CUTTING THE CORD: REMOVING THE CMRS SPECTRUM CAP TO PROMOTE WIRELESS-LANDLINE CONVERGENCE AND WIRELESS ALTERNATIVES IN THE LOCAL LOOP

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"Our children's children will see old movies with wired phones and wonder why anybody ever used them."[1]

"Your wireless phone may become your only phone."[2]

SYLLABUS

This comment addresses a Federal Communications Commission ("FCC" or "Commission") proceeding in which the Commission is considering whether to modify or remove its existing rule that limits the aggregate amount of spectrum that can be licensed or attributed to a single wireless carrier. It analyzes issues raised in that proceeding and explains why the outcome of the proceeding should be the elimination of the spectrum aggregation limitation. The author argues that the rule impedes innovation, the deployment of new services, delivery of service to unserved or underserved areas and the development of wireless service as a significant competitor of – if not a substitute for – traditional wireline service. Furthermore, this comment proposes that the spectrum aggregation limitation should be removed because the objective of the rule, meaningful competition in the wireless market, has been attained. Finally, the author submits that other more effective mechanisms are in place to address the concerns that gave rise to the spectrum aggregation limitation.

I. INTRODUCTION

Commercial Mobile Radio Service ("CMRS") is a dynamic wireless industry sector that for many customers may become a substitute for traditional wireline telephony in the United States. Nicholas Negroponte[3] correctly predicted the transformation that has occurred in the communications markets in a phrase that has come to be known as the "Negroponte Switch": "Phones, largely wired . . . [will] go wireless, and TV, largely wireless, [will] get wired."[4]

According to the Cellular Telecommunications Industry Association ("CTIA"), the number of U.S. wireless customers has exploded from 1.6 million to over 66 million in the last decade.[5] This figure could reach 110 million in 2002.[6] Wireless consumers also have experienced dramatic price drops in recent history as new wireless technologies have been deployed.[7] FCC Commissioner Susan Ness has remarked that the growth of competition in recent years has resulted in impressive benefits to consumers.[8] "Just a few years ago, a wireless call commonly cost 50 or 75 cents a

1 *A Cell Phone in Every Pocket?*, BUS. WK. at 38, Jan. 18, 1999, *available at* 1999 WL 8225622 (quoting Andrew Cole, head of Renaissance Worldwide Inc.'s wireless practice).

2 AT&T Digital One Rate (visited Mar. 30, 1999) <http://www.attws.com/personal/onerate/main.html>.

3 Head of the Media Lab at the Massachusetts Institute of Technology and former essayist for Wired magazine. *See* Nicholas Negroponte (visited Apr. 24, 1999) <http://www.media.mit.edu/~nicholas/>.

4 Nicholas Negroponte, *Wireless Revisited*, Aug. 1, 1997 (visited Jan. 27, 1999) <http://www.media.mit.edu/~nicholas/Wired/WIRED5-08.html>.

5 *See A Cell Phone in Every Pocket?*, BUS. WK. at 38, Jan. 18, 1999, *available at* 1999 WL 8225622.

6 *See id.*

7 *See In re* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Third Report*, 13 FCC Rcd. 19746 at 19769 (rel. June 11, 1998) [hereinafter *Third CMRS Competition Report*] (noting that price reductions are due in some degree to the competitive effect of recent CMRS entrants).

8 Remarks of FCC Commissioner Susan Ness Before the Federal Communications Bar Ass'n, Washington, D.C., Jan. 20, 1999 (visited April 24, 1999) <http://www.fcc.gov/commissioners/ness/spmain.htm>.

minute [and involved] hefty roaming fees. But when the first PCS provider challenged the cellular incumbents, rates plummeted 25%. They dropped even further as the 4th, 5th, or even 6th providers joined the fray."[9] Simultaneously, these falling prices continue to reduce profit margins and there are predictions that wireless providers will continue to reduce prices by 20% yearly.[10]

Many have attributed such remarkably sharp growth to the laissez faire regulatory environment engendered by Congress and the Federal Communications Commission ("FCC" or "Commission").[11] The deregulatory trend in Congress is reflected in the 1993 amendments to sections of the Communications Act of 1934 governing mobile services.[12] Historically, FCC treatment has likewise emphasized deregulation. The Commission has sought to foster competition by methodically and consistently dismantling regulatory impediments and permitting licensees to offer supplementary services over their assigned bandwidth.[13]

One significant holdout to the deregulatory policies directed at CMRS, however, is the Commission's rule governing the amount of CMRS spectrum that one entity may amass in a given geographical area. Section 20.6 of the FCC's Rules[14] precludes a CMRS carrier from holding attributable interests in cellular, broadband PCS and Specialized Mobile Radio ("SMR") licenses if the aggregate bandwidth of those services exceeds 45 MHz in one statistical market area defined by geographical boundaries.[15] The Commission originally adopted this CMRS spectrum cap in 1994 to limit the aggregate PCS spectrum an entity, usually a cellular licensee, could obtain.[16] When the spectrum cap was first imposed, most regions of

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9 *Id.*

10 *See A Cell Phone in Every Pocket?*, BUS. WK. at ___, Jan. 18, 1999, *available at* 1999 WL 8225622 (quoting Andrew Cole, head of Renaissance Worldwide Inc.'s wireless practice). "With five or six competitors in most markets, analysts predict that price declines will average about 20% annually. 'Price will hemorrhage over the next two years. . . . We think you'll see 3 cents a minute in the near future.'" *Id.*

11 *See* Comments of Cellular Telecommunications Industry Association, WT Dkt. No. 97-207, at 4 (May 8, 1998) (citing Congressional and Commission policies that "promote competitive results" as the main reason "[t]he CMRS industry has achieved enormous growth in recent years.").

12 *See* Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002(b), 107 Stat. 312 (1993) (amending the Communications Act of 1934 and codified at 47 U.S.C. § 332). *See also* Telecommunications Act of 1996, Pub.L. 104-104, 110 Stat. 56 (1996) (amending the Communications Act of 1934 and to be codified at 47 U.S.C. § 151, *et. seq.*)

13 *See In re* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Second Report*, 12 FCC Rcd. 11266 at 11273-74 (rel. Mar. 25, 1997) [hereinafter *Second CMRS Competition Report*].

14 *See* 47 C.F.R. § 20.6 (1998).

15 *See In re* 1998 Biennial Regulatory Review – Spectrum Aggregation Limits for Wireless Telecommunications Carriers, WT Dkt. No. 98-205, *Notice of Proposed Rulemaking*, 13 Comm. Reg. (P&F) 20-2729, para. 2 (Dec. 10, 1998) [hereinafter *NPRM*]. PCS, SMR and cellular are different CMRS services utilizing different technologies and frequency bands. *See* 47 C.F.R. § 20.3 (1998) (defining commercial mobile radio service as a mobile service that is provided for profit, *i.e.*, "with the intent of receiving compensation or monetary gain."). *See also* 47 CFR § 24.5 (defining PCS as "[r]adio communications that encompass mobile and ancillary fixed communication that provide services to individuals and businesses and can be integrated with a variety of competing networks.") PCS is divided into two categories: Broadband PCS ("PCS services operating in the 1850-1890 MHz, 1930-1970 MHz, 2130-2150 MHz, and 2180-2200 MHz bands"), and Narrowband PCS ("PCS services operating in the 901-902 MHz, 930-931 MHz, and 940-941 MHz bands"). *Id. See also* 47 CFR § 90.7 (defining a Specialized Mobile Radio System as a "radio system in which licensees provide land mobile communications services (other than radiolocation services) in the 800 MHz and 900 MHz bands on a commercial basis to entities eligible to be licensed under [part 90 of the Commission's rules], Federal Government entities, and individuals."); 47 CFR § 22.99 (defining cellular service as "radio telecommunication services provided using a cellular system."). A cellular system is "[a]n automated high-capacity system of one or more multichannel base stations designed to provide radio telecommunication services to mobile stations over a wide area in a spectrally efficient manner. Cellular systems employ techniques such as low transmitting power and automatic hand-off between base stations of communications in progress to enable channels to be reused at relatively short distances. Cellular systems may also employ digital techniques such as voice encoding and decoding, data compression, error correction, and time or code division multiple access in order to increase system capacity." *Id.* In addition, these services define market areas differently. *See, e.g.*, 47 C.F.R. § 22.909 (defining cellular markets as "standard geographic areas used by the FCC for administrative convenience in the licensing of cellular systems). Cellular markets "comprise Metropolitan Statistical Areas (MSAs) and Rural Service Areas (RSAs). All cellular markets and the counties they comprise are listed in Public Notice Report No. CL-92-40 "Common Carrier Public Mobile Services Information, Cellular MSA/RSA Markets and Counties," dated Jan. 24, 1992, DA 92-109, 7 FCC Rcd. 742 (1992)." *Id. See also, e.g.*, 47 C.F.R. § 24.202 ("Broadband PCS service areas are Major Trading Areas (MTAs) and Basic Trading Areas (BTAs). . . . MTAs and BTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39 ('BTA/MTA Map'). . . . [which] organizes the 50 states and the District of Columbia into 47 MTAs and 487 BTAs."); 47 C.F.R. § 90.7 (defining BTAs as "[s]ervice areas that are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39.").

16 *See NPRM, supra* note 15, at para. 2.

the nation were provided mobile voice services from two facilities-based cellular carriers.[17] The objective of the spectrum cap, therefore, was to create an expedient method of guaranteeing that numerous new CMRS providers would have access to the spectrum necessary for true wireless competition to develop.[18] While at first blush it may appear that five years is an insufficient time to consider eliminating such a major regulation, a review is appropriate at this time based upon the rapid and dynamic technological innovation and growth of the wireless industry.[19] These significant changes have raised the issue of whether the CMRS spectrum cap is now a regulatory impediment to competition and converged services.

