Regulatory and Antitrust Implications of Emerging Competition in Local Access Telecommunications: How Congress and the FCC Can Encourage Competition and Technological Progress in Telecommunications

Robert B. Friedrich

Follow this and additional works at: http://scholarship.law.cornell.edu/clr

Part of the Law Commons

Recommended Citation


Available at: http://scholarship.law.cornell.edu/clr/vol80/iss3/5

This Note is brought to you for free and open access by the Journals at Scholarship@Cornell Law: A Digital Repository. It has been accepted for inclusion in Cornell Law Review by an authorized administrator of Scholarship@Cornell Law: A Digital Repository. For more information, please contact jmp8@cornell.edu.
NOTES

REGULATORY AND ANTITRUST IMPLICATIONS OF EMERGING COMPETITION IN LOCAL ACCESS TELECOMMUNICATIONS: HOW CONGRESS AND THE FCC CAN ENCOURAGE COMPETITION AND TECHNOLOGICAL PROGRESS IN TELECOMMUNICATIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>647</td>
</tr>
<tr>
<td>I. Background</td>
<td>654</td>
</tr>
<tr>
<td>A. The Current Regulatory Scheme: The Federal Communications Act of 1934 and the AT&amp;T Antitrust Litigation</td>
<td>654</td>
</tr>
<tr>
<td>1. Federal Communications Act of 1934</td>
<td>654</td>
</tr>
<tr>
<td>2. AT&amp;T Antitrust Litigation</td>
<td>655</td>
</tr>
<tr>
<td>a. Divestiture of the Bell Operating Companies</td>
<td>657</td>
</tr>
<tr>
<td>b. Elimination of Line-of-Business Restrictions on AT&amp;T</td>
<td>659</td>
</tr>
<tr>
<td>c. Line-of-Business Restrictions on the BOCs</td>
<td>660</td>
</tr>
<tr>
<td>B. Wireless Communications Under the Current Regulatory Scheme</td>
<td>662</td>
</tr>
<tr>
<td>1. Technological Aspects of Wireless Communications</td>
<td>662</td>
</tr>
<tr>
<td>2. The Regulatory Environment of Wireless Communications</td>
<td>664</td>
</tr>
<tr>
<td>II. Analysis</td>
<td>667</td>
</tr>
<tr>
<td>A. Short-Run Analysis of the Effect of Cellular Technology on Other Sectors of the Industry</td>
<td>667</td>
</tr>
<tr>
<td>B. Fiber Optics and Airwaves: The New Generation of Wired and Wireless Networks</td>
<td>669</td>
</tr>
<tr>
<td>1. Prospects for Competition in the Local Loop</td>
<td>669</td>
</tr>
<tr>
<td>a. The Digital Solution</td>
<td>669</td>
</tr>
<tr>
<td>b. The FCC's PCS Initiative</td>
<td>671</td>
</tr>
<tr>
<td>c. Wireline Competition in the Local Loop</td>
<td>674</td>
</tr>
<tr>
<td>2. Oligopoly in the Long Distance Sector</td>
<td>675</td>
</tr>
<tr>
<td>C. Antitrust and Public Interest Implications of Vertical Integration Among Telephone Companies</td>
<td>678</td>
</tr>
<tr>
<td>1. The Federal Antitrust Laws</td>
<td>679</td>
</tr>
<tr>
<td>2. The Communications Act Exception</td>
<td>679</td>
</tr>
</tbody>
</table>

D. Some Solutions to a Perplexing Problem ............ 683
   1. Legislatively Invalidate the 1982 MFJ and Place Full Regulatory Authority With the FCC ........ 684
   2. Legislatively Invalidate the AT&T-McCaw Justice Department Consent Decree .................. 688
   3. Eliminating Rate-of-Return Regulation ............. 689
   4. Maintenance of Price Caps on Core Services .... 692

Conclusion ................................................................................................................................. 694

INTRODUCTION

The telecommunications industry is undergoing a technological revolution which promises to radically change the way people communicate. Industry participants are increasingly aware that the traditional view of telecommunications—of a telephone transmitting voice and data communications to a fixed location—is antiquated. Since its introduction to the market eleven years ago, cellular technology has captured the imaginations of consumers and industry strategists alike, but the technology is only now beginning to match the imaginative forces behind it. Combining this technology with video and interactive services, communications firms of the future will have the capability to provide broadband services on an anywhere, anytime basis. As new technologies begin to unfold, however, the current telecommunications regulatory scheme faces a serious threat.

The communications industry, primarily in the areas of telecommunications, cable television, and studio entertainment, is presently one of the most active merger and acquisition markets. This consolidation is fueled by an increasing understanding of the interactive capabilities of these once discreet forms of communication. Within

---

1 See Jane A. Strachan, Untangling the Regulatory and Legal Wires to Telephone and Cable Television Technology, 11 U. BRIDGEPORT L. REV. 599 (1991) (transmission of voice, data, and video communications to the home over a single wire feasible); Dan Margiotta, Wireless Fixed Loop Access: The Bridge to the Information Age, TELEPHONY, Aug. 2, 1993, at 20, 26 (field testing has shown wireless transmission can be a cost effective alternative to wired local access).
2 See infra part II.B.1.
3 See Communications: Policy-Makers Expected To Remove Many Regulatory Barriers, Daily Rep. For Execs. (BNA) Outlook '94, Jan. 28, 1994, at 18 [hereinafter Communications: Policy-Makers] (observing that the Clinton administration has taken a strong stand on paving the way for the "information superhighway," a vital aspect of which is the continued development of broadband interactive telecommunications).
5 Until recently, the Federal Communications Commission (FCC) banned the Regional Bell Operating Companies (BOCs) from owning or controlling any cable or broadcast television facility. FCC regulations still require separation of video transmission from
this larger context, the telecommunications industry is undergoing its own technological changes, driven primarily by the influx of wireless communications in the local sector and fiber optic cable in the long distance sector. Consequently, the regulatory challenge for the Federal Communications Commission (FCC) is twofold: first, to update the present regulatory scheme to accommodate fast paced technological changes and integration, and second, to protect the social welfare goals that justify the FCC's regulatory presence. These social welfare concerns have traditionally included maximizing the overall quality and convenience of telecommunications, maximizing the availability and affordability of telecommunications services, and protecting the national security interests in maintaining the integrity of the telecommunications networks.

Many have heralded the 1982 breakup of the Bell System as a testament to the ability of the regulatory process to supplement the free market for the betterment of society. This observation is potentially misleading, however, because in the wake of the American Telephone & Telegraph Co. (AT&T) antitrust litigation, the FCC, the Department of Justice, Congress, and the federal courts have assumed enormous responsibility for regulating telecommunications. The District Court for the District of Columbia had the luxury of time when it restructured a nearly static industry monopoly; Judge Harold

---

10 See infra part I.A.2.
Greene took almost three years to approve a workable remedy, and over a year to implement that remedy.\footnote{For details related to the history and logistics of the AT&T antitrust litigation, see infra part I.A.2; see also AT&T, 552 F. Supp. at 135-47.}

The FCC, Congress, the federal courts; and the Justice Department, on the other hand, currently preside over a quasi-competitive industry that is undergoing drastic changes.\footnote{The role that Judge Greene of the District Court of the District of Columbia currently plays centers on AT&T and the seven Regional BOCs spun off from AT&T after the breakup. The district court retained substantial oversight powers as part of the resulting Consent Decree. Under the Modified Final Judgment (MFJ), the court retains authority to determine what activities carried on by AT&T and the BOCs threaten the antitrust restrictions contained in the MFJ. To date, Judge Greene has restricted the BOCs to a greater extent than the FCC has restricted other telecommunications companies not subject to the district court’s authority under the MFJ. While the vast majority of the MFJ’s restrictions focus on the BOCs, AT&T was a party to the MFJ and is subject to the district court’s rulings. MCI, Sprint, and other telecommunications firms are not subject to the MFJ or the court’s rulings under the MFJ. See Paul Schreiber, \textit{Shots Ring Out In Telecommunications War}, Newsday, Feb. 14, 1989, at 41.} These entities are faced with a far different task than that faced by Judge Greene when he presided over the antitrust litigation that resulted in the Modified Final Judgment (MFJ), which remains in effect to the present. The MFJ set the stage for competition, but other government institutions have since been responsible for encouraging and maintaining a competitive and socially optimal telecommunications market in a rapidly changing environment. Their ability to perform this task is highly suspect.

The district courts’ continuing role in the regulatory process is typical of antitrust consent decrees, which tend to place courts in the role of de facto regulatory agencies.\footnote{KELLOGG \textit{et al.}, supra note 6, at 37.} The district courts’ regulatory role in enforcing the MFJ is not easily reconciled with the role it played in bringing about the MFJ. The courts’ initial role was reactive, its purpose being to undo an undesirable monopoly brought about by unchecked market imperfections. In contrast, the post-Decree regulatory role of the federal courts, the FCC, and the Justice Department is proactive—their objective is to manage behavior in the telecommunications industry to fulfill long-term social and market objectives. Whereas the FCC fulfills its obligation by promulgating flexible rules, regulations, and procedures, the district court fulfills its regulatory function by enforcing the thirteen-year-old MFJ, which is based on the industry as it existed in 1982. As a preliminary matter, this Note argues that the MFJ, while useful in restructuring the industry in 1984, is fundamentally flawed for the purpose of regulating the industry as it exists today.

Moreover, the district courts’ role in regulating the telecommunications industry has been the source of tremendous confusion be-
cause it has resulted in a two-tiered regulatory process involving both the courts and the FCC. In addition, technological advances over the past thirteen years have undermined the most critical foundations of the MFJ, making it an improper basis for controlling the activities of the industry. The district court is also an extremely inefficient arena in which to regulate the industry because it cannot act unilaterally to effect changes, but rather can provide only 'yes' or 'no' answers to petitions filed under the hopelessly obsolete MFJ. With a backlog as long as two or three years, petitions are often long out-of-date before they are ever considered by the court.

To address these concerns, the Federal Communications Act of 1934 must be updated. The Communications Act is the primary piece of legislation governing the telecommunications industry and has undergone surprisingly few amendments since its enactment over 60 years ago. Congress has left the courts to interpret its provisions in a rapidly changing environment without meaningful legislative clarification. Part II of this Note argues that Congress must take a more active role in directing this regulatory scheme. It also observes, however, that pending legislation displays a lack of understanding of the competitive issues at hand and presents a flawed solution for getting regulation of the industry out of the courts and into the hands of FCC regulators.

The principal debate involves the increasing vulnerability of the local access monopolies created after the breakup of AT&T. Though still largely intact, these monopolies are on the verge of disintegration, drastically altering the perceived balance of power. New develop-
opments in wireless communications and recognition of the benefits of broadband service require radical changes in the competitive structure established by the 1982 MFJ, which continues to structurally separate the Regional Bell Operating Companies (BOCs) from the quasi-competitive long distance and equipment manufacturing sectors. To accommodate new technological developments and to encourage the competition that they facilitate, the regulatory structure will need not only to accommodate and encourage competition in the local access sector, but to expand it in the long distance and equipment sectors. Ironically, the former may be easier than the latter.

In August of 1993, the magnitude of the problem facing FCC regulators and congressional policymakers hit home when AT&T announced its $12.6 billion acquisition of McCaw Cellular Communications, the nation's largest cellular provider. The merger announcement demonstrated the precarious position of competitors in all facets of telecommunications, particularly that of the BOCs spun off from AT&T following the 1982 antitrust action. The real significance of the merger lies in the potential for AT&T to connect calls directly from its cellular networks to its own long distance lines, thereby bypassing the wired local networks.

The BOCs also face competition in the local access market from cable television companies that have the capacity to use their cable television networks as broadband local exchange networks. Until recently, the Cable Communications Policy Act of 1984 legislatively prohibited any BOC from providing video programming in its area of telephone service, but this prohibition was judicially attacked in Chesapeake & Potomac Telephone Co. v. United States, which declared the Act's cross-ownership ban unconstitutional on First Amendment grounds.

AT&T's emergence at the forefront of wired local access bypass technology and the entrance of cable television companies into tele-

already demonstrated that current wireless technology will soon present a cost effective substitute for wired local access. Margiotta, supra note 1, at 20.

24 See Communications: Policy-Makers, supra note 3, at 18.
25 See infra part II.B.2.
26 For an expression of the early fears associated with the AT&T-McCaw merger, see Michael Botein, The AT&T-McCaw Merger Need For Analysis, N.Y. L.J., Aug. 30, 1993, at 2; see also Eckhouse, supra note 22, at C1.
27 See Strachan, supra note 1, at 603.
31 See AT&T Goes Cellular in Merger; Acquires McCaw in $12.6 Billion Deal, PLAIN DEALER, Aug. 17, 1993, at 1F.
communications will significantly hasten the erosion of the local exchange monopolies currently held by the BOCs. In addition, competitive access providers (CAPs) have installed unregulated fiber optic local networks in the nation's largest commercial centers. This enables them to lure the business of large commercial telephone users away from the BOCs, cherry picking the best local customers who generate sixty to seventy percent of BOC revenues. The erosion of the local exchange monopolies provides an opportunity to escape the remaining vestiges of monopoly control in the industry. However, it also signifies an end to the predictable regulatory environment created by monopoly control of the local access sector.

This Note argues that to facilitate a competitive telecommunications industry, the regulatory scheme must deemphasize the increasingly misplaced monopoly concerns of operating efficiency and price gouging in the local access sector. Instead, it must concentrate primarily on streamlining the regulatory process, encouraging technological progress, keeping core services affordable, and protecting the integrity of telecommunications networks.

