

MAKING SPECTRUM REFORM “THINKABLE”

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INTRODUCTION

In 1997, then FCC Chairman Reed Hundt delivered a speech to the Brookings Institution entitled, “Thinking About Why Some Communications Mergers are Unthinkable.”¹ The Chairman’s specific target was an AT&T/RBOC merger, and he declared that any “combination of AT&T and an RBOC is unthinkable.”² Hundt’s speech was a response to a trial balloon that had been floated by AT&T’s CEO, which was then in widely-rumored negotiations with SBC over a

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1. Reed E. Hundt, *Thinking About Why Some Communications Mergers Are Unthinkable*, (Jun. 19, 1997), at <http://www.fcc.gov/Speeches/Hundt/spreh735.html>.

2. *Id.* Chairman Hundt was not the only one to try to describe the merger in such terms, with the Washington Post reporting: “It just takes my breath away, the chutzpah of it,” Alfred Kahn, the father of airline deregulation, said of the possible AT&T-SBC hookup. “This is one where you’d want to blow the whistle.” Steven Pearlstein & Mike Mills, *Telecommunications Deals Set Off Antitrust Alarms; Some Say AT&T, News Corp. Plans Go Too Far*, WASH. POST, May 29, 1997, at E1.

possible merger.³ Although any AT&T/SBC merger at that time likely would have resulted in the separation or spin-off of a wholesale-only loop company – a structure that grew directly out of the antitrust theory of the AT&T Consent Decree⁴ and a structure that enjoyed some academic support⁵ – “the deal’s chances of going through were vaporized overnight”⁶ by the speech. Hundt’s premise was that the merger was fundamentally inconsistent with the premises of the 1996 Act, and, in fact, ten days after the speech, the deal was dead.⁷

Today, eight short years later (in early 2005), much has changed. AT&T and SBC are merging, with little resistance expected. More importantly, there seems to be growing traction for a comprehensive re-writing of the laws governing communications markets. Academic calls for a new regulatory structure are not new. Ithiel de Sola Pool, whose ground-breaking book anticipated genuine technological convergence by about 20 years, also anticipated the regulatory problem: “If the boundaries between publishing, broadcasting, cable television, and the telephone network are indeed broken in the coming decades, then communications policies in all advanced countries must address the issue of which of the three models will dominate public policy regarding them.”⁸ In recent years, as this conference and previous conferences here in Boulder confirm, genuine glimpses of convergence have multiplied these academic calls.

What is new is that key politicians and regulators are also calling for re-writing the Act. Senator John McCain, recalling his “long held belief

3. Disclosure: at the time, I was an associate attorney at Sidley & Austin and did do work for AT&T.

4. *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *aff’d sub nom.*, *Maryland v. United States*, 460 U.S. 1001 (1983). The theory of the Decree, of course, was that the owner of a natural monopoly segment of the telecommunications network (then the local exchange) would have the “incentive and ability” to leverage that monopoly into long distance markets. See generally 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); Glen O. Robinson, *The Titanic Remembered: AT&T and the Changing World of Telecommunications*, 5 YALE J. ON REG. 517 (1988) (reviewing GERALD R. FAULHABER, *TELECOMMUNICATIONS IN TURMOIL: TECHNOLOGY AND PUBLIC POLICY* (1987)).

5. See generally T. Randolph Beard, et al., *Why ADCo? Why Now? An Economic Exploration into the Future of Industry Structure for the “Last Mile” in Local Telecommunications Markets*, 54 FED. COMM. L.J. 421 (2002). But see Robert W. Crandall & J. Gregory Sidak, *Is Structural Separation of Incumbent Local Exchange Carriers Necessary for Competition?*, 19 YALE J. ON REG. 335 (2002) (criticizing idea of structural separation).

6. Allan Sloan, *Remember How the Mighty AT&T Stumbled as SBC Acquisition of Ameritech Unfolds*, WASH. POST, May 19, 1998, at C3.

7. See, e.g., Paul Farhi, *AT&T, SBC Halt Talks on Merger*, WASH. POST, June 28, 1997, at D1.

8. ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM: ON FREE SPEECH IN AN ELECTRONIC AGE* 8 (1984).

that the 1996 Act is a fundamentally flawed piece of legislation,” stated in 2004 that “some of my colleagues have joined me in expressing the need for Congress to take a serious look at reforming the Act.”⁹ Former FCC Chairman Powell has similarly said to the Senate Commerce Committee that “it is my responsibility as your expert agency to tell you, I think the days are numbered on the way we’re doing this under the current statute. I do believe there is going to have to be a statute that recognizes these dramatic technical changes and gets us out of the buckets of the ‘96 Act.”¹⁰ As the 109th Congress approached (and began), similar calls were heard from a number of important legislators.¹¹

This paper focuses on the possibility of significant spectrum reform as an element of any communications legislation – to the extent that a rewrite of the Act is “thinkable,” whether spectrum reform too is “thinkable.” In particular, this paper asks whether spectrum reform is likely to be included in the legislative agenda and also asks whether there are concrete steps that can be pursued to increase the likelihood of Congressional attention to spectrum reform. The purpose is not, principally, to argue spectrum reform on the merits. A substantial literature, from the FCC and from academics, has arisen in the past several years making the case for spectrum reform¹² – and the current work has its roots in serious criticism of government spectrum allocation and use rules going back at least as far as Ronald Coase’s famous 1959

9. *Voice Over Internet Protocol (VOIP) Hearing Before the Senate Commerce, Sci., & Transp. Comm.*, 108th Cong. (2004) (statement of John McCain).

10. *Voice Over Internet Protocol (VOIP) Hearing Before the Senate Commerce, Sci., & Transp. Comm.*, 108th Cong. (2004) (statement of Michael K. Powell).

11. See *infra* notes 58-61 and accompanying text.

12. As discussed *infra* notes 106-14 and accompanying text, the FCC has made spectrum reform one of its strategic goals, and its Spectrum Policy Task Force Report provides in important summary of current regulation, the need for reform, and possible alternatives. See FCC, Spectrum Policy Task Force Report, ET Dkt. No. 02-135 (2002), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-228542A1.pdf. A report by two FCC economists presents a persuasive case for largely privatizing the spectrum, through a so-called “big bang” auction. See EVAN KWEREL & JOHN WILLIAMS, A PROPOSAL FOR A RAPID TRANSITION TO MARKET ALLOCATION OF SPECTRUM (FCC Office of Plans and Policy, Working Paper No. 38, Nov. 2002), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-228552A1.pdf.

The academic literature is extensive, and, given that I am not here arguing the merits, I will not attempt to cite all of it. Several central articles, which themselves provide entry into most of the other literature, are: Stuart N. Benjamin, *Spectrum Abundance and the Choice Between Private and Public Control*, 78 N.Y.U. L. REV. 2007 (2003); Thomas W. Hazlett, *The Wireless Craze, the Unlimited Bandwidth Myth, the Spectrum Auction Faux Pas, and the Punchline to Ronald Coase’s “Big Joke”: An Essay on Airwave Allocation Policy*, 14 HARV. J.L. & TECH. 335 (2001); Yochai Benkler, *Some Economics of Wireless Communications*, 16 HARV. J.L. & TECH. 25 (2002); GERALD R. FAULHABER & DAVID J. FARBER, RETHINKING RIGHTS AND REGULATIONS 193 (Lorrie Faith Cranor & Steven S. Wildman eds., 2003); Ellen P. Goodman, *Spectrum Rights in the Telecosm to Come*, 41 SAN DIEGO L. REV. 269 (2004).

article.¹³ The literature, of course, is not unanimous on prescriptions for spectrum reform, with a significant divide between those who call for a largely property-based solution and those who call for a largely unlicensed solution, but almost no one has risen to a defense of the status quo.¹⁴

Spectrum reform is only one part of a comprehensive communications law reform, but focusing on its political possibilities makes sense for several reasons. First, the fundamental premise of spectrum law – government ownership of the spectrum and licensing of uses – has changed little since the Federal Radio Act of 1927. The 1996 Act rewrote much of traditional wireline regulation, explicitly preferencing competition to monopoly in all markets¹⁵ and providing an explicit mechanism for eliminating tariffing, rate regulation, and other industry supervision.¹⁶ But, as Thomas Hazlett has noted: “Despite ambitious rhetoric regarding the scope of liberalization in telecommunications markets, the omnibus 1996 Telecommunications Act did shockingly little to disturb age-old regulatory arrangements in radio and television broadcasting.”¹⁷ The spectrum reform component of earlier bills was broken off into a separate proposal, and Congress never returned to it.¹⁸ Second, the principal reason for the lack of reform has been political intractability – not the lack of need for spectrum reform. As Hazlett and others have shown, the original structure of the Radio Act¹⁹ in large part protected incumbent broadcaster interests. And incumbent interests can largely explain both changes made (such as extending license terms, eliminating renewal hearings, granting digital television (DTV) licenses) and changes refused (such as low power radio, and certain spectrum relocations) including the absence of spectrum

13. Ronald H. Coase, *The Federal Communications Commission*, 2 J.L. & ECON. 1 (1959). Leo Herzel is generally credited with “deposit[ing] the idea into the literature” in 1951, in a student commentary in the University of Chicago Law Review. Thomas W. Hazlett, *The Law and Economics of Property Rights to Radio Spectrum: Introduction*, 41 J.L. & ECON. 521, 522 (1998); see Leo Herzel, “Public Interest” and the Market in Color Television Regulation, 18 U. CHI. L. REV. 802 (1951).

14. My own call for spectrum reform, largely in a property rights direction, is James B. Speta, *Deregulating Telecommunications in Internet Time*, 61 WASH. & LEE L. REV. 1063, 1111-25 (2004).

15. See generally Thomas G. Krattenmaker, *The Telecommunications Act of 1996*, 29 CONN. L. REV. 123 (1996).

16. See 47 U.S.C. § 160 (2000).

17. Thomas W. Hazlett, *Physical Scarcity, Rent Seeking, and the First Amendment*, 97 COLUM. L. REV. 905, 905-06 (1997); see also Thomas G. Krattenmaker, *The Telecommunications Act of 1996*, 29 CONN. L. REV. 123, 157 (1996) (“The new Act does very little to reform broadcasting law and policy in helpful ways.”).

18. See *infra* notes 76-78 and accompanying text.

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

reform in the 1996 Act.²⁰ Third, the potential benefits of spectrum reform are large, allowing services currently in great demand to grow, increasing the possibility of permitting intermodal competition with wireline carriers, and creating necessary space for innovative technologies to develop.

Although the benefits of spectrum reform appear substantial, the political economy for wholesale spectrum reform does not look promising. The FCC has been moving in the right direction, offering studies discussing the benefits of reform and liberalizing spectrum as much as it dares. And, the academic literature is burgeoning. But there is little suggestion that a reform that fundamentally reduces government control of spectrum uses is on the political agenda, or that a window of opportunity is opening in which to pass truly significant spectrum legislation. If anything, recent events, such as Congress's override of the FCC's attempt to make low power radio licenses available, have confirmed the power of politics over the policy community (if such confirmation were necessary).²¹ Wholesale reform would require a significant legislative commitment, but evidence that it is on the agenda is slim.