The 45 MHz CMRS spectrum cap is one of the most important issues to be resolved if wireless service is to compete with traditional wireline service and become an alternative to the wireline local loop. The last time the FCC reviewed the relevance and necessity of CMRS spectrum aggregation limits was in 1996. Since then, the Commission admits, the confluence of several developments has changed conditions in CMRS markets.[20] Moreover, the Commission acknowledged in its *Third Annual CMRS Competition Report* that the indicia of competition are apparent.[21] The Commission observed noteworthy price and service competition[22] in numerous markets.[23] Additionally, cellular firms are investing heavily in network upgrades and additions in order to offer digital service.[24] Markets for mobile voice traffic are expanding while technological innovation

17 *See id.*

18 *See id.*

19 *See, e.g.*, The Council of Economic Advisors, Progress Report: Growth and Competition in U.S. Telecommunications 1993-1998 at 14, Feb. 8, 1999 (visited Feb. 9, 1999) <http://www.fcc.gov>. The Council summarized the explosive growth of wireless as follows:

> The FCC assigned the first licenses to use radio spectrum for cellular telephone service in 1983, introducing competition through a 'duopoly rule' under which one license in each market was given to the incumbent local telephone provider and another to an unaffiliated competitor. By June 1985, cellular companies altogether had just over 200,000 subscribers, 600 'cell sites'. . . and 1,700 employees. In June 1995, subscribership had climbed to 28 million, a total of 20,000 cell sites were operative, and the number of people employed by wireless service companies was 61,000. In 1995. . .the FCC held the first auctions for broadband spectrum to be used for digital 'personal communications services' (PCS), creating new wireless licensees in U.S. markets. As the successful bidders entered the market, and as subsequent licenses were auctioned, the duopoly market structure gave way to full-fledged competition among multiple providers. By the middle of 1998, there were nearly 61 million cellular subscribers and over 57,000 cell sites, and by end of 1998, over 160,000 Americans were holding jobs with wireless telephone companies.

Id.

20 The Commission observed that deployment of digital wireless is changing the competitive landscape of CMRS:

> Perhaps the most notable of these are the changes brought about by the deployment of digital wireless services to mass market consumers. When the CMRS spectrum cap was initially adopted, mobile voice markets in most areas of the count[ry] consisted of only two cellular carriers. Since then, however, we have issued new licenses authorizing the use of additional CMRS spectrum. In many areas of the country, broadband PCS auction winners have also pursued the opportunities presented by newer digital technologies and have begun to provide an expanded array of mobile services. Cellular and broadband PCS providers, in turn, have also begun to encounter competition from a nationwide SMR company whose capabilities have been enhanced by acquiring new spectrum rights and its own digital strategy. Competition is also emerging from providers of paging services, data services, wireless e-mail and other non-voice services. Beyond CMRS markets, there have also been profound changes in related telecommunications markets as the Commission implemented the Telecommunications Act of 1996. While we are encouraged by these developments, we recognize, however, that this emerging competition is not uniform across the country.

NPRM, supra note 15, at para. 30.

21 *See Third CMRS Competition Report, supra* note 7, at 19768 - 69 (June 11, 1998). *See also NPRM, supra* note 15, at para. 34. "In particular, progress has been made towards competitive mobile voice markets in many areas. In the wake of our licensing of broadband PCS spectrum, entry by those firms has become a reality in many local markets throughout the United States, and further entry is continuing." *Id.*

22 CMRS providers routinely seek to increase subscribership by offering flat-rate pricing and bundled vertical services such as call waiting, call forwarding, paging, etc. *See, e.g.*, Stephanie N. Mehta, *Bell Atlantic is Expected to Introduce Single-Rate Program for Wireless Users*, WALL ST. J., Sept. 9, 1998, at B8 (noting Bell Atlantic's recent introduction of its Digital Choice plan in response "to rival AT&T Corp.'s popular flat-rate pricing plan for cellular-phone service.").

23 *See NPRM, supra* note 15, at para. 2 (stating that CMRS market areas are divided into different geographical regions).

24 *See generally* Telecommunications Industry Association, *Press & Publications, Wireless Communications Spending Reaches $50.2 Billion in 1998* (visited Apr. 24, 1999) <http://www.tiaonline.org/pubs/press_releases/1999/99-25.html> (noting that although the cellular infrastructure is mostly in place because of expenditures over recent years, over $ 14.6 billion is expected to be spent on CMRS infrastructure between 1999 and 2002). *See also* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 12-13 (Jan. 25, 1999) (stating that wireless carriers are concentrating on developing their networks, switching to digital service and researching advanced technological applications).

grows apace.[25] Simultaneously, particular data and paging services are spurring rivalry in some markets, driving prices downward as new services become available.[26] The FCC's recognition that three or more CMRS competitors exist in 97% of the largest Basic Trading Areas ("BTAs")[27] has not been lost on cellular providers, most of whom argue for removal of the cap.[28]

Given the growing competitive environment in the wireless markets, the Commission is examining "whether the current [CMRS spectrum cap] continues to further the public interest, or whether circumstances have changed so as to warrant a modification or repeal of the CMRS spectrum cap."[29] This comment argues that the spectrum cap should be repealed because it is unnecessary and, in fact, acts as an impediment to the development of robust competition between wireless and traditional wireline phone service. The first prong of analysis emphasizes the Commission's inappropriate market concentration calculation methods and how meaningful competition in CMRS markets has rendered the spectrum cap superfluous.[30] This comment next evaluates the benefits of removing the spectrum cap, focusing on increased efficiencies, greater satisfaction of consumer demand, expansion of service to rural markets, and advancement of wireless versus landline competition in local markets. Finally, this comment argues that legal constraints and market forces independent of the spectrum cap and the cellular cross-interest rule[31] provide adequate protection against anticompetitive behavior.

While initially the cap may have served a useful purpose in ensuring that many new wireless carriers could enter the CMRS market, today the spectrum cap is discordant with the competitive purpose of the Telecommunications Act of 1996 ("1996 Act"). Substantial competition exists in the CMRS market. Furthermore, technological innovation and network buildout in the context of convergence are causing regulatory distinctions between—and relevant markets of—wireless services to blend together. Unless the Commission acts decisively to remove its thumb from the scale, cellular providers might be at a serious disadvantage to the combined competitive impact of Specialized Mobile Radio Service ("SMR"),[32] Personal Communication Service ("PCS"),[33] Local Multipoint Distribution Service ("LMDS"),[34] Wireless Communication Service ("WCS")[35] and Mobile Satellite Services ("MSS").[36] CMRS carriers must be allowed to develop new advanced technologies, to compete in a world of wireless broadband content, and increase the amount of spectrum they can hold in order to foster competition and allow CMRS to develop as a substitute for wireline

25 *See NPRM, supra* note 15, at para. 34.

26 *See id.*

27 *See* 47 C.F.R. § 90.7 (1998) (defining Basic Trading Area).

28 *See Third CMRS Competition Report, supra* note 7, at 19750. *See also, e.g.*, Comments of AT&T Wireless Service, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 8, n.32 (Jan. 25, 1999).

29 *NPRM, supra* note 15, at para. 2.

30 The Commission specifically sought comment on the proper scope of discussion regarding the 1992 Department of Justice and Federal Trade Commission Horizontal Merger Guidelines. *See id.* at para. 35. *See also generally, U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines*, 62 Antitrust & Trade Reg. Rep. (BNA) No. 1559, at S2 (Apr. 2, 1992) [hereinafter *1992 Merger Guidelines*].

31 *See* 47 C.F.R. § 22.942 (1998) (forbidding CMRS licensees from holding an attributable interest in other CMRS licensees if the ownership interest is greater than 5% or there is an actual controlling interest of the subject CMRS provider in a given cellular geographic statistical area ("CGSA") *and* the combination threatens competition).

32 See 47 C.F.R. § 90.7 (1998) (defining SMR as a "radio system in which licensees provide land mobile communication services in the 800 MHz to 900 MHz bands on a commercial basis to entities eligible to be licensed under this part, Federal Government entities, and individuals.").

33 *See* 47 C.F.R. § 24.5 (1998) (defining PCS as "[r]adio communications that encompass mobile and ancillary fixed communication that provide services to individuals and businesses and can be integrated with a variety of competing networks."). *See also supra* note 15 (defining broadband and narrowband PCS).

34 *See* 47 C.F.R. § 101.3 (1998) (defining LMDS as a fixed point-to-point or point-to-multipoint radio system consisting of a hub station that provides one or two-way communication with microwave radio stations located at a subscriber's premesis); *See also* HARVEY L. ZUCKMAN ET AL. 3 MODERN COMMUNICATIONS LAW 142 (1999) (describing LMDS as one type of service that can be thought of as "'wireless cable' [that] uses microwave channels for over-the-air distribution of video programming to individual reception antennas.").

35 *See* 47 C.F.R. § 27.4 (1998) (defining WCS as a "radiocommunication service that encompasses fixed, mobile, satellite [digital audio radio service], and radiolocation service.").