This Note envisions a regulatory scheme that facilitates the greatest possible number of full service telecommunications providers. This view contrasts sharply with the current regulatory scheme, which structurally separates various submarkets within the industry. Moreover, this Note disagrees with legislation proposed in Congress, which,
NOTE—TELECOMMUNICATIONS

among other things, would continue to legislatively enforce structural separation of telecommunications markets.37

Part I of this Note outlines the history of the antitrust litigation that brought about the breakup of the Bell System monopoly and made the federal courts major participants in the regulatory scheme. It then examines the emergence of cellular and broadband technologies and explains their basic function and regulatory significance. Part II discusses the future impact of these technologies and the antitrust and public interest implications of their proliferation. In addition, it proposes some simple but necessary regulatory reforms.

Part II first proposes that Congress remove jurisdiction over the 1982 MFJ from the federal courts and place full regulatory control with the FCC.38 This would centralize and streamline the regulatory process, thereby permitting the FCC to respond quickly to the changing competitive environment, further reducing the cost to the industry and consumers of regulatory delay.

Part II then proposes eliminating the line-of-business restrictions imposed on the BOCs by the MFJ.39 This reform would permit the BOCs to become full service telecommunications providers capable of competing with the likes of AT&T in the full service local, broadband, and long distance markets. It would also help eliminate the litigation stranglehold that continues to retard industry progress.40 As an incident to the removal of the line-of-business restrictions, the system of area boundaries established by the MFJ should be dispensed with, leaving the local operating companies and their competitors to operate their local networks according to principles of efficiency.41

Finally, Part II urges the complete elimination of rate-of-return pricing in the industry and the continued replacement of this pricing system with a system of price caps42 that reflect the current average

---

37 See Bingaman, supra note 21; J. Gregory Sidak, Telecommunications: The Big Picture, ROLL CALL, June 27, 1994.
38 Senator Bob Dole introduced such a bill during the 1985-86 legislative term. Richard E. Wiley, The End of Monopoly: Regulatory Change and the Promotion of Competition, in TELECOMMUNICATIONS AND THE LAW 147, 169 (Walter Sapronov ed., 1988). The bill was not passed, but political support for such a measure is far greater now than it was ten years ago. Technological developments over the ensuing years, as well as the Clinton administration's support for such a move, are improving the bill's chances for success.
39 See infra part II.D.1.
40 This is one of the major shortfalls of the current Senate Bill 1822. It contains so many prophylactic tests and structural safeguards that it is certain to spend the foreseeable future bogged down in litigation to interpret the meaning of the tests and safeguards. A clear and concise end to the line-of-business restrictions requires less interpretation and facilitates the use of more efficient measures to prevent anticompetitive activity. See infra part II.D.1.
41 See News Conference, supra note 33.
42 Price caps on core services will ensure availability of basic core services for individual users, but will not create the kinds of problems caused by rate-of-return pricing. Price
cost to the local service providers. This would allow prices to better reflect emerging competitive trends, encourage new technological development,\(^\text{43}\) and protect the short-term interests of marginal and unsophisticated telephone users.

I

BACKGROUND

A. The Current Regulatory Scheme: The Federal Communications Act of 1934 and the AT&T Antitrust Litigation

1. Federal Communications Act of 1934

The Federal Communications Act of 1934\(^\text{44}\) is the sole source of national telecommunications policy. It has undergone little revision since its enactment over sixty years ago, and there is mounting need for Congress to establish updated communications policies that better reflect the industry’s current technological environment.\(^\text{45}\) Telecommunications is presently the largest industry in the United States, and caps on core services will allow the BOCs and other local service providers to keep profits derived from increased efficiencies in providing local services. At the same time, prices for core local services may be forced down by increased competition in that sector. In addition, the market would be free to determine the prices for new, more technologically advanced services. In this way, firms would have greater incentives to maximize efficiency gains because they would be free to reinvest or to distribute to investors any additional returns, as opposed to having to include efficiency returns into their future rate-of-return calculations. The risk to investors would increase because of the lack of a guaranteed return, but so would the potential gain. Dennis Patrick, FCC Chairman during the first half of the Bush administration, supported the price cap alternative, which was the subject of an FCC initiative widely implemented in the interstate sector. See infra part II.D.4; see also Amendment of Part 65 and 69 of the Commission’s Rules to Reform the Interstate Rate of Return Representation and Enforcement Processes, 7 F.C.C. Rec. 4688 (1992); Schreiber, supra note 12, at 41. The FCC has phased out rate-of-return regulation in the long distance market and the results have been promising, but a complete shift is needed to attain the full benefits from such action. See News Conference, supra note 33. For additional discussion of the price cap alternative, see Berg, supra note 15, at 16-17.

According to the D.C. Circuit, full detariffing of telecommunications firms will require legislative amendment to the Communications Act of 1934. In AT&T v. FCC, 978 F.2d 727 (D.C. Cir. 1992) the court ruled that the FCC did not have authority to eliminate the requirement under § 203(a) of the Communications Act that all carriers file their prices with the FCC. The court reached this conclusion despite language in § 203(b) (2) which grants the Commission power to “modify any requirement [of the section] in particular instances or by general order applicable to special circumstances or conditions.”\(^\text{45}\)

Rate-of-return pricing tends to stifle technological development because it sets prices based on the industry’s costs plus a reasonable rate of return for investors. In periods of fast paced technological innovation, the depreciation rate increases dramatically, causing firms to charge high prices for services in order to provide the set rate of return to investors. High initial prices exclude many marginal users from the market for new services, reducing market penetration and long-term gains from investing in the new technology. See Berg, supra note 15, at 16-17.


its growth and development are of vital importance to our national economy. Yet, until recently, Congress has given this issue very little attention.

The most important feature of the Communications Act is its establishment of the FCC. Pursuant to the Act, the FCC maintains regulatory authority over all interstate and foreign wire and radio communications formerly regulated by the Interstate Commerce Commission. The FCC's delegated authority is broad and comprehensive. The FCC has rule-making authority, and all rules and regulations promulgated by the FCC have the binding force and effect of law so long as they are consistent with the Communications Act.

2. AT&T Antitrust Litigation

Prior to January 1, 1984, AT&T was both the largest company and the largest monopoly in the world. The combined operations of AT&T, known as the Bell System, exercised monopoly power over nearly every sector of the telecommunications industry within the United States. The most important of these sectors included long distance service, provided by the Long Lines division; local communications networks, maintained exclusively by the Bell Operating Companies (BOCs); and telecommunications equipment manufacturing and leasing, carried on almost exclusively by AT&T's Western Electric division.

The Bell System's antitrust problems began in 1949, when the Justice Department first acted to end the anticompetitive equipment manufacturing and leasing activity of Western Electric. The government alleged "that the defendants had monopolized and conspired to restrain trade in the manufacture, distribution, sale, and installation of telephones, telephone apparatus, equipment, materials, and supplies, in violation of sections 1, 2, and 3 of the Sherman Antitrust Act."

51 Kleinfield, supra note 50.
52 See id. at 5-6.
53 The case was originally filed in the U.S. District Court for the District of New Jersey against the Western Electric Company and AT&T. AT&T, 552 F. Supp. at 135.
The Western Electric suit was virtually inactive between 1949 and the filing of a consent decree in 1956. The 1956 Consent Decree was far less ambitious than the relief initially sought by the government, which had included structural adjustments, such as divestiture of Western Electric by AT&T. AT&T successfully exercised its political influence with the Department of Defense, which argued that a forced divestiture of Western Electric would "effectively disintegrate the coordinated organization which is fundamental to the successful carrying forward of [a number of] critical defense projects, [and would] be contrary to the vital interests of the nation." The District Court for the District of New Jersey found the 1956 Consent Decree to be in the public interest and approved the Decree, despite the fact that it required absolutely no structural changes within the Bell System and was virtually useless in restraining AT&T's exercise of its anticompetitive capabilities.

On November 20, 1974, the government filed a second antitrust action against AT&T, Western Electric, and Bell Telephone Laboratories in the United States District Court for the District of Columbia. The complaint alleged that AT&T had monopolized a broad range of telecommunications services and equipment markets in viola-

55 AT&T, 552 F. Supp. at 136.
56 Id.
58 AT&T, 552 F. Supp. at 138. Subject to the requirements of the Tunney Act, 15 U.S.C. § 16(b)-(h) (1988), antitrust consent decrees must be approved by a court. The Tunney Act requires that the approval procedure culminate in a finding by the court that the Decree is "in the public interest." In determining whether a consent decree is in the public interest, courts look to the principles and goals of the antitrust law, which Congress enacted to "preserv[e] free and unfettered competition as the rule of trade." AT&T, 552 F. Supp. at 149 (quoting Northern Pac. Ry. Co. v. United States, 356 U.S. 1, 4 (1958)).
59 The sole remedy the 1956 Consent Decree provided was an injunction that precluded AT&T from engaging in any business other than the provision of common carrier communications services; precluded Western Electric from manufacturing equipment other than that used by the Bell System; required the defendants to license their patents to all applicants upon the payment of appropriate royalties.

AT&T, 552 F. Supp. at 138.
60 Bell Labs is the research and development subsidiary of AT&T. It was, and still is, one of the premier research laboratories in the world, having discovered such technologies as the laser, the transistor, and the optical computer. AMERICAN TELEPHONE & TELEGRAPH Co., 1992 ANNUAL REPORT 5 (1993).
61 C.A. No. 74-1698. According to the Competitive Impact Statement filed in connection with the 1982 MFJ, the government initiated this action because the 1956 consent decree was not adequate to prevent activities that unreasonably restrained competition in telecommunications equipment markets, and did not protect against antitrust violations in the intercity telecommunications field.

tion of section two of the Sherman Act. The government sought the divestiture of the BOCs and dissolution of Western Electric.

The case eventually went to trial on January 15, 1981. In January, 1982 the parties proposed a Consent Decree. Judge Harold Greene's Modified Final Judgment (MFJ) subsequently approved this Decree with some modifications. In contrast to the 1956 Consent Decree, the 1982 MFJ required radical structural changes in AT&T.

a. Divestiture of the Bell Operating Companies

The 1982 MFJ mandated AT&T's total divestiture of the BOCs. The rationale behind this divestiture was that without control of access to the local operating networks, AT&T would be incapable of exercising monopoly control over the long distance and equipment markets.

Prior to January 1, 1984, the day the MFJ took effect and the BOCs were divested, AT&T had successfully frustrated competitors' attempts to provide competitive long distance service and telecommunications equipment by making access to local networks prohibitively difficult. In the long distance market, for example, customers of competing carriers were required to dial significantly more numbers to obtain network access than users of AT&T long distance. AT&T also refused to provide a number of specialized local services to purchasers of competing long distance service. In addition, evidence

62 AT&T, 552 F. Supp. at 139.
63 Id.
64 The MFJ was actually submitted to the District Court for the District of New Jersey, as an amendment to the Consent Decree entered by the parties in 1956. The parties then sought to dismiss the District of Columbia action. Id. at 140-41. This was designed to prevent the parties from having to comply with the requirements of the Tunney Act, which is applicable to all antitrust consent decrees, but arguably not to subsequent modifications of decrees. See id. at 144 & n.51. The D.C. district court, however, refused to dismiss the case on the grounds that the proposed 1982 Consent Decree was more than a simple modification of the 1956 Decree and that a dismissal would be contrary to the purpose and intent of the Tunney Act. The New Jersey Western Electric case was transferred to the D.C. court and the Consent Decree was considered by the court in accordance with the requirements of the Tunney Act. See id. at 143-45. For a more detailed discussion of the Tunney Act's requirements, see id. at 148-44.
65 Id. at 225.
66 For a more detailed description and analysis of the decree requirements, see id. at 160-95.
67 See id. at 160-70.
68 See id. at 161-63.
70 Services denied to customers of competing carriers included foreign exchange service, which provides a dedicated line from the customer's location to a telephone switching system in a distant location, and common control switching arrangements, which are extensive local systems designed to network very large individual customers. For more detailed analysis of these discriminatory practices, see AT&T, 552 F. Supp. at 161 n.124.
showed that AT&T used monopoly profits from its local access operations to subsidize its long distance rates. These practices made it virtually impossible for other potential long distance carriers to compete.

Within the equipment manufacturing market, AT&T successfully deterred entry by creating monopoly-based incentives to prevent customers from purchasing competing equipment. For example, AT&T maintained strict connection restrictions under the guise of protecting the network from faulty or substandard equipment. The restrictions prohibited all competing equipment from connecting with the network except through a protective connecting arrangement (PCA). In its Final Judgment, the court noted that AT&T required PCAs for equipment that in all probability could not harm the network; that there were delays in providing PCAs; that the PCAs were over-designed and over-engineered, and, thus, over-priced; [and] that PCAs were required for competitive equipment while identical equipment sold by AT&T did not require their use.

AT&T’s control of the local Operating Companies was central to its ability to carry on this anticompetitive activity.

