REVIEW ESSAY

Telecommunications in Jericho

FEDERAL TELECOMMUNICATIONS LAW. By Michael K. Kellogg,* John Thorne,** and Peter W. Huber.*** Boston: Little, Brown & Co., 1992. Pp. xxiv, 914. $145.00.

THE GEODESIC NETWORK II: 1993 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY. By Peter W. Huber, Michael K. Kellogg, and John Thorne. Washington, D.C.: The Geodesic Co., 1992. Pp. vi, 475. $95.00.

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American telecommunications regulation is about to collapse like the walls of Jericho. The industries that we are accustomed to calling telephony, broadcasting, cable television, and mobile communications have acquired, and for the time being retain, their distinct identities principally because regulatory walls have segmented the market and limited the ability of firms to expand beyond their industry's designated territory. This regulatory segmentation cannot endure. It has become cliché to say that disparate technologies are "converging" in the sense that they permit us to transmit a particular message, whether it is a voice or a stream of data or a video image, by any one of several different means. Video programming, for example, can be delivered by conventional television broadcasters, direct broadcast satellite, microwave, cable, or the telephone network. Moreover, whatever the medium used, digital compression now permits five or ten television signals to fit into the bandwidth that previously had been occupied by one, thus creating a cornucopia of spectrum once considered scarce, thereby better enabling programmers to address the peculiar tastes of narrowly defined audiences. At the same time, the declining cost of computing has permitted

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the processing and storage of information to become more decentralized, thus enabling the intelligence in the telecommunications network to reside to a greater extent in the dispersed customer premise equipment of ultimate consumers rather than with some central provider of switching and transport. We no longer speak, therefore, of a single public switched telephone network, but of a "network of networks" in which private communications networks, consisting of local-area networks and wide-area networks, complement the public network or circumvent it entirely. The venerable local telephone monopoly may pass away as consumers by the turn of the century are able to buy local telephone service from the cable television company, the cellular company, a competing access provider that has installed its own fiber-optic loop, or any one of several providers of wireless "personal communications services."

The technological advances in telecommunications have overloaded a regulatory apparatus that was devised in the era of Prohibition and Charlie Chaplin. Whatever the original purposes of federal telecommunications regulation in 1934, 1927, and earlier, we must now ask some searching questions: Does federal telecommunications regulation impede competition; indeed, has that become its principal (if unstated) function? Does regulation impair the access of American consumers to new communications technologies? Does it inhibit the dissemination of ideas and information through the electronic media? Does the current licensing regime for electromagnetic spectrum fail to allocate that resource to its most productive uses? If telecommunications regulation is producing any of these deleterious effects, what are the costs and what can and should be done? These questions have such large implications for American economic performance and social welfare that their scope is routinely measured in tens of billions of dollars.

Nonetheless, these questions have motivated few law professors to write about telecommunications. The resulting intellectual poverty of telecommunications law cannot be exaggerated. Until now there were no treatises on telecommunications law, and until 1986 there was not even a reliable published record of all Federal Communications Commissions reports, orders, and policy statements. An experienced communications lawyer knows that an FCC decision means not what it says, or even what the five commissioners say that it says, but what the staff lawyer who drafted it and will apply it in the next case *believes* it to represent in his own personal meta-reality. Compared to such agency-made law, the judge-made law implementing the Modification of Final Judgment (MFJ), the consent decree governing the breakup of the Bell System, is probably even more obscure.

Into this intellectual lacuna step Michael Kellogg, John Thorne, and Peter Huber. Their *Federal Telecommunications Law* is both impressive legal scholarship and an indispensable tool for practitioners, jurists, and

government policy makers. It dares to be engaging, witty, even eloquent, about a subject usually discussed in turgid legalese, acronyms, and technospeak. Because it assumes no expertise on the reader's part, this treatise could be assigned in university courses on telecommunications regulation, particularly if complemented by an economic analysis of the subject[1] and an accessible survey of the relevant technological developments.[2]

There is good reason why a lawyer with no background in telecommunications should read this book. Key segments of this enormous industry, which currently has annual revenues in the hundreds of billions, are growing rapidly.[3] Wireless services (such as cellular mobile telephony) and information services are experiencing especially rapid growth in demand; revenues from the international services of American telephone companies, such as the construction and operation of telephone systems in overseas markets, grew at twelve to twenty-one percent annually from 1988-92.[4] Thus, the demand for expertise in telecommunications law is expanding at a time when the demand for blue chip legal services generally is not.

In addition, the demand for telecommunications law expertise is growing because, quite apart from the business transactions generated by the technological change in this industry, Congress recently reregulated the cable television industry by enacting the Cable Television Consumer Protection and Competition Act of 1992[5] (1992 Cable Act), the most ambitious and onerous piece of communications legislation since the Communications Act of 1934.[6] Depending on how one counts, the new cable law requires the FCC to undertake several dozen rulemakings to flesh out scanty statutory provisions. These rulemakings in turn are likely to produce litigation extending into the late 1990s.

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1. *E.g.*, ROBERT W. CRANDALL, AFTER THE BREAKUP: U.S. TELECOMMUNICATIONS IN A MORE COMPETITIVE ERA (1991); BRIDGER M. MITCHELL & INGO VOGELSANG, TELECOMMUNICATIONS PRICING: THEORY AND PRACTICE (1991); *see also* WILLIAM J. BAUMOL & J. GREGORY SIDAK, TOWARD COMPETITION IN LOCAL TELEPHONY (forthcoming 1994).

2. *E.g.*, JOSEPH A. PECAR ET. AL., THE MCGRAW-HILL TELECOMMUNICATIONS FACTBOOK (1993).

3. U.S. DEP'T OF COMMERCE, U.S. INDUSTRIAL OUTLOOK, 1993, at 28-1. Industry revenues include local exchange, interexchange, cellular and other wireless communications, radio and television broadcasting, cable television, telecommunications equipment, and information services provided by telephone companies.

4. *Id.*

5. Pub. L. No. 102-385, 106 Stat. 1460 (1992). The new cable law was enacted over President Bush's veto. *See* President's Message to the Senate Returning Without Approval the Cable Television Consumer Protection and Competition Act of 1992, 28 WEEKLY COMP. PRES. DOC. 1860 (Oct. 3, 1992). The veto was consistent with the Bush administration's advocacy of less regulation of telecommunications markets. *See, e.g.*, ECONOMIC REPORT OF THE PRESIDENT 178-90 (1993).

6. Communications Act of 1934, ch. 652, 48 Stat. 1064 (current version at 47 U.S.C. §§ 151-613 (1988)).

I
THE JURISPRUDENCE OF GEODESY

Ambitious in scope and thoroughness, *Federal Telecommunications Law* begins with a succinct and fascinating summary of the competitive development of the telecommunications industry and a provocative prediction of its technological and regulatory destiny. Although the first chapter proffers few data to support its sweeping conclusions, the authors have compiled data aplenty in their simultaneously published analysis of competition in the telephone industry, *The Geodesic Network II.* By its title, the latter book alludes to Peter Huber's 1987 study commissioned by the Department of Justice as part of the first (and only) triennial review of the MFJ. That predecessor study, entitled *The Geodesic Network* but known to the cognoscente as "The Huber Report," described the future structure of information flows in the telecommunications industry as resembling not a tree with trunk and branches, but rather one of Buckminster Fuller's geodesic domes.[7]

In the following fifteen chapters of *Federal Telecommunications Law,* the authors explain the applicable legal principles under the Communications Act and antitrust law; the AT&T divestiture and its equal-access and line-of-business restrictions; the pricing of telephone service; and the nature of regulation and competition in the markets for telecommunications equipment, "enhanced" services, long-distance service, mobile telephony, and (pre-reregulated) cable television. After a brief chapter on international telecommunications issues, the book concludes with an intriguing discussion of electronic privacy. The authors make frequent cross references to *Geodesic Network II* in *Federal Telecommunications Law,* and vice versa. The two books are properly viewed as complements to one another rather than substitutes.

Viewed narrowly, *Federal Telecommunications Law* is about the telephone industry. Viewed more broadly, it is a sequel to Ithiel de Sola Pool's libertarian classic *Technologies of Freedom.*[8] Kellogg, Huber, and Thorne have written a volume guided by the following credo:

> To the extent that we have a brief, it is in favor of the genius of competition. To the extent that we have a beef, it is with those who would twist the regulatory and judicial process to protect their own narrow interests (and with the legislators, regulators, and judges that permit them to do so). To the extent that we have a passionate conviction, it is that the technologies of freedom are insuppressible and that, by making it impossible for even totalitar-

7. U.S. DEP'T OF JUSTICE, ANTITRUST DIV., THE GEODESIC NETWORK: 1987 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY 1.2 (1987).

8. ITHIEL DE SOLA POOL, TECHNOLOGIES OF FREEDOM (1983). A possible rival for this title that focuses more on the electronic mass media is JONATHAN W. EMORD, FREEDOM, TECHNOLOGY, AND THE FIRST AMENDMENT (1991).

> ian regimes to shut off the flow of information, they will forever alter world politics.[9]

The theme pervading *Federal Telecommunications Law* is that advancing technology renders obsolete and arbitrary, if not also unlawful or unconstitutional, the regulatory boundaries that currently divide various telecommunications firms and circumscribe the services that they may provide. Largely as a result of inflexible regulations predicated on an understanding of technological conditions of a period long passed, for decades until the 1980s and 1990s we viewed telephony primarily as a wireline service and television primarily as a radio service. Today, the ubiquitous convergence of technologies injects new competition into staid markets and constitutes, in the estimation of Kellogg, Thorne, and Huber, one of "the two overarching technological trends in the industry." The other such trend is the fragmentation "into many smaller, more autonomous parts" of the various switches, lines, and networks that interconnect the communicating world.[10]

II
MINIMIZING THE COMBINED HARM FROM MONOPOLY AND REGULATION WHILE AWAITING COMPETITIVE TELEPHONY

The 1992 Cable Act is not the most important development in telecommunications policy today. Two other issues are of far greater consequence. The first is the transition to competitive local telephony. The second is the need to discard the myth of spectrum scarcity and the many regulations predicated upon it. We must devise a scheme that quickly allocates spectrum to wireless technologies, that promotes efficient resource allocation, and that minimizes government intrusion into electronic speech. Our current regime is a failure in all three respects.

