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**First Principles for an Effective Rewrite of the
Telecommunications Act of 1996**

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Executive Summary

The increasing centrality of the Internet in modern communications, together with massive changes in the landscape of the telecommunications market, have intensified the calls for Congress to overhaul the Telecommunications Act of 1996. In this paper, we analyze this looming legislative challenge by dividing it into two sets of issues: first, issues concerning the proper *substance* of telecommunications policy reform; and, second, issues concerning the appropriate *institutions* for carrying out that reform. In Part I, we argue that Congress should require regulators to adhere more closely to (and justify departures from) basic antitrust principles in developing the substance of competition policy. In particular, we explore how those principles would have brought greater predictability and analytical rigor to the FCC's implementation of statutory provisions requiring incumbent telephone providers to lease parts of their networks to competitors. Moreover, we explain how antitrust principles can now inform the current debate over whether to regulate broadband platforms to prevent discrimination against independent providers of applications like voice over Internet protocol.

In Part II, we turn to Congress's institutional choices in reforming telecommunications regulation. Despite our advocacy for antitrust-oriented rules of decision, we argue for a continued reliance on the FCC, rather than antitrust courts, as the appropriate institution for superintending the efficient development of competition throughout the industry. Not only does the FCC enjoy specialized expertise in the economics and technology of the telecommunications industry, it also enjoys a distinct advantage over courts in developing and enforcing complicated—and necessary—prescriptive rules, such as those governing interconnection and its associated intercarrier fees. At the same time, the FCC will increasingly need to refocus its energies from prescriptive regulation to a new emphasis on after-the-fact enforcement and market-monitoring, much like the role played today by the Federal Trade Commission.

First Principles for an Effective Rewrite of the Telecommunications Act of 1996

Jonathan E. Nuechterlein and Philip J. Weiser

Introduction

Nine years ago, no praise was considered too extravagant for the Telecommunications Act of 1996, the newly enacted legislation designed to stimulate greater competition in telecommunications markets. Larry Pressler, the chief Senate sponsor, called the Act's passage "a Camelot moment" of high politics that had stilled the industry's "greedy, squabbling interests."¹ Building on the metaphor, FCC Commissioner Rachelle Chong ventured that, as with "King Arthur's knights of the Round Table, there is a feeling in the communications community that we are all embarking on a great and momentous adventure together" to "a world of fierce, but chivalrous competition."² Turning from chivalric to cosmological imagery, she added that "the sun, the moon, and the stars all seemed to line up on the afternoon of February 1st," when the Act was passed.

After a few days, however, astute observers noticed that the Act didn't quite line up after all. The Act was susceptible to as many competing interpretations as a Rorschach test, and each industry actor could interpret it as a boon for its own interests. As Justice Antonin Scalia observed for the Supreme Court three years later, "It would be gross understatement to say that the 1996 Act is not a model of clarity. It is in many important respects a model of ambiguity or indeed even self-contradiction. That is most unfortunate for a piece of legislation that profoundly affects a crucial segment of the economy worth tens of billions of dollars."³

To savvy political observers, the Act's radical indeterminacy came as no surprise. The legislation was written not so much by Congress as by warring interest groups that believed they were playing a zero-sum game. In these circumstances, it is always easier for a legislator to vote for an ambiguous provision—thereby punting hard issues to regulators and the courts—than to vote for a provision that decides important controversies clearly and directly. The latter course,

¹ Mike Mills, *A "Camelot Moment" on Communications*, WASH. POST, Feb. 4, 1996, at H1.

² Remarks of Commissioner Rachelle B. Chong Before the Federal Communications Bar Ass'n, Midwest Chapter, "A Camelot Moment—the Telecommunications Act of 1996," Feb. 16, 1996 (<http://www.fcc.gov/Speeches/Chong/sprbc603.txt>).

³ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 397 (1999).

while better for industry stability and the public interest, is sure to alienate one powerful interest group or another. Ambiguity, by contrast, enables politicians to waffle about what they really meant when they cast their votes, and to blame someone else if their votes are later construed by a court or agency against the interests of a particular constituency.

The Act's origins in interest group politics thus explain why the task of interpreting a given provision often seems like a law school moot court problem. In particular, the Act allows opposing legal positions to coexist in such perfect equipoise that no side enjoys any inherent advantage over the others and each side can litigate decisions with which it disagrees in a state of almost perfect interpretive competition. Congress addressed some issues with language that superficially appears specific and definitive but, on closer inspection, turns out to be riddled with ambiguities.⁴ As a result, such basic questions as the FCC's institutional role in the new regulatory framework remained unresolved for years while courts disagreed about what, if anything, Congress might have had in mind.⁵ Perhaps ambiguity is an inevitable by-product of legislation in an industry filled with potent and mutually antagonistic lobbying forces. But ambiguity carries staggering costs. Particularly in an industry as fast-moving as this one, regulatory uncertainty has taken a toll on investment incentives, and has given rise to an industry as focused on litigation and lobbying sound-bites as on the production of economic value for consumers.

The problem with 1996 Act, moreover, is not just that it hedges on the topics it addresses, but that it *fails* to address the central telecommunications policy challenge of our time: how to rationalize the regulatory treatment of different communications platforms in an age of radical technological convergence. American communications law has developed over the decades on the premise that a given transmission platform (such as a cable or telephone network) will be used to provide a discrete set of services that will not be provided over other transmission platforms. The law has thus subjected different platforms to divergent schemes of regulation: telephone companies, for example, are regulated as common carriers, while cable companies

⁴ This problem, curiously enough, seems to have eluded the legislation's main congressional sponsors. Senator Pressler, for example, maintained that the FCC's implementation tasks were straightforward because "Congress has already done the heavy lifting when it comes to policy choices in telecommunications reform." *A New FCC Dawns in the Wake of the Telecom Act*, FCC REPORTS, 1996 WL 8542600 (June 19, 1996) (quoting Sen. Larry Pressler).

⁵ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

generally are not, when the two types of companies are providing competing services, such as high-speed data links.⁶

In 1996, Congress did little to eliminate this “silo”-oriented regulatory structure because it did not foresee that broadband Internet access over disparate types of transmission networks would emerge as the medium of the future for most communications services, including voice, data, and video. Consequently, many regulators today spend less time thinking about the core economics of broadband policy than about legal questions of scholastic complexity concerning whether a particular company’s IP-based service⁷ should be regulated as a Title II “telecommunications service,” as a Title I “information service,” as a Title VI “cable service,” or something else altogether. These are questions of interest only to lawyers, not to economists or network engineers—a key sign that they are precisely the wrong questions to be asking.

As we approach the Act’s tenth anniversary, the criticisms leveled at it, and the calls to rewrite it, have both grown louder. Some in the industry and on Capitol Hill have already begun speaking of a “Telecom Act of 2005,” even though no comprehensive legislation has yet been drafted.⁸ While the odds of broad reform this year are slim, this is a time of keen interest in the law governing competition in the telecommunications industry, and sweeping congressional action is likely within the next several years. This paper analyzes this looming legislative challenge by dividing it into two sets of issues: first, issues concerning the proper *substance* of telecommunications policy reform; and, second, issues concerning the appropriate *institutions* for carrying out that reform.

In Part I, we argue that, when it sets about to rewrite telecommunications law, Congress should require the FCC to adhere more closely to (and justify departures from) basic antitrust principles in developing the substance of its competition policy. Although other commentators have proposed an antitrust model for this industry, they have tended to focus less on incorporating the substance of antitrust doctrine within prescriptive telecommunications regulation than on eliminating such regulation altogether in favor of antitrust enforcement by

⁶ See *Inquiry Concerning High-Speed Access to Internet Over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002).

⁷ As we use it here, the term “IP-based service” describes the full range of applications that can be provided over the Internet protocol, whether over the public Internet or a private (“managed”) IP network.

⁸ See, e.g., F. Duane Ackerman, *The Telecommunications Act of 2005* (December 14, 2004) (http://www.aei.org/news/newsID.21712/news_detail.asp).

generalist courts.⁹ Our purpose here is to decouple the substantive component of this inquiry from the institutional, and to probe more deeply into the full implications of substantive antitrust analysis for regulation of this increasingly IP-based industry.

We begin with a brief autopsy of the FCC's regime for implementing the 1996 Act's network-sharing mandates. As we explain, the FCC might have avoided nine years of regulatory uncertainty had it given greater attention to the factors that inform antitrust analysis, including the concern that excessive regulatory intervention can impose immense enforcement costs, distort markets, and chill investment. We then turn to the complex competition issues presented by the rise of broadband platforms, whether over cable modem technology, DSL, wireless spectrum, or some other medium. Here, too, antitrust holds critical lessons for policymakers. The most important of these is that policymakers should look beyond legacy regulatory classifications to the emerging market structure for communications-related services, in which all types of traditional communications "services" can ride as higher-layer applications on top of any IP-based broadband platform.

As discussed below, commentators disagree about the extent to which policymakers should reorient telecommunications policy to reflect the layered characteristics of this new market structure. Contrary to what many commentators appear to believe, accounting for those characteristics would *not* invite heavy-handed regulation of last-mile transmission providers to preclude discrimination against applications and content providers. As the FCC itself has recognized, competition in the platform market vastly diminishes a platform provider's ability to engage in such discrimination. A subtler dynamic known as the "internalization of complementary externalities"—more familiar to antitrust practitioners than to regulators—likewise tends to reduce a platform provider's *incentives* to practice such discrimination. In particular, even a hypothetical *monopolist* in a platform market, such as the market for physical-layer transmission services, may have little incentive to thwart competition in adjacent markets, such as the various markets for higher-layer applications, if it is free of price constraints in the platform market and does not perceive any threat by the applications providers to its underlying platform monopoly. This insight, which the FCC has yet to incorporate into its thinking, draws further into question whether prescriptive regulatory schemes such as the *Computer Inquiry* rules

⁹ Peter Huber, *Law and Disorder in Cyberspace: Abolish the FCC and Let Common Law Rule the Telecom* (1997).

remain necessary to protect information service providers against monopoly leveraging by the owners of transmission networks.¹⁰

In Part II, we turn from these substantive issues to Congress's institutional choices in reforming telecommunications regulation. As noted, reliance on antitrust *principles* as the substantive rules of decision would not necessarily warrant reliance on antitrust *courts*, rather than regulatory agencies such as the FCC, as the appropriate institutions for superintending the efficient development of competition throughout the industry. To the contrary, the FCC, despite its well-known flaws, will remain better suited than antitrust courts for that role. That is so not just because the FCC has far greater institutional expertise than generalist courts in this unusually technical area, but also because prescriptive rulemaking—the province of agencies—is essential for much-needed predictability on such complex industry-wide issues as intercarrier compensation for traffic crossing different networks. At the same time, however, the FCC should gradually refocus its energies from comprehensive *ex ante* regulation to a more enforcement-oriented market-monitoring role, much like the FTC's.¹¹

1. An Antitrust Perspective on Network Access Obligations

One of the basic questions that has preoccupied telecommunications policymakers for the past ten years is when it makes economic sense to force vertically integrated network owners—such as local telephone companies or cable companies—to share their networks with unaffiliated firms for the provision of potentially competing services. At the highest level of generality, such sharing obligations can take one of two related but distinct forms: duties to lease *network facilities* on regulated terms to unaffiliated *telecommunications carriers*, and duties to offer *services* on regulated terms to unaffiliated firms of all sorts, including information service providers. The first set of obligations, which we briefly address in Part I(A), is designed primarily to promote competition *within* the physical-layer market for transmission services. The second, which we address in Part I(B), is designed in part to protect higher-layer (and

¹⁰ See Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. TECH. 85, 105-19 (2003); Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41, 65-84 (2003).