As a result of the forced divestiture of the twenty-two BOCs, local service became the domain of the seven surviving independent BOCs, each possessing a monopoly over several local networks, otherwise known as “exchange areas” or “local access and transport areas” (LATAs). The exchange areas were designed to be “large enough to comprehend contiguous areas having common social and

71 Id. at 223.
72 Id. at 162-63. For a more thorough discussion of cross subsidization in the telecommunications industry, see Warren G. Lavey and Dennis W. Carlton, Economic Goals and Remedies of the AT&T Modified Final Judgment, 71 Geo. L.J. 1497, 1508-12 (1982).
73 See AT&T, 552 F. Supp. at 162-63. For an account of potential threats that AT&T alleged unrestricted attachment of competing equipment would pose, see id. at 162 n.133.
74 Id. at 162. The FCC mandated the use of certifications as a replacement for PCAs prior to 1982. Competitors could obtain certification of their non-Bell equipment and attach it directly to the network as long as the equipment met established technical standards. Although not long in use before the 1982 Decree, no damage could be attributed to the network resulting from the use of certification in place of PCAs. Id. at 163 & nn.135-36.
75 Id. at 162-63.
76 After the divestiture, only seven local Operating Companies remained, each possessing a monopoly over local wired access within that exchange area.
77 The seven remaining BOCs provide local service to the 164 local access and transport areas (LATAs) created by the reorganization. See United States v. AT&T, 569 F. Supp. 990 (D.D.C. 1983) (LATA Opinion). Each local Operating Company encompasses several LATAs, but is authorized to transmit telecommunications information only between points within a single LATA. See id.; see also United States v. Western Elec. Co., 969 F.2d 1231, 1283 (D.C. Cir. 1992), cert. denied, 113 S. Ct. 1368 (1993).
economic characteristics but not so large as to defeat the intent of the
decree to separate the provision of intercity services from the provi-
sion of local exchange service."79 The MFJ, therefore, accomplished
precisely what the 1956 Decree had failed to do—impose structural
changes in the Bell System that impaired AT&T's ability to stifle com-
petition in telecommunications markets.

Central to the MFJ's rationale was the fact that in 1982 the local
Operating Companies were functioning as bottlenecks. The only way
a user could access long distance communications was through the
local networks, and thus all user premises telephone equipment had
to be connected to the local network. Establishing competing local
networks was not a viable option because of the high capital costs of
building local networks and the sharply declining long-run average
cost of operating them.80 The local networks were textbook examples
of natural monopolies.81 However, other sectors of the industry—the
long distance and equipment sectors in particular—were potentially
competitive if access to local networks could be achieved on an equal
basis.82

b. Elimination of Line-of-Business Restrictions on AT&T

As a further modification to the 1956 Decree, the district court
eliminated all restrictions on AT&T's entrance into markets other
than common carrier telecommunications.83 As the court noted,

[t]he antitrust laws do not require that a company be prohibited
from competing in a market unless it can be demonstrated that its
participation in that market will have anticompetitive effects. Past
restrictions on AT&T were justified primarily because of its control
over the local Operating Companies . . . [and] continued restric-
tions are not required unless justified by some other rationale.84

Of particular significance was the court's handling of requests by
several policymakers, including the members of the House Telecom-
unications Subcommittee of the House Committee on Energy and
Commerce,85 that AT&T be restricted from participating in the re-
search, development, and operation of local network bypass technol-

79 Competitive Impact Statement, supra note 61, at 7170.
80 See supra note 34.
81 See supra note 34.
82 But see infra part II.B.2.
Maryland v. United States, 460 U.S. 1001 (1983). The court did impose a seven-year ban
on AT&T's entering the electronic publishing business. Id. at 186. For a detailed discus-
sion of the Court's rationale for imposing the electronic publishing restriction, see id. at
180-86.
84 Id. at 170.
85 On July 27, 1982, the chairman of the Subcommittee on Telecommunications,
Consumer Protection, and Finance of the House Committee on Energy and Commerce,
Despite recognition of the potential for bypass technology to render the Operating Companies obsolete, the court rejected this restriction.\(^{87}\)

Judge Greene reasoned that such a restriction would be appropriate "only if two premises were accepted: (1) that if AT&T does not develop the technology required for bypass, it will not be developed by anyone, and (2) that it is desirable as a matter of public policy to curtail this technological development."\(^{88}\) The court rejected both of these premises, holding that it was antithetical to the policies underlying antitrust law to prohibit AT&T from developing a competitive substitute for the monopolies still controlling wired local exchange.\(^{89}\)

The court recognized that removing AT&T and Bell Laboratories from participating in this development would certainly slow the emergence of potentially beneficial technology.\(^{90}\)

c. Line-of-Business Restrictions on the BOCs

To prevent a recurrence of the vertical control exercised by the Bell System, the MFJ imposed substantial restrictions on the newly independent BOCs' ability to enter markets other than local exchange telecommunications.\(^{91}\) Such restrictions were considered necessary because, although heavily regulated by the district court and the FCC, the BOCs retained monopoly control over their respective local access networks.\(^{92}\) This arrangement replaced the complete vertical monopolization of the industry with competitive long distance and equipment sectors and monopolized local communications networks. A substantially better, but certainly not optimal, competitive situation resulted. Continued monopoly control of local access service still con-

---

86 See id. at 175-76. Bypass technology includes cellular telephones, which can compete directly with wired local networks.

87 Id.

88 Id. at 175.

89 Id. at 175 & nn.186-87.

90 See id. at 175.

91 Id. at 186-94.

92 United States v. Western Elec. Co., 969 F.2d 1231, 1238 (D.C. Cir. 1992), cert. denied, 113 S. Ct. 1363 (1993); see supra note 34. To create competition in this market would require trenching a second set of copper cables throughout every population center in the country, thereby doubling the capital investment in local networks and driving up long-run average costs. This is theoretically inefficient because too much capital would be tied up in copper cables. This analysis holds true, of course, only if the existing monopolies can be effectively regulated so as to adequately restrict their inefficient exercise of monopoly power. The existence of cable television networks which can double as telephone lines, and the emergence of competitive access providers which service only dense commercial markets threaten the traditional view of the local access market. See infra part II.B.1.c.
flicts with the long standing public policy of "preserving free and unfettered competition as the rule of trade."

According to Section VIII(C) of the MFJ, the court can waive the line-of-business restrictions imposed on the BOCs as applied to a particular BOC if the petitioning BOC can show that "there is no substantial possibility that it could use its monopoly power to impede competition in the market it seeks to enter." Subsequent decisions have, however, expanded the requirements for waiver of the line-of-business restrictions. When deciding whether to grant a waiver, the court must take into account the public interest considerations underlying the MFJ. Such considerations include the protection of equal access to local networks for long distance carriers and the maintenance of quality telephone service.

To expedite the decisionmaking process on proposed exceptions to the line-of-business restrictions, the court established general guidelines for the expansion of the BOCs into other markets. Four safeguards were deemed necessary to effect the MFJ's objectives: 1) the establishment of separate subsidiaries to carry out the new line of business; 2) independent financing of the new line of business by the subsidiary without recourse to the parent BOC's assets in the event of default; 3) an agreement that the MFJ's monitoring provisions will apply to the proposed competitive activities; and 4) the estimated revenues from the proposed activities may not exceed ten percent of the BOC's total estimated net revenues.

In accordance with this procedure, the BOCs currently maintain a presence in a number of markets outside the local wired telecommunications market, most notably in the areas of cellular communications, wireless paging, and cable television. As full service

---

94 AT&T, 552 F. Supp. at 231.
95 See, e.g., United States v. Western Elec. Co., 592 F. Supp. 846, 858 (D.D.C. 1984) (holding that in considering petitions for waiver of line-of-business restrictions, the court will "take into account . . . the decree's fundamental principles and purposes").
96 Id. at 860-62.
97 Id. at 870-72. The 10%-of-net-revenues limitation primarily ensures that the BOCs will not neglect their primary function—to provide high quality, low cost local telephone service. Id. at 871.
98 Because of the scarcity of frequencies available for wireless telecommunications, the FCC allotted broadcasting licenses to only two cellular operators in each service area. One license was in all cases granted to the BOC in each region. See infra notes 114-18 and accompanying text.
99 The BOCs have been actively purchasing cable television networks around the country to facilitate the emergence of telephone-television interactive services. The most formidable of the recently proposed mergers was that of Bell Atlantic and Tele-Communications Inc. (TCI). TCI is the world's largest cable television systems operation, and the $21.4 billion merger would have been the largest in media history. See John Greenwald, Wired! Bell Atlantic's Bid for Cable Giant TCI is the Biggest Media Deal in History; It's Also a Peek at the Future, Time, Oct. 25, 1993, at 50. The deal subsequently fell through when Congress
telecommunications emerges as the future of the industry, however, the BOCs are hindered by their inability to operate long distance lines or to form strategic alliances with other long distance carriers, as well as their inability to combine cable television and telephone operations under a single corporate structure or to engage in the development, manufacture, or sale of telephone equipment. Faced with losing their local monopoly niche, they are severely restricted from restructuring their operations to compete effectively in a full service market.

B. Wireless Communications Under the Current Regulatory Scheme

Not surprisingly, wireless telecommunications technology was first developed by Bell Laboratories in 1946. This technology is only recently coming of age as a viable alternative to wired local access communications. Understanding the current status of wireless communications, both in terms of the technology and the competitive positions of the major suppliers of cellular phone service, is a vital first step in assessing its regulatory significance.

1. Technological Aspects of Wireless Communications

Wireless telecommunications are transmitted through a cell network, which is composed of a series of adjacent hexagonal-shaped "cells." Each cell contains a radio transceiver that transmits and receives signals within a relatively small geographic area. This cell structure is necessary to maximize the availability of wireless telecommunications, which traditionally have been broadcast over a very narrow band of available radio frequencies allotted to cellular providers by the FCC. Cellular technology competes for a portion mandated cable television rate cuts, but in theory, the economies still exist to make such a deal profitable.

100 Chicago-based Ameritech has recently offered to throw open its local monopoly to gain FCC permission to enter the long distance market. This quid pro quo approach suggests the value to the BOCs in being allowed to operate full service companies. See Justin Martín, Baby Bells Branch Out, FORTUNE, Nov. 1, 1993, at 12.

101 See supra note 60.


103 ECONOMIST, supra note 32, at 7.


105 Most cellular networks operate at frequencies of between 800 MHz (800 million cycles per second) and 1 GHz (one billion cycles per second). The previously allotted spectrum was somewhat stingy, forcing cellular engineers and physicists to devote tremendous resources to developing new technologies to increase the volume of calls which could be transmitted simultaneously on these frequencies. The cell structure itself has been the primary means of accomplishing this objective, but other very promising technologies, cur-
of the frequency spectrum with television, radio, microwave transmitters, and other broadcasting mediums. The scarcity of available frequencies has been one of the traditional limitations of cellular communications, and many current technological advances are geared toward increasing the volume of communications that can be broadcast over the allotted frequencies.\textsuperscript{106}

Cells within current cellular networks have a radius of up to twenty miles, depending on how much wireless traffic the network supports. The smaller the cells within a network, the greater the number of people who can operate cellular phones within that network. In heavily populated areas, the cellular networks are composed of relatively small cells, each with a radius of less than a mile. In more rural areas cellular networks are likely to extend the full twenty miles in radius. The increased capacity that results from shrinking the cells is due to the network's ability to reuse available frequencies in nonadjacent cells within the network.

Each transceiver within a cellular network is linked by wire or microwave transmission to a mobile transmission central switching office (MTSO).\textsuperscript{107} This central facility uses computer technology to coordinate the cells within the network and is then interconnected to the local wired telephone network.\textsuperscript{108} To prevent termination of transmission as a mobile unit passes from one cell to another (which involves changing the frequency on which the call is transmitted), the MTSO automatically reroutes the call through the new cell transceiver.\textsuperscript{109}

All but the most modem cellular networks employ analog technology to convert the human voice into a continuously varying electrical signal, which is then transmitted along a frequency.\textsuperscript{110} When this signal is picked up by the transceiver within the originating cell, it is passed on to the MTSO and then on to the wired local telephone loop. Under the current regulatory scheme and employing the most widely available technology, cellular networks are merely an extension...
of the traditional wired local network. As will become evident, however, this is not likely to remain the case for very long.

2. The Regulatory Environment of Wireless Communications

In contrast to wired local communications networks, cellular networks are not natural monopolies in the traditional sense. Competition is limited more by the scarcity of frequencies available within each service area than by the high capital costs of entry and sharply declining long-run average costs associated with copper wire networks. To attract potential entrants into the cellular market, the capacity of the networks—which determines potential revenues—must be great enough to justify the expenses incurred in building the networks. At the same time, competing cellular service providers within the same geographic area cannot operate their networks on overlapping frequencies. Thus, the capacity of cellular networks is inversely related to the number of competitors in each market.

In response to this limitation, the FCC, which is responsible for allocating the frequency spectrum and establishing the geographic areas to be served by transmission, granted operating licenses to only two cellular providers within each cellular service area, known as a standard metropolitan statistical area (SMSA). The FCC granted one operator's license in each SMSA to the BOC providing local telephone service in that area and issued the other by lottery to a nonwireline carrier, known as a radio common carrier (RCC), that submitted a viable proposal for building a cellular network in that area. Each service provider was then awarded one-half of the allotted cellular frequencies.

The FCC's scheme for creating a viable, yet competitive cellular communications market introduced a number of conflicts with section II(D) of the MFJ, which imposed the line-of-business restrictions on the BOCs. Specifically, the SMSA boundaries set by the FCC

---

111 See Calhoun, supra note 104, at 126-32.
112 See infra part II.B.
113 See supra note 34. While the capital costs of building a cellular network are substantial, the long-run average costs do not sharply decline. See Economist, supra note 32, at 14; Calhoun, supra note 104, at 40-41.
114 See supra notes 98, 104-05 and accompanying text.
115 47 U.S.C. § 303(c), (d), (h) (1988).
117 To ensure that the BOCs would not discriminate against competing mobile radio systems in any material way, each BOC was required to offer nonwireline carriers access to one local network “on the same terms and conditions,” including quality and price of access, that they provide to their own carriers. Id. at 651.
118 Id. at 646-47 n.18; McGuigan et al., supra note 102, at 315-17.
119 See supra part I.A.3.
NOTE—TELECOMMUNICATIONS

were not in all cases identical to the LATA boundaries set by the court.\footnote{120} Because of the need to maintain continuity in cellular networks, SMSAs often had to extend farther than the LATAs. For example, New York City constitutes one LATA,\footnote{121} but the corresponding SMSA had to cover all of New York City and the surrounding metropolitan area in order to meet consumer expectations that their transmissions would be continuous within that area. If the SMSAs established by the FCC were to coincide strictly with the court’s LATA boundaries, the transmission of a mobile cellular caller leaving New York City would be cut off. The caller would then have to reestablish transmission through the next contiguous network. If the caller were to then cross the Connecticut border into another LATA, transmission would be cut off a second time, and the caller would again have to reestablish transmission through the next contiguous network.\footnote{122} This could have been a serious inconvenience, but it was easily overcome by expanding the SMSA to encompass the entire New York City metropolitan area.

