status quo*. It is noteworthy that in the US, FCC pressure was required to force some State PUCs to open their intrastate toll markets to interLATA competition, and as a consequence, intrastate toll service competition has emerged more slowly and less effectively than in interstate markets.

Maintaining or increasing the power of a centralized authority is not inconsistent with rapid deregulation. Once local regulations have been relaxed and competition is firmly established, it will be possible to deregulate at the center as well. In any case, the point is more one of relative balance than of complete elimination of regulatory authorities. It is unlikely that we will ever completely dispense with regulatory oversight of telecommunications services, and as long as such oversight is required, a central authority is needed.

3.3 *The Internet and Geographic Boundaries*

The emergence of a global communications infrastructure, as exemplified by the Internet, increases the benefits of centralized versus local regulation. Both the basis for justifying and the potential benefits to be realized are smaller in an Internet world than in the old voice telephony

world. This is due to a number of factors, including changes in market structure, regulatory approaches, and the technology of the Internet.

Consider the substantial changes in the overall market for communications services. With globalization and industry convergence, the potential spillover effects or externalities associated with the telecommunications sector have increased substantially.⁸² As noted in Section 2, the presence of substantial externalities provide an important justification for centralized coordination. In addition, these markets are changing substantially because the competing carriers are more likely to compete with each other in multiple markets (local and long distance in the US, national and internationally in the US and Europe, and across the EU in Europe).

A global communication infrastructure reduces transportation costs, breaking down geographic boundaries between markets. Consumers and potential suppliers may more easily collect and share information about product offerings and prices. The Internet reduces the entry costs for local retailers interested in participating in wider-markets, or of national/global retailers participating in local markets. This is true of the communication services themselves, as well as the trade that they support.

In the preceding section we mentioned the increased entry costs of dual regulation on potential competitors to the incumbents. Industry convergence also poses important challenges for regulatory policies in other domains such as content, privacy, intellectual property, tax policy, and security – all issues which require national (in the US) or EU-wide oversight.⁸³ More traditional aspects of regulatory policy such as cost separations by markets or services are much more difficult in a world of converging infrastructure. For example, in the US, the allocation of costs to interstate and local markets, or between regulated and enhanced services becomes increasingly arbitrary both because firms are using common or shared facilities to compete in multiple services (*e.g.*, service bundling to offer one-stop shopping or integration of local, long distance, and international services) and because of changes in the technology (*e.g.*, packet switching). The increased complexity and arbitrariness of cost allocation procedures makes it more difficult and error-prone to sustain demarcations of regulatory authority based on geographic boundaries.

⁸² Convergence of the computer, data communications, and telecommunications industries on the network side; convergence of entertainment media, publishing, and interactive multimedia services on the content side; and, integration of local, national, and global markets increase the potential for spillovers across industry, technology, and market boundaries relative to the earlier world of POTS and separate networks for television distribution, data communications, and telephony.

⁸³ For example, content issues such as pornography legislation (*e.g.*, internet filtering policies); privacy issues (*e.g.*, access to personal credit, health, shopping habits, or other personal data); intellectual property (*e.g.*, copyright enforcement and patent protection); tax policy (*e.g.*, electronic commerce and VATs); or security issues (*e.g.*, law enforcement and encryption). As we explain further below, all of these issues need to be reconciled with national policies. In contrast to Europe, where one would expect significant diversity across the member states, in the US, these issues are national rather than local and dual regulation poses a risk of coordination failures. While NRAs in Europe will need to play a role in reconciling these policies with European communications policy, there will also be a need to coordinate these policies across the EU and hence a centralized authority is needed in addition to the NRAs.