A. The Linchpin: Competition in the Local Exchange

Federal Telecommunications Law principally addresses the first of these two central issues. Despite the convergence of telecommunications technologies, obsolete conceptions of electronic communication framed during or before the New Deal continue to inform the regulation of this industry. Kellogg, Thorne, and Huber describe the obsolete paradigm for regulating wireline communications as having three essential attributes: a protected franchise that bars competitors from entry or interconnection and does not distinguish between whether or not the regulated monopolist is indeed a natural monopoly in the economic sense; a quar-

9. MICHAEL K. KELLOGG, JOHN THORNE & PETER W. HUBER, FEDERAL TELECOMMUNICATIONS LAW xxiii (1992) [hereinafter FEDERAL TELECOMMUNICATIONS LAW].

10. *Id.* at 2.

antine precluding the regulated monopolist from entering related markets that are competitive; and thorough governmental regulation of prices, terms, and conditions of service.[11]

This regulatory model cannot endure, the authors argue, because every segment of the telecommunications market is increasingly subject to competition. Nonetheless, it is essentially according to this model that the U.S. District Court in Washington, D.C. regulates the vast majority of the American telephone industry pursuant to the MFJ. *Federal Telecommunications Law* explains in impressive detail how the MFJ originally prohibited the seven regional Bell operating companies (RBOCs) from offering information services, such as electronic newspapers, answering services, electronic yellow pages, and so forth.[12] The MFJ continues to prohibit the RBOCs from providing long-distance transmission between local markets, known as local access and transport areas (LATAs), or from manufacturing telecommunications equipment.[13] These prohibitions are based on the fear that an RBOC would use its rate-regulated businesses to cross-subsidize its competitive endeavors, thus permitting the regulated multiproduct firm to engage in predatory pricing in competitive markets, where its rivals lack the deep pockets of the RBOC, with its captive ratepayers.

If the local exchange becomes competitive, however, the ability of telephone companies to cross-subsidize other businesses disappears, as does any heightened risk of predation. The justification for the MFJ thus crumbles, and logic compels that the RBOCs be free to operate in any line of business, including long-distance markets. Kellogg, Thorne, and Huber believe that time has arrived. They argue, more explicitly in *Geodesic Network II* than in *Federal Telecommunications Law,* that the local exchange is no longer the monopoly bottleneck in the telephone system. There is now, or shortly will be, a competitive market for local access and switching. Firms like MFS and Teleport, known as competing access providers (CAPs) or alternative access providers (ALTs), have entered the most lucrative metropolitan markets and installed fiber-optic lines for carrying portions of the local traffic of large business customers, enabling them to avoid using the network of the local exchange carrier (LEC), which requires payment for "access."

Avoiding access charges is especially attractive to large business customers whose telephone traffic consists largely of long-distance calls.

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11. *Id.* at 1-2.

12. *Id.* at 199-248, 291-400.

13. *Id.* at 295-96, 327-28. In 1993, the United States Court of Appeals for the District of Columbia Circuit affirmed the lifting of the restrictions preventing the RBOCs from offering information services to their customers. United States v. Western Elec. Co., 993 F.2d 1572 (D.C. Cir. 1993). In 1992, the House Judiciary Committee approved H.R. 5096, the Antitrust Reform Act of 1992, which would have rewritten by statute all the MFJ's line-of-business restrictions, including the information-services restriction. H.R. 5096, 102d Cong., 2d Sess. (1992).

Suppose, for example, that someone at Citibank in Manhattan makes a long-distance call to Wells Fargo in San Francisco. NYNEX first carries that call from Citibank's office to AT&T's "point of presence" in Manhattan. After AT&T carries the call to its point of presence in San Francisco, the call can be carried by a competing access provider to its destination at Wells Fargo, enabling AT&T (and thus the caller) to avoid paying an access charge to Pacific Telesis, the LEC in San Francisco, for terminating the long-distance call by giving it interconnection to the local loop.

The incentive for users to economize on the cost of completing (and placing) their long-distance calls is substantial. Access charges paid by interexchange carriers to LECs were approximately $20 billion in 1991.[14] Since the publication of *Federal Telecommunications Law* in 1992, the FCC has issued several important orders establishing or proposing how the LECs must permit the CAPs to interconnect to the existing local network.[15]

Although Kellogg, Thorne, and Huber conclude that the local loop is or soon will be competitive, they argue provocatively that the interLATA long-distance market, where fiber-optic cable has replaced microwave transmissions as the means for transport, has become monopolistic. Interexchange, the authors assert, is the new bottleneck.[16] This assessment bucks the conventional wisdom, throwing down the gauntlet before AT&T, whose chairman claims that he has no monopoly over interLATA transport but that the RBOCs continue to have monopolies over local exchange.[17]

Ultimately, the competitiveness of the long-distance market is an

14. PETER W. HUBER, MICHAEL K. KELLOGG & JOHN THORNE, GEODESIC NETWORK II: 1993 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY 3.23 (1992) [hereinafter GEODESIC NETWORK II]; *see also id.* at 2.40-.41.

15. Expanded Interconnection with Local Telephone Company Facilities, Second Report and Order and Third Notice of Proposed Rulemaking, CC Dkt. Nos. 91-141, 80-286 (released Sept. 2, 1993) (adopting rules for expanded interconnection for switched access); Expanded Interconnection with Local Telephone Company Facilities, Second Notice of Proposed Rulemaking, 7 F.C.C.R. 7740 (1992) (proposing rules for expanded interconnection for switched access); Expanded Interconnection with Local Telephone Company Facilities, Report and Order and Notice of Proposed Rulemaking, 7 F.C.C.R. 7369 (1992) (adopting rules for expanded interconnection for special access services); Transport Rate Structure and Pricing, Report and Order and Further Notice of Proposed Rulemaking, 7 F.C.C.R. 7006 (1992) (addressing rate structure pricing under expanded interconnection).

16. GEODESIC NETWORK II, *supra* note 14, at 1.1-.44.

17. Robert E. Allen, Adam Smith and Telecommunications: A New Competitive Agenda, Address to the Federal Communications Bar Association and Practising Law Institute 4-5 (Dec. 3, 1992) (transcript on file with author). Even before the MFJ was implemented, economists questioned whether the entry observed in the long-distance market indicated competition or merely cream skimming in the face of regulated prices. *See, e.g.*, Paul W. MacAvoy & Kenneth Robinson, *Winning by Losing: The AT&T Settlement and Its Impact on Telecommunications*, 1 YALE J. ON REG. 1, 1, 9-10 (1983).

empirical question.[18] Though *Geodesic Network II* marshals volumes of facts, it unfortunately does not attempt to test econometrically various hypotheses of the effect of specific regulatory policies. In addition, one should bear in mind while considering this controversial argument by Kellogg, Thorne, and Huber that all three work for or represent one or more of the RBOCs, a fact which could potentially bias their views. Notwithstanding these limitations or caveats, *Federal Telecommunications Law* and *Geodesic Network II* powerfully frame in qualitative terms the adverse consequences likely to result from misregulating telephone companies.

B. The MFJ Reconsidered: The Bifurcation Rule

The MFJ's line-of-business restrictions rest on the economic prediction that when a rate-regulated monopolist enters a competitive market, it will underprice its rivals and drive them out of business. This result supposedly will obtain not because the monopolist is a more efficient producer of the unregulated product, but because it can shift some of the costs of producing that product to its rate-regulated activities, pad its rate base accordingly, and pass the cost along to its captive rate payers. Kellogg, Thorne, and Huber observe, however, that this prediction is controverted by the behavior of GTE, a telephone company comparable in size to any RBOC, which has operated as a multiproduct telecommunications firm in both rate-regulated and unregulated markets without producing the parade of horribles upon which the MFJ is predicated.[19] More fundamentally, as the authors document, in the decade since the AT&T divestiture was structured in 1982, the FCC and a majority of states have implemented some form of rate-freeze or price-cap regulation that diminishes or eliminates the incentive of the local exchange carrier to cross-subsidize inefficient or predatory activities in adjacent markets.[20]

1. Predation Versus Forgone Product Innovation

The MFJ's line-of-business restrictions emphasize the risk to consumers from cross-subsidization and predation, yet they ignore the forgone consumer surplus from services that the RBOCs would or might offer but for the restrictions. It is possible, however, that the expected

18. *See, e.g.*, Leonard Waverman, *U.S. Interexchange Competition*, *in* CHANGING THE RULES: TECHNOLOGICAL CHANGE, INTERNATIONAL COMPETITION, AND REGULATION IN COMMUNICATIONS 62, 72-94 (Robert W. Crandall & Kenneth Flamm eds., 1989).

19. FEDERAL TELECOMMUNICATIONS LAW, *supra* note 9, at 401-21. Although GTE is subject to its own antitrust consent decree, it is less restrictive than the MFJ. *Id.* at 401-21.