In addition to the customer convenience issue, significant economies of scale are realized by linking large numbers of cells to a single MTSO. Because of its complex function, the MTSO is the most costly element of any cellular network.\footnote{123} If a separate MTSO were required for each individual LATA within a BOC’s territory, the BOC would face significant adverse economies relative to those incurred by the RCCs.\footnote{124}

The problem presented by the differing LATA and SMSA boundaries is rooted in the dual regulatory relationship of the FCC and the federal courts. The 1982 MFJ established the LATAs and specifically restricts the BOCs from providing inter-LATA services. While operating a cellular network within a specific LATA is an approved “exchange service” within the meaning of section II(D)(3) of the MFJ,\footnote{125} any portion of a BOC’s system extending beyond the boundaries of a single LATA is “interexchange telecommunication,”\footnote{126} forbidden by the MFJ. The SMSA boundaries, on the other hand, are established by the FCC, which has a different set of regulatory priorities than that

\footnotetext[120]{See Western Elec., 578 F. Supp. at 648; see generally United States v. Western Elec. Co., 569 F. Supp. 990 (D.D.C. 1983) (LATA opinion); see also supra notes 75-76 and accompanying text.}
\footnotetext[121]{See News Conference, supra note 33.}
\footnotetext[122]{See United States v. AT&T, 552 F. Supp. 131, 229 (D.D.C. 1982) (MFJ § IV(G)(4) states: “except with approval of the Court, no exchange area located in one State shall include any point located within another State”), aff’d sub nom. Maryland v. United States, 460 U.S. 1001 (1983); Western Elec., 578 F. Supp. at 648.}
\footnotetext[123]{See Western Elec., 578 F. Supp. at 648-49.}
\footnotetext[124]{Id. at 649.}
\footnotetext[125]{Id. at 645.}
\footnotetext[126]{Id. at 645-46.}
of the federal courts.\textsuperscript{127} Unlike the BOCs, the RCCs were not parties to the MFJ and hence face no restrictions on their ability to operate cellular networks as wide as the FCC will permit.\textsuperscript{128}

Realizing that the BOCs would face a huge competitive disadvantage vis-à-vis the RCCs if the court were to require strict compliance with the MFJ, the district court, in accordance with section VIII(C) of the MFJ, established market-specific exceptions to the inter-LATA communication restriction of section II(D)(1).\textsuperscript{129} In a subsequent decision, the Court of Appeals for the District of Columbia Circuit held it within the BOCs' purview to supply "exchange services" outside of their own local service regions.\textsuperscript{130} Together, these rulings permit the BOCs to operate cellular networks contiguously throughout most of the SMSAs and in the home territory of other BOCs, provided they purchase one of the two operating licenses for the SMSA in that region.\textsuperscript{131}

Despite the complexity of the BOCs' regulatory environment, traditional cellular networks operated by the BOCs are on an equal footing with those of the RCCs with which they compete. Both face the same geographic limits on their contiguous service areas, and both may establish networks nationwide, provided they can procure one of two operating licenses available for each of the 734 individual SMSAs.\textsuperscript{132} However, these licenses are extremely expensive, explaining in part why McCaw Communications, which used an acquisition strategy to become the nation's largest cellular provider, was carrying nearly $5 billion in debt when its proposed merger with AT&T was announced.\textsuperscript{133}

\textsuperscript{127} See supra notes 114-24 and accompanying text.

\textsuperscript{128} Only AT&T and the BOCs are bound by the decisions of the district court because they were parties to the 1982 Consent Decree. Other cellular, long distance, and manufacturing companies are not directly affected by the district court's rulings. See supra note 12.

\textsuperscript{129} Western Elec., 578 F. Supp. at 653. The court granted waivers for nine specific regions in which the established SMSAs were larger than the corresponding LATAs. These included, inter alia, New York City, Philadelphia, Boston, and Baltimore/Washington. Id. at 647 n.20.

\textsuperscript{130} United States v. Western Elec. Co., 797 F.2d 1082, 1091-92 (D.C. Cir. 1986), cert. denied, 480 U.S. 922 (1987). This decision is of great importance not only because it allows BOCs to operate cellular networks in competition with other BOCs but because it allows BOCs to operate competing wired networks. Since cable television networks can easily be updated to carry voice communications, combinations such as the failed Bell Atlantic-TCI merger have tremendous competitive implications in light of the decision in Chesapeake & Potomac Tele. v. United States, 830 F. Supp. 909 (E.D. Va. 1993), aff'd, 42 F.3d 181 (4th Cir. 1994). See supra text accompanying notes 28-30.

\textsuperscript{131} Western Elec., 797 F.2d at 1091-92.

\textsuperscript{132} See supra note 116 and accompanying text.

\textsuperscript{133} See \textit{Economist}, supra note 32, at 8. Relatively few of the licenses issued through the FCC's lottery to nonwireline carriers actually went to entities planning to build cellular networks. Most went to savvy entrepreneurs, stockbrokers, and lawyers, who then sold them on secondary markets to the highest bidder. The net result is that a large portion of
II
ANALYSIS

As Part I makes clear, Congress and the FCC are at a crossroads in terms of how to best insure the future of the nation's telecommunications. If they maintain the status quo and fail to react promptly and properly to changing conditions, opportunities for significant deregulation, greater competition, and technological advancement will be lost. This Part analyzes the regulatory implications of the continuing evolution of wireless broadband services and competitive local access, and suggests regulatory modifications that would best respond to the changes occurring in the industry.

A. Short-Run Analysis of the Effect of Cellular Technology on Other Sectors of the Industry

Until recently, the potential impact of wireless communications on other sectors of the market was minimal. Traditional cellular networks function as an extension of, rather than a replacement for, the wired local and long distance networks. Only a very small percentage of cellular calls presently bypass the wired local networks. Even if a long distance company operates its own cellular networks—the likely result of the AT&T-McCaw merger—any call made from a McCaw phone to a wire-bound telephone or to a non-McCaw cellular network would still have to be transmitted through at least one wired local operating company.

Nevertheless, AT&T's potential short-term advantage vis-à-vis the BOCs is in long distance calls made to or from its cellular networks, which could be transferred directly from or to AT&T long distance lines. Such a connection would bypass at least one wired local Operating Company. Unfortunately, AT&T's ability to take full advantage of the economies of scope of its merger with McCaw have been severely

most cellular providers' corporate funds are tied up in acquiring frequency licenses, despite the FCC's intention not to impose this burden on the development of cellular technology. Id. See supra note 111 and accompanying text. Although the BOCs and the long distance carriers continue to argue over the degree to which wired local access monopolies are being circumvented by wireless access providers, the consensus is that only a very small percentage of calls currently bypass the wired local networks. See Hass, supra note 22.

McCaw, the nation's largest cellular provider, currently operates its cellular networks under the name Cellular One. See Bart Ziegler et al., AT&T's Bold Bet, BUSINESSWEEK, Aug. 30, 1993, at 26, 29. McCaw's cellular operations will soon be operated under the name "AT&T Wireless Services". See AT&T-McCaw Complete Merger, Emerge as AT&T Wireless, ADVANCED WIRELESS COMM., Sept. 28, 1994.

It would be completely impractical for AT&T to operate its own local wired network, despite the fact that AT&T is free to do so in any way other than to reacquire the local Operating Companies. See United States v. AT&T, 552 F. Supp. 131, 170 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983).
hampered by AT&T's forced adherence to a Justice Department consent decree, agreed to as a condition of the Justice Department's approval of the merger.\textsuperscript{138} However, to the extent AT&T does bypass the front or back ends of the wired local loop, it will save some portion of the forty percent of its long distance revenues that it currently pays to the Operating Companies for access to local networks.\textsuperscript{139} This type of bypass is permitted under the 1982 MFJ,\textsuperscript{140} but at present, the number of calls bypassing the local network in this fashion is insignificant.\textsuperscript{141}

A number of factors have traditionally limited the ability of cellular operators to bypass the wired local access loop. First, no nationwide cellular grid presently exists. Despite AT&T's post-merger status as the nation's largest cellular provider, its networks cover only about sixty-five percent of the national market.\textsuperscript{142} The cellular communications market is highly fragmented, with approximately 100 providers nationwide, none possessing more than twenty percent of the market.\textsuperscript{143} Second, cellular networks are not currently capable of achieving the 100% market penetration necessary to replace the wired local networks. Because of the scarcity of cellular frequencies, the capacity of presently operational networks could not come close to handling the volume of calls made throughout the country.\textsuperscript{144} The scarcity of frequencies also makes cellular service expensive.\textsuperscript{145} The cost of constructing and operating traditional analog networks in relation to

\textsuperscript{138} In order to consummate its merger with McCaw, AT&T was forced to accept the terms of a consent decree drafted by the Antitrust Division of the Department of Justice, which places considerable restrictions on the ability of AT&T to capture the economies of scope associated with ownership of its own cellular networks. The Justice Department decree includes an equal access provision allowing McCaw customers to choose their long distance carrier, prohibits the bundling of services (i.e., package deals), requires the companies to be operated as separate entities, and places restrictions on future contracts between AT&T and McCaw. These restrictions are to remain in place for 10 years. The FCC, on the other hand, approved the merger with none of the above restrictions, demonstrating the lack of uniformity that has been the hallmark of modern telecommunications regulation. The FCC required only that AT&T adopt a nondiscrimination policy with regard to competitors in existing AT&T contracts. See FCC OK's AT&T-McCaw, U.S.-U.K. Resale; Sets PCS Auction Date, FCC Rep., Sept. 22, 1994. Thus, the Justice Department has seemingly seen clear to prolong the hopelessly inefficient two-tiered regulatory scheme (this time in the realm of AT&T's cellular operations) that has plagued the industry for so long. See infra part II.D.2.


\textsuperscript{140} See supra notes 85-90 and accompanying text.

\textsuperscript{141} See supra note 135 and accompanying text.


\textsuperscript{143} See supra notes 132-33 and accompanying text.

\textsuperscript{144} See \textit{Economist}, supra note 32, at 11-12.

their maximum capacity is such that firms cannot lower rates to the extent necessary to make analog cellular systems affordable for all telephone users.\textsuperscript{146} The fixed capital costs of building and operating these networks must be divided among relatively few users. Third, analog cellular transmission is not compatible with new digital services,\textsuperscript{147} and fourth, the security of these transmissions is very poor.\textsuperscript{148}

When AT&T announced its intended merger with McCaw, it emphasized these factors in order to allay well founded, though irrational, fears that it was attempting to reenter the local access market.\textsuperscript{149} A more realistic view of the merger is that AT&T is depending on new wireless technologies, currently being tested and developed, to make wireless communication a viable substitute for wired local operating networks.\textsuperscript{150}

B. Fiber Optics and Airwaves: The New Generation of Wired and Wireless Networks

1. Prospects for Wireless Competition in the Local Loop

Notwithstanding the traditional limitations of cellular technology, two recent developments promise to transform wireless communications from a novelty for wealthy jet-setters into the medium of choice for future mass telecommunications. The first of these developments is the emergence of digital technology in wireless communications.\textsuperscript{151} The second is the FCC's recent allocation of a large band of high frequency spectrum for the construction of low powered, high capacity wireless networks to provide Personal Communications Services (PCS).\textsuperscript{152}

a. The Digital Solution

Most of the major cellular operators are currently updating their analog transmission systems with more efficient digital technology.\textsuperscript{153} This technology dramatically increases the capacity of the allotted fre-
frequencies by compressing the volume of signals transmitted.\textsuperscript{154} It also dramatically improves sound quality and call security while providing lower operating costs.\textsuperscript{155}

Cellular providers are currently working with two types of digital technology—time division multiple access (TDMA) and code division multiple access (CDMA)—and digital networks are coming on line as this ink dries. TDMA digital technology packs three times as many signals into the same bit of spectrum as contemporary analog systems.\textsuperscript{156} CDMA technology, while still in the development stages, promises to be even more efficient, increasing the capacity of frequencies by at least ten times that of analog technology.\textsuperscript{157} Building new cellular networks using these technologies is no more costly than building new analog networks. Moreover, operating costs and the cost of adding new subscribers to digital networks are lower.\textsuperscript{158} In addition, the increased capacity allows providers to spread fixed costs across a wider potential customer base.