36 *See* HARVEY L. ZUCKMAN ET AL. 3 MODERN COMMUNICATIONS LAW 305 (1999) (stating that "low and middle earth orbiting satellite projects, like Iridium, Odyssey, Global-star, and ICO, an Inmarsat spin-off company, propose to make mobile satellite service (MSS) global and personal in scope.") "These ventures aim to provide ubiquitous, wireless, digital coverage to pocket-sized telephones." *Id.* SMR, PCS, LMDS, WCS, and MSS are potential competing services to cellular telephony. *See generally id.* [hereinafter *competing wireless services*].

service.[37] To the extent that concerns exist that a given carrier will amass too much spectrum and be able to exert power in one or more geographic areas, the Commission should rely on antitrust laws, its own public interest review authority over license transfers, its simultaneous/multi-round auctions of additional wireless spectrum, and marketplace realities to check such behavior by carriers in the wireless market.

II. THE LEGAL LANDSCAPE BEHIND THE SPECTRUM CAP

A. FCC Enabling Acts

Pursuant to the deregulatory emphasis of the Ominbus Budget Reconciliation Act of 1993,[38] the FCC established the CMRS spectrum cap in its *CMRS Third Report and Order*.[39] Before the Commission adopted the spectrum cap, the Commission regulated the wireless industry by restricting licensees' aggregation of broadband PCS spectrum through "service specific limitations."[40] The FCC determined that if a licensee amassed enough spectrum, it might be capable, either alone or in combination, of engaging in exclusionary practices, limiting services offered, or detrimentally driving prices upward.[41] The Commission concluded that it would be able to prevent licensees from warehousing spectrum capacity by instituting a cap for broadband PCS, SMR, and cellular licenses.[42] In its *CMRS Spectrum Cap Report and Order*, the FCC adopted a unitary 45 MHz CMRS spectrum cap rather than retaining three separate caps because of the relative flexibility one cap affords providers in the face of shifting marketplace conditions.[43] The FCC based its decision in favor of the CMRS spectrum cap on its analysis of potential market concentrations calculated under the Herfindahl-Hirschman Index ("HHI") method of determining market concentration.[44] The Commission determined that the 45 MHz spectrum cap was an essential measure to forestall high levels of concentration and anticompetitive practices in the CMRS market.[45] The FCC reasoned that the CMRS spectrum cap would be in the public interest because it would promote competition among CMRS providers, provide a simple system of administrative oversight, and add stability and predictability to an otherwise volatile market.[46]

The FCC's latest review of the spectrum cap arose out of the Commission's Biennial Review.[47] The relevant parts of Section 11 of the Communications Act of 1934 state that the FCC must examine all of its regulations applicable to operations or activities of telecommunications providers, ascertain whether there is material competition between those providers and rescind or amend regulations that are not essential to serving the public interest.[48] Many, including the

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37 *See* 47 U.S.C. § 332(a) (1994) (stating that the Commission shall consider, *inter alia*, efficiency benefits, reduction of regulatory burdens on spectrum users and marketplace demands in deciding how to manage and allocate spectrum).

38 *See* Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002(b), 107 Stat. 312 (1993) (amending the Communications Act of 1934 and codified at 47 U.S.C. § 332).

39 *See In re* Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, *Third Report and Order*, 9 FCC Rcd. 7988, para. 7 (1994).

40 *See NPRM, supra* note 15, at 10. *See also In re* Amendment of the Commission's Rules to Establish New Personal Communications Services, *Second Report and Order*, 8 FCC Rcd. 7700, para. 61 (1993) (restricting licensees of broadband PCS spectrum to 40 MHz of the aggregate spectrum allocated to broadband PCS). *See also In re* Amendment of the Commission's Rules to Establish New Personal Communications Services, *Memorandum Opinion and Order*, 9 FCC Rcd. 4957, para. 67 (1994) (amending the Commission's rules to permit cellular licensees after Jan. 1, 2000, to increase their PCS spectrum holdings from 10 MHz to 15 MHz).

41 *See NPRM, supra* note 15, at para. 10.

42 *See id.* at para. 13.

43 *See id.* at para. 16.

44 *See id. See also* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 458 (1994) (stating that "[t]he HHI as used in the 1992 Horizontal Merger Guidelines is the sum of the squares of every firm in the relevant market."). "For example, if a market has 3 firms each with a market share of 25%, 1 firm of 15% and 1 firm of 10%, the HHI would be $25^2 + 25^2 + 25^2 + 15^2 + 10^2 = 2200$. Such a market . . . is considered highly concentrated under the 1992 Guidelines, which so regard any market with an HHI greater than 1800." *Id.*

45 *See NPRM, supra* note 15, at para. 16.

46 *See id.*

47 This requirement was imposed by the 1996 amendments to the Communications Act of 1934. *See* 47 U.S.C. § 161 (1994 & Supp. II 1996).

48 *See id.* ("In every even-numbered year (beginning with 1998), the Commission shall review all regulations issued under this Act in effect at the time of the review that apply to the operations or activities of any provider of telecommunications service; and shall determine whether any such regulation is no longer necessary in the public interest as the result of meaningful economic competition between providers of such service. . . . The Commission shall repeal or modify any regulation it determines to be no longer necessary in the

Commission, have observed that Section 11 obligates the FCC to either amend or repeal the CMRS spectrum cap when it no longer furthers the public interest by promoting "meaningful economic competition."[49] The Commission has proposed the following regulatory options for the CMRS spectrum cap: (1) modifying significant overlap threshold; (2) modifying 45MHz limitation; (3) modifying ownership attribution thresholds; (4) forbearing from enforcing the CMRS spectrum cap; (5) sunsetting the CMRS spectrum cap; and (6) eliminating the CMRS spectrum cap.[50]

The 1993 amendments to the statutory provisions governing CMRS promote a deregulatory environment.[51] Among other things, Section 332 established that the FCC may choose to forbear from subjecting any CMRS provider to any regulation under Title II[52] if it determines that the regulation is not essential to ensuring just, reasonable and nondiscriminatory rates and terms of service, protection of consumers can be achieved without reliance on the regulation, and the public interest is served.[53] A major goal of the 1993 amendments to Section 332 was regulatory symmetry between similar services.[54] In its docket implementing Section 332, the FCC recognized the deregulatory purpose of the amendments, stating that "[t]he broad goal of this action is to ensure that economic forces – not disparate regulatory burdens – shape the development of the CMRS marketplace."[55]

Furthermore, the emphasis of the Telecommunications Act of 1996 on minimum necessary regulation is reflected in Section 310(d), which provides that transfers, assignments or any other change in the disposition of a construction permit or station license may not occur except where the Commission finds that it serves the public interest, convenience and necessity.[56] Once the FCC has found that an applicant has satisfied its burden of proving that the transfer of control of a cellular, broadband PCS or SMR license is in the public interest, Section 310 imposes a duty on the Commission to approve the transfer.[57] Thus, the Commission not only is empowered, but also is

public interest.").

49 Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Jan. 25, 1999). *See generally supra* note 40 (discussing old service-specific limitations).

50 *See NPRM, supra* note 15, at para. 8.

51 *See supra* note 38. *See also generally* H.R. CONF. REP. NO. 103-213 (1993), *reprinted in* 1993 U.S.C.C.A.N. 1088, 1162.

52 Other than Sections 201, 202, 208. *See* 47 U.S.C. 332(c)(1) (1994 & Supp. II 1996).

53 *See* 47 U.S.C. § 332(c) (1994 & Supp. II 1996). Section 332(c) provides that the FCC may forbear from enforcing a regulation when:

> (i) enforcement of such provision is not necessary in order to ensure that the charges, practices, classifications, or regulations for or in connection with that service are just and reasonable and are not unjustly or unreasonably discriminatory; (ii) enforcement of such provision is not necessary for the protection of consumers; and (iii) specifying such provision is consistent with the public interest.

Id.

54 *See* H.R. CONF. REP. NO. 103-213 (1993), *reprinted in* 1993 U.S.C.C.A.N. 1088, 1183 (asserting the objective of guaranteeing that "consistent with the public interest, similar services are accorded similar regulatory treatment.")

55 *In re* Implementation of Sections 3(n) and 332 of the Communications Act, *Third Report and Order*, 9 FCC Rcd. 7988, para. 23 (1994).

56 47 U.S.C. § 310(d) (1994). Section 310(d) grants the Commission significant discretion in issuing licenses:

> No construction permit or station license, or any rights thereunder, shall be transferred, assigned or disposed of in any manner, voluntary or involuntary, directly or indirectly, or by transfer of control of any corporation holding such permit or license, to any person except upon application to the Commission and upon finding by the Commission that the public interest, convenience and necessity will be served thereby.

Id. See generally 47 U.S.C. § 161(b) (1994 & Supp. II 1996) (requiring the Commission to "repeal or modify any regulation it determines to be no longer necessary in the public interest."); 47 U.S.C. § 332(c)(1)(C) (1994 & Supp. II 1996) (obligating the Commission to "consider whether the proposed regulation . . . will promote competitive market conditions, including the extent to which such regulation (or amendment) will enhance competition among providers of commercial mobile services."); 47 U.S.C. § 157(a) (1994 & Supp. II 1996) ("It shall be the policy of the United States to encourage the provision of new technologies and services to the public."). The Commission's public interest review is not limited to traditional antitrust analysis:

> [T]he public interest analysis. . . is much broader than the traditional antitrust analysis. Competition used to be one element the FCC considered when it evaluated whether the public interest concerns would be met in a telecommunications merger. Competitive concerns now dominate the public interest analysis the Commission conducts when approving a telecommunications merger. The Commission, with a push from Capitol Hill, has found that it is not enough for the public interest to lie merely in not allowing a decrease in competition, but in actually promoting competition in the communications sector. The public interest standard allows the FCC the flexibility of imposing narrowly tailored conditions on telecommunications mergers to further specific policy goals.