So, should policy-minded academics fold up the spectrum reform tent and move on to other issues? Of course not. First, it is important that the policy community resolve, so far as is possible, the arguments concerning spectrum reform and detail its implementation. When political opportunities arise, solutions must be ready to go or the process will move on to other topics, where action can yield results without intense efforts to research, generate, and analyze competing alternatives. Every now and again, legislation does get passed, as with the end-of-year approval of the Commercial Spectrum Enhancement Act.²² This Act, while limited in scope, does embody some of the programs advanced by the FCC and the policy community, namely the allocation of (some) federal government spectrum to commercial service and the use of auction proceeds to fund federal-user relocation. Second, ideas do matter, not only to generate consensus in the policy community, but also to persuade policymakers. Finally, to the extent that there is some window for reform of the Communications Act generally (a contestable

20. See Hazlett, *supra* note 17, at 906.

21. The FCC proposed to license low power FM stations and, after long study, concluded that interference risks were so minimal that licensing should proceed. Following intense lobbying by incumbent broadcasters, Congress passed a statute expressly forbidding such licenses. See generally Stuart M. Benjamin, *The Logic of Scarcity: Idle Spectrum as a First Amendment Violation*, 52 DUKE L.J. 1 (2002).

22. Commercial Spectrum Enhancement Act, Pub. L. No. 108-494 (2004) (amending 47 U.S.C. § 923(g)).

proposition²³), action on spectrum reform might be possible by better relating spectrum reform to the general agenda of communications reform. Indeed, in some regards, progress to date on spectrum reform has much in common with the preludes to earlier deregulatory success, such as transportation and long-distance.

In Part I, I explore the spectrum reform idea, and note its growth in the policy community. This advance has not been matched, however, by a similar prominence on the legislative agenda, and Part I also looks to hearings held and bills introduced in recent Congresses to demonstrate this. In Part II, I review the calls in the political community for reform of the Communications Act and note that, from this perspective, spectrum reform does not appear to be a prominent part of the agenda. Apart from the FCC, which in this regard is more a part of the policy community than part of the political process, government actors discuss only small modifications of the spectrum laws, not the wholesale reforms being floated by academics and advocacy groups. Part III brings these two parts together. I look at current events around spectrum reform and compare them to the events leading up to transportation deregulation and the opening of long-distance markets. Despite the similarities, and especially the leading work of the FCC to introduce the fundamentals of spectrum reform in a number of contexts, the current environment around spectrum reform does not show a fully-worked out policy consensus, nor is there an obvious aligning of interest groups. Until a policy entrepreneur comes onto the political scene to seize the issue, incremental reforms will likely continue to be the order of the day – although these, taken together, may themselves change the landscape sufficiently to allow more fundamental action.

I. THE SPECTRUM REFORM IDEA – HAS ITS TIME COME?

Over the past several years, spectrum reform has occupied a prominent position on the FCC's agenda²⁴ and on the agenda of the policy community more broadly. By "spectrum reform," I mean the significant replacement of the so-called "command and control" spectrum allocation system currently embodied in the Communications Act and in FCC practice. To be sure, some of the most significant features of that system have already been dismantled (more on this later). Licenses are no longer assigned through comparative hearings, but rather through

23. See *infra* notes 58-61 and accompanying text.

24. It is not a new item on the FCC's agenda. For some time, economists and others at the Commission have strongly suggested more market-based approaches to spectrum allocation. See, e.g., EVAN KWEREL & ALEX D. FELKER, USING AUCTIONS TO SELECT FCC LICENSEES (FCC Office of Plans and Policy, Working Paper No. 16, May 1985).

auctions.²⁵ Similarly, renewals and transfers of licenses are now presumptively allowed.²⁶ These amendments and administrative action to increase use and exclusion rights all add up to make current spectrum licenses resemble property rights.²⁷ What remains to be done – and what is the focus of current writing – is, at a minimum, the dismantling of the band plan's restriction on types of services that can be provided by licensees, or, more maximally, dismantling of the governmental licensing process entirely.

The FCC has been focused on these issues for much of the past five years. The most prominent piece is the Spectrum Policy Task Force Report, which garnered substantial attention for its comprehensive examination of the problem and its discussion of proposals to substantially reduce spectrum licensing.²⁸ But the FCC and its Commissioners and Bureau Chiefs have also given speeches and written policy papers that raise the possibility of getting the FCC out of the licensing business.²⁹ More importantly, the FCC has taken a number of concrete steps that reduce government control over spectrum uses. For example, the FCC has authorized a few secondary spectrum markets,³⁰ and has also authorized the use of some ultrawideband devices even in licensed spectrum.³¹ Similarly, the FCC has significantly expanded the amount of unlicensed spectrum and proposed additional increments.³²

In the broader policy community, which includes academics, consultants, and advocacy groups,³³ this sort of fundamental spectrum reform has been increasingly on the agenda, as it is again at this conference. As one rough measure³⁴ of its increasing currency in

25. See 47 U.S.C. § 309(j) (2000); Thomas W. Hazlett, *Assigning Property Rights to Radio Spectrum Users: Why Did FCC License Auctions Take 67 Years?*, 41 J.L. & ECON. 529 (1998) (discussing 1993 legislation requiring auctions in most circumstances).

26. See 47 U.S.C. § 309(d), (k)(4) (2000).

27. See Howard A. Shelanski & Peter W. Huber, *Administrative Creation of Property Rights to Radio Spectrum*, 41 J.L. & ECON. 581 (1998); Douglas W. Webbink, *Radio Licenses and Frequency Spectrum Use Property Rights*, 9 COMM. & L. 3 (1987).

28. See Spectrum Policy Task Force Report, *supra* note 12.

29. See, e.g., KWEREL & WILLIAMS, *supra* note 12.

30. See, e.g., Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Report & Order & Further Notice of Proposed Rulemaking*, 18 FCC Rcd. 20,604 (2003).

31. Wideband Unlicensed Devices and Ultra-Wideband Technology, *Second Report and Order*, ET Dkt. 98-153 (Dec. 15, 2004).

32. See Spectrum Policy Task Force Report, *supra* note 12.

33. See generally JOHN W. KINGDON, *AGENDAS, ALTERNATIVES AND PUBLIC POLICIES* 53 (2d ed. 2002) (placing academics, researchers, and consultants, together with interest groups, in a policy community outside of government, but interacting with it).

34. The numbers that follow, of articles and of hearings, are my own work, but, because I am intending only to convey a rough sense of the growth of the idea – which seems incontestable in any event – I did not employ procedures, such as multiple raters and tests for inter-rater reliability, that would be necessary for a firm representation. Nevertheless, I will

academic circles, I looked at articles published in law reviews and in economics journals.³⁵ In 1981-1985, only 5 articles even mentioned the possibility of wholesale spectrum reform, and only two discussed it as a central thesis.³⁶ In 1986-1990, the topic received only 7 mentions, and was the central thesis of three articles. The issue began to take off in the five years between 1991 and 1996, in part leading up to and then following legislation that required auctions for the assignment of (most) licenses. In that five-year period, 22 articles mentioned and three articles substantially advocated the possibility of spectrum without government entry controls. But it was only following 1996 that substantial numbers of academic articles began to propose a wholesale elimination of the government role in spectrum allocation. Between 1996 and 2000, 73 articles mentioned and 34 articles advocated fundamentally different spectrum allocation. Fourteen of those articles were in a 1998 special issue of the *Journal of Law and Economics* devoted to property rights in spectrum,³⁷ but there was still significant growth. Finally, from 2001 to the present (December 2004, or only 4 years), there were 70 total articles with 28 taking a substantial position in favor of eliminating governmental controls. This rough measure is confirmed by the fact that Coase's 1959 article received very little notice until the 1990s, with citations picking up significantly only in the second half of the decade.³⁸ The Social Science Citation Index reports a total of 170 cites since 1959. No year prior to 1990 has more than 5 citations, but the average in 1995 and after is 11/year.³⁹ Think tanks and advocacy groups have also been active in spectrum reform, with a significant number of policy papers issued in the past several years.⁴⁰

retain, for a modest time, the work product from which I gathered these numbers, should anyone wish to duplicate or disprove the numbers.

35. I did a number of searches in the LexisNexis law review database and the Econ/Lit database, as well as a review of the Index to Legal Periodicals.

36. The line between a mention and a use of the argument as a central thesis was somewhat subjective. A "mention" was more than a simple cite; in general, the article was addressed to a different or more limited subject of communications reform (or, occasionally property reform), but the article noted or briefly discussed the possibility of spectrum being outside government control.

37. Symposium, *The Law and Economics of Property Rights to Radio Spectrum*, 41 J.L. & ECON. 521 (1998). Despite the title of the symposium, one article advocated the commons approach. See Eli Noam, *Spectrum Auctions: Yesterday's Heresy, Today's Orthodoxy, Tomorrow's Anachronism. Taking the Next Step to Open Spectrum Access*, 41 J.L. & ECON. 765 (1998).

38. The SSCI on-line edition permits an analysis of citations by year.

39. The SSCI does not index all law reviews.

40. See, e.g., THOMAS W. HAZLETT & ROBERTO E. MUÑOZ, A WELFARE ANALYSIS OF SPECTRUM ALLOCATION POLICIES (AEI/Brookings Working Paper No. 04-18, Aug. 2004); GERALD R. FAULHABER, PRESENTATION: THE SPECTRUM DEBATE (AEI/Brookings Event Proceeding No. 04-16, May 2004); KEVIN WERBACH, OPEN SPECTRUM: THE NEW WIRELESS PARADIGM (New America Foundation, Oct. 2002).