Digital technology goes a long way toward solving the problems that inhibit the universal use of cellular communication, but does not eliminate them completely. Subscribers to cellular systems using digital technology must still incur significant expense in acquiring a handset, although these prices are dropping significantly as the technology matures.\textsuperscript{159} Moreover, while the gains in frequency capacity are significant, especially in the case of CDMA, the volume of all calls currently made nationwide still far exceeds the capacity of allotted frequency spectrum.\textsuperscript{160} In addition, the broadband revolution places a premium on the ability to carry voice, data, and video communications simultaneously, as well as provide a host of supplemental services such as voice mail and call waiting. Until recently, there simply was not enough frequency spectrum to meet the expanding needs of the nation's telecommunications consumers.\textsuperscript{161}

\textsuperscript{154} Id. at 7.
\textsuperscript{155} Id. at 8-11.
\textsuperscript{156} SCHNEIDERMAN, supra note 152, at 18-25. For a complete analysis of the impact of digital technology on wireless telephone networks, see CALHOUN, supra 104, at 284-967.
\textsuperscript{157} Id.; cf. CALHOUN, supra note 104, at 960-67.
\textsuperscript{158} ECONOMIST, supra note 32, at 8-11. While building digital wireless networks is expensive, much of the cost is incurred on a marginal basis—universal coverage within a defined geographic area can be achieved at higher or lower cost, depending on the capacity of the network and the number of subscribers. This is not the case with wired networks. See supra note 34.
\textsuperscript{159} See ECONOMIST, supra note 32, at 8.
\textsuperscript{160} CALHOUN, supra note 104, at 274.
\textsuperscript{161} See infra part II.B.1.b; see generally, Andrew Kupfer, The Future of the Phone Companies, FORTUNE, Oct. 3, 1994, at 95.
b. The FCC's PCS Initiative

In September 1993, the FCC announced that it would set aside 160 MHz of radio spectrum for the establishment of PCS. In addition, Congress has recently directed the Secretary of Commerce to reallocate at least an additional 200 MHz of radio spectrum, previously reserved for government use, to new wireless services.

PCS is a derivative of cellular technology, but employs microcellular structure at much higher frequencies. Combined with exclusively digital technology, it drastically increases the capacity and transmission quality of the networks. In addition, PCS handsets can be made smaller and cheaper because of the higher frequency and lower power of the transmission signal. In the near term, many of these handsets will be made to accommodate both the lower frequency signals of traditional cellular and the higher frequency PCS transmissions. Combining digital and microcellular technology with a wealth of new spectrum, PCS constitutes the future of wireless broadband service. The barrier to competition posed by the scarcity of spectrum will be largely removed once the PCS auctions are completed.

Entrants are buying up pieces of the new PCS spectrum. The first broadband PCS auction began in December 1994, and the government is expected to collect at least $10 billion from it. Licenses will be auctioned in two forms. First, ninety-nine bands of spectrum, divided among fifty-one major trading areas (MTAs), will be auctioned. Two 30MHz licenses will be sold in each MTA, the three remaining licenses having been issued in December 1993 under the FCC's pioneer preference policy. Second, a number of smaller

---

162 See Sean Scully, Comes the Revolution: Digital Wireless PCS, BROADCASTING & CABLE, Sept. 27, 1993, at 22, 22; KELLOGG ET AL., supra note 6, at 78. Of this 160 MHz, 120 MHz have been assigned to licensed PCS services and 40 MHz to unlicensed PCS devices. Id. at 79 n.17w. Of the 120 MHz allocated to licensed PCS, 60 MHz have been allocated to the 51 Major Trading Areas (MTAs) and 60 MHz allocated to the 492 Basic Trading Areas (BTAs) to facilitate competition in individual markets between both small and large scale PCS suppliers. SCHNEIDERMAN, supra note 152, at 47-48.

163 Omnibus Budget Reconciliation Act of 1993, Title VI, § 6001 (a).

164 See ECONOMIST, supra note 52, at 12.


166 See CALHOUN, supra note 104, at 37-38; Peter Huber, Telephony Unbottled, FORBES, Jan. 18, 1993, at 94.

167 See KELLOGG ET AL., supra note 6, at 78; infra notes 186-87 and accompanying text.

168 See Montgomery, supra note 165, at 40.

169 See Mark Lewyn, A Boon For Telecoms, A Break For Taxpayers, BUS. WK., Oct. 18, 1993, at 44.

170 See Communications, FCC Sets Date for Auction, Approves AT&T, McCaw Merger, Daily Rep. for Execs. (BNA) (Sept. 20, 1994). The pioneer preference policy was established by the FCC to encourage research and development of new technologies by awarding free licenses to those companies demonstrating significant contributions to the development of new communications technologies. Andrew C. Barrett & Byron F. Marchant, Emerging
10MHz bands, each covering a smaller basic trading area, will be sold to bidders and companies that already operate cellular networks within that area.171 PCS networks are expected to be up and running within a year of the auction's completion.

AT&T-McCaw is a major participant in the bidding for these new bands of spectrum and is hoping, as is MCI and its own assembled consortium, to piece together a national PCS network.172 The BOCs will also be substantial bidders. A rash of joint ventures and cellular mergers have taken place within the BOC ranks in the hopes of increasing their PCS auction buying power.173 Cable television firms, looking to get a foothold in the wireless broadband market, are also involved in joint ventures to buy up PCS licenses.174

The BOCs are, however, in an unenviable position going into the auction because they are forbidden by the 1982 MFJ from engaging in inter-LATA telecommunications.175 All of the MTA licenses available for bidding in the PCS auction are geographically larger than the LATA boundaries they contain. Therefore, the BOCs will either have to obtain court waivers to operate PCS networks throughout the MTAs for which they bid successfully,176 or they will have to make corporate structure changes to comply with the MFJ restrictions.177

In response to these pressures, Pacific Telesis elected to divide its $21 billion in assets into two independent corporations in a tax-free corporate reorganization.178 PacTel now runs the regulated local operating activities, and the second company, AirTouch Communications, operates the wireless and unregulated activities.179 Such a reorganization is an effective means of escaping the restrictions. These spin-offs, however, are indicative of the magnitude of the regulatory, as opposed to market-based, incentives that the line-of-business restrictions of the 1982 MFJ impose on the industry. It is unsettling that this kind of large-scale corporate restructuring is taking place for the purpose of escaping a now tenuously justified quasi-regulatory provision that never contemplated the market forces encouraging such restructuring. These extrinsic regulatory incentives could be

---


172 See Montgomery, supra note 165.

173 See Cellular Merger Fever, supra note 171.

174 Id.

175 Id.

176 See id.

177 See id.

178 See id.

179 See id.
very costly if and when legitimate market forces begin to dictate who survives in the industry.\textsuperscript{180}

A problem faced by all prospective competitors in the PCS market is that PCS networks will be expensive to build because of the technology involved and the large number of cells required. However, the potential customer base is broad enough and the capacity of PCS networks high enough to make PCS a viable and efficient means of local access.\textsuperscript{181} The marginal cost of adding a new subscriber to the wired local loop currently averages about $2000, and these costs are not declining.\textsuperscript{182} But the marginal cost of adding a subscriber to a cellular or PCS network is far less. The established cellular carriers have invested billions of dollars in equipment, and billions more will be spent on PCS networks, but the marginal cost of adding new subscribers will continue to decrease.\textsuperscript{183} Existing cellular networks are increasing capacity at relatively low costs through digital technology, and PCS is even more cost efficient.\textsuperscript{184}

PCS networks promise to be what current cellular networks alone are not—an economically feasibly competitive alternative to the wired local operating systems that currently monopolize the local access market. FCC rules will make it possible for the largest providers to establish national PCS networks, while smaller firms will be able to provide PCS service over smaller geographic areas.\textsuperscript{185} Congress and the FCC have set aside enough spectrum to handle wireless voice, data, and video communications throughout the country for years to come.\textsuperscript{186} Most importantly, because of the abundance of allotted spectrum, the FCC has established a licensing procedure that will allow as many as seven competitors in any one of the fifty-one major markets established for PCS,\textsuperscript{187} in addition to the two providers already competing in the cellular market. PCS also offers reasonable hardware prices and lower startup costs for new subscribers. Without having to dig up roads and snake tons of cable, residences and office buildings can be connected to a wireless local system in a matter of hours by installing a low powered transceiver.\textsuperscript{188}

As digital and PCS technologies proliferate, the BOCs will begin losing the revenues they currently receive through access charges paid

\textsuperscript{180} See infra part II.D.
\textsuperscript{181} See KELLOGG ET AL., \textit{supra} note 6, at 2-3; see Margiotta, \textit{supra} note 1, at 20; see infra note 192.
\textsuperscript{182} KELLOGG ET AL., \textit{supra} note 6, at 2-3.
\textsuperscript{183} See id.; Huber, \textit{supra} note 166, at 94.
\textsuperscript{184} See KELLOGG ET AL., \textit{supra} note 6, at 3; Huber, \textit{supra} note 166, at 94.
\textsuperscript{185} See Cellular Merger Fever, \textit{supra} note 171.
\textsuperscript{186} See Cook, \textit{supra} note 145, at 94.
\textsuperscript{187} See SCHNEIDEMAN, \textit{supra} note 152, at 47; Lewyn, \textit{supra} note 169, at 44.
\textsuperscript{188} See CALHOUN, \textit{supra} note 104, at 40.
by long distance carriers.\textsuperscript{189} They will also continue to see diminished growth in new local access subscribers.\textsuperscript{190} This places additional pressure on the BOCs to invest in PCS technology, which promises to make their local monopolies obsolete.\textsuperscript{191} In many cases, BOCs will be offering PCS service in competition with the local BOC's wireline service.

As one source has observed, “The competitive implications [of digital and PCS technologies] are inescapable. Radio is going to put a final end to the local exchange monopolies.”\textsuperscript{192} Ironically, all parties concerned will be working toward that end.\textsuperscript{193} A fact commonly overlooked is that the monopolies of the seven BOCs extend only as far as their individual regions. No BOC controls more than thirteen percent of the total number of local access lines throughout the nation, despite the fact that BOC ownership is extremely concentrated in each BOC's service region.\textsuperscript{194} As a result, BOCs have as much incentive as other competitors to seek the most lucrative markets in the territory of other BOCs. Collusion among the BOCs is impossible because of the presence of other large players, such as AT&T and the cable companies. Consequently, the BOCs will fight each other in foreign territory and defend themselves at home.\textsuperscript{195}

c. Wireline Competition in the Local Loop

In the near future, wireless technology will be the clear choice for local communications, but the BOCs and their local access monopolies also face a more immediate threat. The emergence of competitive access providers (CAPs) poses a serious threat to the heart of the BOCs’ local access revenues—the servicing of corporate America.\textsuperscript{196} In addition, the broadband capability of cable television networks puts the cable companies precariously close to having comprehensive local access networks.\textsuperscript{197}

\textsuperscript{189} See Montgomery, supra note 165.
\textsuperscript{190} BOC revenues have increased by only 2.3\% per year over the past three years, as opposed to increases of 4.3\% per year in the long distance sector. See Kupfer, supra note 161. In 1991, 2.5 million cellular phones were placed in service nationally, as opposed to 1.9 million wired residential lines. The introduction of PCS will dramatically increase this trend. See KELLOGG ET AL., supra note 6, at 73.
\textsuperscript{191} See Montgomery, supra note 165.
\textsuperscript{192} KELLOGG ET AL., supra note 6, at 3.
\textsuperscript{193} NYNEX, the New York based BOC, has already successfully test marketed a wireless local loop system in New York City, which it has said will be cost competitive with the traditional wired access network. See Margiotta, supra note 1, at 20.
\textsuperscript{194} See News Conference, supra note 33.
\textsuperscript{195} See Economist, supra note 32, at 13; Montgomery, supra note 165.
\textsuperscript{196} See News Conference, supra note 33.
\textsuperscript{197} Many cable companies are prevented from providing local access telecommunications by state regulatory provisions, but others are free to do so, and two companies already do. See id.
Currently, CAPs operate a minimum of 133 fiber optic local networks in at least seventy-two cities around the country, with more under construction. These networks are not universal in their coverage, nor are they intended to be. They lead straight from the trunks of long distance companies to major centers of commercial telephone users—corporate headquarters, banks, insurance companies, hospitals, universities, accounting firms, law firms, and anywhere else CAPs can drop a few miles of cable and reap huge revenues. This is known as "cherry picking" or "cream skimming," and its goal is to acquire customers from among the ten percent who produce the vast majority of telecommunications revenues.

The disparity in the value of customers makes it potentially misleading to rely on statements that the BOCs have a solid monopoly because they control ninety-eight percent of the local market. None of the BOCs individually controls more than thirteen percent of the national local exchange market, and even if they control ninety-eight percent of their own local exchange markets, the two percent they do not control may constitute twenty percent of the local exchange revenues for the area. CAPs pursue consumers like General Electric, Bankers Trust, and White & Case—all of which are within a couple miles of each other—but not customers like Bob's Discount Records, Inc. Statistically, these customers are all corporate accounts, but in terms of revenue generation, they are night and day. To assess the degree of market penetration the CAPs are achieving, it is necessary to determine the percentage volume of exchange calls they are carrying in each of the local markets. Unfortunately, this data is not available because traffic volumes on these lines are not reported. The growth in BOC revenues and the percentage of local telephone lines controlled by the BOCs are inadequate measurements of the CAP's market penetration.

2. Oligopoly in the Long Distance Sector

Today the local access "bottleneck," referred to in the 1982 MFJ, is in the process of developing into a competitive segment of the telecommunications industry. Unfortunately, the regulatory prob-
lem facing Congress, the FCC, and the federal courts does not end with the rise of competition in the local access sector. At the same time competition in the long distance market has settled into a stagnant oligopoly.

When Judge Greene entered the MFJ in 1982, he assumed that divestiture would separate the competitive part of the telecommunications industry from the natural monopoly.\textsuperscript{204} At that time, the MFJ may have done just that. Today, however, it is much less clear which part of the industry is competitive and which if any is the natural monopoly. In 1982, long distance communication depended on microwave radio,\textsuperscript{205} and two or more competing providers could deploy microwave towers as cheaply as the monopoly Bell System. Microwave transmission consists of a radio capable of transmitting a limited number of calls.\textsuperscript{206} Since microwave long distance networks must be built to satisfy demand, costs rise as traffic volume increases. In economic terms, this means that radio-based long distance services, like wireless access services, are not natural monopolies.\textsuperscript{207}

Moreover, as Judge Greene was drafting the MFJ, long distance companies were replacing microwave towers with new fiber optic cable facilities.\textsuperscript{208} Radio was thus relegated to the fledgling cellular communications industry which had little impact on the drafting of the MFJ. The future of the local loop was seen strictly in terms of copper wire, which involves a single provider whose long-run average costs decrease as it serves more customers.\textsuperscript{209} No one adequately foresaw the wireless communications technology that has since rapidly developed, nor did anyone envision the broadband capability of cable television wires or the economies of running limited wired networks through commercial centers.