Jason E. Friedrich, Comment, *Thinkable Mergers: The FCC's Evolving Public Interest Standard*, 6 COMMLAW CONSPECTUS 261, 274 (1998).

57 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT

obligated to assess market issues raised by transfers of control on a case-by-case basis.[58] Even without a spectrum cap, therefore, the FCC possesses the tools to prevent undue concentration of wireless spectrum.[59]

B. Antitrust Statutes

Antitrust laws also serve as a powerful check on undue concentration and the exercise of market power in the wireless industry. Proposed mergers and acquisitions are subject to Section 7 of the Clayton Act, which empowers the Department of Justice ("DOJ") and the Federal Trade Commission ("FTC") to determine the competitive effects of such transactions.[60] The FCC has concurrent authority to enforce Section 7.[61] In addition, Sections 1 and 2 of the Sherman Act empower the antitrust agencies and private parties to police contracts in restraint of trade,[62] monopoly practices[63] or attempts to monopolize.[64] Under the Hart-Scott-Rodino Antitrust Improvements Act of 1976,[65] which establishes premerger notification procedures with certain limited exceptions, transacting parties are required to notify the Federal Trade Commission and the Assistant Attorney General of transfers: (1) that affect interstate commerce; (2) in which the parties have annual sales or assets of at least $100 million and $10 million, respectively; or (3) where the acquiring entity would obtain total voting securities or assets valued at greater than $15 million or voting control of the entity acquired that is greater than or equal to 15% of all voting stock.[66] Additionally, the Federal Trade Commission possesses independent power to prevent anticompetitive conduct through assessment of civil penalties.[67]

C. Judicial Constraint of FCC Authority

Recently, the U.S. Court of Appeals for the District of Columbia strictly enforced the spectrum

Dkt. No. 98-205, at 23 (Jan. 25, 1999).

58 *See id. See also NPRM, supra* note 15, at para. 5 ("[W]e wish to ensure that our regulation promotes, rather than impedes, the introduction of innovative services and technological advances.")

59 *See supra* Section I. To the extent that concerns exist that a given carrier will amass too much spectrum and be able to exert power in one or more geographic areas, the Commission should rely on antitrust laws, its own public interest review authority over license transfers, its simultaneous/multi-round auctions of additional wireless spectrum and marketplace realities to check such behavior by carriers in the wireless market.

60 *See* 15 U.S.C. § 18 (1994). The statute states:

> No person engaged in commerce or in any activity affecting commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another person engaged also in commerce or in any activity affecting commerce, where in any line of commerce or in any activity affecting commerce in any section of the country, *the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.* No person shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of one or more persons engaged in commerce or in any activity affecting commerce, where in any line of commerce or in any activity affecting commerce in any section of the country, *the effect of such acquisition, of such stocks or assets, or of the use of such stock by the voting or granting of proxies or otherwise, may be substantially to lessen competition, or to tend to create a monopoly.*

Id. (emphasis added).

61 *See* 15 U.S.C. § 21 (Granting FCC the authority to enforce the Clayton Act where applicable to "common carriers engaged in wire or radio communications or radio transmission of energy.").

62 *See* 15 U.S.C. § 1 (1994 & Supp. III 1997). The statute provides:

> Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $10,000,000 if a corporation, or, if any other person, $350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.

Id.

63 *See* 15 U.S.C. § 2 (1994). The statute establishes that:

> Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $10,000,000 if a corporation, or, if any other person, $350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.

Id.

64 *See id.*

65 15 U.S.C. § 18a (1994) ("[N]o person shall acquire, directly or indirectly, any voting securities or assets of any other person, unless both persons (or in the case of a tender offer, the acquiring person) file notification pursuant to rules under . . . this section and the waiting period described [in this section].").

66 *See id.*

67 *See* 15 U.S.C. § 45 (1994).

cap to preclude BellSouth from providing certain data services.[68] However, the same court has consistently held that where the factual predicate for regulation no longer exists, the FCC is without authority to retain the regulation. In *Geller v. FCC*,[69] the court stated that an agency cannot avoid reexamining the rationale for specific regulations when circumstances have changed.[70] In that case, Geller filed a petition for rulemaking after a copyright infringement consensus agreement reached by interested parties had attained all of the objectives of the agreement.[71] The court held that the regulatory regime based on the consensus agreement "lacked a nexus with the public interest once the sought-after revision of the copyright laws was accomplished."[72] In *Meredith v. FCC*,[73] the District of Columbia Circuit reversed a Commission decision because the FCC had "largely undermined the legitimacy of its own rule"[74] by eliminating the rationale for its policies in a formal report. The same court in *Bechtel v. FCC*[75] rejected the Commission's argument that it is not required to account for its adherence to an established policy and must only explain deviations from settled policy or prior precedent.[76] The court opined that it is not enough to provide a reasonable basis for a regulation; the Commission has a duty to reevaluate a policy when the fact or law underlying the rule has changed.[77]

D. The Cellular Cross-Interest Rule

Section 22.942 of the Commission's rules forbids CMRS licensees from holding an attributable interest in other CMRS licensees in a given CGSA if the interest threatens competition.[78] An attributable interest of more than 5 percent or a controlling interest in such a company subjects the CMRS provider to the cross interest rule.[79] Like the cap itself, the cross-interest rule was implemented to ensure competition and encourage innovation in wireless markets.[80]

E. Standards, Proposals and Appropriate Commission Action

The Commission has established standards it uses when evaluating the efficacy of existing regulations.[81] First, the Commission favors market forces over regulation as a means of serving the public interest.[82] Second, the FCC seeks to promote dynamic rivalry in all telecommunications markets, specifically attempting to guarantee that no regulatory roadblocks inhibit the development of wireless carriers as effective competitors to local wireline carriers.[83] Finally, the Commission endeavors to ensure that all Americans enjoy the advantages of modern telecommunications services, especially wireless services.[84] Generally, the Commission performs its competitive analysis of markets by determining market concentration, which is usually gauged by market share.[85] Market share may be measured by capacity, production or sales information.[86] The Commission utilized the Herfindahl-Hirschman Indices ("HHI") to measure spectrum allotments as a surrogate method of assessing CMRS market share.[87] Despite its reliance on the HHI, the FCC has acknowledged that its regulation of CMRS must "ensure that the marketplace—and not the regulatory arena—shapes the development and delivery of mobile services."[88]

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68 *See* Bell South v. FCC, 162 F.3d 1215 (D.C. Cir. 1999).

69 610 F.2d 973 (D.C. Cir. 1979). *See also* Cincinnati Bell Telephone v. FCC, 69 F.3d 752, 768 (6th Cir. 1995) (ordering the FCC to explain why it retained Rule 22.903, which required Bell Operating Companies ("BOCs") to provide cellular service through a separate subsidiary after ruling that a BOC did not have to use a separate subsidiary to provide PCS service).

70 *Geller*, 610 F.2d at 979.

71 *See id.*

72 *Id.*

73 809 F.2d 863 (D.C. Cir. 1987).

74 *Id.* at 873.

75 957 F.2d 873 (D.C. Cir. 1992).

76 *See id.* at 881.

77 *See, e.g., id.* ("In the rulemaking context, for example, it is settled law that an agency may be forced to reexamine its approach 'if a significant factual predicate of a prior decision . . . has been removed.'") (citing *WWHT, Inc. v. FCC*, 656 F.2d 807, 819 (D.C. Cir. 1981)).

78 *See* 47 C.F.R. § 22.942 (1998).

79 *See id.*

80 *See NPRM, supra* note 15, at para. 80 (stating that the cross-interest rule was promulgated to "guarantee the competitive nature of the cellular industry and to foster the development of competing systems.") (citations omitted).

81 *See NPRM, supra* note 15, at para. 5

82 *See id.*

83 *See id.*

84 *See id.*

85 *See id.* at para. 33.

86 *See id.*

87 *See id.*

88 *In re* Implementation of Sections 3(n) and 332 of the Communications Act, *Third Report and Order*, 9 FCC Rcd. 7988, 8002 (1994).

The Commission's congressional and regulatory mandate demonstrates that the Commission must adopt the least restrictive regulations necessary to achieve its administrative objectives.[89] Case law in the District of Columbia Circuit, which has primary jurisdiction over appeals of FCC decisions,[90] requires the FCC to abandon outmoded regulations.[91] In light of prior law, existing regulatory regimes and changes in market conditions, it is appropriate for the Commission to remove the spectrum cap and thereby promote competition in the CMRS marketplace.

III. RETAINING THE SPECTRUM AGGREGATION LIMITATION: UNJUSTIFIED AND BURDENSOME REGULATION

A. Proper Measurement of Market Capacity and Concentration

In assessing the efficacy of the CMRS spectrum cap, it is essential to determine the appropriate weight to attach to market concentration vis-à-vis its HHI calculations.[92] In assessing whether to retain, repeal or modify the cap, the Commission seeks to determine the relevant market and the appropriate measure of market share.[93] The appropriate measure of market capacity is the amount of total spectrum assigned to a carrier. Other measures of market share distort competitive realities by not accounting for fluid market penetration rates and potential competition.[94] The amount of spectrum allocated to each CMRS carrier is a better measure of market share because it does not rely on "slippery" data like subscribership or minutes, which are subject to sudden and significant variations.[95] Moreover, given the Commission's acknowledgment that the 1992 Merger Guidelines include uncommitted entrants in market competition analysis of relevant markets, the market concentration and competition analysis should be expanded to include potential competitors because of their positive competitive effect on pricing in the relevant market.[96]

In determining the appropriate market definition, the FCC should include competitive services[97] that rival or are substitutes for conventional mobile radio, or cellular, service.[98] The Commis-

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89 *See supra* notes 55 - 59 and accompanying text.