20. GEODESIC NETWORK II, *supra* note 14, at 2.49-.52. For discussion of strategic problems that can arise under price caps, see Ronald R. Braeutigam & John C. Panzar, *Effects of the Change from Rate-of-Return to Price-Cap Regulation*, 83 AM. ECON. REV. PAPERS & PROC. 191 (1993); Ronald R. Braeutigam & John C. Panzar, *Diversification Incentives Under "Price-Based" and "Cost-Based" Regulation*, 20 RAND J. ECON. 373, 387-90 (1989).

welfare loss from cross-subsidization and predation that might be unleashed by the RBOCs' entry into competitive markets is less than the expected welfare loss from denying or postponing consumers' access to new communications services that the RBOCs, because of economies of scope in information or research, might be able to introduce sooner than other firms could. This is a timely question to ask, because in July 1993 five of the seven RBOCs petitioned the FCC to announce the terms and conditions under which these companies could enter the interLATA market.[21]

Several RBOCs assert, for example, that "telemedicine" would significantly reduce certain health care costs for the public; they argue, however, that the development of such services is constrained by the MFJ's prohibition against RBOC transport of long-distance traffic across LATA boundaries. It is difficult to assess such a claim *ex ante.* From the limited anecdotal evidence, however, one cannot conclude that this kind of forgone consumer surplus is negligible. After the RBOCs were permitted to offer voice mail as an information service in 1988, for example, "the voice mail equipment market grew threefold and prices declined dramatically."[22]

To maximize social welfare, government policy concerning entry in telecommunications should aim to minimize the *sum* of welfare losses from predation and from new products forgone, rather than minimize the former without regard for the magnitude of the latter. The policy imperative should be to minimize the combined harm from monopoly and regulation while awaiting competitive, or contestable, local telephony. The same argument applies to an LEC's entry into cable-television programming in the same area where it provides telephone service—as opposed to mere transport of such programming in its service area, which is not forbidden by regulation or statute. For ease of exposition, however, I shall discuss line-of-business restrictions—and one generic alternative to them—simply in terms of the MFJ's current entry constraints on the RBOCs.

2. *Bifurcating Ownership and Control in the Unregulated Affiliate*

Even if the risk of cross-subsidy and predation by the RBOCs is deemed too high to justify vacating the MFJ, there may exist an equally efficacious alternative that is less restrictive than total prohibition of

21. *See* Petition for Rulemaking to Determine the Terms and Conditions Under Which Tier 1 LECs Should Be Permitted to Provide InterLATA Telecommunications Services (filed with the FCC July 15, 1993). The five RBOCs (Bell Atlantic, BellSouth Corp., NYNEX Corp., Pacific Telesis Group, and Southwestern Bell Corp.) are represented in the proceeding by Messrs. Kellogg and Huber, coauthors of *Federal Telecommunications Law.*

22. FEDERAL TELECOMMUNICATIONS LAW, *supra* note 9, at 396.

RBOC entry into certain unregulated markets. I call this alternative safeguard the "bifurcation rule."

The need for managerial control is the rationale offered by the RBOC for entering adjacent markets rather than sharing, through a confidential technology licensing agreement, its proprietary information with a separate firm that is not itself a local exchange carrier. Managerial control is necessary, the RBOC argues, in order to exploit fully its telecommunications knowledge. Under the bifurcation rule, an RBOC would be permitted to enter a prohibited market through a separate, publicly traded corporation having two classes of stock, one with voting rights but with a negligible claim to the affiliated corporation's residual net cash flows, the other with negligible (or no) voting rights but with a claim to virtually all the affiliate's residual net cash flows. While this capital structure would permit the RBOC to exercise management control over the unregulated affiliate, it nonetheless would constrain the RBOC's ability to benefit from cross-subsidization and predation. Regulators could cap the RBOC's percentage ownership of the affiliate's cash flows at any level, including one below fifty-one percent.[23]

Suppose that the unregulated firm tried to shift costs S to the rate-regulated activities of its parent RBOC so as to underprice efficient rivals in the unregulated market. Due to the ownership cap on cash flows, however, the RBOC would receive only some fraction x of the eventual monopoly profits M from such predation. Obviously, if x were less than 50%, most of the monopoly profits would enrich not the RBOC but the other holders of the reduced-voting (or nonvoting) stock, who could not be affiliated with the RBOC under the bifurcation rule. Moreover, there would be some probability p that the misallocation of costs to the RBOC would be detected and disallowed by regulators. If that happened, the RBOC's unregulated affiliate could then underprice efficient competitors only by sacrificing profit. Its likelihood of acquiring monopoly power would be no greater than it is for any unregulated firm seeking to monopolize any unregulated market through predatory pricing.

Under this condition of possible disallowal by regulators of misallocated costs, cross-subsidization by the RBOC would be deterred if

$$xM < pS,$$

or equivalently, if

$$p/x > M/S.$$

For any rational strategy of predation, the predator's expected monopoly profits must exceed its current profit sacrifice—that is, M must exceed

23. The efficiency justifications for separating ownership from control in the corporation are well understood. *See* FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 109-44 (1991); Eugene F. Fama & Michael C. Jensen, *Separation of Ownership and Control*, 26 J.L. & ECON. 301 (1983). Evidently, however, no literature examines how that separation might be used to improve regulatory regimes for natural monopolies.

S.[24] This condition implies that the right-hand side of the second inequality must always exceed one. The left-hand side of the inequality, therefore, must always exceed one as well. Consequently, x must always be less than p. In other words, the highest share of residual net cash flows (expressed as a percentage) that an RBOC could be permitted to own in the unregulated firm would have to be just less than the probability (also expressed as a percentage) that regulators would detect the misallocation of the unregulated firm's costs to the RBOC's rate-regulated business.

Rearranging terms in the second inequality shows that the optimal ceiling x^* to impose on an RBOC's ownership of the unregulated firm is

$$x^* < p/(M/S).$$

The principal usefulness of this result is heuristic and does not lie in the possibility that expert economists testifying in regulatory proceedings could derive x^* precisely by estimating the empirical magnitudes of p, M, and S. The third inequality reinforces our intuition about a basic qualitative relationship between regulation, cross-subsidy, and predation. The more confidence we have in regulators to detect cross-subsidization, the higher p will be; thus, without jeopardizing social welfare, the higher may be the ceiling on the RBOC's percentage ownership x^* of the residual net cash flows of an unregulated firm competing in a market into which the MFJ currently forbids the RBOC's entry. Conversely, the more plausible it appears that a strategy of predation would profit an RBOC entering an unregulated market—that is, the higher the value of the ratio M/S, the lower must be the ceiling on the RBOC's ownership of the affiliated firm in that market.

3. *Benefits and Costs of the Bifurcation Rule*

The bifurcation rule seems to be as efficacious as the MFJ's line-of-business restrictions in deterring cross-subsidy and predation. Yet, unlike the MFJ, the bifurcation rule would admit the possibility that significant benefits might accrue to at least some consumers, in the form of superior product innovation, from permitting an RBOC to enter the MFJ's forbidden markets. By permitting some consumers to be made better off, and none to be made worse off by subjecting them to the risk of cross-subsidy and predation, the bifurcation rule appears to be Pareto-superior to the MFJ's line-of-business restrictions. By the same reasoning, the bifurcation rule would appear to be Pareto-superior to *any* analogous line-of-business restriction, such as the cable-telco entry ban.[25]

24. Assume for ease of exposition that S and M are expected discounted present values, correctly computed, and that risk neutrality applies.

25. In 1992, the FCC granted an exception to the video cross-ownership prohibition, allowing a telephone company to own as much as five percent of a video programmer operating within the LEC's region. Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.5463.58,

The bifurcation rule also seems to be easier to administer than the MFJ has been. By requiring that both classes of stock in the unregulated firm be traded publicly on a national exchange, regulators could calibrate in a continuous rather than discrete manner the ceiling on the RBOC's ownership of the affiliate's cash flows. The calibration process would accommodate numerous iterations, if necessary, as regulators gradually acquired information about economic performance in the unregulated market—information that would have been impossible for them, or for the federal district court administering the MFJ, to have predicted before the RBOC actually entered the unregulated market in question. In contrast, the MFJ as of 1993 had yet to have its second triennial review, following its first such review in 1987.

If predation did erupt and divestiture of the RBOC's stake in the unregulated firm became necessary, that result could be accomplished swiftly by a court order that the RBOC sell its stock, a ready market for which would already exist on the New York Stock Exchange. That a court-ordered divestiture could be executed so expeditiously in the event of a finding of anticompetitive behavior would produce the incidental benefit of sharpening the RBOC's incentive to behave competitively in all respects in the unregulated market.

At one point in the FCC's lengthy attempt to demarcate the boundary between telecommunications (which is subject to the Communications Act) and computation (which is not), the agency ruled that a telephone company would be permitted to offer "enhanced" computer-related services only through a separate subsidiary.[26] This approach might appear to resemble the bifurcation rule. More recently, the federal district court administering the MFJ has authorized some limited entry by the RBOCs into prohibited businesses on a diluted equity basis.[27] This action also might seem to resemble the bifurcation rule.

Any resemblance between these regulatory provisions and the bifur-

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Second Report and Order, Recommendations to Congress, and Second Further Notice of Proposed Rulemaking, 7 F.C.C.R. 5781, 5801-02 ¶ 36 (1992). This ruling, however, does not bifurcate ownership and control, nor is it designed—as is the bifurcation rule—to adjust automatically to the increasing competitiveness or contestability of the market for local exchange.

26. Amendment to Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Final Decision, 77 F.C.C.2d 384, 457-63, *modified,* 84 F.C.C.2d 50 (1980), *further modified,* 88 F.C.C.2d 512 (1981), *aff'd sub nom.* Computer & Communications Indus. Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied,* 461 U.S. 938 (1983). The FCC later abandoned this approach. *See* Amendment to Sections [sic] 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Report and Order, 104 F.C.C.2d 958, 1011-12 (1986), *modified,* 2 F.C.C.R. 3035 (1987), *further modified,* 3 F.C.C.R. 1135 (1988); Amendment to Section 64.702 of the Commission's Rules and Regulations, Report and Order, 2 F.C.C.R. 3072 (1987), *modified,* 3 F.C.C.R. 1150 (1988), *further modified,* 4 F.C.C.R. 5927 (1989). For a thorough discussion of these decisions, known as *Computer II* and *Computer III* respectively, see FEDERAL TELECOMMUNICATIONS LAW, *supra* note 9, at 53768.

27. FEDERAL TELECOMMUNICATIONS LAW, *supra* note 9, at 378-79.

cation rule, however, would be superficial. Unlike the FCC's structural safeguards or the decree court's rulings, the bifurcation rule would explicitly rely on the unique ability of the capital market to acquire and process information, and to change the question of an RBOC's entry into an adjacent market from a question demanding a discrete, yes-no decision to one permitting a continuous decision that can be revisited and refined with little administrative burden. Moreover, the requirement that the affiliated corporation be traded publicly on a national exchange would introduce, through the fiduciary duties that the corporation's officers owe all its shareholders, a separate policing mechanism by which to detect management decisions that might violate the Communications Act or the antitrust laws.