¹¹ Our evaluation of the FCC's role and purpose focuses on the *economic efficiency* justifications for regulation. We do not, for example, evaluate whether the FCC is the appropriate agency to address equity concerns related to

downstream) information service providers from discrimination by vertically integrated providers of physical-layer transmission inputs. In discussing both sets of issues, we explain how we believe the relevant policy debates should be framed. We have not, however, evaluated existing empirical analyses concerning the merits of given regulatory strategies. In that respect, this paper is designed to help shape, but not resolve, current debates about the future of telecommunications policy.

Facilities-Leasing Obligations

In the 1996 Act, Congress imposed facilities-leasing obligations on incumbent local telephone companies, and them alone, on the ground that they dominated the market for point-to-point wireline communications. Congress purported to define the scope of those leasing obligations by enacting the “impairment” provision of section 251(d)(2). That provision directs the FCC to limit physical leasing rights to network elements whose unavailability would “impair” a competing carrier’s ability to offer telecommunications services.¹² On close inspection, this provision—like so many others in the Act—is an empty vessel. Did Congress mean to constrain leasing rights to network elements that would be considered “essential facilities” for purposes of antitrust law?¹³ That interpretation, if adopted, arguably would have confined such rights mostly to mass market loops (the traditionally copper-based telephone lines connecting switches to individual homes and small businesses). Or, by avoiding “essential facilities” terminology, did Congress signal that it wished to extend such leasing rights much

affordable telephone service or social policy concerns such as ensuring that communications networks can be subject to wiretaps by law enforcement authorities.

¹² 47 U.S.C. § 251(d)(2).

¹³ Under the “essential facilities doctrine” adopted by some federal courts of appeals, a monopolist must sometimes cooperate with their rivals’ market entry plans by selling them access to bottleneck facilities with “natural monopoly” characteristics. In the telecommunications field, the essential facilities doctrine is best known for its application in MCI’s private antitrust case against AT&T in the 1970s and early 1980s. In that case, the Seventh Circuit ruled that a competitor states a claim under the essential facilities doctrine where (1) a monopolist exercises control of an essential facility; (2) a competitor cannot practically or reasonably duplicate the facility; (3) the monopolist has denied the competitor access to the facility; and (4) the monopolist can feasibly provide access to the facility. *MCI Communications Corp. v. AT&T*, 708 F.2d 1081, 1132-33 (7th Cir. 1983); *see also* *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 596 n.19 (1985) (acknowledging that antitrust laws prevent competitors from “exclud[ing] rivals on some basis other than efficiency.”); *Otter Tail v. United States*, 410 U.S. 366, 380 (1973) (mandating cooperation from an incumbent electric utility to facilitate entry). As discussed in Part II, the Supreme Court has never endorsed the essential facilities doctrine, and some have criticized it on the ground that it inappropriately involves antitrust courts in highly technical issues concerning the management of access to monopoly facilities. *See, e.g.*, Phillip Areeda, *Essential Facilities: An Epithet In Need of Limiting Principles*, 58 ANTITRUST L.J. 841 (1989).

more broadly? Congress did not say, and the legacy of its ambiguity has been years of regulatory chaos.

For almost a decade after the Act's passage, the FCC, unbound by any clear congressional policy choice, either downplayed or simply ignored core antitrust insights in deciding what elements of the incumbents' local networks should be subject to compulsory leasing arrangements. In the best known of these controversies, it forced incumbent telephone companies to let their rivals lease indefinitely, at low regulated rates, most aspects of existing telephone networks, including all elements needed to provide local voice service (in the so-called "UNE-P" arrangement). The FCC clung to that maximal leasing policy until forced to change course by two separate decisions of the D.C. Circuit in 2002 and 2004.¹⁴

In those decisions, the court explained that the agency had struck the wrong balance between the ostensible benefits of forced sharing and the costs, "including disincentives to research and development by both [incumbents] and [competitors] and the tangled management inherent in shared use of a common resource."¹⁵ Explicitly invoking the economic logic of the essential facilities doctrine, the court all but instructed the FCC to limit its compulsory leasing regime to network elements that exhibit "natural monopoly" characteristics that "would make genuine competitive provision of an element's function wasteful."¹⁶ The court added that, while "scholars have raised very serious questions about the wisdom of the essential facilities doctrine as a justification for *judicial* mandates of competitor access, . . . a doctrine that is adequate for that purpose may nonetheless offer useful concepts for *agency* guidance when Congress has directed an agency to provide competitor access in a specific industry."¹⁷

More fundamentally, the Commission's UNE-P policy paid insufficient heed to antitrust law's admonition against focusing more on the success of selected *competitors* than on the setting the ground rules for economically efficient *competition*.¹⁸ Alfred Kahn, for example, has

¹⁴ See *United States Telecom Ass'n v. FCC*, 290 F.3d 415 (D.C. Cir. 2002) ("*USTA I*"); *United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) ("*USTA II*"); see generally DIGITAL CROSSROADS, ch. 3. In each case, the author of the court's opinion was Judge Stephen Williams, a former professor of administrative law who has played a leading role in incorporating the insights of the law and economics movement into American jurisprudence.

¹⁵ *USTA I*, 290 F.3d at 429.

¹⁶ *Id.* at 437.

¹⁷ *Id.* 437 n.4 (emphasis added).

¹⁸ See *Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962) (emphasizing that antitrust law serves to protect "competition, not competitors"). Justice Breyer has argued, in a number of contexts, that the FCC has made this very error. See *Verizon Communications Inc. v. FCC*, 535 U.S. 467, 539 (2002) (Breyer, J., dissenting); *AT&T v. Iowa Utilities Board*, 525 U.S. 366, 412 (1999) (Breyer, J., dissenting); STEPHEN BREYER, ECONOMIC REASONING

accused the FCC of consistently ignoring the “difference between regulatory interventions establishing the conditions under which competition may be relied on to determine the outcome and interventions intended, whether consciously or unconsciously, to *dictate* that outcome.”¹⁹

We do not mean to suggest that the Commission was wrong when it adopted a UNE-P policy at the outset, for there might have been sound reasons in 1996 for erring on the side of jump-starting competition in a previously monopolistic market. Rather, the Commission’s error lay in viewing UNE-P as an end in itself rather than as a short-term means to a long-term goal of facilities-based competition in local telephone markets after such a jump-start. In allowing for the *indefinite* availability of UNE-P, the FCC arguably slowed the transition to a world where competitors do not rely entirely on the incumbent’s facilities. The result may have been a net loss for consumer welfare: facilities-based competition frees up a competitor to provide a broad range of services that the incumbent telephone company does not offer and thus facilitates both product variety and market-oriented pricing. Where market entry is dominated by UNE-P, in contrast, competitors can offer only limited product variety and regulation-oriented pricing.

To this point, we have addressed the FCC’s treatment of legacy network elements used in the provision of ordinary voice telephone service; next, we briefly consider its treatment of elements used for broadband Internet access and other bandwidth-intensive data applications.²⁰ Here the Commission’s track record is mixed. In recent years, the Commission has tended to avoid subjecting telephone companies to facilities-leasing obligations for “next-generation” network elements such as fiber-to-the-home loops, reasoning that a telephone company may never invest in these capital-intensive facilities to begin with if compulsory sharing obligations commoditize them from the beginning.²¹ Particularly given the leadership of cable companies in the residential broadband market, that is an entirely sensible concern, and one quite familiar to

AND JUDICIAL REVIEW 8-10 (Brookings Inst. Press, 2003) (amplifying his criticisms of FCC decisions) (<http://www.aei.brookings.org/admin/authorpdfs/page.php?id=840>).

¹⁹ ALFRED KAHN, *LETTING GO: DEREGULATING THE PROCESS OF DEREGULATION* 70 (Inst. of Pub. Utils. and Network Indus., 1998). Some commentators argue that the very exercise of mandating network sharing is doomed to failure. For example, Wharton School professor Gerry Faulhaber has suggested that a compulsory leasing regime designed to facilitate new entry is “virtually unregulable” where, as in this industry, the terms of access are complicated and the incumbent remains a competitor in the market. Gerald R. Faulhaber, *Policy-Induced Competition: The Telecommunications Experiments*, 15 *INFORMATION ECONOMICS AND POLICY* 73, 79, 86, 92 (2003). Faulhaber is equally skeptical of the plans that call for a split between the incumbent’s wholesale and retail operations, calling them “optimistic in the extreme.” *Id.* at 93. We do not consider these issues here.

²⁰ For a fuller treatment of these issues, see *DIGITAL CROSSROADS*, ch. 5.

antitrust (and intellectual property) lawyers.²² Even here, however, the Commission dragged its heels for several years—until late 2004—before it followed through on this policy and, by exercising its forbearance authority, insulated these elements from the last vestiges of compulsory leasing.²³

At the same time, the FCC has made a hash of competition policy in its separate treatment of “line-sharing.” Line-sharing involves dividing control of an ordinary copper loop between the incumbent telephone company, which continues to provide voice service over the lower frequency bands of the loop, and a competitive data carrier, which offers DSL service over the higher frequency bands of the same loop. Because the incumbent still collects the full retail rate for telephone service in such arrangements, regulators typically required the line-sharers to pay little or nothing for this partial use of the loop.

As an original matter, both sides—the incumbents and the competitive data carriers—could invoke considerations familiar to antitrust lawyers to justify their conflicting views on the merits of line-sharing obligations. The competitive data carriers could plausibly characterize copper telephone loops as “essential facilities” in the antitrust sense. And, because such loops have long been part of the legacy telephone network, forcing incumbent telephone companies to share them created few of the investment disincentives that prompted the Commission to exclude next-generation fiber-based elements from the mandatory leasing list. As FCC Chairman Michael Powell explained, “[l]ine sharing rides on the old copper infrastructure, not on the new advanced fiber networks that we are attempting to push to deployment.”²⁴ In a similar vein, Alfred Kahn argued that the sunk nature of the copper loop infrastructure “would seem to [present] the archetypal case for mandatory sharing—a heritage of their franchised monopolies, the sharing of which would therefore not seem to involve any discouragement of future risk-taking investment.”²⁵ Line-sharing also promised some consumer benefits not just because it

²¹ Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 19,020 (2003) (“*Triennial Review Order*”).

²² See III Areeda & Hovenkamp, *Antitrust Law*, P 707, at 180 (rev. ed. 1996) (“diminishing the inventor’s reward reduces incentives for inventive activity and seems inconsistent with the premise of the patent system.”).

²³ See Memorandum Opinion and Order, *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c)*, WC Docket No. 01-338 (October 27, 2004).

²⁴ *Triennial Review Order*, Separate Statement of Chairman Michael K. Powell Approving in Part and Dissenting in Part, at 2.

²⁵ Alfred Kahn, *Regulatory Politics As Usual*, AEI-Brookings Joint Center, March 3, 2003 (<http://www.aei-brookings.org/policy/page.php?id=127>).

would facilitate an alternative last-mile delivery option, but also because, according to Kahn, “the competition that flowed from it likely would have pressured incumbents to deploy more advanced networks in order to move from the negative regulatory pole to the positive regulatory pole, by deploying more fiber infrastructure.”²⁶

On the other hand, opponents of line-sharing could invoke practical concerns to justify a limited application of antitrust’s essential facilities doctrine: novel and complex facilities-sharing obligations present difficult implementation issues and impose significant administrative and other network costs.²⁷ Simply as an operational matter, shared management of the loop requires an incumbent to invest millions of dollars in upgrades to existing computer system. These are costs that the incumbent would otherwise avoid and that it may never recover (particularly if line-sharers do not materialize to compensate it). Moreover, in the absence of line-sharing rights, competitive data carriers can still offer their DSL service over an incumbent’s copper loop if they agree to lease the loop *as a whole* (although they would then pay a much higher price and may sometimes face a practical need to pair up with a competitive provider of conventional telephone service).