90 *See* 47 U.S.C. § 402 (1994 & Supp. II 1996) (stating that appeals of Commission orders and decisions may be made to the United States Court of Appeals for the District of Columbia).

91 *See supra* notes 68 – 77 and accompanying text.

92 *See NPRM, supra* note 15, at para. 35.

93 *See id.* (noting that market capacity may be measured in terms of assigned spectrum, operational spectrum, subscribers, revenue, or traffic/minutes of use).

94 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Jan. 25, 1999) (arguing that the Commission should include in the relevant market definition "those services that are competitive with, or are readily substitutable for, traditional wireless service). *See also* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 508-15 (1994) (discussing potential competition, perceived potential competition and "actual" potential competition and the effect of each on prices and competition). PCS providers, for example, arguably are perceived potential entrants because their presence has reduced prices not only in markets they have entered, but also in all CMRS markets as cellular entrants operate more competitively in order to make themselves more attractive. *See id. See also supra* notes 9 –10.

95 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6 (Jan. 25, 1999). The benefits of using spectrum allocation as a measure of market conditions outweigh using subscribers or minutes because of volatility and unpredictability in subscribership or minutes of usage as a result of increasingly competitive market conditions. In this regard, SBC notes:

> To measure more contingent barometers such as subscribers or minutes of use could result in a snapshot analysis that has no relationship to the ultimate depiction of a market. For instance, a given PCS carrier may have only 2% of the wireless customers in a given market due to the fact it is a new entrant, but through aggressive marketing, that number could climb to 20% or even higher within a very short period of time. But whether this carrier has 2% or 20% or more of the customers in an area, it always retains a 30 MHz block of spectrum under its control and that spectrum is unavailable to other users.

Id.

96 *See NPRM, supra* note 15, at para. 36 ("[S]hould [the Commission] limit [its] assessment of market participants to only current suppliers and any other firms that have announced intentions to commence operations, declared their intentions to offer the relevant product, and will imminently begin soliciting business?"). *See also* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 477 (1994) ("The Guidelines include in the market firms that can easily and economically shift to manufacturing the relevant product, or that can easily begin shipment of an existing competitive product into the relevant geographic market. The Guidelines refer to such firms as "uncommitted" entrants – that is, firms that can move into competition with the merging firms with relatively little risk or costly redeployment of resources.").

97 *See supra* note 36.

98 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Jan. 25, 1999). *See also* Wireless Telecommunications Action – FCC Adopts Third Annual Report to Congress On State of CMRS Competition (WT Dkt. No. 98-13), FCC NEWS, May 14, 1998 at 1, *available at* <http://www.fcc.gov/Bureaus/Wireless/Reports/fcc98091.pdf> (visited Feb. 9, 1999). The Commission

sion should recognize that, while various CMRS services have distinct transmission and network configurations, from both marketing and consumer perspectives these services directly compete with each other for subscribers.[99] More to the point, while cellular providers arguably offer a distinctive service, they are under intense competitive pressure from substitute services[100] that offer price, use and quality that are interchangeable with cellular service.[101]

To properly assess relevant geographic markets, it is necessary to recognize that the Commission's rules delineating service areas take into consideration that there are disparate market area definitions among CMRS services.[102] For example, PCS and cellular service area maps define their respective service areas based on different geographic, demographic and statistical assumptions.[103] So while each of these wireless services is subject to the spectrum cap, they are not subject to the cap in the same areas. Also, while PCS applies a different service area definition than cellular, PCS MTAs and BTAs frequently overlap multiple cellular MSA and RSA markets.[104] Furthermore, many wireless carriers are marketing "nationwide seamless service" by combining their licensed areas with advantageous roaming contracts.[105] From a consumer's point-of-view, however, whether the

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has found that new entrants and digital services are driving down prices and providing an array of service options:

> In the past year, the mobile telephony market has achieved new highs in subscribership – with 55 million subscribers representing 20 percent of the nation's population subscribing to service at the end of 1997. This represents an increase of over 11 million new subscribers during 1997. The *Third Report* finds that mobile telephony is an important engine of economic growth in the CMRS marketplace. According to the report, the most dramatic development in mobile telephony has been the entry of new broadband Personal Communications Services (PCS) and digital Specialized Mobile Radio (SMR) providers into most major markets across the country. As a result of these new entrants, prices have been falling and service offerings have become more diverse.

Id. See also The Council of Economic Advisors, Progress Report: Growth and Competition in U.S. Telecommunications 1993 - 1998 at 15, Feb. 8, 1999, *available at* <http://www.fcc.gov> (visited Feb. 9, 1999) (observing that the "main wireless telephone technologies [are] cellular, PCS, and ESMR" and that "wireless communications encompass such services as paging, SMR, and fixed point-to-point, as well as such new services as fixed wireless local loop and Third Generation mobile services.").

99 *See Third CMRS Competition Report, supra* note 7, at 19762. The Commission has noted the fungible nature of these different services:

> [T]he mobile telephone market is defined as all operators who offer commercially available interconnected mobile phone services. These operators provide access to the public switched network. . . via mobile communication devices that employ radiowave technology to transmit their calls. Currently, this market is dominated by providers using three different types of FCC licenses: cellular radiotelephone, broadband PCS, and SMR services. *While all three of these FCC services were created at different times and with different intentions, they each now offer mobile telephone services that are fundamentally interchangeable. Furthermore, while providers use different marketing techniques and different technologies to differentiate themselves to the public, they are all offering essentially the same product, mobile telephone services.*

Id. (emphasis added). *See also* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Jan. 25, 1999) ("These services compete for all, or some portion of, the same pool of customers.").

100 *See id.*

101 *See id. See also* United States v. E.I. duPont de Nemours & Co., 351 U.S. 377, 404 (1956) (stating that the test of whether products or services are fungible is whether the "market is composed of products that have reasonable interchangeability for the purposes for which they are produced – price, use and qualities considered."). Churn rates would seem to strengthen the proposition that a slight decrease in SMR prices, for example, would result in significant customer migration from cellular services to SMR. *See In re* Cellular telecommunications Industry Association's Petition for Forbearance from Commercial Mobile Radio Services Number Portability Obligations, WT Dkt. No. 98-229, *and* Telephone Number Portability, CC Dkt. No. 95-116, *Memorandum Opinion and Order*, 1999 WL 58618 (rel. Feb. 9, 1999) (defining churn as a high frequency of changing wireless carriers). *See also supra* note 98; *High Churn Again Dogs Powertel*, COMM. TODAY, Oct. 30, 1998 *available at* 1998 WL 17661574 (4.5% monthly churn rate); *Slow-Growing Wireless is Stable Financial Contributor for Centurytel*, WIRELESS TODAY, Oct. 27, 1998 *available at* 1998 WL 9345280 (2.3% monthly churn); *Microcell's End-of-September Base Hits 180,000 Mark*, COMM. TODAY, October 19, 1998 *available at* 1998 WL 17661424 (2.8% monthly rate); *High-MOU Individuals, Men Seen as More Prone to Churn*, WIRELESS TODAY, Sept. 3, 1998 *available at* 1998 WL 9344840 (10% of survey respondents changed carriers in previous year); *Lack of Loyalty Can Hurt: Study Pegs U.S. Wireless Churn Potential at 38 percent*, PCS WEEK, Aug. 26, 1998 *available at* 1998 WL 8016013.

102 *See supra* note 15 and accompanying text.

103 *See id.*

104 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5–6 (Jan. 25, 1999). *See also NPRM, supra* note 15, at para. 35 (inquiring about relevant product and geographic markets).

105 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Jan. 25, 1999). *See also* Speech of FCC Chairman William E. Kennard, Address to the Cellular Telecommunications Industry Association Convention, New Orleans, Louisiana (Feb. 9, 1999) <http://www.fcc.gov/Speeches/Kennard/spwek906.html> ("Consolidation and alliances are creating a national footprint. A footprint that is creating a path to more convenience and lower prices for all Americans."); *In re* Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, *Second Notice of Proposed Rulemaking*, 10

service is facilities-based or contractual in nature is an irrelevant distinction. These nationwide roaming contracts, therefore, further blur market area definitions by in effect expanding the geographic market area of the subscriber. Thus, the Commission's definition of the relevant market suffers from comparisons of services with distinct demographic/geographic characteristics, and powerful market forces that transcend the constraints of a designated service area.[106] Current HHI calculations of market concentration are distorted because the Commission does not account for disparate market area definitions.

Removing the spectrum cap will help alleviate the extreme burdens of regulatory compliance to which CMRS providers currently are subjected. The overlapping nature of CMRS market boundaries makes it difficult for CMRS providers to comply with a spectrum cap because wireless providers have to evaluate every MSA, MTA, RSA or BTA in which they provide service to ensure they do not run afoul of the artificial restriction in any single area.[107] Merely raising the cap rather than removing it will perpetuate this problem. Moreover, continuing to impose this additional burden on CMRS providers would underscore the Commission's abdication of its regulatory duty to engage in proactive assessment.[108]

In addition to properly defining the appropriate geographic market, the Commission's reliance upon HHI calculations is an undesirably rigid method of determining market power.[109] It is necessary to measure the market in terms of spectrum allocation rather than minutes or customers in order to avoid distorted results.[110] It also is essential to recognize that the HHI calculation has limited application regardless of the measure of market concentration used.[111] Traditional antitrust analysis is based on the assumption that one entity is not deemed to possess even a theoretical ability to capitalize on its ability to raise prices unilaterally without first attaining a sufficient level of market power.[112] Even if there are other significant factors indicating the existence of market power, the 1992 Merger Guidelines set 35 percent market share as the threshold level for the existence of market power.[113] Under the current CMRS spectrum cap of 45 MHz, a carrier is restricted to an equivalent 25% percent of market

FCC Rcd. 10666, para. 45 (April 20, 1995) ("'Roaming describes the situation which occurs when the subscriber of one CMRS provider enters the service area of another CMRS provider with whom the subscriber has no pre-existing service or financial relationship, and attempts either to continue an in-progress call, to receive an in-coming call or to place an outgoing call.").