To be sure, the bifurcation rule would have several costs. First, although some of the RBOC's proprietary insights and information would be embodied in the goods produced by the affiliated corporation over which it would exercise managerial control, the ownership cap would prevent the RBOC from capturing the entire value of those insights and information. The returns on the RBOC's exploitation of its technical knowledge through its control of the affiliated firm would face an implicit tax at the rate of 100 times $(1 - x^*)$ percent, before any explicit state or federal taxes. That is the percentage of the residual net cash flows that would accrue to shareholders other than the RBOC. Obviously, the higher this implicit tax, the less attractive it would be for the RBOC to invest in the affiliated corporation. Half a loaf may be better than none, but at a certain implicit tax rate the RBOC simply would decline to exploit commercially its valuable technological information. Its share of the returns from disclosing that information would be too meager.

A second cost of the bifurcation rule concerns the structure of executive compensation. Unlike the typical corporation, the affiliated corporation could not have a compensation structure for management that took full advantage of instruments, such as stock options, that are designed to be increasing functions of the corporation's residual net cash flows. Once a regulator had capped the RBOC's ownership in the affiliated corporation at x^*, the effect of incentive-based compensation provisions would be to raise x^* by some increment. This incremental increase would cause the RBOC's de facto ownership ceiling to be too high, because it would need to have imputed to it the ownership interests of the affiliate's senior managers, whom the RBOC would select and direct by virtue of its control over the affiliate. If that incremental increase were sufficiently small, this problem would be trivial in magnitude and would properly be ignored in light of the salutary effects of linking managerial compensation to firm performance. But the potential difficulties if the increment were large might require the regulator to review periodically

the nature and extent of executive compensation in the affiliated corporation. This difficulty would be mitigated, however, by the ready availability of that information, which would already be disclosed pursuant to the corporation's annual filings with the Securities and Exchange Commission.

A third cost of the bifurcation rule—perhaps the most significant—is that, despite its separation of ownership and control, bifurcation could still frustrate the exploitation of some economies of scope between the RBOC and its unregulated affiliates. This inefficiency could occur if the difficulty of complying with cost-allocation regulations, to which the RBOCs are subject under state and federal law, forced the affiliate to duplicate costs already incurred by the RBOC in the course of its local exchange business. Unfortunately, the more synergistic the regulated and unregulated activities, the more extensive would be the common fixed costs giving rise to this problem.

4. The Prognosis for Deregulation and Residual Regulation

Technological innovation and the prospect for lifting regulatory barriers to entry now expose at least some portions of the local exchange to competition from cable television systems, wireless telephony, and rival wireline systems. These developments may justify scrapping the MFJ's line-of-business restrictions altogether. On the other hand, if the force of this imminent competition is deemed to be too weak to justify that policy prescription, then the bifurcation rule, despite its various costs, would seem to be a Pareto-improvement over the line-of-business restrictions.

The key point is that great benefit can redound to the public interest from adopting regulatory rules for local telephony that adjust automatically as the market structure evolves from natural monopoly to perfect competition or perfect contestability. The bifurcation rule is one such example, but a more complete regulatory regime for the transition to competitive telephony must address pricing as well as entry. If, for example, certain parts of local telephony remain naturally monopolistic, how can regulators protect consumers against cross-subsidy, predatory pricing, and price discrimination? How should a local exchange carrier that is a natural monopoly in some activities be permitted to price necessary inputs it sells to its competitors in the market for the final telecommunications products? Professor William J. Baumol and I have proposed a framework to answer these questions.[28] Limitations of space permit only the general contour of our argument to be outlined here.

Economic efficiency should be the chief goal of telecommunications regulation. Deregulation is appropriate for competitive markets. For

28. BAUMOL & SIDAK, *supra* note 1.

noncompetitive markets, the theory of Ramsey pricing[29] provides useful guidance but is of limited practicability. The theory of perfect contestability provides the best competitive-market standard to guide regulation. This approach implies floors and ceilings for prices, which relate to marginal cost, average-incremental cost, and stand-alone cost. These prices prevent cross-subsidy, predatory pricing, and excess profits. Price-cap regulation further prevents cost inefficiency. For inputs sold to competitors (such as access to bottleneck facilities), average-incremental cost pricing is again appropriate, and care must be taken to include all relevant opportunity costs, including lost profits. Only then will incentives for efficient entry exist. Artificial entry barriers should be removed by requiring, among other things, interconnection on equal terms, unbundling, ending resale restrictions, and replacing line-of-business restrictions with less burdensome alternatives (to the extent that they are not eliminated entirely). The various elements of this policy prescription must be implemented jointly to achieve its salutary result for consumer welfare.

Like the pricing rules in our proposal, the bifurcation rule is designed to adapt automatically as local telecommunications services become increasingly competitive. The bifurcation rule will become superfluous, but innocuous, when the market for local exchange has become competitive or contestable.

III

THE METAMORPHOSIS INTO FULL-SERVICE NETWORKS

Just as the airline industry radically transformed itself from a web of point-to-point routes to the hub-and-spoke system following deregulation, the market for the transmission and switching of voice, data, and video information will undergo a radical metamorphosis if permitted by regulators to do so.[30] One plausible market structure is a series of firms

29. If it were feasible financially, economic welfare would be maximized by setting the price of each product equal to its marginal cost. If, because of scale economies, this set of prices yields revenues insufficient to cover the supplier's total cost, however, the prices must be modified for the goods to continue to be supplied by private enterprise. But every deviation of price from marginal cost creates some inefficiency—first, because it provides an incentive for consumers to switch to those goods whose prices are raised only modestly relative to their true marginal cost, and second, because every rise in price restricts demand by cutting into consumer purchasing power. Ramsey pricing denotes those second-best prices that are Pareto-optimal, subject to the requirement that they yield revenues sufficient to cover the total costs incurred by the supplier of the products in question. The damage to welfare is minimized if the firm's revenue shortfall is covered through smaller increases in the prices of the goods whose demands are elastic, and larger increases in the prices of goods whose demands are comparatively inelastic. *See* Frank P. Ramsey, *A Contribution to the Theory of Taxation*, 37 ECON. J. 47 (1927). For a review of the subsequent literature, see William J. Baumol, *Ramsey Pricing*, *in* 4 THE NEW PALGRAVE: A DICTIONARY OF ECONOMICS 49-51 (John Eatwell et al. eds., 1987).

30. The corporate governance of telecommunications firms is likely to change as well. For a fascinating analysis of how deregulation changed the corporate governance of airlines, see Stacy

or consortia having extensive vertical integration and economies of scope. Each such competitor will provide households, offices, and mobile users with both local and interexchange transmission, processing, storage, and switching of voice, data, and video. Kellogg, Thorne, and Huber call this rapidly evolving industry structure "the vertical reintegration that divestiture attempted to dismantle."[31] Depending on their current degree of regulatory handicap, telecommunications firms are approaching this common destination by vastly different routes.

In November 1992, McCaw Cellular Communications, the largest cellular telephone service provider in the United States, agreed to a one-third acquisition by AT&T, the largest interexchange carrier in the United States, and to grant AT&T the option to acquire eventual control of McCaw.[32] In August 1993, AT&T announced that it would exercise its option to acquire 100% of McCaw.[33] The merger in effect recreates for certain markets a more technologically advanced version of the former Bell System. A fiber-optic interexchange network will be joined at each end by a wireless version of the local exchange. The wireless access lines are, for the time being, still dependent on the LEC's wire-based local loop for switching. But the cost to AT&T and McCaw, which at the time of their merger announcement had combined assets of sixty-six billion dollars,[34] of installing their own switches would not seem insurmountable in relation to the likely benefits from creating their own wireless local exchange.

There are two logical pieces to add to this kind of full-service network. One is a competing access provider like Teleport or MFS, each of which has created its own fiber-optic network in major American cities for achieving local access to business customers for high-volume transmissions of voice and data. The second logical piece is a cable television multiple system operator (MSO), whose broadband network of lines into households provides more than enough capacity to deliver voice and data in addition to video. In the United Kingdom, where multichannel video programming is principally transmitted not by wire but by satellite to home receiver dishes, BT, formerly known as British Telecom and still the largest British telephone company, has expressed concern about the competitive threat posed by new cable television operators (in which American RBOCs have equity stakes), operators whose systems have enough bandwidth (transmission capacity) to provide telephone service

Kole et al., Deregulation and the Governance of Airlines (University of Pittsburgh, Katz Graduate School of Business, Working Paper 1993).

31. GEODESIC NETWORK II, *supra* note 14, at 1.38.

32. MCCAW CELLULAR COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 3.

33. John J. Kellee & Randall Smith, *AT&T Agrees to Buy McCaw Cellular in Stock Swap Valued at $12.6 Billion*, WALL ST. J., Aug. 17, 1993, at A3.

34. AMERICAN TELEPHONE & TELEGRAPH CO., 1992 ANNUAL REPORT 28 (1993); MCCAW CELLULAR COMMUNICATIONS, INC., 1992 ANNUAL REPORT 21 (1993).

as well as television service to residential users.[35] In January 1993, Time Warner, the second-largest MSO in the United States, announced that it will upgrade its cable television system in Orlando, Florida to be a full-service network capable of delivering video on demand in a manner technologically equivalent to offering an unlimited number of cable channels.[36] Further, by employing digital compression and advanced technologies for storage and switching, the system will provide interactive information services; such a system can offer conventional telephone service as well, if only permitted to do so by state and federal regulation. It is no coincidence, therefore, that TCI, Cox Enterprises, Continental Cablevision, and Comcast—four of the six largest MSOs—own the majority of Teleport, one of the two leading CAPs.