In 1999, the FCC ruled in favor of the competitive data carriers and rejected the arguments against line-sharing. Several years later, after the D.C. Circuit expressed serious skepticism about the merits of this policy choice,²⁸ the Commission began phasing out such obligations altogether.²⁹ Two features of that decision are noteworthy. First, the FCC closed the door on line-sharing obligations only *after* the millions of dollars in needed systems upgrades had already been spent. The FCC thus inflicted on the economy many of the (sunk) *costs* of line-sharing while foreclosing any opportunity to realize the full competitive *benefits*. Second, on the day the FCC announced the demise of line-sharing, four out of the FCC’s five commissioners indicated substantive disagreement with this very outcome. Two of those four appeared to have cast their deciding votes against line-sharing as part of an ultimately futile log-rolling exercise designed to ensure three votes (in the same FCC order) for the preservation of UNE-P.³⁰ Against

²⁶ *Id.* On some accounts, Japan’s spur for increased broadband deployment was the use of line-sharing by an innovative competitor (Softbank) of the incumbent provider (NTT). See David S. Isenberg, *Japan’s Broadband Miracle*, VON MAGAZINE (Sept/Oct 2004) (<http://www.vonmag.com/issue/2004/sep/oct/columns/isenberg.htm>).

²⁷ See *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko*, 124 S. Ct. 874, 883(2004).

²⁸ *USTA I*, 290 F.3d at 428-30.

²⁹ *Triennial Review Order*, 18 FCC Rcd 19,020 ¶255-263.

³⁰ In congressional testimony, for example, Commissioner Copps made clear that he did not agree with the part of the decision he voted for on line sharing, explaining that “I would have preferred to maintain this access, also known

this backdrop, it is difficult to disagree with Kahn’s assessment of that order as “an abomination, purely political in the worst sense of the term and grounded in neither good economics nor honorable regulatory practice.”³¹

Monopoly Leveraging Concerns And The Internet

Our discussion of facilities-leasing obligations illustrates how a greater regard for antitrust doctrine—and, in particular, the economic insights underlying that doctrine—would strengthen the analytical foundations of telecommunications regulation. Antitrust doctrine also has much to contribute to a rapidly intensifying debate: the extent to which the government should regulate physical-layer network owners to protect the “openness” of the Internet and its traditional “end-to-end” architecture.³² In answering this question, policymakers must see beyond the legacy regulatory distinctions that have long guided this analysis, and should focus instead on the first principles of antitrust in analyzing the potential for anti-consumer abuse in the relationships among the various markets for last-mile transmission, Internet access, and higher-layer Internet applications and content offerings.

The Legacy Regulatory Strategy

The current telecommunications marketplace bears little resemblance to the one envisioned in the 1996 Act, mostly because Congress did not anticipate how the Internet would up-end the telecommunications industry. Until very recently, all telecommunications services were joined hip to hip with the particular facilities on which they were provided. Federal communications law, written mostly in a pre-convergent era, is compartmentalized into different substantive “titles” that apply distinct regulatory schemes to different types of networks. Wireline telephone companies are subject to “common carrier” regulation under Title II of the Communications Act of 1934, and their retail services are subject to the traditional division of regulatory authority between the FCC and the states. Use of the airwaves, such as for over-the-

as line sharing. I believe line sharing has made a contribution to the competitive landscape.” Health of the Telecommunications Sector: A Perspective from the Commissioners of the Federal Communications Commission, before the Subcommittee on Telecommunications and the Internet (Feb. 26, 2003). Commissioner Copps explained, however, that he “had to accept” the Order’s treatment of line sharing “in order to reach compromise.” *Id.*

³¹ Alfred E. Kahn, *Regulatory Politics as Usual*, POLICY MATTERS 03-3 (Mar. 2003) (<http://www.aei.brookings.org/policy/page.php?id=127>).

³² For a discussion of the “end-to-end” principle and the Internet’s traditionally open architecture, see DIGITAL CROSSROADS, ch. 4.

air broadcasting or cellular telephone service, is regulated in whole or in part under Title III, which, among other things, preempts most forms of state regulation. And “cable services” are regulated under Title VI, which essentially divides regulatory responsibility between the FCC and local franchising authorities but generally insulates cable providers from common carriage obligations. In revising the Communications Act in 1996, Congress left intact each of these three statutory “silos,” as they are disparagingly known, along with the markedly different rules contained in each for governing the corresponding physical-layer platform.

The Internet holds such rigid service-specific distinctions in contempt. Each of these three physical-layer media—the wireline telephone network, the airwaves, and cable company infrastructure—is capable of providing Internet access, and the Internet in turn can serve as a platform for any communications service imaginable. Every single form of content ever conveyed over any electronic communications system—voice (telephony), audio (radio), video (television), documents (faxes), and so forth—can be instantly converted into 1s and 0s and transmitted as the cargo in digital packets flying over the Internet, no matter what the underlying physical medium.

The Internet has thus radically transformed the industry by using the Internet’s layered architecture, together with the power of broadband platforms, to decouple particular services from the physical networks over which they have traditionally been provided. This phenomenon of convergence is attributable to the Internet’s openness and modularity—its compartmentalization of computer-enhanced communications into separate physical, logical, applications, and content layers.³³ Competition and product diversity have flourished on the Internet’s higher layers because the universality of the Internet’s core protocols liberates applications and content providers (like RealNetworks and eBay) from any need to become Internet service providers (like AOL or Earthlink) or last-mile transmission providers (like Comcast or BellSouth). The Internet also generally frees independent applications developers and content providers from the control of any network owner, for they can rely on the open and non-discriminatory protocols of the Internet’s logical layer—the TCP/IP protocol suite—to deliver their innovations to consumers. Indeed, as Andrew Odlyzko observes, the Internet’s openness to outside innovation has proved critical to its success. “In spite of many attempts,” he contends, “the established service providers and their suppliers have an abysmal record in

³³ See DIGITAL CROSSROADS, ch. 4.

innovation in user services The real ‘killer apps,’ such as email, the Web, browsers, search engines, [instant messaging], and Napster, have all come from users.”³⁴

When it drafted the 1996 Act, Congress did not account for these or the many other respects in which the Internet would subsequently destabilize the regulatory status quo. Although Congress anticipated some degree of convergence among different technology platforms, it focused almost exclusively on the prospect that cable companies would offer circuit-switched telephony and that telephone companies would offer video programming. But Congress did not foresee the critical head-to-head competition between cable and telephone companies in the mass market for broadband Internet access; indeed, in 1996, both DSL and cable modem service remained, for the most part, futuristic projects known only to a few industry insiders. Nor, more generally, did Congress anticipate that voice, video, and data would someday be reduced to streams of bits running on top of a single and universal logical-layer platform, the Internet protocol, which itself can be used on virtually any physical-layer transmission medium.³⁵

The growth of broadband Internet access, combined with the ubiquity of the TCP/IP protocol suite, has made a mockery of the Communications Act’s traditional classifications of different communications services. Nonetheless, because Congress underestimated the pace and extent of technological convergence, those classifications remain embedded in the law. As a result, the industry has become increasingly fixated on lawyers’ quarrels about the proper way to “characterize” particular IP-based services for purposes of classifying each of them within the obsolescent framework of the Communications Act of 1934. The services at issue in these classification battles run the gamut from broadband platforms such as cable modem service to higher-layer applications such as “voice over Internet protocol” (“VoIP”) and, in the not-too-distant future, IP-based video services offered by some telephone companies.

If we could rewrite telecommunications law from scratch, of course, there would be no need for such classifications, for they lack any economic or technological foundation. Under current law, however, these classifications are centrally important. Until the law is changed, therefore, the structure of this industry will continue to hinge on the outcome of arcane legal

³⁴ Andrew Odlyzko, *Telecom Dogma and Spectrum Allocations 7* (June 20, 2004) (<http://wirelessunleashed.com/papers/TelecomDogmas.pdf>).

disputes, such as the issue presented in the *Brand X* case that the Supreme Court will decide later this spring.³⁶

Given the Internet's modular structure, a number of commentators have urged policymakers to replace the Act's regulatory silos with a more antitrust-oriented "horizontal" approach that focuses on the critical role of layering in modern telecommunications.³⁷ They argue that the only rational way to regulate the Internet industry is to draw lines within the Internet's layered hierarchy to distinguish between (i) those layers (if any) that should be subject to continued economic regulation because there is insufficient competition within them and (ii) those layers that should not be subject to such regulation because they are presumptively competitive.³⁸ For example, under this layer-oriented approach, VoIP services, as applications riding on top of physical-layer platforms, would not be subject to public utility regulation of the sort imposed by Title II, because there are no extraordinary barriers to the entry of new VoIP providers into the market. The underlying physical-layer platforms themselves may or may not be subject to such regulation, depending on (for example) the potential for discrimination against higher-layer providers.

Although the "layering" nomenclature is new, this concern about interlayer discrimination has long been invoked to justify heavy regulation of physical-layer transmission

³⁵ See DIGITAL CROSSROADS, chs. 5 and 6; Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMM. & HIGH TECH. L. 1, 12 n.51 (2002); Marguerite Reardon, *Rumble in the "Triple Play" Jungle*, CNET NEWS.COM (June 21, 2004) (<http://news.com.com/2100-1037-5242738.html>).

³⁶ *Brand X Internet Services v. FCC*, 345 F.3d 1120 (9th 2003), cert. granted, 2004 WL 2153536 (2004).

³⁷ See, e.g., Rob Frieden, *Adjusting the Horizontal and Vertical in Telecommunications Regulation: A Comparison of the Traditional and a New Layered Approach*, 55 FED. COMM. L.J. 207, 215 (2003) ("The horizontal orientation . . . makes better sense in a convergent, increasingly Internet-dominated marketplace and also provides a more intelligent model than the existing vertical orientation that creates unsustainable service and regulatory distinctions."); Craig McTaggart, *A Layered Approach To Internet Legal Analysis*, 48 MCGILL L. J. 571 (2003); Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41 (2003) ("*Next Generation Strategy*"); Kevin Werbach, *A Layered Model for Internet Policy*, 1 J. TELECOMM. & HIGH TECH. L. 37, 38 (2002) (arguing that communications regulation should be based on "the technical architecture of the Internet itself"); Douglas C. Sicker & Joshua L. Mindel, *Refinements of a Layered Model for Telecommunications Policy*, 1 J. TELECOMM. & HIGH TECH. L. 69, 71 (2002); John T. Nakahata, *Regulating Information Platforms: The Challenges of Rewriting Communications Regulation from the Bottom Up*, 1 J. TELECOMM. & HIGH TECH. L. 95, 98 (2002); Richard S. Whitt, *A Horizontal Leap Forward: Formulating a New Communications Public Policy Framework Based on the Network Layers Model*, 56 FED. COMM. L.J. 587 (2004).

³⁸ The FCC itself has occasionally spoken in these terms as well. As it explained in 1998, "[c]ommunications networks function as overlapping layers, with multiple providers often leveraging a common infrastructure. As long as the underlying market for provision of transmission facilities is competitive or is subject to sufficient pro-competitive safeguards, we see no need to regulate the enhanced functionalities that can be built on top of those facilities." Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11,501, ¶ 95 (1998) (1998); see also Notice of Proposed Rulemaking, *IP-Enabled Services*, 19 FCC Rcd 4863, ¶ 37 (2004) ("*IP-Enabled Servs. NPRM*") (seeking comment on the feasibility of a "layered" model of regulation).

providers. The concern underlies the *Computer Inquiry* rules that, as discussed below, have required telephone companies for several decades to provide nondiscriminatory network services to unaffiliated information service providers. It animates the many proposals to force cable companies to open up their cable modem networks for “multiple ISP access.” More recently, it has led Larry Lessig, Tim Wu, and even the deregulatory Michael Powell to advocate voluntary and, if necessary, government-mandated adherence to “Net neutrality” principles. Such principles would require each broadband service provider to justify any deviation from the Internet’s traditional end-to-end principle (*i.e.*, any discrimination among IP packets on the basis of their origin or type) that operates to the disadvantage of unaffiliated providers of Internet applications and content. All of these proposals are motivated by the same fear: that given broadband providers will try to leverage their putative monopolies in the physical-layer transmission market to suppress fair competition in the adjacent content and applications markets.