106 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Jan. 25, 1999).

107 *See* Comments of BellSouth Corporation to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 20 (Jan. 25, 1999).

108 *See generally supra* notes 48 – 49, 51, 68 – 77. *See also NPRM, supra* note 15, at para. 5; *In re* Petition of the Connecticut Department of Public Utility Control to Retain Regulatory Control of the Rates of Wholesale Cellular Service Providers in the State of Connecticut, *Report and Order*, 10 FCC Rcd. 7025 paras. 8, 10 (1995). The Commission has observed that:

> OBRA reflects a general preference in favor of reliance on market forces rather than regulation. Section 332(c), for example, empowers the Commission to reduce CMRS regulation, and it *places on us the burden of demonstrating that continued regulation will promote competitive market conditions.* . . . Congress delineated its preference for allowing this emerging market to develop *subject to only as much regulation for which the Commission and the states could demonstrate a clear cut need.*

Id. (emphasis added).

109 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6 (Jan. 25, 1999) (noting that the merger guidelines reject "automatic prohibitions based on market share in favor of case-by-case analysis that requires the examination of other factors to determine whether a given level of concentration is likely to produce anticompetitive effects."). The case-by-case analysis of the merger guidelines "avoids the distinct possibility that an automatic cutoff would prevent mergers that have substantial benefits." *Id. See also* 1992 Merger Guidelines at § 0.1 ("While challenging competitively harmful mergers, the Agency seeks to avoid unnecessary interference with the larger universe of mergers that are either competitively beneficial or neutral.").

110 *See supra* note 95.

111 *See* 1992 Merger Guidelines at § 0 (stating that judgment must be applied when analyzing mergers under antitrust laws, despite the fact the increased predictability that the Guidelines should afford.) "Because the specific standards set forth in the Guidelines must be applied to a broad range of possible factual circumstances, mechanical application of those standards may provide misleading answers to the economic questions raised under the antitrust laws." *Id.*

112 *See* WILLIAM C. HOLMES, ANTITRUST LAW HANDBOOK 583 (1998) ("[A] 'hypothetical monopolist' [is one who] could profitably impose a 'small but significant and nontransitory' increase in price without pulling in additional substitute products . . . . [a] 5 percent increase over a period of one year is given as a fair benchmark for most purposes."). *See also* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6 (Jan. 25, 1999).

113 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6 (Jan. 25, 1999). *See also* 1992 Merger Guidelines at § 2.22.

share,[114] a level substantially below the 35 percent necessary to establish that undue market power exists.[115] In this regard, the 45 MHz cap is overbroad; the focus on sheer quantitative measures of competition through HHI calculations has the effect of proscribing consolidations that may have desirable market efficiencies.[116]

The Commission's reliance on numerical competition[117] is also questionable because market concentration alone does not accurately represent market power.[118] Rather than primarily relying on an HHI calculation, the Commission should incorporate, on a case-by-case basis, factors such as efficiency into its market power analysis, similar to the federal antitrust enforcement agencies.[119] Federal antitrust policy recognizes that the crucial issue is not whether there is attrition of competitors in a market because there is no magical, predetermined number of competitors in wireless or any line of business.[120] To the contrary, federal antitrust policy relies on free markets and narrowly tailored protections against market failure.[121] This policy should be applied to CMRS. An artificial approach based on quantitative, rather than qualitative, analysis does an injustice to the dynamic wireless industry and subjects the Commission to criticism that its standards are arbitrary and capricious.[122]

B. Meaningful Competition Renders the Spectrum Cap Unnecessary

Market forces underscore the unnecessary nature of a CMRS spectrum cap that has served its function of promoting competition in the short term.[123] The spectrum cap should be lifted because there has been a sharp growth in competition in the CMRS industry.[124] The industry is marked by rapid competitive growth, a lack of market concentration and prices that are falling swiftly.[125] Industry participants have argued that market forces render predatory behavior by CMRS providers economically prohibitive.[126] The competitive environment in the wireless market,

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114 The total amount of spectrum allocated to CMRS is 180 MHz. This renders the 45 MHz of spectrum roughly equivalent to 25% of market share using the HHI calculation.

115 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6 (Jan. 25, 1999).

116 *See* WILLIAM C. HOLMES, ANTITRUST LAW HANDBOOK 583 (1998) (noting that efficiency considerations are expressly acknowledged and approved under the Guidelines as a potential part of the case selection analysis.). *See also* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 455 (1994) (observing that while the 1992 Merger guidelines placed the burden on the merging parties to demonstrate mitigating efficiencies, the standard of proof was relaxed substantially and "qualifying efficiencies include, but are not limited to, achieving economies of scale, better integration of production facilities, plant specialization, lower transportation costs, and similar efficiencies relating to specific manufacturing, servicing, or distribution operations of merging firms.").

117 The Commission has used the term "numerical" in the broadcast context when it has sought to resolve issues of scarcity. *See, e.g., In re* Complaint of Syracuse Peace Council against Television Station WTVH Syracuse, New York, *Memorandum Opinion and Order*, 2 FCC Rcd. 5043 (Rel. Aug. 6, 1987).

118 *See supra* note 109.

119 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6 (Jan. 25, 1999). Ironically, the Commission, in other areas, explicitly employs a public interest standard that is much broader than the antitrust review conducted by the Department of Justice. *See* Jason E. Friedrich, Comment, *Thinkable Mergers: The FCC's Evolving Public Interest Standard*, 6 COMMLAW CONSPECTUS 261, 275 (1998) (noting that while the 1996 Telecommunications Act prompted the Commission to make competition a primary factor for evaluation of a merger, it is not the sole criterion).

120 Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 9 (Jan. 25, 1999). *See also* WILLIAM C. HOLMES, ANTITRUST LAW HANDBOOK 582 (1998) ("[Analysis of] statistical and non-statistical factors as an integrated whole, reflect[s] the underlying purpose of the [1992 Merger Guidelines] as . . . case assessment and selection criteria . . . . [a]ll relevant information will, thus, be considered, and the agencies will not select . . . case[s] for prosecution simply because the prima facie statistics look good.").

121 *See supra* notes 109 and 111.

122 *See supra* notes 55–59, 68–77. *See also* United States v. General Dynamics Corp., 415 U.S. 486 (1974); Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 21 (Jan. 25, 1999).

123 *See* Reply Comments of GTE, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 5 (Feb. 10, 1999) (observing that some of the most noteworthy developments include an almost quadrupling of spectrum allocated to CMRS, issuance of six new PCS licenses in each market, the advent of carriers with pricing plans that are national in scope, and consistent CMRS price decreases.)

124 *See id.*

125 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 17-18 (Jan. 25, 1999) (observing that the entrance of PCS providers into the CMRS market has reduced cellular carriers' profit margins by forcing them to reduce their prices).

126 Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at (i) (Jan. 25, 1999) (noting that it is unlikely that a CMRS carrier would engage in preclusive warehousing of spectrum as a predation strategy because the "costs of acquiring spectrum in the marketplace for anticompetitive purposes are prohibi-

and sharply increasing consumer demand for wireless services, provides evidence that the wireless industry is not particularly vulnerable to one or more entities gaining market power, whether through collusion or exclusionary practices.[127] Multiple well-financed actual competitors and potential entrants are attracted to the wireless markets because they annually have witnessed the dramatic rise of consumer demand for CMRS.[128] The Commission's *Third CMRS Competition Report* recounted that, as of June 1998, there were three or more CMRS competitors in approximately 273 BTAs[129] covering 87 percent of the nation's total population, at least four CMRS competitors were offering service in 71 of these BTAs, 51 BTAs had five providers, and 13 BTAs had six providers.[130] In addition, as of October 1998, at least four U.S. market areas had seven broadband CMRS providers operating within their borders.[131]

In light of such robust competition, CMRS carriers are concentrating capital to build out existing networks, shifting to digital technology and investing in nascent, advanced capabilities.[132] Moreover, declining prices are squeezing profit margins, thereby forcing CMRS providers to cut costs to remain competitive.[133] As CMRS carriers direct efforts toward maximizing efficiency, expanding their customer base and maintaining current customers, they will possess relatively few resources to devote to a predatory scheme of reducing competition through warehousing of spectrum.[134] Moreover, churn rates[135] are significant, as customers frequently switch wireless carriers.[136] While there is a credible argument from a consumer's point-of-view that limiting the amount of spectrum a carrier can use *could* lead to a wider variety of products and services in the relevant "output" market, there is no available evidence to suggest that limiting "input" results in increased "output."[137] That is, it does not necessarily follow that restricting spectrum allocation will increase the number of competitors and encourage deployment of new services, especially if deployment might mean exceeding the cap.[138] Competition among CMRS carriers, increasing consumer demand and significant churn rates, tighter profit margins and falling prices lead inexorably to the conclusion that the market will discipline any attempt to exercise market power. Finally, the Commission's repeal of rules where it has found such competitive conditions bolsters the argument that it should remove the CMRS spectrum cap regulatory regime.[139]

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tive."). *See also* Reply Comments of GTE Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 10-15 (Feb. 10, 1999) (citing the following as structural factors rendering the CMRS market resistant to anticompetitive conduct: national providers and pricing plans; difficulty of dominating the market for both spectrum and equipment; limited spectrum requirements for effective competition; declining entry barriers; spectrum's durability; and the prohibitive costs of warehousing).