As Vogelsang (1993) discusses, until about 1970, the FCC and the PUCs in the US generally agreed that the Bell System monopoly ought to be protected and regulated so that interstate services subsidized intrastate and local services. With the emergence of long distance competition and the change in FCC policy, conflicts between the FCC and PUCs started to arise more often, but these were manageable because of the (relatively) well-defined nature of telephone service and its segmentation into local and toll services (with respect to the technology, services offered, and how customers used the service). The FCC could promote toll competition, while leaving the local PUCs to regulate the behavior of the Bell Operating companies with respect to local services and preempting PUC authority when it clearly conflicted with policies for the interstate market.⁸⁴ Even following the divestiture of the Bell System in 1984, it was easier to reconcile FCC/PUC policies because of the structural separation of the markets.⁸⁵ Now, however, with the promotion of local competition and the prospect that regulatory-enforced structural separation will be relaxed, sustaining dual regulation is more difficult and the need for centralized authority greater.⁸⁶

It is also important to understand how the emergence of the Internet as a new networking paradigm reduces the relevance of geographic boundaries, thereby enhancing the need for centralized authority. First, the basic features of the Internet make it less amenable to local regulation:

- *Packet switched, not circuit switched:* With a POTS circuit-switched network, it is possible in most cases to map the physical path of a call end-to-end.⁸⁷ In a packet network, this is no longer possible. The inherent multiplicity of routing options increases the substitutability of facilities at different levels in the network. While Internet routing is hierarchical, it is much less so than for traditional telephone networks. This increases the extent to which local and interstate or EU-wide facilities are shared or common.
- *End user control:* In the Internet, network intelligence is shifted to the periphery of the network. This has two important implications. First, it means that there is less need for and room for intelligence or overhead in the core of the network.⁸⁸ This provides less opportunities to sustain arbitrary regulatory-mandated heterogeneity at interconnection points in the backbone (*i.e.*, across state or national border). Second, it means that the boundary between customer premise equipment (CPE) and the network is more arbitrary. In an Internet

⁸⁴ Cite Vogelsang (1993) with respect to CPE preemption, etc.

⁸⁵ The FCC imposed national “dial-1” equal access policies on local carriers to support interstate competition. The potential for conflict between the PUCs and FCC was reduced because the goal of the FCC was not to promote local competition but guarantee non-discriminatory treatment of IXCs, a policy that even the ILECs had an incentive to comply since they were excluded from participating in the interLATA market. The slower opening of intrastate toll markets to competition was due to the PUCs generally less-favorable attitude towards competition. For further discussion of these issues see Kellogg, Thorne, and Huber (1992) or Vogelsang (1993).

⁸⁶ As local and long distance competition merges, the potential for heterogeneous local rules to distort interstate competition increases.

⁸⁷ Even this is no longer easily feasible in modern telephony networks because of such services as virtual private networks, frame-relay, and ATM.

⁸⁸ Cite Clark (1994), Isenberg (1998 – Stupid Networks), Lehr and Kavassalis (1998).

world, it is harder to determine where the customer's equipment ends and the network begins.⁸⁹

- *Multimedia*: In the Internet, traffic is multimedia (voice, video, data) and hence much more heterogeneous. This makes it more difficult to develop an appropriate basis for metering traffic to establish prices or allocate costs. For example, it is more difficult to define peak periods (*i.e.*, because demand is more bursty and less predictable, especially at the periphery) which drive incremental capacity investments. Similarly, mixed applications (data and entertainment videos) mean that transported bits differ widely in value. There is also more difficult to assign responsibility for traffic based on its direction of flow (*e.g.*, in Web browsing, most of the traffic is terminated to the customer who initiates the flow) or based on measuring the traffic at a single point within the network (*e.g.*, multicast).
- *Open, interoperable standards*: The success of the Internet is due in large measure to its dependence on a core set of open, public standards that support the interconnection of heterogeneous networks (*e.g.*, flexible interconnection of private LANs, the PSTN, and cable television network infrastructure). This has two important implications. First, it encourages interconnection of existing diverse infrastructure – further increasing spillover effects. Second, heterogeneous local regulation that affects the evolution of Internet technology (*e.g.*, local filtering requirements required to be implemented in router software) poses a significant risk for the continued evolution of the Internet.
- *Internet, historically not regulated*: The Internet has been subject to substantially less regulation than the incumbent telephony carriers. This is because, to date, the Internet has been an application that resides largely on top of the PSTN (*e.g.*, leased lines, dial-up access services) and has been treated as an enhanced or non-regulated service. In the future, if the Internet evolves into *the* platform for our global communications infrastructure -- supporting telephony as one application among many -- then it will be subject to communications policy. Implementation of a coherent policy will be hindered if there is a legacy of disparate local regulatory policies that must be rationalized and if there is no strong centralized authority.