This activity in the broader policy community has not been matched by significantly greater attention in the government policy community, although some attention has been and is being paid. Below, I discuss some specific instances of spectrum legislation. But, in the past five years, the ideas of fundamental privatization or of wide spectrum commons have received only little traction. Of 1331 hearings held in the House and Senate Commerce and Judiciary Committees, the four committees with jurisdiction over spectrum policy, only a dozen included any testimony making a mention of reforming government out of the spectrum process and only six were addressed in any significant part to such fundamental issues of spectrum policy.⁴¹ Communications matters were often on the agenda, representing somewhat more than 12.5% of all hearings (and approximately 16% of the commerce committees' agenda).⁴² The issues, however, were generally much more specific, and were often prompted by current events, such as multiple hearings on broadcast indecency following the Super Bowl halftime show of 2004.⁴³ Some hearings did touch on spectrum issues, including hearings on the

41. Lists of all hearings were compiled from the LexisNexis CIS database and from the committees' own websites. It is necessary to use the committees' websites because hearings do not reach the CIS indexes until printed by the GPO, and the GPO does not print hearings until they are released by the committee. According to the GPO, "most" hearing transcripts are released, but only two months to two years after the hearing occurs. Promising titles were reviewed. Additional backstop research was done through subject matter searches on the LexisNexis congressional hearing database. This last database is selective, but its provider states that it includes significant hearings. The six hearings that included an important focus on spectrum matters were: (1) Telecommunications Policy: A Look Ahead Before the Senate Commerce, Sci., & Transp. Comm., 108th Cong. (2004); (2) Future of Spectrum Policy Before the Senate Commerce, Sci., & Transp. Comm., 108th Cong. (2003); (3) Hearing on "Spectrum Management: Improving the Management of Government and Commercial Spectrum Domestically and Internationally" Before the Senate Commerce, Sci., & Transp. Comm., 107th Cong. (2002); (4) Hearing on Spectrum Management and Third Generation Wireless Service Before the Senate Commerce, Sci., & Transp. Comm., 107th Cong. (2001); (5) The FCC's UWB Proceeding: An Examination of the Government's Spectrum Management Process Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce, 107th Cong. (2002); and (6) A Review Of The FCC's Spectrum Policies For The 21st Century And H.R. 4758, The Spectrum Resource Assurance Act Before the Subcomm. On Telecommunications, Trade, and Consumer Protection of the House Comm. on Energy & Commerce, 106th Cong. (2000).

42. Here, I defined communications matters somewhat broadly, to include matters of Internet policy and to include intellectual property matters that are significantly related to communications networks, such as peer-to-peer filesharing. Of the total 1331 hearings, 169 qualified as communications related; of the 757 hearings held by the House and Senate Commerce Committees, 121 were communications related.

43. *H.R. 3717 Broadcast Decency Enforcement Act of 2004 Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 108th Cong. (2004); *Can You Say that on TV: An Examination of the FCC's Enforcement with Respect to Broadcast Indecency Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 108th Cong. (2004).

potential recovery of Nextwave's spectrum,⁴⁴ spectrum needs for public safety and first responders,⁴⁵ and implementation of enhanced 911 service for cellular systems.⁴⁶

Auctions and commons have been the focus of several bills, although the proposals were modest by comparison to the academic and FCC proposals. Congress and the executive have been successful in making some additional federal spectrum available, such as the so-called Commercial Spectrum Enhancement Act (CSEA) passed late last year.⁴⁷ (But Congress has also slowed certain spectrum auctions, as it did with the 700 MHz spectrum allocated to certain television channels.⁴⁸) Similarly, some proposed legislation has sought additional allocations of unlicensed spectrum – one even using the term “spectrum commons” in its title.⁴⁹ These bills died in committee,⁵⁰ and, under the CSEA, much of the spectrum that these proposals would have committed to

44. *Hearing on the Settlement between the U.S. Government and Nextwave, Inc. To Resolve Disputed Licenses Before the Subcomm. on Commercial and Admin. Law and the Subcomm. on Courts, the Internet and Intellectual Property of the House Judiciary Comm.* 107th Cong. (2001); *The Settlement between the U.S. Government and Nextwave, Inc. To Resolve Disputed Spectrum Licenses Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 107th Cong. (2001).

45. *Spectrum for Public Safety Users Before the Commerce, Sci., & Transp. Comm.*, 108th Cong. (2004); *The Spectrum Needs of Our Nation's First Responders Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 108th Cong. (2003); *Electronic Communications Networks in the Wake of September 11th Before the House Energy and Commerce Comm.*, 107th Cong. (2001); *Protecting Homeland Security: A Status Report on the Interoperability Between Public Safety Communications Systems Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 108th Cong. (2004).

46. *H.R. 2898, A Bill to Improve Homeland Security, Public Safety, and Citizen Activated Emergency Response Capabilities Through the Use of Enhanced 911 Wireless Services Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 108th Cong. (2003); *Wireless E-911 Implementation: Progress and Remaining Hurdles Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 108th Cong. (2003); *Ensuring Compatibility with Enhance 911 Emergency Calling Systems: A Progress Report Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy & Commerce*, 107th Cong. (2001).

47. Commercial Spectrum Enhancement Act, Pub. L. No. 108-494 (2004) (amending 47 U.S.C. § 923).

48. See Auction Reform Act of 2002, Pub. L. No. 107-195, 116 Stat. 715 (2002) (amending 47 U.S.C. § 309(j)). The Act was something of a mixed bag, in that it eliminated prior mandatory deadlines for auction of the 700 MHz spectrum, confirmed the FCC's authority to set the spectrum for auction in the future, and yet halted certain scheduled auctions in their tracks.

49. See Spectrum Commons and Digital Dividends Act of 2003, H.R. 1396, 108th Cong. (2003). A bill with very similar provisions, the Wireless Technology Investment and Digital Dividends Act of 2002, H.R. 4641, was also introduced in the 107th Congress. And the Jumpstart Broadband Act, introduced as H.R. 340, H.R. 363, and S. 159 in the 108th Congress also specifically called for a 255 MHz band for unlicensed devices.

50. See bill summary and tracking on Thomas, Library of Congress.

unlicensed uses will instead be auctioned to pay for the relocation costs of incumbent federal users.⁵¹

These issues also have not seemed to penetrate the media. This confirms their relative absence from the true political agenda, for, although public opinion doubtlessly has an effect on the development of a legislative agenda, "[t]he media report what is going on in government, by and large, rather than having an independent effect *on* government agendas."⁵² In the past two years, media coverage of spectrum issues has focused on "current event" issues, such as the disposition of the Nextwave spectrum and the transition to digital television, and media ownership.⁵³ Apart from two articles noting the administration's undertaking a spectrum policy study (the NTIA study) in 2003,⁵⁴ spectrum policy more broadly drew only a paltry seven mentions, three on the Op-Ed pages.⁵⁵ And not all of the coverage was favorable: one of the most prominent pieces was an Op Ed in the Washington Post declaring that the FCC was contemplating a spectrum privatization that would "result in the biggest special interest windfall at the expense of American taxpayers in history."⁵⁶

II. THE CURRENT AGENDA FOR TELECOMMUNICATIONS REFORM

Although fundamental spectrum reform does not appear to be high on the legislative agenda, many legislators have called for an inquiry into the Telecommunications Act, with some calling for a re-writing of the Act. To be sure, some legislators have favored broad legislative action for some time, with Senator McCain's criticisms of the 1996 Act in particular of long standing.⁵⁷ And the notion of re-writing the Act is

51. Commercial Spectrum Enhancement Act, Pub. L. No. 108-494 § 203 (2004).

52. KINGDON, *supra* note 33, at 59.

53. I looked at coverage of spectrum issues, through Lexis searches, from January 1, 2003, in the Washington Post, Los Angeles Times, New York Times, and Wall Street Journal.

54. See Mark Wingfield, *Federal Panel Will Explore Wireless Spectrum Use*, WALL ST. J., June 6, 2003, at B6; Jube Shiver Jr., *U.S. To Review Airwave Allocation*, L.A. TIMES, June 6, 2003, at BUSINESS 3.

55. See David Wessel, *Radio Daze: Technology and the Airwaves*, WALL ST. J., June 24, 2004, at A2; Peter Huber, *Attack of the 'Cuisinart' Regulators*, WALL ST. J., Feb. 26, 2004, at A10 (Op Ed); *Review and Outlook: Err Waves*, WALL ST. J., May 30, 2003, at A6 (Op Ed); Jube Shiver Jr., *Plan for Spectrum Is Making Waves*, L.A. TIMES, May 7, 2004, at C1; Norman Ornstein & Michael Calabrese, *A Private Windfall for Public Property*, WASH. POST, Aug. 12, 2003, at A13 (Op Ed); Stephen Labaton, *U.S. Moves to Allow Trading of Radio Spectrum Licenses*, N.Y. TIMES, May 16, 2003, at A1 (reporting on FCC action to permit subleasing); Yuki Noguchi, *FCC To Let Companies Sublease Airwaves*, WASH. POST, May 16, 2003, at E05 (same).

56. Norman Ornstein & Michael Calabrese, *A Private Windfall for Public Property*, WASH. POST, Aug. 12, 2003, at A13 (Op-Ed).

57. See *Voice Over Internet Protocol (VOIP) Hearing*, *supra* note 9 and accompanying text.

becoming something of a standard, which some legislators put forward even if nothing in particular is on the legislative agenda. For example, prior to a May 2004 hearing in which the House Commerce Committee essentially convened to see “the latest gizmos from technology and communications companies,”⁵⁸ then-Committee Chairman Fred Upton included in his statement the familiar academic criticism that “stovepipe regulation perpetuated by the Telecommunications Act of 1996 needs to be revisited given the evolution in technology and the marketplace that was virtually unforeseen at the . . . Act’s creation.”⁵⁹ Other legislators have made similar statements.⁶⁰

Despite the partial development of this theme, many of the legislative calls for a “re-write” of the telecommunications laws have come in response to or in the context of a particular issue, and privatizing spectrum (or turning it over to commons) is not often mentioned as part of the agenda. For example, Senator John Sununu, who in December 2004 said, “I believe we will write a telecom bill in 2005,” also “said the legislation will cover a number of areas, including a realignment of the universal service fund that is intended to support phone and Internet service in rural and high-cost areas; federal rules for broadband voice providers; and possibly a deadline for the return of analog spectrum occupied by broadcasters.”⁶¹

Similarly, voice over Internet Protocol telephony has prompted many of the calls for a new Act.⁶² Representatives Rick Boucher and Cliff Stearns, who last year introduced legislation to clarify regulatory treatment of VoIP and some other IP-based services, said that the bill was intended to “‘frame the debate for next year,’ when a major legislative battle to rewrite the 1996 Telecommunications Act is likely to begin.”⁶³ Senator Stevens has discussed VoIP as a motivator for broader reform as

58. Drew Clark, *Tech Convergence Demands Rethinking of Rules*, NAT’L JOURNAL’S TECH. DAILY, May 19, 2004 (PM Edition).

59. *Id.*

60. *See, e.g.*, 150 CONG. REC. S11671 (2004) (statement of Sen. Allen) (“Unfortunately, the regulatory treatment of a given broadband provider depends on the particular platform that provider uses to offer their service. DSL providers are regulated entirely differently from wireless broadband providers or cable modem service providers.”); *House Panel Pushes for Overhaul of 1996 Telecom Act*, NAT’L JOURNAL’S TECH. DAILY, Feb. 5, 2004 (AM Edition) (“Rep. Cliff Stearns, R-Fla., said that while consumers have benefited under the law, regulatory uncertainty has been an ‘obstacle’ to long-term investment in telecom technologies. He said emerging Internet telephone services, for example, do not fit the current regulatory framework.”).

61. Amol Sharma, *Sen. Sununu Sees Senate Action on Telecom Overhaul in 2005*, CONG. QUARTERLY, Dec. 16, 2004, at 5.

62. The statements from Senator McCain and Chairman Powell were made in the context of a hearing on VoIP. *Supra* notes 9, 10 and accompanying text.