Such “monopoly leveraging” concerns, however, tend to worry antitrust practitioners less often than they worry conventional regulators. That is not because the antitrust practitioners are less vigilant in guarding against genuine monopoly abuses, but because—as a general rule—they tend to be more familiar with the sometimes counterintuitive economic insights of antitrust doctrine, discussed in the next subsection.

Skepticism that regulators would conduct any rigorous economic analysis in addressing monopoly-leveraging concerns has led some industry analysts to oppose any layers-oriented regime altogether. Commentator George Gilder, for example, cautions that any layers-based approach, by seeking to preserve the Internet in its current modular form, “ignore[s] ever changing trade-offs between integration and modularization,” slights the importance of innovation within the “core” of the network as well as at the edge, and inappropriately “assume[s] that there is one network, that it is sufficient and timeless, [and] that no new networks are possible or needed.”³⁹ “The real threat to monopolize and paralyze the Internet,” he concludes, “is not the communications industry and its suppliers, but the premature modularizers and commoditizers, the proponents of the dream of some final government solution for the

³⁹ Testimony of George Gilder before the Senate Committee on Commerce, Science & Transportation, Apr. 28, 2004 (http://commerce.senate.gov/hearings/testimony.cfm?id=1166&wit_id=3340).

uncertainties of all life and commerce.”⁴⁰ Similarly, a coalition of industry advocates warned the FCC in July 2004 that, even though *engineers* view the Internet in terms of layers, *regulators* should not design competition policy in those terms as well.⁴¹ The coalition directed its critique at a much-discussed MCI white paper that argued not just for a layers-oriented regulatory model in the abstract, but for a more substantive conclusion that the physical layer—specifically, the market for wholesale transmission services—is dominated by incumbent telephone companies and should be heavily regulated as such.⁴²

Unfortunately, many commentators involved in this debate often seem incapable of separating the *analytical structure* of a layers-oriented policy model from the *substantive conclusions* that MCI—perceived as that model’s chief exponent—seeks to impose on the industry, including presumptions (i) in favor of physical-layer regulation and (ii) against unfettered vertical integration by physical-layer providers into the adjacent layers for applications and content.⁴³ As we next discuss, however, a layers-oriented analytical structure does not necessarily support MCI’s proposed conclusions, for reasons that antitrust doctrine makes abundantly clear.

A Next-Generation Regulatory Strategy

To recap, the issue at stake in the debate over broadband policy is when, if ever, the government should intervene to keep physical-layer transmission providers from leveraging their control of last-mile facilities to discriminate against unaffiliated providers of applications and content. Of course, this type of inquiry is hardly unique to the telecommunications field. There are a number of industries in which vertically integrated firms are alleged to have leveraged (or preserved) their monopoly in one market by thwarting competition in others. And when disputes arise about what, if anything, the government should do about that concern, they are usually resolved by antitrust law. In general, antitrust law evaluates such disputes by defining the

⁴⁰ *Id.*

⁴¹ See NEW MILLENNIUM RESEARCH COUNCIL, FREE RIDE: DEFICIENCIES OF THE MCI “LAYERS” POLICY MODEL AND THE NEED FOR PRINCIPLES THAT ENCOURAGE COMPETITION IN THE NEW IP WORLD (July 2004) (“FREE RIDE”) (http://www.newmillenniumresearch.org/news/071304_report.pdf).

⁴² See Whitt, *supra*. Richard Whitt, the author of the MCI paper, is Senior Director of Global Policy and Planning at MCI.

⁴³ Some might argue that, stripped of these presumptions and other substantive baggage, a layers-oriented analytical framework accomplishes little beyond a modest clarification of telecommunications policy issues that regulators have addressed since the dawn of the *Computer Inquiries* (discussed below). That argument is a topic for a different paper.

relevant markets and then evaluating whether the firm in question is dominant in one of those markets, whether it has both the incentive and the ability to exploit (or protect) that dominance by harming competition in adjacent markets, whether the costs of any antidiscrimination remedy outweigh the benefits, and so forth. As communications platforms converge and compete, policymakers should look to technology-neutral antitrust principles as a replacement for the technology-specific quirks and artifices of the legacy regulatory regime.

To understand how antitrust doctrine can clarify the challenges of the broadband age, we must first review the *Computer Inquiries*—a regime the FCC first instituted in the 1980s to keep telephone companies from exploiting their bottleneck control of transmission facilities to eliminate competition in the market for “information services.” Among other things, the FCC directed each telephone company to separate out (unbundle) the raw transmission functions (such as high speed circuits) underlying any information service from higher-layer enhancements (such as Web hosting); tariff those transmission functions as a stand-alone common carrier service; purchase the service for its own use from that tariff; and sell the same service on a non-discriminatory basis to all unaffiliated information service providers that request it. Even now, in the broadband era, this basic obligation governs the wireline telephone companies regulated as common carriers under Title II of the Communications Act. For example, if a telephone company wishes to sell end users a broadband service that bundles Internet access with DSL transmission, it must strip out the DSL transmission component of that service, tariff it, and offer it on non-discriminatory terms to unaffiliated ISPs.⁴⁴

Two now-obsolete premises underlay this unbundling requirement. First, telephone companies dominated the market for the physical-layer transmission needed for higher-layer information services, for they owned the only conduit for two-way, switched transmission in most areas. Second, a telephone company had a strong incentive to leverage that platform monopoly to discriminate against unaffiliated information service providers. Telephone services were strictly price-regulated, whereas information services were not, and the provision of information services thus gave the telcos an opportunity to recover greater profits than did basic

⁴⁴ As a general matter, the federal government has exempted cable modem providers from any analogous obligation. In the one arguable exception, the Federal Trade Commission required Time Warner, as a condition of its merger with AOL, to provide independent Internet service providers with access to its cable modem systems. See Agreement Containing Consent Orders; Decision and Order, America Online, Inc. and Time Warner, Inc., FTC Docket No. C-3989, 2000 WL 1843019 (proposed Dec. 14, 2000).

phone services.⁴⁵ The central concern was that, in the quest for such profits, telephone companies would have both the opportunity and the incentive to leverage their transmission monopoly to foreclose price-lowering competition in the information services market.

The economic justification for such monopoly leveraging concerns has become considerably more complicated now that broadband technology has begun supplanting dial-up as the Internet access mechanism of choice for consumers. The ascendancy of broadband is significant to competition policy for four basic reasons.

First, it dramatically increases the competitive stakes for the communications industry as a whole—and thus the concern that policymakers may have about the full consequences of market concentration in the last mile. Widespread use of broadband connections makes industry-wide technological convergence less of a theoretical possibility and more of an imminent, transformative reality. Suddenly, the company that efficiently controls the highest quality pipes to end user premises could theoretically dominate not just one communications service, but *all* communications services: voice, data, and video programming.

Second, broadband access is marginalizing the ISP intermediaries that, in the narrowband environment, have acted as competitive buffers between the monopoly provider of last-mile access and the Internet at large. An ISP necessarily plays a less central role in a user's broadband experience than it plays in the traditional dial-up setting. In the latter context, the end user scarcely notices the telephone company's involvement in her relationship to the Internet, because the call she places to her ISP appears much the same as any other "local" call, the telephone company charges nothing extra for it, and the ISP performs all protocol conversion functions. In contrast, a broadband consumer is inevitably aware that the existence, quality, and price of her Internet connection depends largely on her cable or telephone company or other platform provider. That remains the case whether or not her ISP is affiliated with that company—as it usually is.

These first two factors could be cited as reasons why the arrival of broadband technology warrants greater government intervention to prevent monopoly leveraging by providers of last-mile transmission services. And, indeed, they are the very factors that Lessig and others cite as

⁴⁵ See Farrell & Weiser, *supra*, at 105-07.

the basis for deep concern about the Internet's future.⁴⁶ The third and fourth considerations, however, cut very much in the opposite direction.

The third relates to cross-platform competition. Whereas dial-up Internet access has traditionally required the use of a single company's circuit-switched telephone network, today's Internet access market is subject to competition among rival broadband platforms. Opponents of government intervention say that robust platform competition will safeguard the interests of consumers better than regulation ever could, avoiding any of the investment disincentives and unintended consequences that regulation is often thought to produce. They thus argue that, so long as consumers can choose among a range of broadband providers, the resulting competition will force each provider to ensure nondiscriminatory use of the Internet; otherwise, consumers will retaliate by moving to another platform.⁴⁷

Of course, the prospect of cross-platform competition can protect against anticompetitive practices only to the extent that consumers may easily drop one broadband service and subscribe to another. Several factors can complicate this competitive dynamic. Although consumers in many markets today have a choice of two or more broadband providers (cable, DSL, and perhaps satellite and wireless), consumers in sparsely populated areas may have no realistic choice of providers at all; indeed, they may be lucky even to have one. Even if they have two, a duopoly—if it can be expected to persist—is unlikely to produce optimal output and pricing decisions over the long term, although it is surely better than a monopoly.⁴⁸ Also, consumer choice can provide a check on a dominant provider's market power only to the extent that these platforms are close market substitutes. For example, if consumers perceive that cable modem service is significantly faster for the money than DSL, they may tolerate some discrimination by their cable modem provider against certain applications or content providers before canceling their accounts and calling the telephone company. Likewise, if consumers invest heavily in the platform they initially adopt—say, by making heavy use of an e-mail address specific to that platform—they may hesitate before incurring the costs necessary to switch to an alternative platform.

⁴⁶ See LAWRENCE LESSIG, *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* 176 (Vintage, 2001) (quoting Charles Platt, *The Future Will Be Fast but Not Free*, WIRED, May 2001 (http://www.wired.com/wired/archive/9.05/broadband_pr.html)) (emphasis added by Lessig).

⁴⁷ See Christopher Yoo, *Would Mandating Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate*, 3 J. TELECOMM. & HIGH TECH. L. ___, ___ (2004).

⁴⁸ See, e.g., United States Department of Justice/Federal Trade Commission, *Horizontal Merger Guidelines*, Section 2 (rev. April 8, 1997) (http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html).

But the central point remains: over time, consumers can expect increasing choices in the broadband marketplace, and those choices will tend to weaken a firm's incentives to engage in significant monopoly leveraging. As Michael Powell has explained, in stressing the importance of broadband rivalry, “[m]agical things happen in competitive markets when there are at least three viable, facilities-based competitors.”⁴⁹ Much of the current dispute about broadband policy reduces to different empirical predictions about how quickly a third platform—such as 3G wireless, WiMAX, or powerline—will arise to play a decisive role in the broadband market. Even here, however, the question for most consumers is not so much *if* that third competitor will arrive as *when*.⁵⁰

The final factor that may reduce the need for heavy preemptive safeguards against monopoly leveraging—a factor well-known to antitrust practitioners but little discussed in regulatory circles—relates to a firm's *internalization of complementary externalities* (“ICE”). As French economist Antoine Cournot first observed in the nineteenth century, the total profits a monopolist can earn if it seeks to leverage its monopoly in one market (here, the market for physical-layer broadband access) by dominating a complementary market (here, the applications and content markets) are theoretically no greater than the extra profits it could earn in an unregulated environment simply by charging more for the monopoly product itself. This fact gives a monopoly platform provider a powerful incentive to enhance its platform's attractiveness to consumers so that more of them will pay a higher price for it. Accordingly, even a monopolist can normally be expected to take whatever steps are necessary, including steps to promote competition in the applications market, to spur the creation of complementary products that will drive demand for its platform.