In summary, therefore, the growth of a global communications infrastructure, as epitomized by the Internet, increases the need for centralized authority. If the infrastructure is to be truly global, then national US and EU-wide policies will also require coordination both with each other and with the rest of the world. Encouraging worldwide coordination of coherent communications policies will be more difficult if PUC/FCC and NRA/EC regulatory conflicts are not minimized.

Section 4: The US and European Experiences Differ

Although we argue that there are many similarities between the situation in the US and the EU, there are also differences that make the need for centralized authority less important in the EU, or to put it differently, central authority in the EU should fulfill a more circumscribed role. These differences are associated with the political, regulatory, and market environments in the US and the EU, as explained further below.

⁸⁹ Network functionality at the periphery may be located in hardware or software. In the Internet, and computer running the TCP/IP protocols can communicate as a host. Behind a corporate firewall, there may be an Intranet supporting a large number of additional hosts.

4.1 Market and Political Differences

The US and the EU are obviously two economic areas with very different economic and political characteristics. The US shares a common language, culture, and with minor differences, set of political and regulatory institutions. In the EU, national differences are substantially more pronounced, with language being only the most obvious distinction. These differences make the case for centralized authority categorically different than in the US. Although the extent of cross-border telecommunications demand in the EU is comparable to interstate demand in the US, the supply side has been historically fragmented into national markets. Although this in itself bolsters the argument for centralized authority, the resulting fragmentation in supply promotes nationally oriented constituencies and thus strong local regulation. As discussed in the section 'Dual Regulation in the European Union', this resulted in complete absence of EU level telecommunications regulation until about 1985 and has meant that there is still no EU-level regulator comparable to the FCC. Only recently have the dominant national operators in the EU begun significant efforts to offer services outside of their home countries, either directly or through strategic alliances. However, even aggressive operators like BT or France Telecom are far less active in multiple local markets than IXCs like AT&T or RBOCs like US WEST. It is only with increasing europeanization of telecommunication companies that demand for a Euro-Regulator will reach its critical mass.

The above differences imply that the economic objectives that a central authority in the EU can pursue are more limited. The political will to integrate sovereign EU Member States in a seamless economic area is less pervasive than in the case of US states. This situation is reflected in the attitude of Member States towards regulation of newly liberalized telecommunications markets. As discussed in the section 'Dual Regulation in the European Union', national governments and national regulatory authorities are currently working to impose themselves as the prime regulatory authorities for the transition towards competitive markets. This simply reflects the political reality in the EU: Member States will attempt to keep tight control of the regulation of crucial high tech sectors like the telecommunications.

4.2 Differences in Regulatory Market Models

Differences in regulatory market models in the EU provide another reason why the need for a centralized regulatory authority in the EU is less strong than in the US. In particular, the evolving institutional landscape in EU telecommunications – EU level regulation on the one hand, National Regulatory Authorities (NRAs) on the other hand - generates different views on how the market should evolve. The US is by and large characterized by more homogeneity of views as to the basic competitive framework. This has been further enforced by the Telecommunications Act of 1996 that includes strong provisions that are intended to promote the emergence of facilities-based carrier competition. In contrast, there is no general agreement in the EU on how best to promote competition. For example some EU countries strongly promote facilities-based infrastructure based competition whereas others put the emphasis on service-based competition.⁹⁰ Moreover, even the countries that are seeking to promote infrastructure

⁹⁰ The optimal balance between the two objectives is far from clear. The USA and the UK for example promote investment in competing infrastructure on a wide scale, while other countries, including many EU Member States,

competition differ with respect to the appropriate mechanisms for facilitating new network investment. Both approaches are economically justifiable, but necessitate very different regulatory management at the Member state level. However, if appropriately circumscribed, a centralized EU authority could accommodate some flexibility with respect to the specific model adopted by a member state to promote national competition, while still helping to assure a level playing field across the EU for incumbents and entrants. As we explained earlier, the EU central regulators ought to have prime authority in issues relating to the basic competitive market structure.