127 *See supra* notes 6-10, 20-28, 32-36. *See also, e.g.*, 15 U.S.C. §13(b) (1994). Section 13(b) provides that:

> Upon proof being made, at any hearing on a complaint under this section, that there has been discrimination in price or services or facilities furnished, the burden of rebutting the prima facie case thus made by showing justification shall be upon the person charged with a violation of this section. . . . [p]rovided, however, that nothing herein contained shall prevent a seller *rebutting the prima facie case thus made by showing that his lower price or the furnishing of services or facilities to any purchaser or purchasers was made in good faith to meet an equally low price of a competitor*, or the services or facilities furnished by a competitor.

Id. (emphasis added).

128 *See* Comments of AT&T Wireless Service, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 8-9 (Jan. 25, 1999).

129 Rand McNally determines the number of BTAs (493), as well as MTAs (51). *See* In re Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, *Third Report and Order*, 9 FCC Rcd. 7988 (1994) [hereinafter *Third Report and Order*]. *See also* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, Figure 2 (Jan. 25, 1999).

130 *See Third Report and Order, supra* note 129, at n.196. *See also* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6-7 (Jan. 25, 1999).

131 *See* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6-7 (Jan. 25, 1999).

132 *See id.* at 12-13.

133 *See supra* notes 125 - 131.

134 *See* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 12-13 (Jan. 25, 1999) ("There is little room for carriers to absorb additional expenses, particularly those of the magnitude involved in acquiring enough spectrum to reduce competition in the market [through warehousing] to the point where excessive returns are possible.").

135 *See supra* note 101 (defining and discussing churn rates).

136 *See id.*

137 *See* Comments of AT&T Wireless Service, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 8-9 (Jan. 25, 1999).

138 *See id.*

139 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 9 (Jan.

IV. UNCAPPING COMPETITION: REMOVING THE SPECTRUM AGGREGATION LIMITATION

A. Efficiency Benefits: Accommodating Consumer Needs and Competition in the Local Loop and Regulatory Parity

In light of the robustly competitive CMRS marketplace, the question arises as to whether the wireless industry is able to satisfy consumer demand. Anticipating this issue, the Commission has acknowledged that development of new technologies might engender situations that bolster a finding that removing the spectrum aggregation limitation is in the public interest.[140] Concomitantly, the Commission has addressed the related issue of whether market efficiency ameliorates any anticompetitive effects of removing the CMRS spectrum cap, suggesting that lifting the cap could accelerate the introduction of third generation wireless services that otherwise might be precluded.[141] Moreover, the Commission has intimated that lifting the cap might create a regulatory environment conducive to entry by fixed wireless providers, expanding the pool of potential carriers of last resort and, thus, promoting universal service.[142]

There are significant public interest benefits that would counterbalance virtually all potential anticompetitive effects emanating from concentrated ownership. It is probable that a CMRS provider can provide more and advanced services if it possesses additional spectrum to allocate to the service and interference buffer zones most efficiently.[143] In this regard, the spectrum cap not only restricts beneficial mergers that are desirable under HHI analysis, but also restricts non-merging entities from attaining economies of scale that would allow them to introduce new technologies and services. In fact, the reason why the Commission first imposed limitations on the number of cellular licenses was because it recognized the potential anticompetitive effect of attaining economies of scale.[144] Now, however, such limitations do more to prevent competition and raise costs.[145] Retaining the spectrum cap likely would result in significant market inefficiencies that may deprive consumers of additional wireless services.[146]

Conversely, lifting the spectrum cap would result in market efficiencies and promote the development of new technologies and services by CMRS providers.[147] Removing the spectrum cap will not reduce the FCC's ability to achieve its policy of ensuring that meaningful competition exists in the CMRS market.[148] However, removing the

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25, 1999); *see also, e.g., In re* Policy and Rules Concerning the Interstate, Interexchange Marketplace, *Second Report and Order*, 11 FCC Rcd. 20730, para.21 (1996) (removing tariff reporting requirements for interexchange carriers after finding that "market forces" will "generally ensure" just and reasonable rates and practices); *In re* Hyperion Telecommunications, Inc., 12 FCC Rcd. 8596 (1997) (eliminating other tariff obligations based on finding that competition effectively disciplines anti-competitive conduct).

140 *See NPRM, supra* note 15, at para. 42. The Commission's anticipation of arguments that lifting the cap might allow CMRS providers to attain economies of scale lends credence to that view that such removing the cap will lead to deployment of new technologies and services and thereby serve the public interest:

> With respect to economies of scope, we envision several scenarios that might support arguments for relaxing spectrum aggregation limitations to accommodate consumer needs. We anticipate that arguments will be made that wireless providers could offer additional service of significant value to the public (e.g., high-speed mobile data services) by acquiring spectrum in excess of our current 45 MHz limit, and that such flexibility would therefore be in the public interest. Specifically, we anticipate the argument that if they were not subject to the cap, existing providers would be able to furnish new services at lower cost relative to new entrants because incumbents can capitalize on existing facilities (e.g., towers) or other assets (e.g., brand name recognition, established customer base).

Id.

141 *See id.*

142 *See id.* at para. 43 (asking whether a "relaxed" cap might allow "efficient deployment" of wireless services that otherwise "would be prevented under the present cap," including: third generation wireless services; fixed wireless services, perhaps under a universal service regime; and delivery of wireless services to under-served areas). The Commission also raised the possibility that "an enforceable commitment to provide such service in high-cost or low-income areas [might] override anticompetitive concerns." *Id.*

143 *See NPRM, supra* note 15, at para. 41 (noting that increased spectrum allotments permit carriers to rely less on spectrum reuse and allow greater distance between tower facilities). *See also generally* 47 C.F.R. § 2.102(f) (1998) ("The stations of a service shall use frequencies so separated from the limits of a band allocated to that service as not to cause harmful interference to allocated services in immediately adjoining frequency bands.").

144 Comments of AT&T Wireless Services, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 6-7 (Jan. 25, 1999).

145 *Id.*

146 *See supra* notes 111 - 116.

147 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 15 – 17 (Jan. 25, 1999).

148 *See id. See also supra* notes 78 - 85 and accompanying

cap will: (1) afford providers greater responsiveness to consumer demand; (2) assure the roll-out of advanced technologies and introduction of innovative services; and (3) permit CMRS providers to assume a competitive posture that may enable them to more easily offer alternative service in the local loop.[149] The Commission has implicitly confirmed the significant benefits of removing the spectrum cap by expressing its concern that the cap may be an obstacle to the development and deployment of various wireless service options such as third generation high-speed mobile data transmission and wireless local service.[150]

It is axiomatic that the development of new technologies directly corresponds to the amount invested in research.[151] New technologies and services are spectrum intensive.[152] The spectrum cap creates a disincentive to investing in many of the technologies that the Commission itself has identified as desirable because it would be technologically infeasible and economically prohibitive to introduce such technologies in a market subject to an artificial cap. While research and development is key to most industries, it is especially important in the wireless industry because technological development—as a response to increased competition—is the impetus for declining prices, new and reliable service and advanced functionalities.[153] There is little incentive for a CMRS provider to invest in new technologies because research dollars are not recoverable in markets subject to the CMRS spectrum cap.[154] By lifting the spectrum cap the FCC would create incentives for greater investment in new wireless technologies.

What are these new technologies and under what circumstances would they be available to consumers? Third generation wireless service is an international standard being developed by the International Telecommunications Union that will introduce mobile data and multimedia applications.[155] Retaining the spectrum cap would prevent CMRS carriers from obtaining the large quantities of spectrum required to market third generation services successfully.[156] Given the significant increase in spectrum that will have to be allocated to CMRS if third generation services are going to be introduced,[157] the ability of a carrier to exercise market power will be significantly diminished, rendering fears of market concentration unfounded. The public interest would be served because consumers would benefit from new technologies, which the FCC by statute must promote.[158]

Lifting the spectrum cap likewise will promote the public interest by unleashing competition in local markets. While mobile voice can be offered over as little as 10 MHz of bandwidth,[159] provision

text.

149 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 20 (Jan. 25, 1999).

150 *See NPRM, supra* note 15, at para. 48 (stating that the Commission "share[s] the concerns expressed by CTIA about any possible impediments that may be imposed by the spectrum cap on the plans of CMRS providers to expand the array of wireless services that they will be able to offer."). Moreover, the Commission observes that "some wireless carriers are examining technical options related to third-generation wireless networks that may provide a platform for delivering high-speed mobile data services" and that "[o]ther companies are contemplating the use of wireless spectrum to offer local exchange services." *Id.*

151 *See generally* RICHARD EELS & CLARENCE WALTON, CONCEPTUAL FOUNDATIONS OF BUSINESS 341 ("Research and development, with its consequent innovation, may be regarded as the modern form of competition.").

152 *See* Comments of BellSouth Corporation to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 10 (Jan. 25, 1999) (stating that new third generation services account for 200 MHz out of the 390 MHz allocated for existing wireless and new terrestrial third generation services in the latest global spectrum requirement).