The seven RBOCS are also candidates to metamorphose into full-service networks. However, two regulatory constraints currently prevent their doing so. One is the MFJ's line-of-business restriction that prohibits an RBOC from transporting calls across LATA boundaries.[37] The second is the provision in the Cable Communications Policy Act of 1984 prohibiting a telephone company from providing video programming in its area of telephone service.[38] The practical impact of this second constraint is illustrated by Southwestern Bell's announcement in February 1993 that it will acquire the tenth-largest cable MSO, Hauser Communications, whose service areas all lie outside Southwestern Bell's areas of wireline telephone service.[39] Similarly, the acquisition by U S West of a twenty-five percent stake in Time Warner, which was announced in May 1993, will produce relatively little overlap between Time Warner's cable systems and U S West's regions of telephone service.[40] Short of vacating the MFJ and repealing the cable-telco entry

35. Raymond Snoddy, *BT Fears Rivalry From Cable Networks,* FIN. TIMES, Oct. 16, 1992, at 12; *see also* ELI NOAM, TELECOMMUNICATIONS IN EUROPE 120-21 (1992).

36. Johnnie L. Roberts & Mary Lu Carnevale, *Time Warner Plans Electronic "Superhighway,"* WALL ST. J., Jan. 27, 1993, at B1. Time Warner is a major supplier of entertainment software as well, producing motion pictures, recorded music, magazines, and books.

37. FEDERAL COMMUNICATIONS LAW, *supra* note 9, at 295-96 & n.9. For a discussion of the prohibitions on transmissions across LATAs and the extent of the exceptions, see *id.* at 295-314.

38. 47 U.S.C. § 533(b)(1) (1988). The prohibition was codified in the Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (1984), after having been the subject of an FCC regulation, 47 C.F.R. § 63.54, promulgated 14 years earlier in Applications of Telephone Companies for Section 214 Certificates for Channel Facilities Furnished to Affiliated Community Antenna Television Systems, Final Report and Order, 21 F.C.C.2d 307, *modified,* 22 F.C.C.2d 746 (1970), *aff'd sub nom.* General Tel. Co. v. United States, 449 F.2d 846 (5th Cir. 1971). *See generally* LELAND L. JOHNSON & DAVID P. REED, RESIDENTIAL BROADBAND SERVICES BY TELEPHONE COMPANIES? (1990).

39. Mark Robichaux & Mary Lu Carnevale, *Southwestern Bell Reaches Pact to Break Into Cable TV,* WALL ST. J., Feb. 10, 1993, at B1.

40. *Cable-Phone Link Is Promising Gamble: Time Warner Sees Synergy In Partnership,* WALL ST. J., May 18, 1993, at B1; *US West and Time Warner To Form Strategic Alliance,* WALL ST. J., May 17, 1993, at A3.

ban, how might the RBOCs achieve their metamorphosis into full-service networks?

One way is for the RBOCs to subdivide themselves voluntarily. In December 1992, the Pacific Telesis Group announced that it will split the company into two independently managed corporations in an untaxed distribution to shareholders. One corporation will conduct the regulated local telephone activities, and the other corporation, to which most of the senior management of the Pacific Telesis Group will migrate, will provide wireless services and engage in unregulated activities.[41] The spinoff should free PacTel Wireless of all the restrictions that RBOCs face under the MFJ, including the prohibition on interLATA service, as well as the statutory ban on telephone company entry into cable. PacTel Wireless soon could copy the AT&T-McCaw merger by acquiring or merging with one of AT&T's competitors in the interexchange market, such as MCI, Sprint, or LDDS. Of these three, Sprint (which includes the former United Telecom) merged in March 1993 with Centel, a telephone company not formerly part of the Bell System (and thus not governed by the MFJ) that is considerably smaller than any of the RBOCs and that has relatively few cellular operations.[42] The Pacific Telesis spinoff also will free PacTel Wireless of the statutory prohibition against entering the cable television business. The disadvantage of the PacTel spinoff, of course, is that it destroys any economies of scope that might exist between that telephone company's wireline services and the businesses that PacTel Wireless will be free to enter.[43]

A second way for the RBOCs to metamorphose into full-service networks is through strategic use of constitutional litigation. In December 1992, Bell Atlantic sued the United States, challenging on First Amendment and other constitutional grounds the lawfulness of the statutory prohibition against a telephone company providing video programming (that is, cable television) in its telephone service area.[44] This lawsuit may prove to be the most significant litigation in telecommunications law since the 1940s. With Professor Laurence Tribe and former Solicitor General Kenneth Starr as its advocates, Bell Atlantic is directly confronting one of the great embarrassments of contemporary constitu-

41. *See* PACIFIC TELESIS GROUP, 1992 SEC FORM 10-K, at 4-10; Mary Lu Carnevale, *Pacific Telesis Plan to Split Up Poses Challenges,* WALL ST. J., Dec. 14, 1992, at A3.

42. SPRINT CORP., 1992 ANNUAL REPORT 4 (1993).

43. Another possible rationale for the PacTel spinoff is to foreclose the California Public Utilities Commission from one day requiring a unified Pacific Telesis Group to subsidize its local exchange customers with profits from its rapidly growing wireless businesses.

44. Complaint for Declaratory Judgment & Injunctive Relief, Chesapeake & Potomac Tel. Co. v. United States, 1993 U.S. Dist. LEXIS 11822 (E.D. Va. Aug. 24, 1993) (No. 92-CV-1751-A) (filed Dec. 17, 1992). Mr. Thorne, coauthor of *Federal Telecommunications Law,* is a principal architect of the lawsuit.

tional jurisprudence: the inferior protection that the Supreme Court has afforded electronic speech under the First Amendment.

In August 1993, the United States District Court in Alexandria, Virginia sided with Bell Atlantic, ruling that the entry ban was unconstitutional both on its face and as applied to Bell Atlantic's specific circumstances.[45] As of this writing, the case is on appeal to the United States Court of Appeals for the Fourth Circuit. A subsequent appeal to the Supreme Court in 1994 or early 1995 seems inevitable.

IV
SPECTRUM, COMPETITION, DIVERSITY

Although *Federal Telecommunications Law* devotes comparatively little attention to wireless communication other than cellular telephony, mass communication by radio is also subjected to a regulatory paradigm predicated on the putative scarcity of the electromagnetic spectrum. That paradigm makes the regulation of telephony appear to be the epitome of rigor and dispassionate rationality. Although "[c]lose government regulation of the electronic media has historically been justified on the theory that over-the-air channels were scarce, and that landline media were monopolies," observe Kellogg, Thorne, and Huber, this "old regulatory preoccupation with segmentation and scarcity will soon be history; the debate will have turned to more important matters."[46] That day cannot arrive too soon if consumers are to be permitted the benefits of full-service networks and the wireless technologies that they will employ. The danger, however, is that Congress and the FCC will advance, and the courts will ratify, an onerous regulatory regime for the next generations of wireless telephony and of wireless multichannel video that borrows the worst elements of current broadcast regulation.

A. How the Government Underprices Spectrum to Ensure the Excess Demand That Purportedly Justifies Regulating Wireless Electronic Speech

The ostensible purpose of the first significant radio regulation in the United States was to minimize interference between rival radio broadcasters in the early 1920s who lacked a system of enforceable property rights in the electromagnetic spectrum. However, rather than permit private ownership of the spectrum, as New Zealand recently has done in effect,[47] Congress enacted legislation in 1927 to license the spectrum's

45. Chesapeake & Potomac Tel. Co. v. United States, 1993 U.S. Dist. LEXIS 11822 (E.D. Va. Aug. 24, 1993).

46. FEDERAL TELECOMMUNICATIONS LAW, *supra* note 9, at 75-76 (citation omitted).

47. *See* William Shew, *The Economics of Communication: Auctioning the Airwaves*, AM. ENTERPRISE, Sept./Oct. 1991, at 21, 22-23.

use.[48] Recent research by economist Thomas Hazlett, however, has shown that Congress fully understood in 1927 that a system of property rights in the broadcast spectrum was feasible.[49] Congress chose, however, to allocate spectrum through a political process rather than through markets, and it restricted competition by limiting the supply of frequencies available for radio broadcasting below the level then technically feasible.[50] Moreover, this federal regulation, which expressly preempted state law, was enacted three months after an Illinois court in November 1926 recoguized a broadcaster's common law property right to eject trespassers, by force of injunction, from the frequency on which it operated.[51]

The Federal Radio Commission, which became the FCC in 1934, erected an elaborate zoning system for the spectrum. By the early 1940s, though, the federal goverument's principal justification for regulating broadcasting had shifted away from preventing interference. The FCC and the Supreme Court, led by Justice Frankfurter, maintained that the spectrum was finite and that the agency had to regulate the structure of the communications industry in order to prevent a monopoly in the marketplace of ideas.[52] Today, promoting efficient spectrum use and preventing interference are a very small part of the FCC's agenda. Instead, the FCC has become a forum for rent-seeking under the guise of promoting "diversity of expression." As *Federal Telecommunications Law* explains with respect to the creeping regulation of cable television during the 1960s, the FCC has construed its jurisdiction broadly to reach unregulated firms enabled by new technologies to compete with the agency's existing clientele.[53]

In 1990, the Supreme Court held in *Metro Broadcasting, Inc. v. FCC* that the FCC did not violate the Equal Protection Clause of the Fourteenth Amendment by using racial preferences when awarding licenses to operate radio and television stations.[54] Apart from its significance as an

48. Radio Act of 1927, ch. 169, 44 Stat. 1162 (1927), *repealed by* Communications Act of 1934, ch. 652, § 602(a), 48 Stat. 1102 (current version at 47 U.S.C. §§ 151-613 (1988)).

49. *See* Thomas W. Hazlett, *The Rationality of U.S. Regulation of the Broadcast Spectrum*, 33 J.L. & ECON. 133, 158-63 (1990).

50. *Id.* at 152-58.

51. This case, Tribune Co. v. Oak Leaves Broadcasting Station (Cir. Ct., Cook County, Ill., Nov. 17, 1926), appears to be publicly available today only in the *Congressional Record*, where it was inserted in its entirety several weeks after being handed down. *See* 68 CONG. REC. 216, 219 (1926). For a discussion of *Oak Leaves*, see Hazlett, *supra* note 49, at 149-52.