An example of how this balance might be achieved is provided by the experience of the EC with respect to the subject of carrier pre-selection. Since the early 90s, the UK government had encouraged the construction of competitive local access infrastructure by giving local operators certain market advantages. These include allowing new access operators to “own” the customer (*i.e.* the access operator receives all revenue from the end-to-end call and controls how its subscribers’ calls get routed in the long-distance and the termination network). The new access carriers argued that carrier pre-selection will reduce their profit margins because the customer now controls the choice of the long-distance operator and the latter will bill the customer directly. The new providers therefore argue – supported by Oftel, the UK regulator – that carrier pre-selection would endanger the viability of investment in competitive local infrastructure.⁹¹

The European Commission’s Draft Directive on Operator Number Portability and Carrier Pre-Selection of January 1998 includes the obligation of local access providers that command significant market power to implement carrier pre-selection. Market experiences in the US and Australia show that this helps bring down long-distance tariffs and introduce customer choice. However, no obligation was imposed in the Draft Directive on access providers that do not command significant market power to offer carrier selection. This effectively addresses the UK’s objections against carrier pre-selection, leaving it up to other Member States to oblige carrier pre-selection on all carriers if they wish to do so.

In this case, the central regulatory authority’s mandate is limited to a regulatory principle for which consensus can be reached between the member states: the imposition of carrier pre-selection on local access providers that command significant market power. This provision is compatible with pro-infrastructure policies pursued by Member States like the UK.

Section 5: Conclusions

On both sides of the Atlantic, communications policy-makers are seeking to promote competition and liberalization, while assuring the provision of an integrated, global, communications infrastructure. Realization of these goals requires a strong centralized regulatory authority. Unfortunately, in both the US and Europe, this authority is inadequate. In the US, the FCC’s authority has been challenged by a series of decisions from the 8th Circuit; in Europe, there is no effective EC-level regulator.

attempt to maximize the use of existing infrastructure through favorable price and usage conditions for interconnection services.

⁹¹ Molony, D, ‘Oftel lobbies MEPs over equal access’. *Communications Week International*, 24 November 1997, 9

This paper examines the economics of dual regulation and the history of this system in Europe and the US, and seeks to make the case for a strong centralized authority. The need for such authority is especially important in light of industry convergence and the growth of the Internet.

With convergence, communications networks are becoming increasingly integrated with respect to the types of traffic handled, the types of facilities that support that traffic, and the geographic markets in which carriers participate. This increases the potential for spillover and coordination externalities, thereby increasing the risk and costs that heterogeneous local regulations will harm incentives for efficient infrastructure investment and service provisioning. Strong centralized authority is needed to address these risks and help internalize these externalities.

With liberalization, the ruling regulatory paradigm is to promote competition wherever possible. This poses a substantial threat to the dominant position of incumbent carriers and provides them with a vested interest in protecting the *status quo* regulatory and market environment. Complex and heterogeneous dual regulation creates multiple veto points that are vulnerable to strategic exploitation by an incumbent wishing to forestall regulatory reform or to increase rivals' costs. This provides another important reason for providing strong centralized regulatory oversight over communications policy. If competition is to be successful, the centralized authority should have effective jurisdiction over issues related to the basic structure of competition.

Although these arguments apply on both sides of the Atlantic, it is obvious that the states that comprise the US are significantly more homogeneous and more integrated than the member states of the EU. These differences imply that the jurisdiction and power of a centralized authority should be much more circumscribed in Europe than the US. Nevertheless, in both regions, the *status quo* needs to be revised in favor of stronger centralized authority.