Meanwhile, competition in the long distance sector has become less healthy than commonly assumed. Microwave radio has almost completely given way to fiber optic cable.\textsuperscript{210} The costs of initially deploying a fiber optic network are high, but the long-run average costs decline rapidly. The costs of creating the network are largely the same whether the fiber optic cable contains one pair of optical fibers

\textsuperscript{204} Id. at 160-70.
\textsuperscript{205} See Kellogg et al., supra note 6, at 4-7.
\textsuperscript{206} Id.
\textsuperscript{207} See supra notes 34, 92. Competition can be limited by the capacity of the airwaves relative to the costs of the transmission network, but airwave overcrowding was not a serious concern in the case of long distance microwave transmissions. As a result, long distance telecommunications was considered a viable competitive market.
\textsuperscript{208} For example, Sprint ran an advertising campaign showing microwave transmission towers being dynamited while promoting the benefits of fiber optics. See Kellogg et al., supra note 6, at 5.
\textsuperscript{209} See supra notes 34, 92.
\textsuperscript{210} See Kellogg et al., supra note 6, at 68.
or ten, and whether the fiber carries a million calls or none at all.\textsuperscript{211} Virtually all these costs are fixed capital expenditures, and the salvage value of the network is almost zero.\textsuperscript{212}

Accordingly, it makes economic sense to overbuild fiber optic networks because a one million-circuit cable costs just about the same as a ten thousand-circuit cable, and unused capacity can easily be brought on-line as needed. As a result, the capacity of long distance fiber optic networks currently in use vastly exceeds demand.\textsuperscript{213} By traditional standards, the long distance sector is approaching a natural monopoly, impeded only by serious overinvestment in fiber optic cable and FCC price regulation. Each long distance carrier has enough capacity to serve the entire market, and nearly all the costs associated with long distance service are fixed overhead and capital expenditures. As a carrier generates higher volume, it incurs no significant marginal cost, which, in turn, contributes to decreasing average costs. Barring monopoly profits from the equation, the result is lower prices for consumers.

Were it not for regulation, the long distance sector would probably be reverting quickly toward monopoly. Today, although the sector is subject to FCC price-cap regulation,\textsuperscript{214} the Commission's main concern is ensuring that AT&T does not lower its prices too quickly.\textsuperscript{215} When AT&T appears ready to lower its rates, competitors often petition the FCC to stop the proposed price cuts.\textsuperscript{216} Thus, the FCC has preserved the viability of AT&T's long distance competitors by suppressing price competition. Former FCC Chairman Alfred Sikes perhaps best explained the irony of this practice when he acknowledged that FCC regulations "limit the ability of a major competitor—AT&T—to compete. Current procedures afford competitors many ways to energize the regulatory process to block price reductions potentially offered by AT&T. Most important, this holds prices artificially higher, and reduces customer choice."\textsuperscript{217}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{211} Id. at 68-69.
\item \textsuperscript{212} Id. at 69.
\item \textsuperscript{213} According to the FCC, carriers other than AT&T that collectively serve less than one-third of the long distance market are capable of supplying 146\% of the market. Sprint alone has "far more capacity than it could possibly hope to utilize in the near-term" and "full provisioning of Sprint's fiber network [would allow it to serve demand] well in excess of AT&T's total switched traffic volume for the year 1990." In re Competition in the Interstate Interexchange Marketplace, 6 F.C.C.R. 5880, 5888 (1991).
\item \textsuperscript{214} Id.
\item \textsuperscript{215} Id. To ensure that AT&T does not engage in aggressive predatory pricing, they are subject to both a floor and a ceiling under the price cap scheme. See Mitchell & Vogelsang, supra note 69, at 168, 173.
\item \textsuperscript{216} See, e.g., In re Policy and Rules Concerning Rates for Dominant Carriers, 4 F.C.C.R. 2873, 3047-49 (1989).
\item \textsuperscript{217} Statement of Alfred C. Sikes, FCC Chairman, 1991 F.C.C. LEXIS 4212 (June 19, 1991).
\end{itemize}
\end{footnotesize}
One of the challenges to regulators as they phase out restrictions on the BOCs will be to encourage competitive access to long distance lines. There is ample capacity, but the problem is that fiber optic capacity is owned and controlled by three long distance carriers—AT&T, MCI, and Sprint. Leasing arrangements as well as the sale of excess fiber optic capacity are possible solutions to this problem. If private sector allotments are restricted, a spot market for excess fiber optic capacity could be created or long distance carriers could be required to sell excess capacity to the FCC, which could then auction off that capacity to competitors. These solutions are intended to avoid the cumulative installation of new fiber optic networks, while minimizing the regulatory costs of allocation.

C. Antitrust and Public Interest Implications of Vertical Integration Among Telephone Companies

The debate surrounding the appropriate means of regulating the telecommunications industry centers around two issues: (1) the policy interests at stake in hastening the development of a state-of-the-art telecommunications network combining broadband voice, data, and video services with the convenience of wireless technology in the local sector, and (2) the competitive and antitrust concerns voiced most vocally by the Justice Department and the federal courts. In the final analysis, these two issues converge. Competition is protected and encouraged by our antitrust laws precisely because it increases production efficiency, increases output, accelerates the rate of innovation, and lowers consumer prices. These are all widely accepted benefits of competition, but the manner in which the antitrust laws are enforced can often restrict the very competition they are designed to protect. This is the irony that has befallen the telecommunications industry.

Three premises guide the following inquiry into the antitrust and public interest implications of vertical integration in the telecommunications industry: (1) except under the most unusual circumstances, more competition in the market is better than less competition; (2) the 1982 MFJ, while premised on the guiding principle that more competition is better, is an inefficient means of achieving maximum levels of competition in the market because its rationale is hopelessly at odds with the technological and competitive realities facing the telecommunications industry; and (3) any assessment of competition in the telecommunications industry should not only include, but emphasize the level of competition that exists in local access markets.
1. The Federal Antitrust Laws

The backbone of the federal antitrust laws is the Sherman Antitrust Act.\textsuperscript{218} The Act makes it the unequivocal policy of the United States to preserve free competition as the rule of trade.\textsuperscript{219} Section 1 of the Act declares illegal "[e]very contract, combination . . ., or conspiracy, in restraint of [interstate or foreign trade]."\textsuperscript{220} Section 2 focuses exclusively on monopolization, declaring it illegal to "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons to monopolize any part of [interstate trade]."\textsuperscript{221}

To supplement the broad language of the Sherman Antitrust Act, Congress enacted the Clayton Act,\textsuperscript{222} which addresses specific practices that typically result in antitrust violations. Section 18 of the Clayton Act makes any anticompetitive acquisition by one corporation of another illegal. This provision is particularly relevant because of the wave of merger activity occurring today in the telecommunications industry.\textsuperscript{223}

2. The Communications Act Exception

Despite the broad language of the federal antitrust statutes, section 221(a) of the Federal Communications Act of 1934, concerning mergers and acquisitions of FCC regulated telephone companies,\textsuperscript{224} requires:

Upon application of one or more telephone companies for authority to consolidate their properties or a part thereof into a single company, or for authority for one or more such companies to acquire . . . another telephone company . . . [a] public hearing \textit{shall} be held in all cases where a request therefor is made. . . . If the Commission finds that the proposed consolidation, acquisition, or control will be of advantage to the persons to whom service is to be rendered and in the public interest, it \textit{shall} certify to that effect; and \textit{thereupon any Act or Acts of Congress making the proposed transaction unlawful shall not apply.}\textsuperscript{225}

The effect of this section is to immunize, upon FCC approval, acquisitions by one telephone company of another where the combined operations would be subject to the Communications Act.\textsuperscript{226} In effect, if

\textsuperscript{221} Id. § 2.
\textsuperscript{223} See supra note 4 and accompanying text.
\textsuperscript{226} In re Southwestern Bell Telephone, 1 F.C.C.2d 1420, 1437 (1965) (quoting In re Wisconsin Telephone Company, 27 F.C.C. 1, 18 (1959)).
two telecommunications firms intend to merge, or one wishes to acquire the other, they or any other telephone company may request, and must be granted, a hearing. If it determines the merger to be in the public interest, the FCC must exempt the companies involved in the proposed merger or acquisition from antitrust prosecution. This directs the inquiry away from the effects of a merger on competition, as required by the antitrust laws, and towards its effects on the public interest. These inquiries are closely related in many respects, as the public interest is usually best served by maximum competition in the market, but past FCC decisions under section 221(a) have focused on the impact of a proposed merger or acquisition on the quality of telephone service.

3. Synthesis of Federal Antitrust Laws and the Communications Act

In addition to being subject to the FCC's public interest analysis, the parties to the 1982 MFJ, when seeking to merge with or acquire other telephone companies, are also bound by the terms of that judgment. The legal basis of the 1982 MFJ was the Bell System's violation of section 2 of the Sherman Antitrust Act. The court's authority to decide the case on antitrust grounds was predicated on the fact that the Communications Act exception, like other statutory antitrust exemptions, is “strictly construed and strongly disfavored.” As the District Court for the District of Columbia reasoned in United States v. American Telephone & Telegraph Co.: Neither the language, nor the legislative history of the Communications Act supports the conclusion that Congress intended by the Act to grant a total, blanket immunity to defendants from application of antitrust laws, and to place exclusive jurisdiction over all their conduct in the Federal Communications Commission.

Under the court's construction of the Communications Act exception, the FCC's authority to exempt telecommunications industry mergers and acquisitions from the antitrust laws is strictly limited to the act of combining the companies. The FCC has no authority to exempt industry participants, including companies that are the prod-

227 Id.
229 See supra note 225 and accompanying text. FCC rulings on acquisitions tend to focus heavily on improving service to customers by exempting these acquisitions from the antitrust laws. This suggests that the FCC considers it possible to find that a merger is both in the public interest and violative of antitrust provisions. See Southwestern Bell, supra 1 F.C.C. 2d at 1437.
233 Id. at 61.
uct of an exempt merger, from antitrust scrutiny of their ongoing operations.234

In 1982, the Bell System agreed to a consent decree that held Bell in violation of federal antitrust laws. The Decree fashioned a remedy that precluded the BOCs from combining with long distance or manufacturing interests and prohibited AT&T from acquiring stock or assets of the BOCs.235 Notwithstanding its authority under the Communications Act to sanction a merger of telephone companies, the FCC may not contravene a judgment of the district court that is premised on a nonexempt violation of the antitrust laws.236 An FCC ruling that a BOC acquisition of a long distance company was in the public interest would still leave the BOC open to contempt charges for violating a valid court order.

The law of primary regulatory jurisdiction, which allocates authority over the initial determination of an issue between the district courts and the regulatory agencies,237 plays a significant role in the merger exemption process. In areas in which the FCC has particular expertise and its regulatory authority is predicated on the public interest in maintaining a uniform national policy, the Commission usually has primary jurisdiction over the matter.238 In the case of telephone company mergers, section 221(a) gives the FCC a clear mandate to regulate such combinations in the public interest, thus giving rise to application of primary regulatory jurisdiction when deciding the fate of telephone company mergers.

FCC primary jurisdiction, in addition to the Commission's authority to declare combinations immune from antitrust laws, strongly dissuades the courts from passing on the antitrust merits of telephone company mergers prior to an FCC ruling on the matter.239 If a court wants to hear such a case, it normally does so only by asserting other jurisdictional grounds, such as whether the merger violates a valid court order or consent decree.240

234 See Essential Communications Sys., Inc. v. AT&T, 610 F.2d 1114 (3d Cir. 1979) (Congress intended no blanket antitrust exemption for telecommunications industry); Woodlands Telecommunications Corp. v. AT&T, 447 F. Supp. 1261 (S.D. Tex. 1978) (Communications Act is not so pervasive as to impliedly displace antitrust laws).
235 See supra part I.A.2.
236 See supra part I.A.2.
238 Id.
240 Aman & Mayton, supra note 239, at 432-33.
The law of primary regulatory jurisdiction helps explain the nature of the lawsuit Southern Bell filed against AT&T when AT&T announced its intention to merge with McCaw. The BOC attacked the merger on the grounds that it violated the MFJ, rather than arguing that it violated section 18 of the Clayton Act. McCaw maintains cellular partnerships with a number of BOCs, and Section I(D) of the MFJ forbids AT&T to acquire the "stock or assets of any BOC." Judge Greene ruled that the merger violated the MFJ, but subsequently granted AT&T's motion for a waiver of the Section I(D) prohibition on the basis that AT&T had shown that circumstances had changed since 1982.

The FCC approved the AT&T-McCaw merger in September 1994, at the same time that it announced the PCS broadband auction date. The Commission imposed very few restrictions on the deal, leaving AT&T to exercise whatever economies of scope the merger presents. Justification for the FCC's approval of the merger lies in the fact that AT&T's presence at the forefront of wireless technology is likely to hasten the development and proliferation of a beneficial service, and is therefore in the public interest.