63. Drew Clark, *Industry Group Backs Draft Legislation on Internet Telephony*, NAT’L JOURNAL’S TECH. DAILY, July 6, 2004 (PM Edition).

well.⁶⁴ And the statement in the introduction made by Senator McCain was at a hearing on VoIP, where other senators called for significant reform. Representative Boucher has also echoed incumbent local telephone company complaints that a rewrite of the statute is necessary to create regulatory parity between Internet-based services offered by cable companies and those offered by telephone companies.⁶⁵

Determining an appropriate structure for regulation of VoIP could, in fact, be a good vehicle for a new Communications Act, but getting beyond the rhetoric and looking at the proposed legislation reveals a much less ambitious agenda. Internet telephony is a prototypical case of a traditional telecommunications service, previously associated with a particular type of network technology, now becoming platform independent.⁶⁶ It is not the first instance of cross-platform competition, of course, and cable television, cellular telephony, and DBS were each accommodated into the Act without a rewrite of its basic provisions.⁶⁷ But VoIP's platform independence is much more extreme, as with any IP-enabled service, and it does require an assessment of the relationships among the layers of communications networks that a traditional service-based approach to regulation simply cannot accommodate. Nevertheless, the two leading VoIP bills in the 108th Congress avoided the issue by creating a new regulatory category. Companion bills proposed by Senator Sununu and Representative Charles Pickering created federal jurisdiction over, but limited regulation of, "the use of software, hardware, or network equipment for real-time 2-way multidirectional voice communications over the public Internet or a private network utilizing Internet protocol, or any successor protocol, in whole or in part"⁶⁸ A second House bill, sponsored by Representatives Stearns and Boucher, went somewhat further, essentially deregulating all

64. Drew Clark, *Senate Panel Votes To Limit State Rules on Net Phones*, NAT'L JOURNAL'S TECH. DAILY, July 22, 2004 (PM Edition).

65. Clark, *supra* note 63 ("The discrepancy between the treatment of cable and DSL is one reason why the telecom industry is pushing for a rewrite of the act while cable industry executives take a wait-and-see approach. Boucher said such disparate treatment is intolerable. 'We have a provision that there may not be discriminatory treatment for the service, depending on the platform' upon which it is delivered, be it cable, copper or any other means.").

66. See generally Elizabeth M. Donahue, *Directly Competing Policies: The Growth of Internet Telephony and the Future of the Universal Service Fund*, 9 COMM LAW CONSPICUOUS 225 (2001) (discussing manner in which VoIP can be provided over multiple technologies).

67. I do not defend the nature of these statutory amendments, of course, and there is much to criticize in each of them. But it remains the case that the statute was amended and the regulatory structure did not collapse of its own weight. See 47 U.S.C. § 541 (2002) (providing the cable television provisions); *id.* at § 332 (defining the regulation of commercial mobile radio services).

68. VOIP Regulatory Freedom Act of 2004, S. 2281, 108th Cong. § 10(a)(6)(A); VOIP Regulatory Freedom Act of 2004, H.R. 4129, 108th Cong. § 10(a)(6)(A).

“advanced Internet communications services,” which were defined to include “any IP network and the associated capabilities and functionalities, services, and application provided over an Internet protocol platform or for which an Internet protocol capability is an integral component”⁶⁹ At bottom, these bills responded to VoIP by creating a category of IP services (more limited in the case of the Sununu and Pickering bills) and specifying the regulation that should obtain in that category. The bills are largely deregulatory, but they are not a conceptual break with past accretions to the Act. Needless to say, neither of these bills mentioned spectrum regulation at all.

In fact, even a rewrite of the service categories of the Communications Act would not necessarily have to address spectrum allocation. The European Union’s integrated Directives on electronic communications, which otherwise bring within a single definition all communications networks and services, do not mention spectrum reform, except in the most general and hortatory manner.⁷⁰ Government allocation of spectrum licenses to the parties deemed most likely to serve the “public interest” (so-called beauty contests), which are long gone from the U.S. scene, are still explicitly permitted. Parity of service regulation does not necessarily require that government allocation end. Government allocation does frustrate the efficiency and competition goals that animate many arguments for a new statute, which are largely the same efficiency and competition goals behind spectrum reform proposals, but the two are not inevitably required to be dealt with together. (Of course, they should be, more on this later.)

A few statements can be found mentioning global spectrum reform, but in the 108th Congress no such proposal was included even in

69. Advanced Internet Communications Services Act of 2004, H.R. 4757, 108th Cong. § 4(1). This bill would have essentially deregulated all Internet access services as well, including eliminating unbundling regulation as applied to DSL, for the bill defined an “IP network” to include “the facilities used to transmit and to encode, digitize, packetize, or route advanced Internet communications services in an Internet Protocol format, including routers, softswitches, gateways, packet switches, and transmission facilities.” *Id.* § 4(4). *See also* Clark, *supra* note 63 (quoting Rep. Boucher that the bill would effectively deregulate Internet services no matter what the platform).

70. The EU did issue a Radio Spectrum Decision contemporaneously with its new regulatory framework, *see* Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community, 2002 O.J. (L 108) 1, but the document largely respects national choices, to the extent that two commentators have written that “one cannot consider that there exists, as of the present time, any real common policy in the field of spectrum.” PAUL NIHOUL & PETER RODFORD, *EU ELECTRONIC COMMUNICATIONS LAW: COMPETITION AND REGULATION IN THE EUROPEAN TELECOMMUNICATIONS MARKET* § 7.86, at 720 (2004). *See also generally* James B. Speta, *Rewriting the Communications Act with an Eye on Europe*, in *CONNECTING SOCIETIES AND MARKETS* (Jürgen Müller & Brigitte Preissl, eds., forthcoming 2005) (discussing absence of spectrum reform from EU Directives).

proposed legislation. Prior to the “gizmos” hearing,⁷¹ Representative Christopher Cox reportedly “took the argument [of Chairman Upton] further, noting that new technologies undermine the original ‘scarcity’ rationale for regulation. ‘Perhaps we should declare victory’ and hold a hearing instead to close the FCC”⁷² Similarly, in hearings in 2003 that led to the CSEA, Representative Stearns said that “we may not have to operate under the scarcity arguments much longer. New technologies can transfer data with less bandwidth and are not far from our reach.”⁷³ More significantly, in a 2003 hearing on the FCC’s task force report, Senator Burns stated that he “intend[ed] to work on [his] colleagues on a comprehensive spectrum reform bill” and that “[s]ome form of market driven allocation of spectrum is desirable.”⁷⁴ Nevertheless, Senator Burns did not in fact introduce any such bill in the remainder of 2003 or in 2004.⁷⁵ As mentioned above, only a few bills have been introduced concerning spectrum policy, and, although a few have intended significant set-asides for unlicensed devices or have made new spectrum available for commercial auction (and the CSEA managed to pass), the proposed legislation has not developed a general program to privatize or render open spectrum as the default rule.

III. MAXIMIZING THE POLITICAL ECONOMY

Although spectrum reform may not be as high on the current political agenda as it is on the policy agenda, legislative attention is by no means foreclosed. Predecessor bills of the 1996 Act had spectrum reform included, and, although the issue was peeled off from that legislation, just after the 1996 Act’s passage Senator Pressler introduced for legislative consideration a spectrum reform package that would have both privatized spectrum through auction and eliminated use restrictions.⁷⁶ “The key reform contained in this discussion draft is freedom in spectrum use. While important, auctions are not the most important reform contained in this legislation. Much more important is replacing the current Government mandated industrial policy with a market-based

71. *See supra* p. 191.

72. Clark, *supra* note 58.

73. *The Commercial Spectrum Enhancement Act: Hearing Before the Subcomm. on Telecomms. & the Internet of the House Comm. on Energy and Commerce*, 108th Cong. 4 (2003), available at <http://energycommerce.house.gov/108/action/108-12.pdf>.

74. *The Future of Spectrum Policy: Hearing Before the Senate Commerce, Science, and Transp. Comm.*, 108th Cong. (March 6, 2003) (transcript available on LEXIS, Federal News Service database).

75. Review of bills sponsored or co-sponsored by Senator Burns. Library of Congress, Thomas Legislative Information, at <http://thomas.loc.gov/> (last visited June 19, 2004).

76. *See* 142 CONG. REC. S4928, S4929-30 (1996) (statement of Sen. Pressler).

approach.⁷⁷ Unfortunately, although Senator Pressler circulated draft legislation,⁷⁸ no bill was introduced in the 104th Congress nor was one introduced in the succeeding Congress (to which Senator Pressler did not return). Still, hope survives.

An issue can move from the policy agenda to the political agenda for a variety of reasons, including those idiosyncratic to individual legislators or people or groups close to the legislators, and the process can be highly unpredictable. It is probably overdue in this paper to echo Jim Chen that “[p]rophecies in telecommunications are as treacherous as they are foolish”⁷⁹ and that “‘the body of law’ regulating telecommunications, ‘at any time or place, is an unstable mass in precarious equilibrium.’”⁸⁰ Chen was pointing to “economic analysis and market predictions” – not the more variable field of politics.⁸¹

Nevertheless, past legislation and a reasonably careful look at present circumstances can provide some clues as to how spectrum reform might move closer to legislative action. “The debate about network deregulation, and other future deregulation debates, will be more enlightened if the positions of the parties and their arguments are not viewed in isolation, but are instead seen as part of a long history of regulatory policy, broadly defined.”⁸² In this vein, spectrum reform is prompted by some of the same factors that preceded other deregulatory episodes – in part by technological change, in part by activity in the academy, and in part by an active regulatory agency. The more global cause of telecommunications might receive some prodding from the courts, as long-distance did from the D.C. Circuit’s decisions requiring the FCC to justify a long-distance monopoly. On the other hand, spectrum reform does not currently have a favorable alignment of interest groups in its favor (though the situation is better than preceded airline and trucking deregulation). Nor does spectrum reform have an identifiable window of political opportunity or an identifiable advocate in the political sphere. Nevertheless, some positioning of the spectrum policy debate could enhance its prospects, if the political stars otherwise align.

77. *Id.* at S4929.

78. *Id.* at S4932-36.

79. Jim Chen, *The Legal Process and Political Economy of Telecommunications Reform*, 97 COLUM. L. REV. 835, 873 (1997).

80. *Id.* (quoting GRANT GILMORE, *THE AGES OF AMERICAN LAW* 110 (1977)). Of course, Chen’s point here is that recognition of certain patterns and processes, even though not in equilibrium, can be “the beginning of wisdom” concerning policy. *Id.*

81. I discuss the public choice issues *infra* notes 126-27 and accompanying text.

82. ROGER G. NOLL & BRUCE M. OWEN, *THE POLITICAL ECONOMY OF DEREGULATION* 5 (1983).

A. *The Beginning of a Reform*

Regulation has tended to breed its own constituencies, resulting in overall stability, whether or not the original justifications for the regulatory scheme continues.⁸³ But deregulatory movements do happen and do sometimes happen despite the interests that support the extant structure. Case studies have revealed a number of possibilities – including technological change, prodding by the courts, and agency initiative – as events that can shake up a regulatory system. Some of these are obviously present in the spectrum policy mix.