This complementary externalities principle is subject to several exceptions, the best known of which is called “Baxter's law” in honor of the Justice Department antitrust official who invoked it in breaking up AT&T in the early 1980s. As applied here, Baxter's law holds

⁴⁹ Michael K. Powell, Remarks at the Wireless Communications Association International 1 (June 3, 2004) (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-248003A1.pdf). See Andrew Odlyzko, *The Many Paradoxes of Broadband*, 8 FIRST MONDAY Sec. 14 (September 2003) (http://firstmonday.org/issues/issue8_9/odlyzko/index.html); see also Kevin Fitchard, *Broadband Wireless Wins Endorsement*, TELEPHONY ONLINE (June 7, 2004) (reporting on Craig McCaw's new broadband wireless venture) (http://telephonyonline.com/ar/telecom_broadband_wireless_wins).

⁵⁰ Of course, the when will depend on a variety of factors, including the FCC's ability to facilitate the development of new wireless broadband offerings through effective spectrum policy reform. For a discussion of the importance of and opportunity for such reform, see DIGITAL CROSSROADS, ch. 7.

that a platform monopolist does have strong incentives to monopolize a largely unregulated applications market if the platform market itself is subject to rate regulation.⁵¹ As discussed, this exception had great significance in the pre-broadband world of the *Computer Inquiries* because regulators have long capped the price that telephone companies may charge consumers for use of the circuit-switched telephone network that served as the monopoly platform for Internet access (and other information services) for many years. Because these companies were barred from extracting monopoly profits from the use of that platform itself, they had an incentive to extract such profits instead by charging supra-competitive rates for Internet access and other information services—an objective that would necessarily require discriminating against rival providers that could offer subscribers lower, cost-based rates for the same services. The regulatory response, as discussed above, was the set of non-discrimination requirements adopted in the *Computer Inquiries*.

As a general matter, however, Baxter’s law does not apply—and the ICE principle arguably *does* apply—in the broadband world because regulators have not capped the rates that providers may charge their customers for broadband Internet access. This fact removes a key incentive for even a dominant broadband provider to discriminate against unaffiliated applications and content providers, for such discrimination cannot increase the provider’s overall profits and could possibly lower them if it degraded consumers’ perceptions of the platform as a whole.

We do not, however, wish to overemphasize this last point, for the ICE principle is subject to several additional exceptions beyond Baxter’s law. To take a few examples, a dominant broadband firm might have incentives to discriminate against unaffiliated content or applications providers if it views them as potential rivals in the platform market itself, as Microsoft did when it crushed Netscape to eliminate the “middleware” threat to Windows. Similarly, the firm might have such incentives if the applications market is to some extent independent of the platform market and is itself subject to scale economies or network effects, or if the firm is simply irrational and misperceives how its interests are affected by the ICE

⁵¹ See Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. TECH. 85, 105-07 (2003) (<http://jolt.law.harvard.edu/articles/pdf/v17/17HarvJLTech085.pdf>); see also Paul L. Joskow & Roger G. Noll, *The Bell Doctrine: Applications in Telecommunications, Electricity, and Other Network Industries*, 51 STAN. L. REV. 1249, 1249–50 (1999).

principle.⁵² Our essential point is this: *even if* they enjoy significant market power at the physical layer, non-price-regulated broadband providers conceivably *might*, but do not inevitably, have incentives to discriminate against unaffiliated content and applications providers. The complex economics of that point often get lost in the rhetoric about whether to force last-mile broadband providers, such as cable or telephone companies, to open up their networks to unaffiliated ISPs or to provide non-discriminatory access to content and applications providers.

The debate about whether and how to regulate broadband requires regulators to make a high-stakes bet on how the market will evolve. Most observers agree that, in a world of robust competition at the physical layer, consumers will enjoy high-quality, cost-based broadband services at that layer and will enjoy full access to the Internet's applications and content layers free from monopoly leveraging. The policy challenge arises in devising a regulatory strategy when the prospects for physical-layer competition are unclear. Those favoring greater government intervention tend to view broadband access as a relatively static market prone to monopoly or duopoly over the long term. On that view, the government should risk creating some disincentives for facilities investment at the margins if that is the only means of ensuring that at least one of the two main broadband platforms remains open to a range of complementary higher-layer providers who might otherwise be shut out of the market. These proponents of a greater government role also express great skepticism that regulation actually does deter any provider from building facilities when it is efficient to do so.

By contrast, those favoring less intervention tend to view the heavy hand of regulation as both unnecessary and affirmatively harmful. First, they view the broadband market as dynamic in a Schumpeterian sense—i.e., subject to the emergence of new broadband platforms that, without regulatory prodding, will undermine any market dominance of the established players.⁵³ Second, they believe that, especially in a technologically uncertain environment, the costs of regulation—as illustrated by past regulatory failures—should create a presumption against aggressive government intervention. They express particular concern that, by imposing compulsory “open access” or “Net neutrality” rules on network owners, they will so commoditize the resulting networks, and thus so reduce the upside profit potential for network

⁵² See generally Farrell & Weiser, *supra*.

investment, that firms will lack any economic incentive to risk billions of dollars in the construction of those networks in the first place.⁵⁴ Regulation, these regulatory minimalists conclude, is at best a gratuitous source of transaction costs and rent-seeking and at worst a gravely misconceived brake on the broadband roll-out and, by extension, on the U.S. economy as a whole.

Who is right? At this point, the answer is as philosophical as it is empirical, and it will become clear only in hindsight, if at all. In a sense, the broadband market confronts the FCC with the same theoretical question as the *Computer Inquiries*: how to chart a sensible regulatory course in an uncertain technological environment. Two differences between now and then are that (i) no single provider has a monopoly on transmission services in most markets and (ii) Baxter's law (the most prominent exception to the ICE principle) no longer applies because broadband services are not price-regulated. Each of those factors tends to cut against the need for heavy regulation at the physical layer. Whether or not those factors are dispositive, they are without question highly relevant. Regulators will develop a more sensible next-generation policy regime if Congress permits them—indeed, compels them—to take full account of the basic economic insights that guide modern antitrust doctrine.⁵⁵

2. First Principles of Institutional Reform

To this point, we have argued that, as a *substantive* matter, the first principles of telecommunications competition policy in the Internet age should be largely informed by the first principles of antitrust. Adopting that substantive position, however, would not itself resolve a distinct *institutional* question: if we could remake current institutional arrangements from scratch, would we commit this antitrust-oriented project to the FCC or, as Peter Huber and others have suggested, to generalist antitrust courts?⁵⁶

⁵³ See Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM. L. REV. 534, 576-82 (2003) (discussing Schumpeterian perspective).

⁵⁴ See DIGITAL CROSSROADS, ch. 5.

⁵⁵ See Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. TECH. 85, 105-19 (2003); Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41, 65-84 (2003).

⁵⁶ See PETER W. HUBER, *LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM* (Oxford Univ. Press, 1997).

This question may seem largely academic, and perhaps it is: few people expect Congress to strip the FCC of its preeminent role in telecommunications competition policy and return the industry—as before 1996—to the plenary supervision of antitrust courts. On the other hand, no one can accurately predict today what sorts of proposals will gain traction in Congress if the entirety of telecommunications is opened up for reconsideration. And Congress might well be sympathetic to calls for incremental reductions in the FCC’s role, if not the complete elimination of that role, in the expectation that ex post antitrust enforcement will fill in the gaps. In this portion of the paper, we explain why, in our view, supplanting the FCC’s role in favor of judicial antitrust enforcement would present considerable costs in addition to the ostensible benefits. And we conclude by discussing several institutional reforms needed to reorient the FCC from prescriptive regulator of entrenched monopolies to a less interventionist overseer of conduct in an increasingly competitive market.

Four Institutional Objectives

Let us start, though, with first principles. If we were drawing on a blank slate, how would we divide up authority between antitrust courts and the FCC for the oversight of competition policy in this industry? One’s answer to that question depends, of course, on how one judges the criteria for success in any political arrangement. We will focus on four criteria that seem particularly critical to the health of this industry: *determinacy*, *expertise*, *neutrality*, and *humility*. The first two of these criteria are straightforward; the third and fourth less so.

We begin with *determinacy*. A regulatory regime is determinate if its governing institutions—Congress, regulatory agencies, and the courts—work together smoothly and expeditiously enough that the industry knows as quickly as possible what the ground rules for competition policy will be and can predict with reasonable precision how those rules will be applied. The more determinate these ground rules are, the more comfortable investors will be in placing bets on the future of this industry, and the more likely it is that innovators will obtain financing to put their ideas to work for the public good. Particularly in a dynamic industry like telecommunications, it is often “more important,” as Justice Brandeis once put it, “that the applicable rule of law be settled than it be settled right.”⁵⁷

⁵⁷ *Burnet v. Coronado Oil & Gas Co.*, 285 U.S. 393, 406 (1932) (Brandeis, J., dissenting).

Expertise, our second value, means that primary decisionmaking authority should be committed to institutions that understand, or can easily learn, the esoteric technology of telecommunications, the structure of the industry, and the complex economic and regulatory issues that have defined this field for many years.

The third value that a particular competition policy strategy should promote is analytically rigorous *neutrality* in the resolution of controversial policy issues. This concept is subtler than the first two. By “neutrality,” we mean that whoever writes the rules for competition policy should think of problems by reference to first principles about how to maximize consumer welfare, which for the most part are antitrust principles. Those making the rules should thus not focus on the needs and wants of particular industry factions in their role as political actors, as Congress and the FCC have often been accused of doing. Finally, neutrality means that, when considering proposals for regulatory reform, policymakers should begin by asking, “why have we done it this way for so long?” rather than “why should we incur the political costs of changing our long-standing policy on this issue?”

Our fourth value, and admittedly the vaguest, is *humility*. We use the term to describe the attitude of a policymaker who, with every important decision, remembers the many times in which other policymakers have been flatly wrong in their predictions of how the telecommunications market would take shape and in their assessments of the regulatory measures needed to enhance consumer welfare within that evolving market. Humility also reminds policymakers that, over the long term, the unintended, undesired consequences of regulation can dwarf the intended, desired outcomes. That fact is not a reason for doing nothing when action is needed to correct genuine market failures. But it is a reason for policymakers to respect the market’s ability to enhance consumer welfare and, as they evaluate the predicted benefits of their own regulatory involvement, to give due regard to the unpredictable course of technological and economic change.

Antitrust: The Institutional Alternative

Arguably, generalist courts, largely immune from interest group politics and from entrenched assumptions about how the world must work, are better equipped than specialized agencies to resolve competition policy issues on their economic merits. With no lobbyists to appease and no bureaucracies to keep busy, antitrust courts, at least in theory, should do a better

job than the FCC or other specialized agencies in resolving such issues with analytically rigorous neutrality. Perhaps the purest endorsement of courts over agencies as guardians of telecommunications competition policy appears in the scholarship of Peter Huber. In his view, the FCC and its “army of federal employees hanging around indefinitely to meddle and mess up” should be abolished altogether in favor of minimalist, case-by-case antitrust enforcement.⁵⁸

Of course, antitrust courts are only as neutral as the judges who sit on them, and not all judges are exemplars of neutrality. A district judge selected to decide a critical antitrust case might do quite a bit worse than Judge Harold Greene, who administered the twelve-year antitrust regime under the AT&T consent decree and, in that capacity, made a number of controversial policy judgments about the trajectory of competition within the industry.⁵⁹ The risks of vesting such enormous power in a single generalist district court judge are compounded by forum-shopping opportunities that sometimes enable an industry faction to choose, for the resolution of critical industry-wide controversies, whatever court the faction considers unusually sympathetic to its cause. In one well-known example, two Bell companies brought their constitutional challenge to a key provision of the 1996 Act—section 271, which governs Bell entry into long distance markets—in the remote Wichita Falls Division of a federal district court in Texas. There the desired judge, Joe Kendall, obliged them by invalidating section 271 and several other provisions on New Year’s Eve in 1997.⁶⁰ Although Kendall’s decision was eventually reversed, it symbolizes the dangers of letting individual judges play too significant a role in shaping the future of this uniquely volatile industry.