For the EU, we recommend transferring considerable responsibility from the National Regulatory Authorities to an EU-level regulator.⁹² This regulator could be situated within the European Commission or established as an independent European Regulatory Authority (ERA) in telecommunications. The Commission will examine the need to set up an ERA as part of the EU Sector review in 1999. In order to gain support from the Member States for an ERA that is vested with the necessary statutory powers, the ERA should be established as a Commission of Member State NRA representatives. This would ensure that Member States keep sufficient control of the ERA's EU wide regulatory policies and that the NRAs' hands-on experience in national regulation is duly considered by the EU-level regulator.

For the US, we recommend that the FCC's ability preempt state regulatory authorities with respect to communications policy be reaffirmed and extended, especially with respect to issues directly related to the promotion of local competition and the implementation of the pro-

⁹² This viewpoint has been expressed by Commission officials and policy observers alike. Public Network Europe, EU regulation: 'Judgement day approaches'. *Public Network Europe*, 1997, 7(11), 32; Espicom, *European Telecoms Regulation, Leveling the playing field*. Espicom Business Intelligence Publications Limited, London, 1997, 48.

competitive provisions of the Telecommunications Act of 1996. On economic and policy grounds, we disagree with the position of the 8th Circuit and hope that these decisions will be overturned by the Supreme Court when it considers these issues in the fall of 1998. Irrespective of whether one would like to see more or less telecom regulation in the US, we think it is important that the FCC's authority be maintained until such time as deregulation is more advanced at the state-level.

References

- Alt, J. and K. Shepsle, Perspectives on Positive Political Economy, Cambridge University Press, New York, 1990.
- Downs, A., An Economic Theory of Democracy, New York: Harper and Row, 1957.
- Federal Communications Commission, *First Report and Order, In the Matter of Implementation of Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, Released August 8, 1996.
- Haring, J. and Levitz, "The Law and Economics of Federalism in Telecommunications," *Federal Communications Law Journal*, vol 41, pages 261-330.
- Hatfield Associates, "ONE: a Promise Not Realized," filed in Docket CC 85-229, 1988.
- Kalt, J. and M. Zupan, "Capture and Ideology in the Economic Theory of Politics," *American Economic Review*, vol 74, pages 279-300, 1984.
- Kavassalis, P. and W. Lehr, "The Flexible Specialization Path of the Internet," forthcoming in *Beyond Convergence: Proceedings of the International Telecommunications Society*, Stockholm, Sweden, 1998.
- Kellogg, M., J. Thorne, and P. Huber, Federal Telecommunications Law, Boston, MA: Little Brown and Co., 1992.
- Kiessling, T. and Y. Blondeel, "The EU Regulatory Framework in Telecommunications - A Critical Analysis," Telecommunications Policy, September 1998, forthcoming.
- Levy, B. and P. Spiller, "Regulation, Institutions, and Commitment in Telecommunications: A Comparative Analysis of Five Country Studies," paper presented for the World Bank's Annual Conference on Development Studies, May 3&4, 1993.
- McCubbins, M., Noll, R. and Weingast, B., "Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies", Virginia Law Review, vol. 75, no. 2 (March 1989) 431-482.
- McKenna, R., "Preemption under the Communications Act," *Federal Communications Law Journal*, vol 37, no 1, 1985.
- Noam, E., 1989, "Network Pluralism and Regulatory Pluralism," in Newburg, P. (ed) New Directions in Telecommunications Policy, London: Duke University Press, 1989.
- Noll, R., "Telecommunications Regulation in the 1990s," in Newburg, P. (ed) New Directions in Telecommunications Policy, London: Duke University Press, 1989.

Noll, R. and F. Rosenbluth, "Telecommunications Policy in Japan and the US: Structure, Process and Outcomes", CEPR working paper #349, May 1993.

Noll, R. and S. Smart, "The Political Economics of State Responses to Divestiture and Federal Deregulation in Telecommunications," Discussion Paper No. 148, Workshop of Applied Microeconomics, Stanford University, 1989.

Charles Shipan, Designing Judicial Review: Interest Groups, Congress, and Communications Policy, Ann Arbor, MI: University of Michigan Press, 1997.

Vogelsang, Ingo, Federal Versus State Regulation in U.S. Telecommunications, Germany: Wissenschaftliches Institut für Kommunikationsdienste GmbH monograph, No. 134, October 1994.