1. Technological Change

Just as microwave technology and electronic switching put pressure on the monopoly regulation of long-distance,⁸⁴ technological advance in wireless has clearly been an impetus for spectrum reform. Here, technological advance has two dimensions. Associated developments in computer technology have increased the general demand for wireless services.⁸⁵ By itself, an increase in demand for some or all services does not call into doubt the basis of government regulation; it could even reinforce an argument for government control over the distribution of spectrum uses. And, demand can be met by administrative action to make more spectrum available or to move existing users. Both of these strategies have, of course, been used, and their success ironically takes some of the pressure off the system for more fundamental reform.

More importantly, however, “[g]rowth in the use of digital spectrum-based technologies not only increases the potential throughput of information, it also has potentially significant ramifications for interference management.”⁸⁶ Increasingly sophisticated transmitters and receivers mean that government-engineered anti-interference rules, formed *ex ante* to operation, are less necessary.⁸⁷

To some extent, these technological advances trade off, as new protocols allow increased demand to be served with the same amount of spectrum (as cell phone service has shown). To be sure, increasing demand and innovation can best be served if carriers (or users) have the

83. *E.g., id.* at 155 (“because regulation tends to create new special interests whose survival depends on its continuation, deregulation and other regulatory reforms appear least likely to succeed in the very areas where policy has departed most from serving a more general public purpose”).

84. *See, e.g.,* Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1389 (1998).

85. Spectrum Policy Task Force Report, *supra* note 12, at 11-13 (discussing increase in demand for spectrum services).

86. *Id.* at 13.

87. *Id.*; *see also* Benkler, *supra* note 12 (discussing these technological developments and their interaction with the interference regime); Noam, *supra* note 37.

right to introduce new technologies and uses without permission *ex ante*. But technological advance can both increase *and* decrease the pressure on the status quo.

Moreover, government delimits spectrum uses for a variety of reasons other than interference management, including assuring the current provision of services deemed in the public interest or, as is sometimes asserted, planning for the future.⁸⁸ Technological advances in interference management may make competition more feasible, but they do not address the pursuit of other goals that may be incompatible with competition. As Joseph Kearney and Thomas Merrill have pointed out, the technological change must yield efficiency gains great enough to justify the transactions costs of a switch in regulatory regimes.⁸⁹ The inability of the new technology to better address non-efficiency goals means its effectiveness as a catalyst is limited.

Spectrum reform could be segmented, as was the case with the 1993 legislation requiring spectrum rights to be auctioned, by carving out broadcasting rights from its scope.⁹⁰ But this is some of the most commercially valuable spectrum, and taking broadcast spectrum out of the mix severely limits the benefits of any reform. Viewed from this perspective, the technological development that should make spectrum reform possible is the advance of cable and satellite television to the point where nearly ninety percent of Americans do not watch broadcast television.⁹¹ But this is not a new development, and it is a cause that the FCC has declined to make part of its spectrum reform proposals. Although the agency works to further the transition to digital television, which will free up much of the currently allocated spectrum, its Chairman has also pointedly defended the interests of those who receive over-the-air television.⁹²

88. For example, in 1952 the FCC assigned substantial numbers of television licenses to cities that were then too small to support service on the explicit justification that the license should be reserved for the time that those cities grew. See Amendment of Section 3.606 of the Comm'n's Rules & Regulations, *Sixth Report & Order*, 41 FCC Rcd. 148, 152 (1952).

89. Kearney & Merrill, *supra* note 84, at 1385 ("It is occasionally suggested that the mere existence of efficiency gains in moving from monopoly or oligopoly to competition is sufficient to explain the great transformation. This is not correct. The magnitude of the efficiency gains must be weighed against the transitional costs of moving from a regime of regulation to one of competition, as well as the transaction costs of operating under a regime of competition after the transition . . .").

90. See generally Thomas W. Hazlett, *Assigning Property Rights to Radio Spectrum Users: Why Did FCC License Auctions Take 67 Years?*, 41 J.L. & ECON. 529 (1998) (discussing the 1993 auctions legislation and carve outs).

91. See Speta, *supra* note 14, at 1116-17; Hazlett, *supra* note 17, at 935-40.

92. Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, *Second Report & Order & Second Memorandum Opinion & Order*, FCC 02-230, MM Dkt. No. 00-39 (Aug. 8, 2002) (Separate Statement of Chairman Michael K. Powell), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-02-230A1.pdf.

In sum, technological development is important in the spectrum debate; it does directly limit one of the principal justifications for government control, the control of interference. And it does make the transition to a private system (of either kind) less costly. On the other hand, these same technological developments decrease the pressure for reform, and the technological obsolescence of broadcast television has not resulted in its regulatory demise. On the whole, it does not appear that technological advance standing alone will get spectrum reform on the legislative agenda.

2. Response to Judicial Action

Courts sometimes prompt the reconsideration of a regulatory regime. In the famous *Execunet* decisions, the D.C. Circuit forced the FCC to justify its restrictions on MCI's provision of basic long-distance services, which led, in due course, to the opening of those markets.⁹³ Judicial action, in the form of the AT&T antitrust case, was the final step in this reform.⁹⁴ Similarly, the D.C. Circuit prodded the Civil Aeronautics Board by openly questioning whether it was "unduly oriented towards the interests of the industry it is designed to regulate, rather than the public interest it is designed to protect."⁹⁵ More recently, court of appeals decisions holding that cross ownership restrictions on telephone company entry into video markets violated the First Amendment gave a boost to elimination of those restrictions in the 1996 Act.⁹⁶

Section 301 of the Communications Act, however, clearly dictates government ownership and control of spectrum licenses.⁹⁷ As a result, the prospects for courts' prodding the agency to achieve fundamental

93. *MCI Telecomms. Corp. v. FCC*, 561 F.2d 365 (D.C. Cir. 1977); *MCI Telecomms. Corp. v. FCC*, 580 F.2d 590 (D.C. Cir. 1978). For more background on the *Execunet* decisions, see generally Kearney & Merrill, *supra* note 84 at 1367; MARTHA DERTHICK & PAUL J. QUIRK, *THE POLITICS OF DEREGULATION* 68, 193 (1985); Robinson, *supra* note 4, at 523-27.

94. See *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982) (consent decree breaking up the Bell System), *aff'd sub nom.*, *Maryland v. United States*, 460 U.S. 1001 (1983).

95. *Moss v. Civil Aeronautics Bd.*, 430 F.2d 891, 893 (D.C. Cir. 1970); see generally ROBERT BRITT HOROWITZ, *THE IRONY OF REGULATORY REFORM: THE DEREGULATION OF AMERICAN TELECOMMUNICATIONS* 216-20 (1989) (discussing role of court decisions in prodding deregulation of airlines).

96. See *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181, 190-204 (4th Cir. 1994), *vacated by* 516 U.S. 415 (1996) (remanding on the question of mootness).

97. 47 U.S.C. § 301 (2002) ("It is the purpose of this Act, among other things, to maintain the control of the United States over all the channels of radio transmission; and to provide for the use of such channels, but not the ownership thereof, by persons for limited periods of time, under licenses granted by Federal authority, and no such license shall be construed to create any right, beyond the terms, conditions and periods of the license.").

spectrum reform are essentially three. First, the courts could find that use restrictions on spectrum licenses, or other fundamentals of spectrum policy, violate the First Amendment. Stuart Benjamin has made a version of this argument quite forcefully,⁹⁸ but its adoption seems unlikely. The Supreme Court has had opportunity in recent years to repudiate the scarcity doctrine and to adopt full First Amendment rights for spectrum users (which result would, even if achieved, only go part of the way towards Benjamin's result). But despite court of appeals opinions and academic work strongly arguing for this result, the Court has continued to maintain a wide ambit for government regulation of broadcasters.⁹⁹

Second, the courts might hold that use restrictions fail the minimum rationality required for FCC action. This seems somewhat more likely, especially in non-broadcast services, and, so long as the license is limited in term, would be consistent with section 301 (or so the court could say).¹⁰⁰ In recent years, the D.C. Circuit has used standard administrative law doctrines to force the FCC to reconsider many of its long-standing market-structure rules for broadcast markets.¹⁰¹ And, in this regard, administrative law is very supple. In any particular case, the court has some range in which it can choose between those precedents that require it to defer to the agency's "predictive judgment" and those that permit it to reverse an agency that it perceives acts without "substantial evidence" or based on an "irrational economic theory."¹⁰² Even if courts should, at the end of the day, defer to a determined administrative agency, their decisions and rhetoric can give agency reformers the opportunity to push their agenda, can give the agency cover to move in a new direction, and can even cause others in the political

98. See Benjamin, *supra* note 21.

99. Just in the past two years, the Court affirmed regulations that required broadcasters to submit certain information concerning candidate appearances, and the Court stated flatly: "We note, too, that the FCC's regulatory authority is broad. *Red Lion Broad. Co., Inc. v. FCC*, 89 S.Ct. 1794 (1969) ('broad' mandate to assure broadcasters operate in public interest); *National Broadcasting Co. v. United States*, 319 U.S. 190, 219, 87 L.Ed. 1344, 63 S.Ct. 997, (1943) (same)." *McConnell v. FEC*, 540 U.S. 93, 237 (2003).

100. Shelanski & Huber, *supra* note 27, at 581-82 ("Section 301 . . . forbids private ownership . . . [, but] permits a range of possible rights for licensees.").

101. *E.g.*, *Fox Television Stations, Inc. v. FCC*, 280 F.3d 1027 (D.C. Cir. 2002) (striking down media concentration rules).

102. Although surely beyond the scope of this paper, my view is that the courts of appeals have too vigorously reviewed the FCC's principal rulemakings implementing the 1996 Act. See Speta, *supra* note 14, at 1096. In particular, it has seemed to me that the FCC's choice on the level of "granularity" that the rules should include, which is a matter of balancing the possibility of type I and type II errors as well as the costs and benefits of administrative proceedings, should have been a matter that received the highest deference from the courts. *Cf. SEC v. Chenery Corp.*, 332 U.S. 194, 202-03 (1947) (holding that agency has virtually unfettered discretion to choose whether to act by rulemaking or through adjudication).

process to notice the potential for an agenda item.