Huber is nonetheless correct that the FCC, like any entrenched bureaucracy, has developed a self-sustaining bias in favor of keeping itself important by intervening heavily in the industry it regulates. That bias indulges rent-seeking behavior and invites overregulation, with all of its attendant inefficiencies. Whenever an industry requires broad oversight, however, similar bureaucracies tend to arise spontaneously no matter what institution is formally charged with conducting the oversight. For example, the AT&T consent decree regime produced its own small

⁵⁸ PETER HUBER ET AL., *FEDERAL TELECOMMUNICATIONS LAW* 402-03 (2d ed.) (Aspen, 1999); see also HUBER, *LAW AND DISORDER IN CYBERSPACE*, *supra*.

⁵⁹ See Joseph D. Kearney, *From the Fall of the Bell System to the Telecommunications Act: Regulation of Telecommunications Under Judge Greene*, 50 *HASTINGS L.J.* 1395 (1999).

⁶⁰ *SBC Communications, Inc. v. FCC*, 981 F. Supp. 996 (N.D. Tex. 1997), *rev’d*, 154 F.3d 226 (1998). Judge Kendall’s opinion is perhaps best remembered for its characterization of Laurence Tribe, whom the Bell companies had hired as their counsel in that case, as “probably the most respected Constitutional law scholar alive.” *Id.* at 1003 n.5.

“army of federal employees” in the Justice Department’s Antitrust Division who devoted a dozen years of their careers to the zealous enforcement of the decree’s manifold restrictions. That group of lawyers and economists was not necessarily less disposed to government intervention in the telecommunications market than the FCC is today. Ultimately, Huber’s *institutional* preference for antitrust courts over regulatory agencies could eliminate such bureaucracies only when he and his fellow libertarians are granted their *substantive* wish for a negligible government role of any kind in the oversight of telecommunications competition. That wish, however, is likely to be—and should be—granted only in the long term, once the market for last-mile transmission becomes more robustly competitive than it now is.

The more basic problem with relying on antitrust courts to superintend the telecommunications industry is that the judicial process is deficient in the areas of determinacy and expertise. Consider determinacy first. Companies with market power need to know now, not at the end of a multi-year antitrust suit, whether the aggressive business strategy they are contemplating will subject them to treble damages under the Sherman Act in the future.⁶¹ This will be a special concern in the telecommunications industry for many years to come, given the prevalence of claims—many of them plausible—that certain firms still dominate particular markets despite the inexorable growth of cross-platform competition. Likewise, the absence of a regulatory agency to develop and enforce pre-set rules would also make it more difficult for industry pioneers to compete with a dominant firm, particularly if they lack the money or endurance to prosecute an antitrust suit. Finally, and perhaps most important, the industry needs settled rules on intractable market-wide problems that would elude any straightforward antitrust solution, such as the termination rates that any carrier—dominant or non-dominant—may charge others for the privilege of terminating calls that are originated on other carriers’ networks.⁶² In short, prescriptive regulation should theoretically do a better job than after-the-fact antitrust

⁶¹ 15 U.S.C. § 1.

⁶² Under an economic phenomenon known as the “terminating access monopoly,” any given carrier in even a fully competitive market has both the incentive and the ability to charge supra-competitive rates for such call-termination functions. Under the prevailing “calling party’s network pays” rule, regulators have traditionally capped these rates but at different levels, often depending on such economically irrelevant factors as the place of a call’s origination (and thus whether the call is “local” or “long distance”). Dissatisfaction with the ensuing regulatory anomalies has caused some commentators to call for a “bill-and-keep” regime, under which an originating carrier would pay nothing to the terminating carrier if it delivered the call to a designated point on the latter’s network, and the terminating carrier would be forced to recover termination costs from its own end users. The regulatory details of such bill-and-keep proposals can themselves be quite complex. For a full discussion of these “intercarrier compensation” issues, see DIGITAL CROSSROADS, ch. 9.

enforcement in providing all industry actors with greater certainty sooner rather than later—although, as we will discuss, reality does not always match that theory.

Generalist courts also lack the technical expertise needed to make fully informed judgments about the market consequences of any substantive remedies they order. As Frank Easterbrook observes, “[j]udges are the regulators with the broadest portfolios, and thus are the least competent.”⁶³ In theory, this shortcoming could be alleviated either by relegating telecommunications competition issues to specialized courts (much as Congress assigned all patent law appeals to the Federal Circuit) or by permitting judges to retain experts who can explain the industry to them. But these measures present considerable challenges of their own.⁶⁴ Indeed, ever careful to preserve the appearance of judicial self-sufficiency, the courts have sometimes expressed outright hostility to the use of retained experts to help resolve technically complex litigation on the merits, as illustrated by the D.C. Circuit’s 1998 order barring Judge Thomas Penfield Jackson from using Lawrence Lessig as a special master in one phase of the Microsoft antitrust case.⁶⁵ Just as important, generalist judges lack both the resources and the technical proficiency⁶⁶ to resolve the thousands of day-to-day disputes, on pricing and other issues, that must be decided under any local competition regime that involves even minimal leasing and interconnection rights.⁶⁶ Aware of these limitations, the judiciary has generally shown much

⁶³ Frank H. Easterbrook, *When Does Competition Improve Regulation*, 52 EMORY L. REV. 1297, 1297 (2003); see also Richard A. Posner, *Antitrust In The New Economy*, 68 ANTITRUST L.J. 925, 937 (2001) (noting challenge in antitrust cases).

⁶⁴ See, e.g., STEPHEN BREYER, *ECONOMIC REASONING AND JUDICIAL REVIEW* 11-13 (Brookings Inst. Press, 2003) (amplifying his criticisms of FCC decisions) (<http://www.aei.brookings.org/admin/authorpdfs/page.php?id=840>) (discussing use of specialist courts and experts and embracing latter option).

⁶⁵ *United States v. Microsoft Corp.*, 147 F.3d 935, 954-56 (D.C. Cir. 1998).

⁶⁶ Reviews of Huber’s argument have made this same point, explaining that his failure to explain how antitrust courts would oversee “non-discriminatory and reasonably priced interconnection . . . is a notable shortcoming.” Joseph D. Kearney, *Twilight of the FCC?*, 1 GREEN BAG 2D 327, 329 (1998). The government of New Zealand reached a similar conclusion and adopted a sector-specific regulatory regime after experimenting with an antitrust-like approach for telecommunications deregulation. In particular, it found that antitrust courts are ill-suited to manage the ongoing challenges of ensuring reliable cooperation between an incumbent and new entrants (as to, say, interconnection) and develop stable rules in a cost-effective fashion. See Mary Newcomer Williams, *Comparative Analysis of Telecommunications Regulation: Pitfalls and Opportunities*, 56 FED. COMM. L.J. 269, 277 (2003); see also JEAN-JACQUES LAFFONT & JEAN TIROLE, *COMPETITION IN TELECOMMUNICATIONS* 34 (MIT Press, 2000) (examining New Zealand case and concluding that it demonstrates the “difficulty of ensuring competition in the absence of regulation”).

solicitude for the greater expertise of regulatory agencies within the scope of their substantive authority.⁶⁷

These institutional concerns about antitrust courts form the backdrop to the Supreme Court's 2004 decision in *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko*.⁶⁸ which concluded that such courts are generally inappropriate forums for the ongoing management of telecommunications competition policy, at least so long as the industry remains subject to pervasive regulation. Our discussion of *Trinko* first requires a brief review of the historical intersection between judicial antitrust enforcement and prescriptive telecommunications regulation.

Before 1996, as we have noted, much of telecommunications competition policy was managed by a single judge: Harold Greene. In 1982, AT&T agreed to the consent decree that ultimately spun off the Bell companies only after Greene rejected the company's argument that the FCC's comprehensive oversight of the industry precluded any role for antitrust enforcement. Greene found that argument unpersuasive because, as demonstrated by years of regulatory indecision, "the Commission is not and has not been capable of effective enforcement of the laws governing AT&T's behavior."⁶⁹ When it called for the termination of that consent decree in 1996, Congress directed the FCC and its state counterparts to implement wireline competition provisions that go far beyond the FCC's traditional mandate to require interconnection among carriers on just and reasonable terms. At the same time, however, Congress included an antitrust "savings clause" providing that "nothing in the Act or in the amendments made by this Act shall be construed to modify, impair or supercede the applicability of any antitrust laws."⁷⁰

Like so many other provisions of the 1996 Act, this one led to widespread disagreement. Some argued that, despite the savings clause, antitrust courts should generally defer to regulators in deciding whether particular conduct is genuinely anticompetitive and, if so, what sorts of

⁶⁷ For a discussion of the rationale for delegation of lawmaking authority to agencies as opposed to courts, see Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U. L. REV. 1692, 1718-20 (2001) ("*Federal Common Law*").

⁶⁸ 124 S. Ct. 874 (2004).

⁶⁹ *United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131, 168 (D.D.C. 1982). In 1975, AT&T's argument had earlier persuaded Greene's predecessor on the case, Judge Joseph Waddy, to halt further discovery until this jurisdictional point was resolved, thereby winning the company several years of delay. See STEVE COLL, *THE DEAL OF THE CENTURY* 79-82 (1986).

⁷⁰ Pub. L. No. 104-104, § 601(b)(1), 110 Stat. 56 (1996); see also H.R. CONF. REP. NO. 104-458, at 201 (1996) (explaining clause "prevents affected parties from asserting that the [Act] impliedly pre-empts other laws.").

enforcement mechanisms would be appropriate for addressing it.⁷¹ But others contended that the savings clause preserves antitrust remedies as a backstop for the protection of competitors whenever prescriptive regulation proves ineffective in keeping incumbents from exploiting any market power they might have.⁷² These commentators further maintained that, as in the AT&T antitrust litigation, defendants should have to bear the burden of proving that, as a factual matter, regulatory mechanisms are sufficiently effective to make antitrust intervention unnecessary. The major theories of liability expounded by these advocates of continued antitrust enforcement included the controversial “essential facilities” doctrine discussed in Part I above.

In *Trinko*, the Supreme Court resolved this debate with a resounding victory for telecommunications antitrust defendants in general and the Bell companies in particular. The Court began by explaining that, although the antitrust savings clause “preserves claims that satisfy existing antitrust standards, it does not create new claims that go beyond existing antitrust standards.”⁷³ Then, in setting forth those existing standards, the Court sharply limited the circumstances in which courts may impose antitrust remedies—under the essential facilities doctrine or any other—for a monopolist’s refusal to help rivals compete with it. Such remedies often do more harm than good, the Court reasoned, “because of the uncertain virtue of forced sharing and the difficulty of identifying and remedying anticompetitive conduct by a single firm,” and because “[m]istaken inferences and the resulting false condemnations are especially costly” in that “they chill the very conduct the antitrust laws are designed to protect” by “lessen[ing] the incentive for the monopolist, the rival, or both to invest in . . . economically beneficial facilities.”⁷⁴

Moving from substantive to institutional concerns, the court added that “[e]nforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill-suited.”⁷⁵ Finally, the Court concluded, “[t]he 1996 Act’s extensive provision for access” to an incumbent’s facilities and

⁷¹ See, e.g., *Goldwasser v. Ameritech Corp.*, 222 F.3d 390, 401 (7th Cir. 2000); James B. Speta, *Antitrust and Local Competition Under The Telecommunications Act*, 71 ANTITRUST L.J. 99 (2003).