52. The transformation began with Justice Frankfurter's opinion in FCC v. Pottsville Broadcasting Co., 309 U.S. 134, 137 (1940), and was complete with his opinion in National Broadcasting Co. v. United States, 319 U.S. 190, 215-17 (1943); *see also* Associated Press v. United States, 326 U.S. 1, 20 (1945) (Black, J.); FCC v. Sanders Bros. Radio Station, 309 U.S. 470, 474 (1940) (Roberts, J.).

53. FEDERAL TELECOMMUNICATIONS LAW, *supra* note 9, at 86, 695-96.

54. 497 U.S. 547, 579-601 (1990). *See generally* Neal Devins, Metro Broadcasting, Inc. v. FCC: *Requiem for a Heavyweight*, 69 TEX. L. REV. 125 (1990).

affirmative action decision, *Metro* was important for a reason that escaped notice: it indicated that the Supreme Court and the FCC were willing to continue using specious scientific and economic arguments to justify denying the electronic media the full protection of the First Amendment. "Safeguarding the public's right to receive a diversity of views and information over the airwaves is therefore," because of the state of the Court's understanding of spectrum scarcity, "an integral component of the FCC's mission."[55] Without any consideration of how the technology of telecommunications might have advanced since 1969 in such a way as to undercut the scarcity rationale, the Court quoted its opinion issued that year in *Red Lion Broadcasting Co. v. FCC:* "Because of the scarcity of [electromagnetic] frequencies, the Government is permitted to put restraints on licensees in favor of others whose views should be expressed on this unique medium."[56] Thus the Court had no difficulty concluding, in the jargon of judicial review, that "the interest in enhancing broadcast diversity is, at the very least, an important governmental objective."[57]

As an initial matter, "diversity of expression" is a remarkably vague objective for the United States government to pursue, considering that it directly touches freedom of speech. Sometimes the phrase connotes diverse ownership (but not *too* diverse, lest foreigners speak to us and fill our heads with foreign ideas[58]). At other times, it connotes a nannyish concern that listeners and viewers receive their recommended daily amount of various intellectual and cultural nutrients—the informational equivalent of the USDA listings found on the sides of cereal boxes. At still other times, "diversity of expression" is a shorthand for the underwhelming argument, seldom expressly articulated, that diverse content can result *only* from the diverse ownership of media companies (and hence the diverse control of FCC licenses).

All of this ignores a basic point: a government-approved menu of diverse programming is something less than freedom of speech. If "Congress shall make no law . . . abridging the freedom of speech, or of the press,"[59] how can it be the federal government's "important" function to judge whether electronic speech is sufficiently diverse? It is a formidable abridgment of speech when the government confers or withholds

55. *Metro,* 497 U.S. at 567.

56. *Id.* at 566-67 (quoting Red Lion Broadcasting Co. v. FCC, 395 U.S. 367, 390 (1969) (bracketed word added by *Metro* Court)). Justice White, author of *Red Lion,* was evidently the swing vote in *Metro,* a 5-4 decision. Devins, *supra* note 54, at 125 n.6.

57. *Metro,* 497 U.S. at 567.

58. *See* 47 U.S.C. § 310(b) (1988) (establishing foreign ownership restrictions in Communications Act); Telemundo, Inc. v. FCC, 802 F.2d 513 (D.C. Cir. 1986) (invoking foreign ownership restrictions to oppose participation by Mexican citizens in ownership and control of Spanish-language television stations in southwestern United States).

59. U.S. CONST. amend. I.

a person's opportunity to engage in electronic speech depending on whether his message or other lines of business comport with the government's preferred conception of "diversity." Only a Panglossian would suppose that an agency as politicized as the FCC would arrive at a definition of "diversity of expression" that was truly neutral with respect to content.

On engineering grounds, the spectrum-scarcity premise of *Metro, Red Lion,* and their predecessors is untenable. To the extent that it exists, the scarcity resulting from the finite supply of spectrum at any given moment is a problem that diminishes over time. The dynamic, as opposed to static, supply of useable spectrum depends on the state of communications technology, including the precision (and hence the cost) of transmitters and receivers. At any point in time, we could have more "diversity" if we were willing to pay the higher price to produce television sets with more demanding specifications, or if we were willing to degrade the quality of radio transmissions somewhat by assigning more broadcast licenses in a given region. Spectrum becomes less scarce whenever new technologies permit transmissions to be packed more densely into a given bandwidth (whether transmitted by radio or wire) or to be transmitted by radio at higher frequencies that are generally considered to be less desirable. In December 1992, TCI, the largest cable MSO in the United States, announced that it will use digital compression to offer its subscribers 500 cable channels by 1994.[60] Similar digital-compression technology already developed by companies such as General Instrument and Scientific-Atlanta permits a dozen motion pictures to be transmitted simultaneously in the bandwidth currently used by a single over-the-air television signal. It is startling indeed to think that the scope of the First Amendment's protection of wireless electronic speech—so critical for the development of wireless telephony and wireless multichannel video, such as direct broadcast satellite service, "wireless cable," and local multipoint distribution service—could hang on a basic misconception of electrical engineering that could be corrected if the justices were to peruse a random issue of *Broadcasting and Cable* magazine.

For a moment, however, assume counterfactually that not a single engineering breakthrough had been achieved in the spectral efficiency of radio transmission since 1934. The scarcity thesis still would be legally untenable because it relies on specious economic reasoning. All valuable goods are scarce. That is why the price of a product is almost always a positive number. Newsprint has a positive price because it too is scarce, but that characteristic in no way justifies regulating who may own a newspaper or what he may say in it, even if the newsprint is made from the pulp of trees harvested from federal forest land.

60. Edmund L. Andrews, *A Cable Vision (or Nightmare): 500 Channels,* N.Y. TIMES, Dec. 3, 1992, at A1.

There is nothing new about this reasoning. Nobel laureate Ronald Coase had this insight in a famous article in 1959.[61] Judge Robert Bork articulated it succinctly for the FCC's benefit in a decision for the U.S. Court of Appeals for the D.C. Circuit in 1986.[62] And scholars in law, economics, and engineering before and since have explained the reasoning in exhausting detail.[63] Still, the Supreme Court and the FCC continue to ignore such logic—no doubt because it calls into question the constitutionality of virtually everything that the FCC does.

More damning is that neither the Court nor the FCC acknowledges that the putative scarcity of spectrum has resulted from the federal government acting as agent provocateur: it hardly justifies regulating the structure of the telecommunications industry that we observe excess demand for valuable spectrum when the FCC gives it away for free.[64] We would witness the same excess demand today if the federal government conveyed the Presidio in San Francisco to homesteaders, or, more to the point, if newsprint could be acquired ouly from the government, and the government gave it away for free. The government's refusal to allocate spectrum at its market-clearing price is thus not merely an act of economic folly and fiscal malfeasance. It is, more significantly, an act whose effect, if not its express purpose, is to justify and ensure the need for pervasive and enduring regulation.

At long last, Congress has revealed that the scarcity or abundance of spectrum has been a red herring all along. The 1992 Cable Act now regulates pricing, horizontal and vertical integration, program access,

61. R.H. Coase, *The Federal Communications Commission,* 2 J.L. & ECON. 1, 14 (1959).

62. Telecommunications Research & Action Ctr. v. FCC, 801 F.2d 501, 508 (D.C. Cir. 1986).

63. *See, e.g.,* ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 188-90 (1988); DE SOLA POOL, *supra* note 8, at 236-37; EMORD, *supra* note 8, at 281-85; DOUGLAS H. GINSBURG, REGULATION OF BROADCASTING 58-61 (1979); HARVEY J. LEVIN, THE INVISIBLE RESOURCE: USE AND REGULATION OF THE RADIO SPECTRUM 111-12 (1971); BRUCE M. OWEN, ECONOMICS AND FREEDOM OF EXPRESSION: MEDIA STRUCTURE AND THE FIRST AMENDMENT (1975); RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 672-74 (4th ed. 1992); LUCAS A. POWE, JR., AMERICAN BROADCASTING AND THE FIRST AMENDMENT 199-209 (1987); MATTHEW L. SPITZER, SEVEN DIRTY WORDS AND SIX OTHER STORIES (1986); Arthur S. De Vany et al., *A Property System for Market Allocation of the Electromagnetic Spectrum: A Legal-Economic-Engineering Study,* 21 STAN. L. REV. 1499 (1969); Jonathan W. Emord, *The First Amendment Invalidity of FCC Ownership Regulations,* 38 CATH. U. L. REV. 401 (1989); Hazlett, *supra* note 49, at 137; William T. Mayton, *The Illegitimacy of the Public Interest Standard at the FCC,* 38 EMORY L.J. 715, 718-19 (1989); Jora R. Minasian, *Property Rights in Radiation: An Alternative Approach to Radio Frequency Allocation,* 18 J.L. & ECON. 221 (1975); Daniel D. Polsby, *Candidate Access to the Air: The Uncertain Future of Broadcaster Discretion,* 1981 SUP. CT. REV. 223, 255-62; Matthew L. Spitzer, *The Constitutionality of Licensing Broadcasters,* 64 N.Y.U. L. REV. 990 (1989); Matthew L. Spitzer, *Controlling the Content of Print and Broadcast,* 58 S. CAL. L. REV. 1349, 1358-64 (1985); Leo Herzel, Comment, *"Public Interest" and the Market in Color Television Regulation,* 18 U. CHI. L. REV. 802 (1951); Abbott B. Lipsky, Jr., Note, *Reconciling* Red Lion *and* Tornillo: *A Consistent Theory of Media Regulation,* 28 STAN. L. REV. 563, 575-79 (1976).