Third, court decisions on telecommunications policy more generally might help move spectrum policy to the political agenda, by making more comprehensive reform of the law necessary. As noted above, despite sometimes ambitious rhetoric, many of the pending bills on VoIP and other issues actually propose fairly limited reforms to the Act. A judicial decision could force Congress to move more comprehensively. To date, the FCC has muddled through the statutory structure in part by defining new services (and especially services that it thinks it should not be subject to common carrier regulation) as "information services." This strategy dates back thirty years, to the *Computer II* decision.¹⁰³ But Internet services have made it increasingly central. If the courts were to make this strategy impossible, several forces might accelerate reform of the Act. Cable companies, which are currently sitting on the sidelines of the "re-write" movement, might join the telephone companies' advocacy for a new Act,¹⁰⁴ and might be able to raise the prospect that the government is "regulating the Internet." This theme is occasionally taken up by the public, and it might help the window for a rewrite open.

As noted above, of course, rewriting the Act need not include spectrum reform: the 1996 Act did not. But I will return to this idea in the conclusion.

3. An Activist Agency

The Civil Aeronautics Board and even the Interstate Commerce Commission took initial deregulatory steps that provided some of the groundwork for later legislative action. The FCC has, of course, been very active in spectrum reform. As Howard Shelanski and Peter Huber have detailed, the FCC in the 1980s and early 1990s took a number of steps that significantly increased the property-like attributes of spectrum licenses.¹⁰⁵ More recently, the FCC's Spectrum Policy Task Force and the agency's actions permitting secondary markets and UWB devices, as well as its advocacy for the making available of additional spectrum both

103. See generally Robert Cannon, *The Legacy of the Federal Communications Commission's Computer Inquiries*, 55 FED. COMM. L.J. 167, 181-99 (2003) (explaining the history and reasoning of these decisions).

104. See Drew Clark, *Congressional Changes May Not Affect Telecom; Rewrite*, NAT'L JOURNAL'S TECH. DAILY, Oct. 26, 2004 (PM Edition) ("Now, the impetus for re-opening the Telecom Act comes from the Bells chafing under their regulatory treatment as compared with cable operators. Cable companies' television service is taxed and lightly regulated at the local level, but the FCC has declared cable high-speed modems to be an 'information service' free from regulation and taxation. Cable companies are largely satisfied with the status quo. But that could change if the Supreme Court refuses to review or does not overturn an appeals court decision, *Brand X* . . .").

105. See Shelanski & Huber, *supra* note 27.

for unlicensed use and for auction, have substantially advanced the cause of spectrum reform.¹⁰⁶

Because of section 301, the FCC does not have the authority to privatize the spectrum, but the FCC could continue to liberalize license terms.¹⁰⁷ The agency has done so in some significant regards. The 1993 PCS licenses permit a variety of uses,¹⁰⁸ but the FCC has also modified the MDS and ITFS licenses to permit interactive services, in a partial attempt to encourage the offering of fixed wireless data services, such as high-speed Internet access.¹⁰⁹ In airline and trucking deregulation, the legislation was greatly assisted by having examples of better-functioning, but deregulated submarkets. The intrastate air carriers in California and Texas demonstrated that competition was sustainable and that reduced regulation brought lower prices.¹¹⁰ Examples from Canada and from the transport of agricultural commodities showed that deregulated trucking was superior.¹¹¹

It can be hoped that some of the FCC's efforts to permit secondary uses and to liberalize licensing terms can generate substantial evidence for taking use control away from the government. In this regard, proponents of the commons option have a partial record already built, through the success of WiFi.¹¹² The commons architecture is more than just WiFi, to be sure, but the example of equipment-driven entry to provide new services in unlicensed bands provides a powerful example.

106. See *supra* notes 24-28 and accompanying text. The NTIA has been somewhat active as well, for example, in working to move federal spectrum into the FCC's auction process. See *Commercial Spectrum Enhancement Act Hearing*, *supra* note 73, at 10-16 (statement of Assistant Secretary Nancy Victory).

107. Section 310(d), which provides that only the Commission may approve the transfer of a station license, may also provide some constraint. See 47 U.S.C. § 310(d) (2002). Indeed, Commissioner Copps expressed concern that the FCC's actions to permit secondary spectrum markets were inconsistent with section 310(d), as that section has been interpreted over time. See *Promoting the Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, *Report & Order & Further Notice of Proposed Rulemaking*, 18 FCC Rcd. 20,604, at 20,797 (2003).

108. See *e.g.*, Amendment of the Comm'n's Rules to Establish New Personal Communications Serv., *Memorandum Opinion & Order*, 9 FCC Rcd. 4957 (1994).

109. Amendment of Parts 1, 24, & 71 to Allow Instructional Fixed Television Serv. & Multipoint Distribution Serv. Licensees to Engage in Two-Way Communications, *Report & Order on Further Reconsideration & Further Notice of Proposed Rulemaking*, 15 FCC Rcd. 14,566 (2000).

110. See *generally* Speta, *supra* note 14, at 1073 (collecting principal authorities).

111. See *generally id.* at 1075.

112. See, *e.g.*, Kevin Werbach, *Supercommons: Toward a Unified Theory of Wireless Communications*, 82 TEX. L. REV. 863, 879 (2004) ("There are several reasons for the rapid legitimization of the commons argument, beyond the rhetorical persuasiveness of its proponents: lingering fears about the consequences and irreversibility of spectrum propertization, excitement about unlicensed wireless data networks due to the business success of WiFi, and desire for fresh approaches given the collapse of the telecom sector and the problems with some spectrum auctions in the United States and Europe.").

The FCC's actions have met with resistance from some quarters, as with the now frequently heard argument that spectrum privatization will result in an unjustified windfall.¹¹³ One difficulty is that the FCC's Spectrum Policy Task Force Report, while it states general principles of spectrum reform that should be adopted (and that the agency itself has in many regards been implementing), does not itself provide a concrete framework for legislative action. The Report concludes that more spectrum should be made available, and that command and control regulation should be reduced, but it also concludes that future spectrum allocation should include all three models – of public interest regulation, of unlicensed spectrum, and of property rights. "No single regulatory model should be applied to all spectrum."¹¹⁴ As a general matter this is probably right, and I do not mean to fault the Report for not undertaking to draft specific legislative proposals (which may itself have increased resistance to the Report).¹¹⁵ Nevertheless, and I will return to this briefly below, the lack of a fully worked-out consensus position on the shape of spectrum reform will prove to be a significant hurdle if the matter does rise on the political agenda.¹¹⁶

4. Other Catalytic Events

Legislative action, as a more general matter, is often responsive to particular, high-profile problems. In the deregulation arena, the Penn Central bankruptcy is often credited with focusing the Congress on railroad deregulation, for it wanted to avoid traffic disruptions and to avoid the need for further government bailouts.¹¹⁷ Similarly, the inflation crisis of the mid-1970s played a role in the advocacy for other deregulatory moves of that era.¹¹⁸

In spectrum reform, a recent example is the communications

113. See *supra* note 60 and accompanying text.

114. Spectrum Policy Task Force Report, *supra* note 12, at 3.

115. See *id.* at 49-51 (stating generally that all three models should play a role and that "[t]he Commission must consider a number of factors when deciding which transition mechanisms to implement.").

116. See *infra* notes 165-67 and accompanying text.

117. *E.g.*, DERTHICK & QUIRK, *supra* note 93, at 38 ("Events could serve this dramatic function, and in 1970 the bankruptcy of the Penn Central, the nation's biggest railroad, did so to some extent. The collapse of the Penn Central drove federal transportation officials to a greater activism and discredited the regulatory practices of the ICC, which was condemned for forcing the Penn Central and other railroads to continue unprofitable operations.").

118. *E.g.*, ROBERT BRITT HORWITZ, *THE IRONY OF REGULATORY REFORM: THE DEREGULATION OF AMERICAN TELECOMMUNICATIONS* 208 (1989) ("Inflation was very high, and regulation seemed to play a significant role in it. Moreover, the economic critique of regulation had some validity. Clearly, as we have seen, regulation often functioned as a mode of industry protection. Indeed, by the mid- to late 1970s, the combination of inflation and business counterattack on regulation succeeded in altering the political discourse on regulation.").

difficulties that arose in the rescue efforts following the attack on the World Trade Center on September 11, 2001. The needs of first responders and of public safety and homeland security agencies to have reliable wireless services have drawn legislative attention.¹¹⁹ Private property rights and unlicensed commons are probably not the solution to these issues. But even the tragedy of September 11 could not provide enough impetus for Congress to accelerate the transition to digital television (thus reclaiming very valuable and useful spectrum), as Senator McCain proposed.¹²⁰ More generally, it is hard to imagine a “crisis” that would put property rights solutions (or commons solutions) high on the regulatory agenda.

Short of a crisis, changes in important economic measures can focus legislative attention.¹²¹ In this regard, part of the impetus for the CSEA was the need for the United States to “catch up” to world-wide deployment of 3G wireless technologies.¹²² It is arguable how great the demand actually will be for the multimedia services on mobile devices, but the perception that the United States was not leading the world in wireless penetration, devices, or services helped the relevant actors find additional spectrum and move to make it available.

Similarly, the idea that the United States is behind the rest of the world in broadband deployment has been a motivation for government policy. In his 2004 presidential campaign, President Bush specifically said that the U.S.’s ranking (10th) in broadband deployment was not acceptable.¹²³ Linked up with spectrum policy, this could provide an opening to the political agenda.

B. *Matching the Trigger with Policy*

An event that creates the possibility of a political reform will not necessarily lead to that reform: more is needed. What that “more” is

119. See *supra* note 45.

120. The SAVE LIVES Act, S. 2820, 108th Cong. § 2 (2004).

121. See KINGDON, *supra* note 33, at 92-95.

122. E.g., *Commercial Spectrum Enhancement Act: Hearing Before the Subcomm. on Telecoms. & Internet of the House Comm. on Energy & Commerce*, 108th Cong. 4 (2003) (statement of Rep. Stearns, Member, House Comm. on Energy & Commerce) (“Spectrum, or rather the efficient use and management of spectrum, enables our industry, our economy to continue to benefit from technological advances and delivery of services that consumers demand. I might add that other nations are working incredibly hard to challenge the U.S. in just those areas.”); *id.* at 6 (Statement of Rep. Towns, Member, House Comm. on Energy & Commerce) (“[W]e need to ensure that . . . our wireless carriers [can] compete in the global marketplace by rolling out advanced services. . .”).

123. See Press Release, Office of the Press Secretary, President Unveils Initiatives for Technology, Health Care, Internet, (Apr. 26, 2004), at <http://www.whitehouse.gov/news/releases/2004/04/20040426-6.html> (on file with the author) (“[B]y the way, we rank 10th amongst the industrialized world in broadband technology and its availability. That’s not good enough for America. Tenth is 10 spots too low as far as I’m concerned.”).

varies in particular cases, but can include a favorable alignment of interest groups, consensus in the policy community, and good luck.¹²⁴

1. Interest Groups

Some have described nearly the entire history of spectrum policy as the product of bargains among interest groups, and particularly the furthering and protection of incumbent interests. They claim “regulations have consistently produced predictable outcomes – those favoring the interests of powerful incumbents, primarily commercial broadcast television licensees.”¹²⁵ As a general matter, of course, public choice theories have established that legislators and regulators often respond to interest group interests.