The Justice Department, however, took a different approach to the merger, an approach that will delay the true integration of AT&T and McCaw for as long as ten years. The Department entered into a consent decree with AT&T that imposes considerable restrictions on the operations of the combined entity which it argues are necessary to prevent the combination from becoming anticompetitive. This Consent Decree includes an equal access provision, prohibits bundling of services, requires that the two companies be operated as separate entities, and restricts future contracts between them.

Most commentators agree that there is no justification for keeping AT&T out of the wireless sector. There is, however, a strong difference of opinion as to how far into the wireless sector AT&T should be allowed to go. Looking back upon our three basic prem-

---

241 See supra notes 235-36 and accompanying text.
243 See Four Bells Harmonize on Call for Consent Decree's End, supra note 16.
244 See id.
245 AT&T's Bell Laboratories is one of the premier research and development facilities in the world. In addition, AT&T can invest large sums to update and expand its networks. See William J. Cook, et al., The Levitation of a Giant, U.S. News & World Rep., Aug. 30, 1993, at 58.
246 See Four Bells Harmonize on Call for Consent Decree's End, supra note 16.
247 Id.; see supra note 138 and accompanying text.
248 See Four Bells Harmonize on Call for Consent Decree's End, supra note 16.
249 See supra part II.C.
ises, this Note suggests the following answer: all the way. The FCC expects that PCS networks "will be subject to substantial competition, both from other PCS services . . . and from the wide range of radio-based services currently offered: cellular services, specialized mobile radio services, paging services, wireless in-building services, cordless phones, and others." In the absence of a wireless bottleneck, the Justice Department's concern that other long distance carriers will lose access to McCaw's cellular networks is misplaced. Accordingly, there is no economic rationale for imposing equal access requirements and antibundling provisions on what, absent regulation, would be a clean interface with a competitive wireless market.

Nevertheless, the Justice Department's new Consent Decree may make some sense if the BOCs must continue to suffer under the 1982 MFJ, which prevents them from directly interfacing their cellular operations with long distance facilities. It may be necessary to restrict the movement of the industry towards its most naturally competitive state in order to prevent AT&T from overrunning the wireless operations of the BOCs, whose ability to compete is hampered by prohibitive regulation. In effect, the Justice Department has attached a ten-year lead weight to AT&T to bring it down to the level of the BOCs. The logic underlying this regulation is perhaps the greatest argument of all for consolidating regulatory authority over telecommunications.

The Justice Department appears intent on maintaining the status quo by imposing more decree-based restrictions on vertical integration, even though the 1982 MFJ specifically recognized AT&T's right to pursue all viable means of bypassing the BOCs' local access monopolies. Now that AT&T is on the verge of completing calls all over the nation without the need for local access from the BOCs, the Justice Department is balking out of fear that the market will not do its job. While the FCC appears ready to take the next step in moving the industry forward by eliminating the line-of-business restrictions on the BOCs and by giving AT&T the go ahead to fully integrate its long distance and cellular operations, the Justice Department is caught in a 1982 time warp.

D. Some Solutions to a Perplexing Problem

Understanding the technologies emerging in the telecommunications industry gives some indication of what lies ahead and what kinds of adjustments need to be made to the current regulatory structure. However, it is impossible to predict the optimal industry structure for the future. The disparity between the telecommunications industry

250 7 F.C.C.R. at 94.
251 See id.; see Kellogg et al., supra note 6, at 89.
252 Kellogg et al., supra note 6, at 78.
contemplated by the 1982 MFJ and that which has since evolved clearly demonstrates this problem. No one knows what new technologies will emerge, nor what firms are likely to triumph. Long distance giants like AT&T and MCI are well positioned to enter the full service market, and the BOCs and large cable television firms have the potential to become major full service competitors.\(^{253}\) Large equipment manufacturers such as Motorola are also poised to become major participants in the new era of telecommunications.\(^{254}\)

Despite these uncertainties, it is clear that the telecommunications industry will undergo significant change within a relatively short period of time.\(^ {255}\) To adequately respond to these changes, the regulatory scheme must be flexible and streamlined. It is also important that regulation not slow technological development any more than necessary by attempting to micromanage emerging markets within the industry.\(^ {256}\) As the pace of technological change quickens, profits will be increasingly sensitive to the rapid development and marketing of products.\(^ {257}\) What follows are some suggested congressional and FCC courses of action that will help to bring about an appropriate regulatory structure.

1. **Legislatively Invalidate the 1982 MFJ and Place Full Regulatory Authority With the FCC**

For the time being, the local access market remains a monopoly. However, local monopolies will disappear as fully competitive wire-line, and more convenient and efficient wireless alternatives become available to consumers. Of great concern to the BOCs is the prospect of losing the ten percent of their customers that generate the majority

\(^{253}\) For a description of how the cable companies and BOCs are planning to build full service networks, see Ziegler et al., *supra* note 136, at 56.

\(^{254}\) Motorola, the largest producer of wireless communications equipment, is currently backing an ambitious satellite communications network known as Iridium. Iridium is scheduled to bring wireless phone service to the world by way of 66 low-orbit satellites by 1998. Motorola is looking to expand wireless technology in order to create larger markets for its handsets, which currently account for 35% of the company's earnings. As the cost of handsets has declined rapidly over the last decade, margins on equipment sales have shrunk to the point that greater demand is needed to boost profits. Motorola hopes to score with a worldwide seamless network that will send signals directly to small handheld units manufactured by Motorola. The prospect of a worldwide seamless network is particularly attractive to third world countries, which could be brought quickly, and relatively cheaply, into the modern telecommunications era through this technology. While the technology remains to be perfected, and the projected operation date is certainly ambitious, the technology could be viable in the near future. For a detailed description of Motorola's Iridium project and other proposed satellite wireless communications networks, see Nancy Hass, *Preemptive Strike*, Fin. World, Sept. 14, 1993, at 36.

\(^{255}\) See part II.B.

\(^{256}\) See Berg, *supra* note 15, at 15.

\(^{257}\) See infra text accompanying notes 298-99.
of BOC revenues. These big commercial consumers will be the first to tap the economies of competitive access provider (CAP) service and discounted end-to-end service via wireless computer and phone networks and fiber-optic long distance. If the BOCs are unable to create strategic alliances in the long distance sector before their corporate rate base is eroded, they will suffer a serious competitive disadvantage vis-a-vis other large telecommunications firms.

Since 1982, AT&T and the BOCs have been subject to a two-tier regulatory scheme consisting of both FCC regulations and district court enforcement of the MFJ. This scheme has helped to create at least the appearance of competition in the long distance sector, but modern changes in telecommunications markets have obviated the need for the district court’s role in the regulatory process. As CAP, cable television, and PCS networks emerge as substitutes for the local access monopolies, the ability of the BOCs to exploit the local market through cross subsidization and price gouging is virtually eliminated. Any such attempt would simply hasten consumer movement away from their networks and toward the new substitute technologies.

As full service becomes the competitive standard in the industry and the threat of monopoly diminishes, no justification remains for prohibiting the BOCs from participating in strategic vertical integration. The legal basis of the MFJ, as stated in the government’s complaint in the AT&T antitrust action, is section 2 of the Sherman Antitrust Act. As the Act has been interpreted, a section 2 violation occurs whenever a holder of monopoly power unreasonably restrains trade in violation of section 1 of the Act, which bans any contract, combination, or conspiracy in restraint of trade. AT&T’s predivestiture actions exhibited this illegal behavior. However, allowing the BOCs to contract and combine to facilitate their development as full service telecommunications firms would not restrain trade, but rather

258 See supra notes 200-02 and accompanying text.
259 See supra notes 200-02 and accompanying text.
260 See supra notes 200-02 and accompanying text.
261 See supra notes 12, 119-27 and accompanying text.
262 Whereas AT&T, MCI, and other long distance carriers are justifiably wary of the BOCs’ emergence into full service telecommunications, they have opposed BOC entry into the full service market out of a desire to avoid increased competition, rather than out of fears that a BOC might reestablish a monopoly in the industry. It is virtually inconceivable that any one firm could achieve monopoly control, and certainly not any of the BOCs. Logistically, it is more likely that AT&T could achieve such control given the line-of-business restrictions currently imposed on the BOCs than it would be for any of the BOCs to attain it if the restrictions were eliminated. Either way, the possibility is too remote to be a serious threat.
would further competition in the local and full service telecommunications markets.

Under emerging market conditions, the remaining line-of-business restrictions, which the MFJ imposes on the BOCs, are a crippling handicap for the otherwise capable firms.\(^{265}\) This is particularly true of the ban on BOCs entering the long distance sector.\(^{266}\) The BOCs’ local monopolies are no longer secure, as the most profitable commercial accounts are vulnerable to CAP and full service alternatives that will offer large discounts to these customers,\(^{267}\) and the BOCs will lose these accounts if they are unable to supply competitive end-to-end service.

Removing the district court’s long distance ban would free the BOCs to create strategic alliances with existing long distance carriers and to buy or lease excess capacity from them.\(^{268}\) In the early stages of deregulation, the BOCs would likely possess a competitive advantage in their established local markets, but they would face a relative disadvantage in the long distance market and in remote local markets.\(^{269}\)

The public has much to gain by allowing the BOCs to evolve into full service telecommunications companies. The strongest of the BOCs are well run and increasingly innovative companies.\(^{270}\) These firms are capable of competing effectively in the modern telecommunications era if given the regulatory freedom they need to compete head-to-head with each other and with other firms in a full service market.\(^{271}\) Removal of the remaining restrictions placed on the BOCs would unleash seven potentially powerful full service competitors into the national telecommunications market. This would mean lower costs and better service for consumers.

\(^{265}\) See Hass, supra note 22.

\(^{266}\) See id. According to Bell South CEO, John Clendendin, “The current system is not benefiting anyone but AT&T. While everybody and their cousin is allowed to play in our backyard, we are [forbidden to enter the long distance sector]. That disadvantages not just the RBOCs but the economy and consumers themselves.” Id.

The other important line-of-business restriction facing the BOCs is the ban on equipment manufacturing. See Alan Pearce, It’s Time for the Judge to Move on to Greener Pastures, NETWORK WORLD, Mar. 15, 1993, at 26.

\(^{267}\) See Hass, supra note 22. Peter Huber of the Manhattan Institute, a New York think tank, has said that “[i]n telecommunications, the customers who matter are the 10% who generate 90% of the revenues. The long distance companies will go to any length to obscure that fact.” Id.

\(^{268}\) See supra part II.B.2.

\(^{269}\) See Hass, supra note 22. It is unlikely that the BOCs would ever establish fiber optic networks to compete directly with the AT&T, MCI, and Sprint networks. Rather, they want the right to resell such services to their local customers and enter into strategic alliances with other long distance companies. Id.

\(^{270}\) See Virginia M. Kahn, For Whom the Bells Toll, SMART MONEY, Dec. 1993, at 130.

\(^{271}\) Id.
Finally, removing the district court from the regulatory structure would consolidate day-to-day regulation of the telecommunications industry with one agency, the FCC. This would be consistent with the purposes of the Federal Communications Act, which specifically lists consolidation of regulatory authority as one of its goals. By replacing the current two-tiered regulatory scheme with a uniform national policy, consolidation would serve to make the regulatory scheme less administratively complex, more streamlined, and more predictable. Additionally, the FCC is generally more qualified to assess the day-to-day regulatory needs of the industry than is the district court, particularly now that the technology is changing on a day-to-day basis. Nevertheless, the court has to date rigorously resisted all BOC petitions under section VIII of the MFJ to have the remaining long distance and equipment manufacturing bans lifted. Without the court's cooperation, the alternative is legislative action.

The Constitution grants Congress the power "[t]o regulate Commerce with foreign Nations and among the several States." In Katzenbach v. McClung, the Supreme Court held that the power of Congress in the area of commerce is broad and sweeping, and when it stays within its sphere and violates no express constitutional limitation, the Court will not interfere. It is only when Congress remains silent, or in the rare instance in which Congress offends other constitutional provisions in the exercise of its commerce power, that the courts have authority to pass law in this area. Congress should exercise its Commerce Clause power to invalidate the MFJ and place full regulatory authority in the hands of the FCC.

The unequivocal invalidation of the MFJ is necessary to avoid the pitfalls of proposed legislation such as Senate Bill 1822, which, if passed, would congest court dockets for years. Rather than remove regulatory focus from the courts, the Bill incorporates a series of tests and procedural safeguards that would eventually lift the line-of-busi-
ness restrictions imposed by the MFJ. Each of these tests and safeguards would inevitably result in court challenges and battles over interpretation. Congress must take the crucial first step in the regulatory restructuring process by unequivocally invalidating the 1982 MFJ, but Congress ought not to make the mistake of imposing its own tests and safeguards on the elimination of restrictions on the BOCs. This is by no means an attempt to minimalize the complexity of the issues involved in deregulating the industry. To the contrary, the issues are extremely complex and, therefore, best left to the regulatory and technological expertise of the FCC as opposed to the less responsive exercise of the general jurisdiction of the federal district courts. To condition the exercise of FCC discretion to deregulate the BOCs on legislatively prescribed tests and safeguards simply invites protracted litigation in the federal courts, accomplishing little of what the legislation is needed for.

As an incident to invalidation of the MFJ, the LATA barriers established by the MFJ would be eliminated, clearing the way for the BOCs to participate in the nationwide PCS market without artificial restraints. This would obviate the need for section VIII waiver petitions every time the BOCs want to operate wireless or other networks across LATA boundaries. In addition, eliminating the MFJ sooner rather than later would help to minimize the other extrinsic incentives imposed on the BOCs by the prohibitions of the MFJ. The market and principles of efficiency would determine strategic corporate combinations and restructurings, while the impact of regulation on the strategic maneuverings of the industry would be kept to a minimum.