⁷² See, e.g., *Law Offices of Curtis V. Trinko, L.L.P. v. Bell Atlantic*, 305 F.3d 89 (2d Cir. 2002), *rev’d*, 124 S. Ct. 874 (2004); Philip J. Weiser, Goldwasser, *The Enforcement of the Telecom Act, and Antitrust Remedies*, 55 ADMIN. L. REV. 1 (2003); Steven Semeraro, *Speta on Antitrust and Local Competition Under The Telecommunications Act: A Comment Respecting The Accommodation of Antitrust and Telecom Regulation*, 71 ANTITRUST L.J. 147 (2003).

⁷³ *Trinko*, 124 S. Ct. at 878.

⁷⁴ *Id.* at 879, 882.

⁷⁵ *Id.* at 879.

services on regulated terms makes it as unnecessary as it is potentially harmful “to impose a judicial doctrine of forced access.”⁷⁶

In sum, whatever the right institutional arrangement might have been as an original matter, specialized regulatory agencies, led by the FCC, will play the dominant role in setting telecommunications competition policy for the foreseeable future—although, to be sure, the post-*Trinko* fate of antitrust claims unrelated to the essential facilities doctrine remains unclear.⁷⁷ We close by turning to the FCC’s performance in that role and the prospects for improving upon it.

The FCC In Transition

As Winston Churchill remarked in 1947: “Many forms of Government have been tried, and will be tried in this world of sin and woe. . . . No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of Government except all those other forms that have been tried from time to time.”⁷⁸ Continued reliance on the FCC is likewise the worst way to superintend competition issues in the telecommunications industry—except for the alternatives. The problem lies not in expertise, for the FCC has plenty of that. The problem lies instead in the FCC’s ability to serve the other three values we discussed in Part II in connection with the 1996 Act’s local market opening strategy: determinacy, neutrality, and humility.

Determinacy

In theory, Congress delegates legislative rulemaking authority to administrative agencies not just because they are expert in their designated fields, but also because they, unlike Congress, have the institutional agility needed to adjust the rules promptly to accommodate changes in market conditions. In reality, the FCC has long displayed a regrettable tendency to string out its

⁷⁶ *Id.* at 881. For a discussion of the Act’s wireline competition provisions and their enforcement mechanisms, see DIGITAL CROSSROADS, Ch 3 & Appendices A and B.

⁷⁷ See, e.g., *Covad Communications Co. v. BellSouth Corp.*, 374 F.3d 1044 (11th Cir. 2004) (concluding that *Trinko* does not bar traditional “price squeeze” claims); *Z-Tel Communications, Inc. v. SBC Communications, Inc.*, 331 F. Supp. 2d 513 (E.D. Tex. 2004) (denying motion to dismiss, among other things, Sherman Act claims resting on theories other than essential facilities).

⁷⁸ THE OXFORD DICTIONARY OF QUOTATIONS 150 (Oxford Univ. Press, 3d ed. 1979) (quoting Winston Churchill, speech before the House of Commons (Nov. 11, 1947)).

decisions on important matters, despite the D.C. Circuit's exasperated admonition to it more than half a century ago that "[a]gency inaction can be as harmful as wrong action."⁷⁹

Congress has sometimes addressed this problem, with great effect, by giving the FCC strict statutory deadlines for the resolution of particularly time-sensitive issues. For example, the FCC completed its work on the initial implementation of sections 251 and 252 within the specified 180-day period after passage of the 1996 Act,⁸⁰ and, at least on paper, met the separate 90-day deadline under section 271 for deciding any Bell application to enter the long distance market in a particular state.⁸¹ Sometimes, however, the FCC manages to elude congressionally mandated deadlines, as illustrated by its October 2003 decision to defer any resolution on the merits of a petition seeking forbearance from residual broadband unbundling obligations.⁸² And a great many of the Commission's most significant rulemaking proceedings have dragged on for many years because they are subject to no statutory deadline at all.

Such delays stem in part from the elaborate behind-the-scenes dealmaking needed to reach consensus among the Commission's five members. Like cabinet officials, those members are appointed by the president and confirmed by Congress; unlike cabinet officials, however, no more than three of them may belong to the same political party, and, once confirmed, they may

⁷⁹ *American Broad. Co. v. FCC*, 191 F.2d 492, 501-02 (D.C. Cir. 1951); see also *Radio-Television News Dirs. Ass'n v. FCC*, 229 F.3d 269, 272 (D.C. Cir. 2000) (issuing writ of mandamus where the Commission "failed to act for nine months" after "acknowledg[ing] the need for a prompt decision," and "its response consists of an order that further postpones a final decision without any assurance of a final decision"); *In re Monroe Communications Corp.*, 840 F.2d 942, 945-46 (D.C. Cir. 1988) (noting that "an undesirably large amount of time has passed during this [FCC] proceeding; the three years of administrative limbo following the *Initial Decision* have benefited neither the parties nor the public"); *Sierra Club v. Thomas*, 828 F.2d 783, 795 (D.C. Cir. 1987) (noting that "[t]he classic example of [delay depriving parties of rights granted by Congress] is the undue length of rate proceedings conducted by the Federal Communications Commission," which "deprive[s] ratepayers of their statutory right to [just and reasonable] rates"); *Southern Pac. Communications Co. v. American Tel. and Tel. Co.*, 740 F.2d 980, 1000 (D.C. Cir. 1984) ("At minimum, long regulatory delays often have preceded final FCC approval or disapproval of AT&T's allegedly predatory rates, refusals to interconnect, or unreasonable and discriminatory terms and conditions of access to local distribution facilities."); *Telecommunications Research and Action Ctr. v. FCC*, 750 F.2d 70, 80 (D.C. Cir. 1984) (noting "serious" delays and retaining jurisdiction over case until final agency disposition "in light of the Commission's failure to meet its self-declared prior deadlines for these proceedings"); *Nader v. FCC*, 520 F.2d 182, 206-07 (D.C. Cir. 1975) (cautioning Commission, again, "in the strongest terms" about its "dilatatory pace" because court "foresee[s] the breakdown of the regulatory process if the public and the regulated carriers must wait as long as ten years to have important issues decided").

⁸⁰ See 47 U.S.C. § 251(d)(1).

⁸¹ 47 U.S.C. § 271(d)(3). Beneath the surface, those proceedings lasted much longer than 90 days. A Bell company often spent months or years winning state commission support and then obtaining the FCC's own informal indication that a section 271 application would receive serious consideration. Then, if concerns remained that the FCC considered too serious to resolve by the deadline, the Bell company typically withdrew the application ("voluntarily") and refiled it with updated information, thereby restarting the 90-day clock.

⁸² *Verizon Tel. Cos. v. FCC*, 374 F.3d 1229 (D.C. Cir. 2004).

be removed during their five-year terms only for cause.⁸³ The result is that members other than the chairman, even those who belong to the chairman's (and president's) party, may worry more about pleasing their separate constituencies within Congress or the industry than about pleasing the White House. This is a recipe for internecine intrigue and deliberative inefficiency.

Some have cited these concerns as a reason to place the FCC more firmly within the Executive Branch, eliminate the current five member structure, and vest plenary authority in a single decisionmaker at the top of the FCC's organizational chart, much as Congress has organized the Food and Drug Administration and the Environmental Protection Agency.⁸⁴ That proposal has much to commend it. Given the unprecedented pace of change that the Internet has brought to the telecommunications industry, the dilatory costs of the FCC's multi-member structure may now outweigh whatever benefits it was once thought to present in the form of internal checks and balances.⁸⁵ Any such reform, however, would face severe political obstacles in Congress, where legislators have exploited the FCC's instability at the top and its partial detachment from the White House as bases for exerting more direct influence over it than over more traditional Executive Branch agencies.

In all events, any reform of the FCC's own processes could serve as no more than a first step in bringing greater regulatory determinacy to this industry. Equally in need of reform are the FCC's relationships with other institutional players: with the courts that review the FCC's policy choices and with the state commissions that implement those choices. We address each of these institutional relationships in turn.

⁸³ 47 U.S.C. § 154(b)(5), (c) (specifying rules on party affiliation and term of office).

⁸⁴ A notable such recommendation came in the famous Landis Report on Regulatory Agencies. See JAMES M. LANDIS, REPORT ON REGULATORY AGENCIES TO THE PRESIDENT-ELECT (1960); see also Randolph J. May, *The FCC's Tumultuous Year in 2003: An Essay on the Opportunity for Institutional Agency Reform*, 56 ADMIN. L. REV. 1303, 1319-20 (2004).

⁸⁵ Any theoretical deliberative benefits of this multi-member structure go largely unrealized because the Sunshine Act generally prohibits the FCC's members from discussing substantive matters as a group outside of formal public hearings. See 5 U.S.C. §552b(e)(1); see also 5 U.S.C. §552b(c) & (d)(1) (limiting opportunities for closed meetings). Among its other unintended consequences, this restriction increases the importance of each commissioner's "legal advisors," who are subject to no such bar. For a critical look at the Sunshine Act, see Jim

Relations With Reviewing Courts

Any final order of the FCC is subject to judicial review in a federal court of appeals.⁸⁶ The availability of such review contributes to the indeterminacy of telecommunications regulation, particularly when undertaken by activist generalist courts that consider themselves equally equipped as specialist agencies to understand the complexities of this industry.

Under the doctrine of judicial deference formalized in *Chevron U.S.A. v. National Resources Defense Council*,⁸⁷ a reviewing court may not act as a policymaker in its own right. Instead, it may serve only as a backstop against agency action that is patently irrational, inconsistent with a clear statutory (or constitutional) mandate, or inadequately justified in the written document that accompanies the agency's order.⁸⁸ A court that finds fault with an agency's order is expected to remand the matter back to the agency itself for further deliberation within broad bounds.⁸⁹ Traditionally, the reason given for such deference is that agencies have greater topical expertise than judges and are subject to continuing congressional oversight as a check.⁹⁰ But an equally important rationale, particularly in the telecommunications field, is the value of regulatory determinacy.

Every time a court invalidates an FCC rule, it injects uncertainty into the industry that may distort economically efficient behavior for many years. The problem with such judicial second-guessing, which has become quite common, is not just that it delays the ultimate resolution of important policy issues, but also that courts can misunderstand those issues or their industry context and thus adopt rules that, on close inspection, make little policy sense. One

Rossi, *Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decisionmaking*, 92 NW. U. L. REV. 173 (1997).

⁸⁶ A few categories of orders can be appealed only to the D.C. Circuit, whereas the remainder can be appealed either to that court or to any of the eleven regional circuits in which the appealing party resides or has its principal office. 47 U.S.C. § 402; 28 U.S.C. § 2343. Under 28 U.S.C. § 2342, known as the Hobbs Act, challenges to FCC orders *must* be filed in a court of appeals; they may not be filed in federal district court. That provision is generally construed to mean that when one private party sues another in district court, that court must assume the statutory validity of any FCC order that has not been vacated by a reviewing court of appeals. *See* US West Communications, Inc. v. Hamilton, 224 F.3d 1049, 1054-55 (9th Cir. 2000); *Wilson v. A.H. Belo Corp.*, 87 F.3d 393, 400 (9th Cir. 1996); *see generally* FCC v. ITT World Communications, Inc., 466 U.S. 463, 468 (1984).

⁸⁷ 467 U.S. 837, 866 (1984); *see also* Weiser, *Federal Common Law*, at 1715-18.

⁸⁸ *See* 5 U.S.C. § 706 (Administrative Procedure Act; directing courts to invalidate, inter alia, agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

⁸⁹ Weiser, *Federal Common Law*, at 1725 n.177 (discussing, among other things, the Tenth Circuit's approach in *Qwest Corp. v. FCC*, 258 F.3d 1191, 1199-1202 (10th Cir. 2001)).