Despite the importance of interest groups, legislation remains possible even in the absence of interest group alignment. Legislators may side with a more powerful set of interests over others, or a political deal among interest groups, giving each some of what they want, may be achieved. This is the main account of the 1996 Act, in which Bell company efforts finally lined up support for long-distance entry, but legislators gave long-distance companies their second choice option with provisions for unbundling local networks.¹²⁶ Even in the absence of any natural constituency, matters can proceed. At the outset of legislative efforts, airlines and trucking interests were opposed to deregulation, and only United Airlines ever came around to support deregulation.¹²⁷

Although some elements of spectrum reform have natural constituencies, support for full privatization of spectrum rights or for wholesale adoption of the commons model is less clear. Cellular and other wireless access companies certainly desire additional spectrum for private license. And electronics manufacturers are a natural constituency for the creation of additional unlicensed spectrum bands. Both groups have been active in efforts to date. But the cellular companies also resist wholesale use flexibility, with the CTIA’s comments to the Task Force Report making clear that incumbent licensees should not receive flexible

124. Kingdon identifies the availability of an entrepreneur, a person with access to the political process that links the problem with the policy and the politics, as an essential element in a policy’s adoption. Because the level of speculation (already high in this paper) would become intolerable if I were to try to identify individuals who could fulfill this role, I will set it to one side. See generally KINGDON, *supra* note 33, at 179-84.

125. Thomas W. Hazlett, *All Broadcast Regulation Politics Are Local: A Response to Christopher Yoo’s Model of Broadcast Regulation*, 53 EMORY L.J. 233, 237 (2004).

126. Hazlett, *supra* note 17, at 223-25.

127. See DERTHICK & QUIRK, *supra* note 93, at 157. At the time, United was the largest carrier, and it came to believe that it would fare better under deregulation than under the CAB’s system of trying to protect and stabilize all carriers. *Id.*

use rights except through a case-by-case process at the Commission.¹²⁸ And the CTIA's comments caution strongly against underlay uses¹²⁹ and the commons model.¹³⁰

Potential incumbent opposition to widespread flexible use rules is vividly highlighted by the CTIA's statement that "the application of unconstrained flexible use policies" can "undermine the value of other licensees' spectrum assets."¹³¹ That, of course, is the point of spectrum reform, with Gerald Faulhaber and David Farber offering the view that extensive auction of private spectrum rights would cause the price of spectrum to fall significantly.¹³² Similarly, Tom Hazlett has recently studied spectrum auction licenses, and he concludes that "licenses issued by countries awarding substantially more extensive property rights are less valuable than licenses issued under more restrictive rules."¹³³ Under the current auction system, in which the FCC defines a limited block of spectrum for a particular use and that use does not face entry from users in other blocks, the auction prices may reflect not only the value of the right of use but also the market structure that inheres in the band plan's limitations.

For their part, the broadcasters' public comments on the Task Force Report were tempered, but they also made clear their position that "any introduction of additional non-conforming uses or other major spectrum

128. Comments of the Cellular Telecomm & Internet Ass'n, Commission Seeks Comment on *Spectrum Policy Task Force Report*, ET Dkt 02-135, at 6 (Jan. 27, 2003), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513405035. ("CTIA suggests that the threshold question when presented with a flexible use proposal should be to consider whether the scope of the request suggests that the spectrum is being underutilized. In such cases, the band may be a candidate for reallocation. The FCC should not . . . resort to the 'easy fix' of giving inefficient or commercially non-viable incumbents flexibility to provide any service under the guise of increasing innovation.")

129. *Id.* at 15 ("Given that the potential for interference from unlicensed systems is significant, CTIA believes that 'underlay' operations should not be authorized in licensed spectrum unless they are: (1) below an interference threshold which can be conclusively demonstrated, based on actual tests, to protect licensed operations from interference; and (2) required to cease – and be practically capable of ceasing – operation immediately if they cause interference to licensed users.") (citations omitted).

130. *Id.* at 16 ("CTIA does not oppose additional unlicensed spectrum use where there is a demonstrated need . . . [but] the Commission must prioritize the search for licensed spectrum first and foremost").

131. *Id.* at 5.

132. See FAULHABER & FARBER, *supra* note 12, at 214 ("Current inefficient uses such as UHF TV will come to market quickly once a market regime is in place, with more than enough bandwidth to satisfy immediate demands. Based on this presumption, we conclude that *in the short run*, excess demand will likely turn into excess supply, except in certain especially useful frequency bands. In this situation, *the price of spectrum at the margin is likely to be zero* (or very close to it).")

133. THOMAS W. HAZLETT, PROPERTY RIGHTS AND WIRELESS LICENSE VALUES 3 (AEI-Brookings Joint Ctr for Regulatory Studies, Working Paper 04-08, Mar. 2004), available at <http://www.aei-brookings.org/admin/authorpdfs/page.php?id=771>.

policy changes should be directed to other [non-television] bands."¹³⁴ The broadcasters' interests are, to say the least, complicated, as the networks and most individual broadcasters do not rely on actual over-the-air transmission (i.e., the spectrum they are licensed to use) to reach most viewers. As noted, the FCC reported that, as of June 2004, 85.1% of television households had multi-channel cable or satellite service.¹³⁵ The networks also do not rely on their status as broadcasters to force carriage of their content,¹³⁶ although some smaller broadcasters probably do. As a result, spectrum flexibility would likely increase the value of many current broadcast licenses for two reasons. First, because of the relatively small market for over-the-air video services,¹³⁷ new broadcasters are unlikely, and so increased spectrum flexibility for other licensees is unlikely to increase competition in broadcasting *qua* broadcasting. Second, the FCC has already begun making spectrum available for fixed wireless, high-speed Internet access systems, and telephone companies are touting plans to deploy enough fiber in their networks to enable IP-TV. Thus, video competition will be increasing. On the whole, traditional broadcast licensees would seem to benefit from flexibility generally, for the increase to the value of their licenses due to the ability to move from broadcasting to other services would seem to outweigh the possibility that other spectrum owners (with their own flexible licenses) would move into competing broadcast services. This is conjecture, to be sure, but it seems reasonable. (It also re-raises the "windfall" issue, on which more in the conclusion.)

Some deregulatory movements have benefited from the organized support of new entrants and user groups, particularly large commercial users in a position especially to benefit from lower prices and more flexible services.¹³⁸ Consumer electronics manufacturers have made clear

134. Joint Comments of the Ass'n for Maximum Serv. Television, Inc. & the Nat'l Ass'n of Broadcasters, Commission Seeks Comment on *Spectrum Policy Task Force Report*, ET Dkt 02-135, at ii (Jan. 27, 2003), available at http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&cid_document=6513405009.

135. Annual Assessment of the Status of Competition in the Mkt. for the Delivery of Video Programming, *Tenth Annual Report*, 19 FCC Rcd. 1606, 1609 (Jan. 2004).

136. See HAZLETT, *supra* note 12.

137. Chairman Powell has argued that 40 million Americans exclusively receive over-the-air broadcasting. Press Statement of Michael K. Powell, Nov. 4, 2003, 2003 WL 22494670. But this is still under 15% of all television households.

138. Kearney and Merrill state that "the great transformation would not have happened – at least in most industries – unless there were concentrated groups that stood to gain disproportionately from the change and that therefore had an interest in continually pressing for change in a variety of forums (including not just agencies and Congress but also the courts)." Kearney & Merrill, *supra* note 84, at 1396-97. On the other hand, they admit that the work of Martha Derthick and Paul Quirk, who conclude that airline and trucking deregulation occurred without any interest group actively pushing for that reform, "remain[s] unrefuted." *Id.* at 1397; see DERTHICK & QUIRK, *supra* note 93. Whether significant

their interest in additional spectrum being made available, especially for unlicensed uses,¹³⁹ and their influence in the regulatory and political process in recent years. They played an important role in the FCC's proceedings to establish copy protection rules for digital cable and broadcast systems.¹⁴⁰ Many have credited the electronics industry with blocking the passage of the INDUCE Act, which would have addressed (and, in general, expanded) application and hardware makers' secondary liability under the Copyright Act.¹⁴¹

Finally, consumer groups and general public opinion can play some role in setting the legislative agenda. "Governmental participants' sense of the national mood serves to promote some items on their policy agendas and to restrain others from rising to prominence."¹⁴² As is usual, much consumer interest in spectrum reform is indirectly represented by the various interest groups, although in the case of incumbents benefited by a restrictive market structure the consumer interest in lower prices is not fully represented. Of the traditional public interest groups in communications policy circles, their principal *objections* to spectrum reform are the possible elimination of "public interest" broadcasting, with its assumed advantage in producing diverse, local, and informational programming, and the windfall that incumbents could receive if property rights were granted to existing licensees.¹⁴³

All told, interest groups are neither uniformly in favor of spectrum reform nor opposed to it. Those incumbents currently benefiting from the limited availability of spectrum for certain services have the greatest incentive to resist full privatization (or commons, if the technology develops such that commons can provide competing services). Granting them full property rights without payment – a "windfall" – is intended to eliminate their incentive to resist change, or at least to mute it.¹⁴⁴ In fact, allocating the initial property rights in a new market regime to those companies who have incumbent advantage under the command and

deregulatory action is impossible without interest group support is an interesting question, beyond the scope of this paper, but it is doubtless the case that such reforms can more easily penetrate the political agenda if there is interest group support.

139. See Comments of Consumer Electronics Association, Commission Seeks Comment on *Spectrum Policy Task Force Report*, ET Dkt 02-135, at 6 (Jan. 27, 2003), available at http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513405027.

140. See generally Susan P. Crawford, *The Biology of the Broadcast Flag*, 25 HASTINGS COMM. & ENT. L.J. 603 (2003) (discussing vigorous advocacy of consumer electronics groups in opposition to tighter DRM proposals of content industries).

141. See Drew Clark, *Lobbying Fierce over Induce Act*, NAT'L JOURNAL'S TECH. DAILY, Sept. 12, 2004 (PM Edition).

142. KINGDON, *supra* note 33, at 147.

143. See, e.g., Ornstein & Calabrese, *supra* note 56; Harold Feld, Media Access Project, Statement at NSF Hearing, March 12, 2004.

144. Compare KWEREL & WILLIAMS, *supra* note 12.

control regime has been done in environmental and other contexts to overcome incumbent resistance.¹⁴⁵ Alternatively, to the extent that the FCC is able to make more flexible use spectrum available (directly, or indirectly through secondary markets), incumbent incentive to resist change will fall as competition increases and the relative benefit to the incumbents of securing their own flexibility increases.