2. **Legislatively Invalidate the AT&T-McCaw Justice Department Consent Decree**

Along with the invalidation of the 1982 MFJ, Congress must also invalidate the AT&T-McCaw Justice Department Consent Decree restricting the full integration of AT&T and McCaw in order to protect the competitive position of AT&T in the face of full service BOCs. These two consent decrees stand as justifications for each other, but neither can be justified alone.

By eliminating both decrees, AT&T and the BOCs would be placed in their most competitive positions, and market determinants would begin to dictate competitive behavior. AT&T would undoubtedly survive the transition from oligopolist to competitive full service provider, but AT&T would face a serious challenge from the BOCs.

---

280 See supra note 129 and accompanying text.
281 See supra text accompanying notes 178-80.
282 See supra note 138 and accompanying text.
This one-two dose of deregulation would provide great market flexibility to eight of the largest telecommunications firms in the country. However, it would not give them carte blanche to do whatever they please. The antitrust laws would remain in full force and effect, and a close eye can and would be kept on industry activity.²⁸³

3. Eliminating Rate-of-Return Regulation

The FCC has authority to regulate interstate telecommunications rates under section 152 of the Communications Act.²⁸⁴ Under the present regulatory scheme, however, section 152(b) of the Communications Act expressly prohibits the FCC from regulating intrastate telephone rates.²⁸⁵ The result of this prohibition is that access charges for both single LATA (local) calls and long distance calls made within a single state are regulated by state agencies rather than the FCC.²⁸⁶ This federal-state rate regulation scheme was adopted by Congress in the wake of a 1930 Supreme Court ruling in Smith v. Illinois Bell Tel. Co.,²⁸⁷ in which the Court found that division of phone company property into interstate and intrastate categories was necessary to determine the appropriate governmental authority to regulate each category.²⁸⁸ This dual price regulation scheme remains in effect, even though it is not in the best interests of the industry.

In keeping with the view that local access telecommunications is a natural monopoly,²⁸⁹ the FCC and state regulatory agencies have traditionally regulated local access prices on a rate-of-return basis.²⁹⁰ In recent years, the FCC has moved away from rate-of-return pricing for interstate local access, as evidence continues to mount that such pricing is no longer appropriate. Many state jurisdictions, however, continue to regulate local access for intrastate long distance and single LATA calls on a rate-of-return basis.

The theory behind rate-of-return pricing is relatively straightforward. Regulators replace the market as the enforcer of economic efficiency by establishing the cost structure considered most representative of costs in a competitive market. Establishing prices involves negotiation between the regulated company and the regula-

²⁸³ See supra part II.C.1.
²⁸⁴ Section 152 makes the provisions of the Communications Act and FCC authority applicable to intrastate telecommunications, while § 201 of the Act deals specifically with pricing. 47 U.S.C. § 201 (b) (1988).
²⁸⁶ Id. at 433.
²⁸⁷ 282 U.S. 133 (1930).
²⁸⁸ Id. at 145.
²⁸⁹ See supra notes 34, 92.
tors, with the final figure usually being a compromise between a competitive market and monopoly pricing.\textsuperscript{291}

Once the cost structure has been established, the regulators must ensure the economic viability of the essential service provider by adding a pre-set rate of return on invested capital. The regulators set the rate of return so as to place the regulated firm on par with firms in comparable competitive industries.\textsuperscript{292} The optimal result is a rate of return high enough to attract the necessary investors, but not so high as to give the regulated industry an unfair advantage in the capital market.\textsuperscript{293}

In theory, rate-of-return pricing can be a reasonably efficient means of setting prices in a monopoly situation. However, this is true only if the following three conditions are met: (1) the regulated company is in fact a natural monopoly and no other firms would choose to enter were pricing left to the free market, (2) regulators can and do ferret out inefficiencies in the cost structure and establish a cost basis that closely resembles the costs that would exist in a competitive environment, and (3) the technology employed to provide the regulated service or product is not currently undergoing or expected to undergo significant technological change.\textsuperscript{294}

These three conditions are all disappearing in the new era of telecommunications. The natural monopoly status of local access telecommunications is currently being challenged by CAPs, wireless access networks, and cable television networks. In addition, the inability of regulators to establish a cost structure similar to that which would exist in a competitive market has been a long standing drawback to rate-of-return pricing schemes. This is particularly true of telephone companies whose cost structures are complex and include fungible expenses which can be attributed to both monopoly and competitive businesses. Finally, technological innovation is presently occurring at a rapid pace in the industry, and rate-of-return regulation has the effect of stifling technological progress.\textsuperscript{295} Until recently, technological progress in the local exchange sector occurred at a relatively slow pace. Copper cables form the backbone of the wired local networks, and the networks have not changed much since the BOCs were severed from AT&T. This is an ideal setting for a rate-of-return pricing scheme. Regulators and the BOCs have established long de-

\textsuperscript{291} See Hass, \textit{supra} note 22.
\textsuperscript{292} See \textit{In re AT&T}, 9 F.C.C.2d 90 (1967).
\textsuperscript{293} Because the rate of return is pre-established, it is set slightly below average return rates for comparable companies in competitive industries. This discrepancy reflects the decreased risk associated with investing in a rate-of-return regulated company.
\textsuperscript{294} For a discussion of the effect of rapid technological change on rate-of-return pricing, see Berg, \textit{supra} note 15.
\textsuperscript{295} \textit{Id.} at 16.
preciation schedules reflecting the useful life of the capital equipment used to complete local calls.\textsuperscript{296} As a result, the prices set closely reflect the actual costs of providing the service, plus the set rate of return, and still remain relatively constant from year to year.

As the rate of technological change increases, the useful life of new equipment shortens because it becomes obsolete more quickly.\textsuperscript{297} It is very difficult to achieve market penetration for technologically dynamic goods and services priced on a rate-of-return basis because the price of the new service must exceed short run costs. Since a rate-of-return regulated company must always turn a predetermined profit, there is no flexibility to employ corporate marketing strategies such as decreasing margins in the short run to achieve greater efficiencies in the long run.\textsuperscript{298}

The local access market is currently undergoing precisely the kind of technological change that makes rate-of-return regulation inefficient.\textsuperscript{299} Whereas CAPs and new wireless competitors have tremendous incentives to develop substitutes for the existing local access monopolies, the BOCs have systematically fewer incentives to bring the wired networks up to modern technological standards. Prices for local service reflect any new capital expenditures for equipment in proportion to its useful life. Accordingly, any attempt at wholesale modernization of the BOCs' local networks would be extremely unpopular with rate payers, at least until the capital costs were recovered.

Rate-of-return pricing poses a further problem in the short-run transition from monopoly control to competition. Because rates are set according to a BOC's cost function, the BOC has a great incentive to engage in cost shifting, or cross subsidization.\textsuperscript{300} This involves subsidizing competitive activities by shifting costs to noncompetitive activities whose profits are determined by a rate-of-return pricing scheme. The result is a pre-set rate of return for noncompetitive operations and higher profits for competitive operations, which experience lower competitive costs due to cost shifting. Cost shifting is one of the primary justifications for excluding the BOCs from competitive markets.

It is nearly impossible for regulators to allocate costs accurately among various operations, particularly when costs benefit both competitive and noncompetitive divisions. The incentive to cost shift is greatly reduced under a price cap system because the overall return

\textsuperscript{296} See Berg, supra note 15 (noting that slow technological development allows rate-of-return regulated companies to recoup capital investment over a long period of time).
\textsuperscript{297} Id.
\textsuperscript{298} Id.
\textsuperscript{299} See supra part II.B.
\textsuperscript{300} See Kellogg et al., supra note 6, at 62.
CORNELL LAW REVIEW

on any capital investment will be unaffected by cost shifting from competitive to noncompetitive operations.

Thus, to provide all local access providers with the necessary incentives to compete in a full service market, the rate-of-return pricing scheme for local service must be completely eliminated. Prices should reflect the long term economies of strategic technological progress, rather than focus solely on short-run costs plus a preset return. The BOCs will then be in a position to profit from any increased efficiencies that result from their investments in new technology. Risk to investors will increase, but so will the potential gains.

The major impediment to completely eliminating rate-of-return pricing in the telecommunications industry is the FCC's lack of authority to regulate intrastate rates under section 152(b) of the Communications Act. The FCC tested this limitation, by attempting to preempt state regulation of depreciation schedules for intrastate equipment, but the regulation was struck down in Louisiana PSC. Absent the express prohibition of section 152(b), however, Congress would possess authority under the Commerce Clause to grant regulatory control of intrastate local access rates to the FCC. According to the Shreveport Rate Case,\(^3\) Congress may regulate intrastate rates to prevent injurious discrimination against interstate commerce.

In the new era of telecommunications, the line between intrastate and interstate telecommunications will become increasingly obscure.\(^2\) The regulation of intrastate rates on a rate-of-return basis will continue to harm interstate telecommunications because it retards the ability of the BOCs to evolve into competitive full service telecommunications companies. The prospects for competition in the interstate telecommunications market are, therefore, inseparably tied to the regulation of intrastate access charges. With this in mind, Congress should extend the FCC's authority to regulate intrastate telecommunications rates under the new legislation.

4. Maintenance of Price Caps on Core Services

In the absence of rate-of-return pricing, the state and or FCC regulators must continue to ensure that unsophisticated individuals will be able to obtain basic phone service at affordable prices. The elimi-

\(^3\) Houston, E. & W. Tex. Ry. Co. v. United States, 234 U.S. 342 (1913) (holding that Congress may regulate intrastate rates of a railway carrier where state regulation of such rates causes injury to interstate commerce).

\(^2\) The division has always been somewhat arbitrary since much of the equipment and service characterized as interstate or intrastate in fact is used fungibly for both. See Kellogg et al., supra note 291, at 492-49. As the barrier between local and long distance communication and equipment manufacturing erodes, the distinction will become even more tenuous, as a single firm may provide a full compliment of interstate and intrastate services and equipment.
nation of rate-of-return pricing could adversely affect this important public policy interest.\footnote{303}

Because profitability is guaranteed under the rate-of-return system, the BOCs can offer phone service to remote areas at subsidized prices without suffering any particular hardship. City dwellers in apartments serviced by a single conduit spliced 100 ways each pay the same monthly access fee as a farmer who lives five miles from anywhere and requires a dedicated line to receive telephone service. In the end, the city dwellers pay more than their cost share, and the farmer less, but the BOC generates the same fixed rate of return either way.\footnote{304}

When rate-of-return pricing is removed, the local access providers have an incentive to lower prices for service to large customers and customers in urban dwellings, who have been paying prices that significantly exceed the marginal cost of providing service to them. At the same time, local access providers have an incentive to raise prices for rural customers for whom the marginal cost of service is significantly higher. Without some protection for rural and suburban customers, the cost of service is likely to increase dramatically under price deregulation.\footnote{305} In order to protect these small, remote users, the FCC should take measures to ensure that no service will be discontinued as a result of deregulation and that no prohibitive increases in access charges will be imposed on these customers.

The simplest and most manageable solution would be to place price caps on local access to any currently operative wired network.\footnote{306} These price caps should be based on the average cost of providing service to all customers, thus continuing the current subsidization of telephone service for suburban and rural customers.\footnote{307} Price caps, however, would not have the stifling effect on technological development that the rate-of-return scheme does. This is because any investment that would decrease the long-run average cost of providing local exchange service would result in increased profits and returns to investors. Under rate-of-return pricing, such efficiency gains are lost in the updated cost structure, and the rate of return remains at the market level.\footnote{308}

\footnote{303} Id.
\footnote{304} Cf. supra note 293 and accompanying text (implied in the concept of a constant rate of return is the idea that profits remain the same regardless of any capital expenditures spent to connect distant users).
\footnote{305} See Berg, supra note 15, at 16 (removal of the rate-of-return pricing scheme will put upward pressure on access prices in remote areas).
\footnote{306} Dennis Patrick, former FCC Chairman during the Bush administration, has suggested price caps as an alternative means of regulating prices. See Schreiber, supra note 12.
\footnote{307} See supra note 294 and accompanying text.
\footnote{308} See supra text accompanying note 299 (discussing rate of return, which is by definition fixed for any investment level).
Price caps could function as a temporary measure during the transition from monopoly wired local access to competitive wireless access. One of the many advantages of wireless technology is that the capital costs of serving rural customers are comparable to the costs of serving urban customers. Whereas the cost of copper cable and trenches increases by the foot, a radio transceiver costs the same in Snow Shoe as it does in New York City. The ultimate goal, therefore, is to encourage nationwide coverage of PCS and cellular networks.

CONCLUSION

Regulators in the telecommunications industry face difficult choices in trying to simultaneously protect traditional regulatory goals and encourage technological innovation. Despite uncertainty as to the future structure of the industry, three fundamental regulatory changes must be implemented before the telecommunications industry, and the BOCs in particular, will be in a position to maximize public welfare. First, Congress must remove the federal courts from the regulatory process by exercising its broad power under the Commerce Clause\textsuperscript{309} to invalidate both the 1982 MFJ and the more recent AT&T-McCaw Consent Decree. Second, Congress must grant the FCC the authority necessary to eliminate rate-of-return pricing for local access on an industry wide basis, and third, the FCC must establish price caps for essential core services to protect rural customers during the period of transition to wireless networks.

Finally, the FCC must resist the temptation to micromanage emerging markets in the telecommunications industry. The technological possibilities of the industry are persuasive enough, and the potential competitors sophisticated enough, to justify allowing the market participants to bear the risks and rewards associated with new development. The FCC should concentrate its efforts on safeguarding the integrity of the telecommunications networks and protecting consumers of core services who currently have no alternatives.

Robert B. Friedrich

\textsuperscript{309} U.S. CONST. art. I, § 8, cl. 3.