⁹⁰ *See* Cass Sunstein & Adrian Vermule, *Interpretation and Institutions*, 101 MICH. L. REV. 885, 926 (2003) ("We think that the best defenses of *Chevron* attempt to read ambiguous congressional instructions in a way that is well-attuned to institutional considerations.").

recent example of this phenomenon was the Ninth Circuit's stubborn reaffirmation in 2003 of its misinformed conclusion in 2000 that cable modem service contains a "telecommunications service" component and is presumptively subject to traditional common carrier regulation.⁹¹ Each such instance of judicial hubris can throw the industry into long periods of investment uncertainty, even when the FCC succeeds in persuading the resource-constrained Supreme Court to intervene.

This is no way to run a major sector of the economy. If, alternatively, the courts stand down when faced with close questions about the lawfulness of agency decisions, the worst that can happen is that we as a society will get what we allow our politically accountable institutions—Congress and its administrative delegates—to give us. We are not suggesting that courts should play no role in reviewing the FCC's decisions, despite this industry's unique need for stable and predictable rules. Sometimes the FCC does act irrationally, as illustrated by its once differential regulatory treatment of "cellular" and "PCS" providers,⁹² and sometimes it ignores clear statutory directives, as shown by its complete disregard in 1996 of the Act's "impairment" standard for leasing network elements (discussed in Part I above). Such misguided execution of delegated authority warrants judicial intervention. Nonetheless, reviewing courts should pick their fights and remedies carefully, generally deferring to the FCC's greater expertise and, just as important, to the industry's need for regulatory predictability.

Relations With The States

By enacting the 1996 Act, Congress largely displaced the traditional model of dual jurisdiction, which divides the *subject matter* of telecommunications regulations into mutually exclusive federal and state spheres, with a new model of cooperative federalism in which the FCC and the states often work together in complementary roles on the same subject matter. For Congress, this new model was the only feasible choice for regulating telecommunications competition. The need to hammer out the innumerable details of carrier-to-carrier relations under the 1996 Act presents an immense bureaucratic challenge. Congress was not about to create a

⁹¹ Some courts have similarly invoked the First Amendment not to combat the evils of state-sponsored viewpoint discrimination, but simply as a back-door mechanism for substituting their own policy judgments for those of the expert agency. *See, e.g., Comcast Cablevision of Broward County, Inc. v. Broward County*, 124 F.Supp.2d 685, 696 (S.D. Fla. 2000) (invalidating access requirement on First Amendment grounds); *see also* Stuart Benjamin, *Proactive Legislation and The First Amendment*, 99 MICH. L. REV. 281 (2000).

⁹² *See Cincinnati Bell Tel. Co. v. FCC*, 69 F.3d 752, 766-67 (6th Cir. 1995).

series of FCC branch offices or increase the FCC's staff many times over, and the state commissions provided a ready source of labor for the task at hand.⁹³

Delegating such responsibility to the states, however, unavoidably gives each of them substantial discretion, as sovereign actors, in deciding how federal law will be implemented. This carries both benefits and costs. As one of us has argued, the states' discretion in competition matters allows them to tailor regulatory approaches to local conditions, encourage public participation in the policymaking process, experiment with acceptable alternatives, and compete with one another to develop an optimal scheme of regulation.⁹⁴ As the other of us has noted, however, these benefits can come at a high cost, in the form of delay and confusion as well as massive lawyering and lobbying expenses.⁹⁵ The more complicated and multi-dimensional the regulatory scheme is, the more investment-chilling indeterminacy there will be about the rules of the road.

The debates about state participation in telecommunications policy are only just beginning, as demonstrated by the incipient controversy over the states' authority to regulate VoIP services. For as long as there is telecommunications regulation, there will be controversy about the proper role of the states in its implementation. Nonetheless, as the entire industry gradually coalesces around the Internet protocol, traditional state public utility regulation will quite likely succumb to two of the Internet's most cherished characteristics: its federally enforced freedom from state regulation and its tendency to efface political boundaries of all kinds. Even under federal oversight, however, the states may still play a critical role in managing non-competition-related public policy priorities, such as ensuring 911 functionality in VoIP services and designing subsidy mechanisms for affordable telephone service in rural areas.

⁹³ To be sure, the Act does not literally conscript the state agencies into service. Under section 252(e)(5), any state is free to opt out of this entire framework for implementing the local competition provisions, in which event the FCC stands in the state's shoes, sets the wholesale rates, and resolves any other disputes. So far, however, states have only rarely declined to participate in this regulatory scheme. *Starpower Communications LLC v. FCC*, 334 F.3d 1150 (D.C. Cir. 2003) (reviewing FCC decision rendered in the place of the Virginia State Corporation Commission).

⁹⁴ Weiser, *Federal Common Law*, at 1731-33.

⁹⁵ Jonathan E. Nuechterlein, *Incentives to Speak Honestly About Incentives: The Need for Structural Reform of the Local Competition Debate*, 2 J. TELECOMM. & HIGH TECH. L. 399, 402-05 (2003).

Neutrality

As seasoned observers are all too aware, the Commission often seems more adroit at jerry-rigging intellectually sloppy deals to appease industry factions in the short term than at making the analytically sound but politically difficult policy choices needed to promote long term economic efficiency. Judge Richard Posner memorably described one FCC regulatory scheme (the so-called “finsyn rules”) as a set of “unprincipled compromises of Rube Goldberg complexity among contending interest groups viewed merely as clamoring suppliants who have somehow to be conciliated.”⁹⁶ Such dealmaking is particularly common in regulatory areas in which the FCC’s decisions have immediate and quantifiable effects on consumer bills or on the bottom lines of the regulated parties. Like the line-sharing issue discussed in Part I, the FCC has demonstrated its chronic preference for short term patches over long term solutions in a number of areas, most notably with respect to the challenges of reforming its intercarrier compensation and universal service regimes.

There is no straightforward institutional reform that would force the FCC to stand up to political pressures and chart a course of analytically rigorous neutrality. One obvious priority is to staff the FCC with principled leaders who have demonstrated as much of an appetite for getting policy answers right on the merits as for appeasing political constituencies. And, so long as the person on the top meets that description, vesting ultimate authority in one decisionmaker rather than five would, as discussed, reduce much of the horse-trading that not only delays resolution of important issues, but often compromises their analytical integrity when they are finally issued.

Another impediment to the FCC’s neutrality comes from the formal arrangement of its staff into “bureaus” and “offices” corresponding to the obsolescent regulatory categories drawn by the Communications Act of 1934 and thus to arbitrarily defined industry segments. This organizational structure invites parochialism and occasionally outright protectionism. Spectrum policy reform, for example, is sometimes distorted by the differing perspectives of the Wireless Bureau, which takes special care to protect the incumbent cellular operators; the Office of Engineering and Technology, which looks after unlicensed uses; and the International Bureau, which oversees the spectrum used by satellite providers. A similarly arbitrary division of authority has also complicated the evolution of broadband policy. For example, the Wireline

⁹⁶ *Schurz Comm., Inc. v. FCC*, 982 F.2d 1043, 1050 (7th Cir. 1992).

Competition Bureau, which oversees the battles between incumbent telephone companies and their wireline competitors, tends to focus disproportionately on the significance of traditional wireline platforms offered by telephone companies, as those are the only ones it regulates. Replacing this legacy structure with a more horizontal regulatory orientation would alleviate these institutional concerns at the same time it resolves the more substantive broadband policy anomalies that result from the silo-based model that treats cable companies different from telephone companies even when they offer functionally similar services.

Humility

The FCC was created during the New Deal for two basic missions: micromanagement of the radio spectrum and traditional command-and-control regulation of telephone monopolies. As we have explained, technological developments and regulatory reforms have made each of those missions obsolete. The FCC must now respond by redefining its own role in an industry characterized by increasing competition and a commensurate decrease in the need for constant regulatory oversight.⁹⁷ To make that transition, the FCC must embrace the elusive virtue of regulatory humility.

To repeat Alfred Kahn's observation, the FCC's basic challenge is to reorient its efforts towards "establishing the conditions under which competition may be relied on to determine the outcome" and away from policies "intended, whether consciously or unconsciously, to *dictate* that outcome."⁹⁸ In practice, this means that, in an increasing number of regulatory areas, the FCC should focus more on back-end enforcement of basic competition norms, remedying only clear acts of anticompetitive conduct, instead of developing front-end prophylactic safeguards designed to anticipate all possible scenarios.⁹⁹ To be sure, at least for the foreseeable future, there are innumerable areas—such as interconnection, number portability, and intercarrier compensation—in which pre-set rules will be essential to industry stability. And the FCC thus will need to develop and superintend such rules for years to come. On the margins, however, as competition develops and relieves the need for comprehensively prescriptive regulation, the

⁹⁷ Philip J. Weiser, *Models of Regulation and Regulatory Challenges*, 2 J. TELECOMM. & HIGH TECH. L. 1, 14-15 (2003); Weiser, *Paradigm Changes*, *supra*, at 837-838.

⁹⁸ KAHN, LETTING GO, *supra*, at 70 (1998).

⁹⁹ To be sure, existing law significantly complicates the FCC's ongoing efforts to develop a more professional and effective approach to enforcement. See DIGITAL CROSSROADS, Appendix B.

Commission should embrace the more neutral, adjudicative approach of an enforcement agency like the FTC.

This institutional reorientation will force the FCC to check its traditional instinct to “plan in advance of foreseeable events, instead of waiting to react to them.”¹⁰⁰ The basic problem with such preemptive regulation is that, as the history of regulation has shown, policymakers are often wrong both in their predictions of how the market will develop and in their judgments of what regulatory interventions will best promote consumer welfare. Nowhere has such bureaucratic miscalculation harmed the public interest more than in the FCC’s assumption of the “wise man” role in dictating how the airwaves should be used. In contrast, the FCC’s legacy has been brighter when it has exercised the passive virtues while awaiting concrete evidence that the market actually needs regulatory intervention. For example, outgoing Chairman Michael Powell laudably confined himself to noting the mere prospect for “Net neutrality” rules in the event they ever become necessary rather than calling for the actual imposition of such rules before a clear need for them has been established.

Of course, when particular economic conditions demonstrably lead to market failure, regulators should intervene sooner rather than later. Our point is that regulators should not blithely assume that a market will fail if it has not already done so, nor should they proceed on the assumption that, because they have regulatory authority, they should exercise it somehow or another. This is regulatory humility: knowing when one’s judgments as a policymaker cannot do better, and might do much worse, than the collective judgments of competing firms and millions of self-interested consumers operating in a genuinely free market.

3. Conclusion

In retrospect, it should not be surprising that an institution initially designed to regulate monopolies in perpetuity is poorly designed to intervene in the market just enough to promote competition and then, as appropriate, stand out of the way.¹⁰¹ That new mission, however, is the FCC’s most important assignment. The ultimate end game in telecommunications regulation—

¹⁰⁰ *Rules re Microwave-Served CATV*, 38 FCC 683, 701 (1965).

¹⁰¹ The change in the regulatory mentality over the last two generations has been nothing short of revolutionary. As Harold Demsetz summarized the old model of public utility regulation, “regulation has often been sought because of the inconvenience of competition.” Harold Demsetz, *Why Regulate Utilities?*, 11 J. L. & ECON. 55, 61 (1968).

which, to be sure, will take many years to reach—should be a deregulatory environment in which market forces, rather than FCC officials, dictate the most productive uses of the radio spectrum, create cross-platform competition in the last mile, and devise efficient and sustainable intercarrier compensation and universal service regimes. Of course, even in that world, regulators will play an important vestigial role in managing social welfare priorities such as universal service and 911 dialing, and they may well need to exercise some continuing oversight of basic interconnection arrangements. For the most part, however, their role as prescriptive regulators of industry competition should slowly come to an end. Facilitating that institutional transition ranks among Congress’s most important challenges as it considers fundamental changes to American telecommunications law.