2. Consensus in the Policy Community.

Consensus in the policy community is widely credited with promoting the deregulation of the transportation industries. As one wag put it, "by the mid-1970's it was probably fair to say that no impartial academic observer of any standing doubted that the airline business, if unregulated, would reach something that more or less resembled a competitive equilibrium."¹⁴⁶ Derthick and Quirk argue that "[i]f economics had not made the case for procompetitive deregulation, it would not have occurred – at least not on the scale the nation has witnessed."¹⁴⁷ Academic advice, however, is not always heeded, and, for years, economists and policy analysts despaired of having their views adopted.

The key is the matching of the political window of opportunity with a consensus prescription that is well worked out in the policy community. "[N]ormally, before a subject can attain a solid position on a decision agenda, a viable alternative is available for decision makers to consider. It is not enough that there is a problem, even quite a pressing problem. There also is generally a solution ready to go, already softened up, already worked out."¹⁴⁸ And, the absence of a well-worked out solution, or resistance to the solution, decreases the likelihood (all else equal) of its adoption.¹⁴⁹

145. See generally Thomas W. Merrill, *Golden Rules for Transboundary Pollution*, 46 DUKE L. J. 931, 982 (1997) ("For nearly two decades, the midwestern states consistently blocked any meaningful regulation of acid rain The impasse was finally broken by an agreement to create a system of tradeable emissions allowances to achieve these reductions. The key feature of the system, in terms of overcoming the objections of the source states, was an agreement to give the bulk of the allowances in the initial round of the program to midwestern utilities.").

146. Michael E. Levine, *Airline Competition in Deregulated Markets: Theory, Firm Strategy, & Public Policy*, 4 YALE J. ON REG. 393, 394 (1987).

147. DERTHICK & QUIRK, *supra* note 93, at 246.

148. KINGDON, *supra* note 33, at 142; see also *id.* at 142-43 ("the chances for a problem to rise on the *governmental* agenda increase if a solution is attached to the problem. The chances for a problem to rise on the *decision* agenda are *dramatically* increased if a solution is attached.").

149. *E.g.*, *id.* at 170 ("the window [of political opportunity] closes because there is no available alternative"); *id.* at 176 ("What happens when such an unmanageable multitude of problems and alternatives get dumped into the deliberations? On possibility, indeed not uncommon, is that the entire complex of issues falls of its own weight. Most participants

In the policy community's discussion of spectrum reform, there are a number of worked out solutions to spectrum problems, but privatization and unlicensed commons are incompatible with one another. Although many commentators suggest some use of both, commentators generally place principal emphasis on either one or the other. For its part, the Task Force Report comes down strongly on the side of using property rights in most spectrum below 5 GHz,¹⁵⁰ but this is far from a consensus position.

Similarly, in order for policy recommendations to be adopted in the political cycle, evidentiary support is important. "Without belief in its technical feasibility, the proposal is not likely to survive to the point of serious consideration."¹⁵¹ This, of course, relates to the need for evidence of the success of deregulated (or less regulated) spectrum markets, as noted above was the case prior to transportation deregulation.¹⁵² Some evidence is being developed in comparative case studies of countries with liberalized spectrum policies,¹⁵³ and, again, the case of WiFi provides strong support for commons advocates. More rigorous work here – the creation by economists of a few more bullets for the lawyers to fire at one another¹⁵⁴ – might help matters significantly.

CONCLUSIONS – POSITIONING THE IDEA

As all of the foregoing suggests, firm predictions about the possibility of fundamental spectrum reform are folly. But enough can be shown of the policy and political processes to know that, at the time that a window of opportunity opens and an influential person makes spectrum reform his or her decision issue, an array of factors can assist its passage. Central among these are the continuing efforts of the FCC and of the rest of the policy community to develop consensus proposals for reform. Additionally, FCC action to lift restrictions on current licenses – to the extent of the FCC's current powers – can help both to decrease the objection of any incumbent favored by limited rights in the status quo and to build the evidentiary record for reform. Ideas need lead time – the political process needs "softening up"¹⁵⁵ in advance of the legislative window of opportunity.

One of the most important ideas that needs "softening up" is the

conclude that the subject is too complex, the problems too numerous, and the array of alternatives too overwhelming. Their attention drifts away to other, more manageable subjects.").

150. Spectrum Policy Task Force Report, *supra* note 12, at 45.

151. KINGDON, *supra* note 33, at 132.

152. See *supra* notes 108-109 and accompanying text.

153. See generally HAZLETT, *supra* note 133.

154. Cf. DERTHICK & QUIRK, *supra* note 93, at 3.

155. KINGDON, *supra* note 33, at 132.

response to the claim that spectrum licensees that receive flexibility or that receive the rights to sell their spectrum are getting a "windfall." Here, there are two points to be made. The first is, as noted above, one of political reality. Broadcasters are politically powerful, and the current regime gives them some valuable rights (both license rights and must carry rights). Some compensation is probably necessary to cause them to support a new, more efficient regime. The second is more a rebuttal to the "windfall" argument on the merits. Although current broadcasters have not paid the government for their licenses, many have purchased the licenses on the secondary market, and they therefore have paid something for the asset.

Apart from these spectrum-specific ideas, it seems to me that the cause for spectrum reform might be advanced by more consistently making explicit the linkages between it and the cause of telecommunications policy and reform more generally. Despite the doubts expressed in Part II, telecommunications policy could move onto the political agenda. The resignation of Chairman Powell, and the need to appoint and confirm a successor, will require that at least some attention be paid to telecommunications policy. More significantly, new Senate Commerce Committee Chairman Ted Stevens has abolished the telecommunications subcommittee, and he has stated that the reason for the move is to make sure that the full committee has before it the important items of telecommunications reform.¹⁵⁶ Although other motivations have been mentioned,¹⁵⁷ this could signal an increase in telecommunications' place on the political agenda. (Of course, public choice also might suggest that, although the issue is potentially higher on the agenda, the move by a committee chairman to place the issue under his personal jurisdiction is simply a move to garner interest group attention. And this might be true *even if* the lack of legislative action is the most likely outcome.¹⁵⁸) Last, as the President's adverting to the issue during the campaign shows,¹⁵⁹ the U.S.'s trailing the rest of the world in broadband deployment could cause the broadband issue to remain on the political agenda.¹⁶⁰

156. *See, e.g.*, Cong. Quarterly, Midday Update, Feb. 1, 2005.

157. Cong. Daily, January 28, 2005 (suggesting, over Sen. Stevens' denials, that the move was to deny Sen. McCain a subcommittee chairmanship in retaliation for McCain's criticisms of Stevens' permission of pork on Appropriations).

158. *E.g.*, FRED S. MCCHESENEY, MONEY FOR NOTHING: POLITICIANS, RENT EXTRACTION, AND POLITICAL EXTORTION (1997) (arguing that politicians not only receive political contributions in exchange for the passage of legislation, but that politicians can use the threat of potential legislation to receive contributions in exchange for maintaining the status quo).

159. *See supra* note 123 and accompanying text.

160. *Cf.* KINGDON, *supra* note 33, at 92-93 ("Policy makers consider a change in an indicator to be a change in the state of a system; this they define as a problem. The actual

As telecommunications issues (whatever they are) rise on the legislative agenda, linkages to spectrum policy should be exploited. The experience of transportation deregulation showed how “[o]nce a precedent is established in one area, it can be used to further a similar change in an area that is like the first in some way.”¹⁶¹ But “[s]uch argumentation requires appropriate category construction.”¹⁶² Thus, the program for privatizing spectrum must be made of a piece with the continued elimination of entry barriers into telecommunications markets,¹⁶³ with the unleashing of technology generally, and especially with the prospect of increased deployment of and competition in broadband. These themes, of course, resonate not only with the direction of telecom policy generally (since the 1996 Act, especially), but also with some themes pushed in the current political environment such as privatization, personal ownership, and deregulation.

Indeed, wireless seems to be a likely prospect for additional platform competition in broadband markets. I have elsewhere argued for a telecommunications policy that focuses relentlessly on the regulatory conditions that might increase platform competition, and wireless policy could certainly play a leading role.¹⁶⁴ The precedents are certainly favorable. Wireless provided the first platform competition in long distance (microwave) and in multichannel video (DBS); and wireless, especially among the young, is increasingly a competitor on voice. Speeds on WiMax/EVDO systems are increasing. In Chicago, Verizon’s high-speed wireless data service is between 300 and 500 kbps – not cable modem or DSL speeds, but not too shabby either. I am not suggesting that these themes are absent from the current discussion in the policy community. They are not; the FCC’s decisions on ITFS and MMDS frequencies are designed in part to promote fixed broadband deployments,¹⁶⁵ and the movement on wireless ISPs is especially favorable. But much of the spectrum reform discussion focuses on the demand for cell phone service or for other uniquely wireless services instead of explicitly placing it in a broader telecommunications agenda.

Positioning spectrum reform as a central component of *any* significant telecommunications reform increases the likelihood that it will make its way onto the political agenda. It may increase some risks as well, for such reform (especially comprehensive reform) will face some

change in the indicator, however, gets exaggerated in the body politic, as people believe the change is symbolic of something larger and find that the new figures do not conform to their previous experience. Thus indicator change can have exaggerated effects on policy agendas.”)

161. *Id.* at 192.

162. *Id.* at 193.

163. *See* 47 U.S.C. § 253 (2005).

164. *See generally* Speta, *supra* note 14.

165. *See supra* note 109.

significant hurdles. The elimination of the public interest model will raise the spectre of increased indecency in the media, which public opinion seems to consider unacceptable. And, comprehensive reform raises the problem of universal service. The policy community has proposals to address these issues as well, of course. But if spectrum reform turns on the prospects for total telecommunications reform (and, given the evidence above, I think it does), these are problems that must be worked to the same consensus as well.

All in all, the most likely, effective path forward is to continue on the path currently charted by the FCC: free up as much spectrum as possible, auction most of it, provide for flexible uses, and permit secondary markets to flourish. All of these steps will change the landscape significantly, diminish any continuing incumbent resistance, and, as Alfred Kahn put it in the airline context, "scramble the eggs" of the old regime so much that it cannot be put back together. In this regard, then, spectrum policy advocates, instead of proceeding broadly, should perhaps focus all energies on one single cause: accelerating the release of the analog television licenses. This is a well-recognized problem, and there are some solutions in the mix, such as an FCC staff proposal to set a hard shut-off date¹⁶⁶ and a bill introduced by Senator McCain both to set a hard date and to subsidize the purchase of digital tuners.¹⁶⁷ Succeeding here, however, would free up enough spectrum that even FCC action alone would have a substantial effect.

166. See, e.g., Ted Hearn, *Ferree Plan No Picnic for Cable, Either*, MULTICHANNEL NEWS, Apr. 26, 2004, at 79 (discussing plan for 2009 shut off).

167. A bill to ensure the availability of certain spectrum for public safety entities by amending the Communications Act of 1934 to establish January 1, 2009, as the date by which the transition to digital television shall be completed, and for other purposes. See the SAVE LIVES Act, *supra* note 120.