64. Thomas Hazlett estimates that, in 1985 dollars, the capitalized value of the forgone economic rents from the FCC's grant of licenses for 492 VHF and 177 UHF television stations as of 1975 was $17.2 billion. Hazlett, *supra* note 49, at 135 tbl. 1.

mandatory carriage of programming, service quality, license renewal, and immunity from antitrust damages for municipalities that preserve cable monopolies to the detriment of their citizenry. Some of these provisions might improve consumer welfare; others more likely will not.[65] But *none* can be predicated on spectrum scarcity, for cable is a wireline medium. Nonetheless, the new law engrafts onto an entirely different technology various public-trustee obligations of broadcast regulation[66] that were not even codified in the original Communications Act, but rather were the accretion of six decades of freewheeling agency discretion. Ironically, these public-interest obligations even extend to direct broadcast satellite service,[67] a potential competitor of cable television and over-the-air broadcasting which was not even operational in the United States when the 1992 Cable Act was enacted. "Diversity of expression," that ubiquitous desideratum in the federal regulation of electronic speech, is thus revealed to be a euphemism for goverument's appetite to control resource allocation in the telecommunications industry: government must regulate telecommunications not because it peculiarly involves a common resource whose efficient use demands collective action, but because the dynamism of this mammoth industry has the potential to touch so many facets of life.

The same dynamism that can revolutionize everyday life also can produce spectacular winners and losers in the marketplace. To those inclined toward public choice theory, it should be no surprise that "diversity of expression" is invoked conveniently by suppliants before the FCC begging advantage for themselves and disadvantage for their would-be competitors. The FCC's inflexible zoning system for the spectrum is an outrageous example, but one probably not familiar even to most Washington regulatory lawyers. It impedes the deployment of this valu-

65. From an economic perspective, cable television presents at least three interesting economic questions. First, is cable television a natural monopoly and, if so, should it therefore be provided pursuant to explicit or *de facto* exclusive franchises awarded by local governments? *See* Thomas W. Hazlett, *The Demand to Regulate Franchise Monopoly: Evidence from CATV Rate Deregulation in California,* 29 ECON. INQUIRY 275 (1991); Thomas W. Hazlett, *Duopolistic Competition in Cable Television: Implications for Public Policy,* 7 YALE J. ON REG. 65 (1990); Thomas W. Hazlett, *Private Monopoly and the Public Interest: An Economic Analysis of the Cable Television Franchise,* 134 U. PA. L. REV. 1335 (1986). Second, what are the implications for consumer welfare of vertical integration by cable franchisees into the assembling of cable programming? *See* David Waterman & Andrew A. Weiss, Vertical Integration in Cable Television (July, 1993) (draft monograph prepared for the American Enterprise Institute). Third, to what extent do eable television operators face competition from other delivery technologies, and should telephone companies in particular be permitted to provide video programming services within their areas of local exchange carriage? *See* JOHNSON & REED, *supra* note 38; Leland L. Johnson, Competitive Alternatives to Cable Television: What Does the Future Hold? (1993) (draft monograph prepared for the American Enterprise Institute). The 1992 Cable Act addresses parts of the first two questions but neglects the third. *See* Thomas W. Hazlett, *Why Your Cable Bill Is So High,* WALL ST. J., Sept. 24, 1993, at A10.

66. 47 U.S.C.A §§ 521-559 (West 1991 & Supp. 1993).

67. 47 U.S.C.A. § 335 (West Supp. 1993).

able resource to its highest-valued use, impairs the mobility of capital and labor, slows the introduction of new technologies, and acts as a generic barrier to entry into any communications service requiring spectrum. In short, it creates economic rents for those fortunate enough to hold FCC licenses already. In the typical case, a new service is allotted spectrum and individual firms are licensed. The FCC, however, then limits output of the new service in any one of several ways: by limiting the available spectrum; limiting the number of eligible licensees; following licensing procedures that delay the entry of new competitors; or "freezing" the grant of new licenses in order to stockpile spectrum for some as-yet unavailable technology. It is a notorious fact, for example, that the first order of business for the Federal Radio Commission in 1927 was to reduce the output of radio broadcasts by forcing nearly one hundred radio stations off the air.[68] A half century later, the decade-long delay in the allocation of spectrum for mobile cellular telephony, it is estimated, cost at least eighty-six billion dollars in lost consumer welfare.[69]

Moreover, when a new technology emerges that renders the original spectrum use obsolete, the FCC is slow to reallocate the spectrum to more highly valued uses and, more likely, seeks to perpetuate its generation of economic rents by expanding its jurisdiction over the new substitute technology. By the late 1990s, when cable systems will be offering consumers hundreds of chanuels and telephone companies might be operating a vibrant video-on-demand business, large chunks of spectrum used at present for television broadcasting in metropolitan markets probably will be more valuable in an alternative service, such as mobile cellular telephony. Yet, the FCC's current zoning plan for spectrum does not permit a television broadcaster simply to change the service provided on his licensed frequency in the same way that a piece of land might be rezoned from residential to commercial use. To rezone that chunk of television spectrum would require a rulemaking proceeding and very likely would result in a comparative hearing to select a licensee proposing to offer the new service. Spectrum worth billions of dollars would be tied up in legal battles for years. If, on the other hand, television broadcasters could redeploy the spectrum already licensed to them, we would see no resistance from these current licensees to putting such spectrum to optimal use.

Congress should replace the FCC's inflexible system of spectrum licensing with a simpler system under which a private party could own outright specific portions of spectrum and could freely transfer his own-

68. *See* 1927 FRC ANN. REP. 16 (1927); Hazlett, *supra* note 49, at 167-68.

69. JEFFREY H. ROHLFS ET AL., ESTIMATE OF THE LOSS TO THE UNITED STATES CAUSED BY THE FCC'S DELAY IN LICENSING CELLULAR TELECOMMUNICATIONS 1 (National Economic Research Assocs., 1991).

ership interest to another party. Congress took an important first step in this direction in August 1993; as part of the Clinton administration's deficit-reduction package, it enacted legislation authorizing the FCC to auction rights to a limited amount of spectrum for personal communications services (PCS).[70] And on September 23, 1993, the FCC announced its decision to subdivide a bloc of unallocated spectrum according to a plan that would permit licenses for seven new wireless services to be auctioned for every metropolitan area in the United States.[71] Far more remains to be done, however. This new agency authority to auction spectrum for PCS does not extend to television or more advanced forms of multichannel video. Nor does the enabling legislation make it any easier for the FCC to permit a licensee to redeploy spectrum to a higher-valued use in a different radio service. Although a market-oriented system might employ auctions to allocate new spectrum or reallocate old, the recent political debate—and current celebration—over spectrum auctions for PCS is distinct from the question of how to define private rights to spectrum. Indeed, as the FCC's recent PCS order illustrates, auctions cannot be held *until* the rights to be exchanged have been defined with sufficient specificity for parties to ascertain the value of such rights.[72]

Private ownership—or at least licenses that emulated the key attributes of private ownership—would expedite the transition to more efficient spectrum uses and would moreover, give electronic speech the same independence from government meddling that printed speech enjoys. If it is not politically feasible to grant fee simples in the spectrum, Congress should resort to long-term leases like those permitted for federal lands under the Mineral Leasing Act of 1920.[73] The relevant question of spectrum scarcity would then be properly framed: how scarce is spectrum that can be flexibly used, readily transferred, and for the use of which the government directly charges a periodic fee (or capitalized purchase price) reflecting the best estimate of the resource's true opportunity cost?

B. The First Amendment Case for Interpreting "Diversity of Expression" Coextensively with the Antitrust Laws

In 1983, the Supreme Court established in *FCC v. League of Women Voters of California*[74] that governmental restrictions on the content of broadcast speech are permissible only if "narrowly tailored to further a

70. Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002, 107 Stat. 312, 387-96 (1993) (creating 47 U.S.C. § 309(j)).

71. Edmund L. Andrews, *U.S. Lays Out Rules for a Big Auction of Radio Airwaves*, N.Y. TIMES, Sept. 24, 1993, at A1.

72. For a survey of the literature on spectrum auctions, see CONGRESSIONAL BUDGET OFFICE, AUCTIONING RADIO SPECTRUM LICENSES 11-22 (1992).

73. 30 U.S.C. §§ 181-287 (1988).

74. 468 U.S. 364 (1984).

substantial governmental interest."[75] In contrast, regulations that ostensibly address only the economic structure of the broadcasting industry have, until relatively recently, been scrutinized under the "minimum rationality" standard, such that the relevant constitutional question for judicial review under the First Amendment is whether a "rational" relationship (as opposed to a "narrowly tailored" relationship) exists between the structural regulation and some "legitimate" governmental interest (as opposed to a "substantial" government interest).

In particular, the FCC has argued that minimum rationality is the correct standard for judicial review of that agency's economic regulation of the wireless mass media under the First Amendment. We can only assume that the FCC will make the same argument concerning wireless telephony or wireless multichannel video when the question inevitably arises.

In 1987 in *Syracuse Peace Council,*[76] the FCC abolished the fairness doctrine, which imposed on broadcasters "an affirmative obligation to cover vitally important controversial issues of interest in their communities" and "obligated [them] to provide a reasonable opportunity for the presentation of contrasting viewpoints on those controversial issues of public importance that are covered."[77] The Commission concluded that the doctrine deterred controversial speech by broadcasters, and that the purported scarcity of the electromagnetic spectrum could not justify regulating the content of the broadcast press.[78] The FCC, however, immediately qualified this rationale by asserting that its inability to regulate content did not imply a similar inability to regulate the market structure of the broadcasting industry:

> [T]he fact that government may not impose unconstitutional conditions on the receipt of a public benefit does not preclude the Commission's ability, and obligation, to license broadcasters in the public interest, convenience and necessity. The Commission may still impose certain conditions on licensees in furtherance of this public interest obligation. Nothing in this decision, therefore, is intended to call into question the validity of the public interest standard under the Communications Act.[79]

The FCC soon eliminated any remaining doubt as to its understanding of the limited scope of the First Amendment. In Rupert Murdoch's celebrated case, *News America Publishing, Inc. v. FCC,*[80] the agency argued that *Syracuse Peace Council* rested narrowly on the "conclusion . . . that

75. *Id.* at 380.

76. Syracuse Peace Council, 2 F.C.C.R. 5043 (1987), *aff'd on narrower grounds,* 867 F.2d 654, 656 (D.C. Cir. 1989), *cert. denied,* 493 U.S. 1019 (1990).

77. *Id.* at 5058 n.2.

78. *Id.* ¶¶ 73-80, at 5054-55.

79. *Id.* ¶ 81, at 5055.

80. 844 F.2d 800 (D.C. Cir. 1988).

scarcity did not justify *content* regulation," and that the decision was therefore irrelevant to "*structural* regulation of ownership requirements,"[81] such as the newspaper-television cross ownership rule invoked against Murdoch.[82]

The D.C. Circuit's decision in *News America,* written by Judge Stephen Williams, intellectually devastated the FCC's claim that structural broadcast regulation should automatically receive a less intense standard of judicial review than content regulation. Even content-neutral FCC regulations that purport to address solely matters of market structure must be scrutinized "under a test more stringent than the 'minimum rationality' criterion typically used for conventional economic legislation under equal protection analysis."[83] Judge Williams characterized broadcast regulation as a continuum, such that ostensibly structural regulations can have the practical effect of restricting broadcasters' freedom of speech: "Clearly one can array possible rules on a spectrum from the purely content-based (e.g., 'No one shall criticize the President') to the purely structural (e.g., the cross-ownership rules themselves)."[84] Along that continuum, a structural prohibition may be "structural only in form," revealing "well recognized ambiguities in the content/structure dichotomy."[85] *News America,* therefore, repudiated the FCC's assertion that structural regulation is qualitatively different from content regulation. Instead, the decision implied what some economists long had argued: economic freedom and freedom of speech are inextricably linked.[86]

This more demanding standard of judicial review under the First Amendment eventually will topple the fallacy of spectrum scarcity and, with it, the many statutes and FCC regulations artificially constraining the structure of the telecommunications industry in the name of promoting diversity of expression. Strictures destined for extinction include the newspaper-television cross ownership rule involved in *News America;*[87] the statutory prohibition on a telephone company's provision of video programming within its area of telephone service;[88] the regulatory barrier to cross-ownership of a television network and a cable television sys-

81. Brief for the Federal Communications Commission at 20, News Am. Publishing, Inc. v. FCC, 844 F.2d 800 (D.C. Cir. 1988) (No. 88-1037).

82. *See* 47 C.F.R. § 73.3555(c) (1992).

83. *News America,* 844 F.2d at 802; *see also id.* at 814.

84. *Id.* at 812.

85. *Id.* (citing Geoffrey R. Stone, *Restrictions of Speech Because of Its Content: The Peculiar Case of Subject-Matter Restrictions,* 46 U. CHI. L. REV. 81 (1978)).

86. *See* OWEN, *supra* note 63, at 21-24, 26-28; R.H. Coase, *The Market for Goods and the Market for Ideas,* 64 AM. ECON. REV. PAPERS & PROC. 384 (1974); Aaron Director, *The Parity of the Economic Market Place,* 7 J.L. & ECON. 1, 3-7 (1964). *See generally* Thomas G. Moore, *An Economic Analysis of the Concept of Freedom,* 77 J. POL. ECON. 532 (1969).

87. 47 C.F.R. § 73.3555(c) (1991).

88. 47 U.S.C. § 533(b)(1) (1988).

tem;[89] the foreign ownership restrictions in the Communications Act;[90] the financial interest and syndication rules restricting television network entry into program production and ownership;[91] and regulations limiting the horizontal scale of a television or radio broadcasting firm (and thus limiting its ability to enter new markets without divesting itself of existing stations).[92] Each of these regulatory policies rests ostensibly on the rationale that, to promote "diversity of expression," government must allocate spectrum and regulate the industrial organization of telecommunications markets in a manner that is not neutral with respect to the identity and message of the person licensed to speak.

If one used the consumer-welfare model from antitrust law as a guide, however, these barriers to market entry, to vertical integration, and to the efficient exploitation of economies of scale and scope would be condemned as unreasonable restraints of trade if produced by the private agreement of competitors rather than by government fiat. Judge Posner recently reflected on this anomaly in his decision for the Seventh Circuit invalidating the FCC's financial interest and syndication rules—the "finsyn" rules, as they are known in Beltway lingo—which, at the behest of the motion picture studios, regulate the ability of the television networks to own television programming, especially the rights to reruns of popular syndicated prime-time shows:

> If the Commission were enforcing the antitrust laws, it would not be allowed to trade off a reduction in competition against an increase in an intangible known as "diversity." Since it is enforcing the nebulous public interest standard instead, it is permitted, and maybe even required, to make such a tradeoff—at least we do not understand any of the parties to question the Commission's authority to do so. And although as an original matter one might doubt that the First Amendment authorized the government to regulate so important a part of the marketplace in ideas and opinions as television broadcasting, the Supreme Court has consistently taken a different view.[93]

It need not be so, however. It is hard to believe that the First Amendment or the public-interest standard of the Communications Act *commands* the government to pursue "diversity of expression." And, if

89. 47 C.F.R. § 76.501(a) (1992).

90. 47 U.S.C. § 310(b) (1988).

91. 47 C.F.R. § 73.658(j) (1990). *But see* Schurz Communications, Inc. v. FCC, 982 F.2d 1043 (7th Cir. 1992) (vacating the "finsyn" rules of § 73.658(j) as arbitrary and capricious and remanding to the FCC); Evaluation of the Syndication and Financial Interest Rules, Second Report and Order, 8 F.C.C.R. 3282 (1993) (MM Dkt. No. 90-162) (eliminating most finsyn rules).

92. *See* 47 C.F.R. § 73.3555(d) (1992).

93. *Schurz*, 982 F.2d at 1049 (citing FCC v. National Citizens Comm. for Broadcasting, 436 U.S. 775 (1978); FCC v. Pacifica Found., 438 U.S. 726 (1978); NBC v. United States, 319 U.S. 190, 226-27 (1943)).

the FCC were to construe the Act to permit (or even require) a narrower, less anomalous interpretation of "diversity of expression," it is hard to believe that the federal courts would dispute that exercise of agency discretion.[94]

I therefore make the following proposal: The FCC should construe diversity of expression to be an objective coextensive with the antitrust laws' goal of maximizing consumer welfare by promoting competition in the markets for goods and services. To the extent that the government interprets diversity of expression more broadly than this, the regulation embodying that policy objective should be subjected to strict scrutiny upon judicial review. A government regulation, even one dressed up in the cheerful promise to make electronic speech more diverse, must be scrutinized not according merely to its stated purpose, but according to its actual effect on restricting liberty. For as long as the FCC persists in enforcing structural regulations that engender obvious and egregious social costs, *News America* counsels us to question whether a particular regulation serves an ulterior purpose that is neither a benign nor a legitimate exercise of government authority over electronic speech; to explore whether a "narrowly tailored" relationship exists between the purported objectives of that regulation and the means by which those objectives are pursued; and to demand that the government employ the least restrictive means to achieve the regulation's purpose.

CONCLUSION

In 1924, when the novelty of radio broadcasting captivated the nation, it seemed to chagrin the Commerce Department to concede that it was not in control of the situation:

> The broadcast listener is an unknown quantity. Dependable figures indicating the number of persons deriving pleasure and benefit from this new and fascinating service can not be furnished. Its effect can not be forecast, nor its value estimated. An accurate expression of its views is unobtainable.[95]

Rather than marvel at the spontaneous order created by the new technology of radio, the federal government promptly regulated it. Ever since, there has been a race between technology and the regulator. Our greatest cause for thanksgiving should be that a Federal Computer Commission never came into existence.

But technology now appears to be pulling away. The regulator's impulse to control each "new and fascinating service" that emerges is constrained by the utter impossibility of the task. One reason why

94. *Cf.* Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984).

95. COMMISSIONER OF NAVIGATION, 1924 ANNUAL REPORT TO THE SECRETARY OF COMMERCE 22 (1924).

Federal Telecommunications Law is so impressive is that Kellogg, Thorne, and Huber resolved to write it in the full knowledge that the changes occurring in the telecommunication industry would necessitate revising their treatise within weeks of publication.[96] Indeed, in this essay almost all the examples of technological breakthroughs and of economic transformation have occurred *since* the publication of *Federal Telecommunications Law.*

And the most momentous of these developments has occurred just as this essay goes to press: the merger of Bell Atlantic and TCI.[97] This combination will accelerate the pace of Bell Atlantic's entry into video. But more important, it will place Bell Atlantic in direct competition with the six other RBOCs (as well as GTE and the other LECs) for the provision of local telephone service. By adding two-way voice traffic and switching capabilities to TCI's numerous cable television systems in major metropolitan markets throughout the United States, Bell Atlantic will convert those systems into local telephone networks. For this reason, the transaction may well prove to be a turning point as important as the AT&T divestiture of a decade ago. It may inject the very competition in local telephony, the absence of which has long been the justification offered for keeping the RBOCs in a regulatory straightjacket.

The Bell Atlantic-TCI merger thus exemplifies what *Federal Telecommunications Law* so effectively conveys. Despite the salutary effects that one can expect the Bell Atlantic-TCI merger to produce for consumer welfare, the transaction was unexpected; its announcement stunned even the most prescient industry analysts. It is also, notably, a policy prescription unlikely ever to have been dispensed by politicians and regulators who regard themselves as better equipped than the market to direct the development of the telecommunications industry.

Kellogg, Thorne, and Huber have presented a compelling case that the central lesson of seven decades of American telecommunications regulation is that government cannot ordain how the technologies of freedom shall evolve. Rather than continue that futile task at this late date, regulators should let the walls come tumbling down and permit the consumers on whose behalf they regulate to savor the benefits of competition and technological innovation.

96. This Sisyphean task, incidentally, the authors have committed to undertake not only by publishing periodic supplements to their treatise, but also by beginning a second volume concerning the electronic mass media.

97. *See Bell Atlantic and TCI Are Poised to Shape New Interactive World*, WALL ST. J., Oct. 14, 1993, at A1.