153 *See* Comments of AT&T Wireless Service, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 12 (Jan. 25, 1999).

154 *See id.* at 7 (stating that where firms are already operating at or near the spectrum cap there is diminished incentive to develop new technologies, lower prices or improve quality). There would be little economic incentive to research new technologies that might augment regional or national services if deployment of those technologies would cause the carrier to exceed the cap in the relevant geographic areas. *See id.*

155 *See In re* Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, *Notice of Inquiry*, 13 FCC Rcd. 15280, para. 49 (rel. Aug. 7, 1998).

156 *See* Comments of BellSouth Corporation to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 10 (Jan. 25, 1999) ("For existing carriers, the 45 MHz cap would effectively foreclose them from having access to the substantial amounts of new spectrum needed to offer new third generation services, including multimedia, internet access, imaging, and videoconferencing.").

157 *See supra* notes 143, 146.

158 *See, e.g.*, 47 U.S.C. § 157 (1994 & Supp. II 1996) (stating that it is the policy of the United States to encourage introduction of new technologies and providing deadlines for Commission approval or disapproval of technology deployment).

159 *See* Comments of Bell Atlantic Mobile, Inc., to the *No-*

of additional services like high-speed internet and two-way data services[160] currently is not feasible because of the amounts of spectrum in excess of the cap that are required.[161] The spectrum cap discourages CMRS providers from expanding their service beyond voice telephony and therefore acts as a barrier to entry to the new, advanced mobile services the Commission otherwise would like to promote.[162]

The Commission's encouragement of cellular and broadband PCS carriers to enter the fixed wireless market is inconsistent with the preclusive effect of the CMRS spectrum cap. The Commission has stated that allowing CMRS providers to offer fixed services will invigorate wireless competition in the local loop, thereby providing consumers with more service options.[163] As Bell Atlantic Mobile notes, the distinction between "mobile" and "fixed" will not be easily discernible in the near future.[164] Furthermore, a wireless provider may determine that a given technology is the most viable choice for local loop service, but be dissuaded from that option in favor of less efficient or more limited alternative spectrum.[165] Technologies applicable to the local loop may not develop—despite CMRS carriers' ability to focus geographically—because the spectrum cap acts as a direct roadblock to deployment of new and better services.[166] The spectrum cap thus distorts market conditions, inhibits an efficient market and serves to hinder the competition in the local loop and convergence of services that the Commission promotes elsewhere.[167]

Finally, the Commission's rule discriminates in favor of some services to the detriment of other services. By retaining the spectrum cap, the Commission, discriminatorily limits spectrum ownership to some, but not all, service offerings.[168] It is exceedingly difficult to reconcile such inequitable application of a regulation with the FCC's policy of encouraging fusion of mobile and fixed offerings[169] and its preference for market forces over regulation as the factor that decides which providers and technologies prosper.[170] As initially implemented, the cap only affected three of the eleven CMRS technologies identified in 47 C.F.R. § 20.9(a)—cellular, PCS and SMR.[171] Ostensibly, this distinction was based on rationales that no longer exist: the other CMRS services were not viable competitors or used negligible amounts of spectrum.[172] Thus, the asymmetrical allocation of spectrum runs contrary to the will of Congress, which requires the Commission to seek regulatory parity, rely on market forces to the extent possible and promulgate the least intrusive regulations necessary to implement its policies.[173]

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tice of Proposed Rulemaking in WT Dkt. No. 98-205, at 25 – 26 (Jan. 25, 1999).

160 *See generally NPRM, supra* note 15, at para. 47 (noting that "to the extent that incumbent licensees build networks coupled with CMRS spectrum that are targeted mainly to mobile voice users, opportunities for entry and development of competition in other services may be limited in the short to medium term[,]" the FCC sought comment on "the extent to which existing networks are capable of economically supporting the delivery of wireless services other than fixed or mobile voice and paging/messaging."). The Commission's particular concern is the "technical and economic feasibility of offering dispatch, high-speed internet, and other two-way data services over existing cellular, broadband PCS, and SMR network platforms." *Id.*

161 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 22, 24 (Jan. 25, 1999).

162 *See* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 473-74 (1994) (observing almost universal agreement that government regulation constitutes the strongest barrier to entry and that a regulation does not need to "deter entry expressly" to have its preclusive effect). *See also* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 22 (Jan. 25, 1999).

163 *See In re* Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, 11 FCC Rcd. 8965, paras. 1, 2 (1997).

164 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 30 (Jan. 25, 1999).

165 *See supra* note 154.

166 *See* Comments of the Cellular Telecommunications Industry Association to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 16, n.45 (Jan. 25, 1999) (stating that although wireless carriers can "cluster geographically" to provide service similar to a local exchange carrier, bandwidth contstraints function as a "direct barrier to competition.").

167 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 26 – 27 (Jan. 25, 1999).

168 *See id.* at 29.

169 *See In re* Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, 11 FCC Rcd. 8965, para. 3 (1997) (stating that allowing CMRS providers to offer fixed services "will stimulate wireless competition in the local exchange market, encourage innovation and experimentation in development of wireless services and lead to a greater variety of service offerings to consumers.").

170 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 29 (Jan. 25, 1999).

171 *See id.*

172 *See id.*

173 *See* H.R. CONF REP. No.103-213 (1993), *reprinted in* 1993 U.S.C.C.A.N. 1088, 1179 – 81 (stating Congress' intent

B. Convergence as a Factor in Assessing the Public Interest: Benefits of the Spectrum Cap, Wireless v. Landline Competition and the Deployment of New Services

Resolving whether and how the "convergence and substitutability of other telecommunications networks"[174] affects the viability of the spectrum cap is essential to determining whether the cap serves the public interest.[175] As a preliminary matter, it is worth noting that "the CMRS spectrum cap was . . . not adopted based on any findings that it would promote wireless-landline competition or deployment of new services. These policies were not mentioned as reasons for the rule, nor is there any plausible basis today for linking these goals to such a limit."[176] The Commission must affirmatively find a relationship between retaining the spectrum cap and the promotion of wireless-landline competition if it wishes to maintain the regulatory *status quo*.[177]

Issues of causation aside, however, wireless is increasingly becoming an augmentation, if not a substitute for, traditional wireline service.[178] Moreover, wireless data service promises to have novel application and notable consumer demand.[179] There is current, continuing research aimed at enhancing mobile data services and networking.[180] This is especially true as consumer demand for "nomadicity"[181] increases.[182] Such "nomadicity" is also raising the level of demand for wireless internet applications.[183]

Nomadicity, however, does not come without costs. Such broadband wireless services use immense amounts of spectrum.[184] For example, providing internet service at baud rates comparable to wireline modems requires much more bandwidth than the vast majority of CMRS carriers can dedicate to such an endeavor.[185] "Wireless carriers have had to deploy most of their spectrum to meeting the sharply increased demand for mobile voice services, leaving little spectrum available for widespread deployment of other spectrum-intensive applications."[186] CMRS carriers will require significantly more spectrum if true competition with wireline is to be a reality.

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to create a presumption that all CMRS providers will be treated as common carriers subject to Title II regulation).

174 *See NPRM, supra* note 15, at para. 39 (listing wireline, cable, private wireless, and satellite networks as potential platforms for converged services).

175 *See id.*

176 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 21 (Jan. 25, 1999).

177 *See id.* ("[T]he cap cannot be maintained on these grounds. Without evidence of that relationship, in turn, the Commission cannot even reach the issue of whether the cap would be the 'minimum restraint on the market necessary' to achieve these objectives."). *See also supra* notes 48, 87 – 88.

178 *See* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 16 (Jan. 25, 1999) (describing an explosive and expanding wireless marketplace that "is changing to meet consumer demand for high speed mobile data service and so-called 'third-generation' ('3G') services, as well as other innovative service offerings."). Projecting the growth of wireless minutes as a percentage of total minutes reveals that while wireless accounted for 2.2% of total telecommunications minutes in 1994, it will grow to 7.3% by 2000, largely as a result of "migration of traffic from landline networks to mobile networks." *Id.* "Wireless penetration is expected to reach 50% of the U.S. market by 2005. The increased demand for mobile service will constrain capacity on those networks most successful in meeting this demand, potentially limiting service quality and harming consumer interests if an artificial spectrum cap is maintained." *Id.*

179 *See* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 8 (Jan. 25, 1999). *See also Third CMRS Competition Report, supra* note 7, at 19815-16; *Future of Smart Phones Isn't Waiting,* MOBILE PHONE NEWS, Jan. 4, 1999, *available at* 1999 WL 6607720; Eoin Licken, *New Data Age: Now, Portable Phones Aren't Just for Talking,* INT'L HERALD TRIBUNE, Jan. 21, 1999, *available at* 1999 WL 5109268.

180 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 23 (Jan. 25, 1999). *See also* Mike Mills, WASH. POST, Feb. 9, 1999, at E1 (outlining alliances of major telecommunications players created to develop wireless telephones as internet access devices). Tracking the major deals to develop wireless phones as internet access devices reveals several noteworthy examples:

> Nextel of McLean will work with Netscape Communications and Unwired Planet to develop a Web browser for its Motorola pocket phones. Microsoft will test its Windows CE operating system in pocket phones offered by British Telecommunications. Cisco Systems and Motorola will join to develop products and standards for moving internet data over wireless networks in a $1 billion deal.

Id.

181 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 23 (Jan. 25, 1999) (defining nomadicity as the individual mobile use of networked computers).

182 *See id.*

183 *See id.*

184 *See id.* at 24

185 *See id.* at 27.

186 *Id.* at 24.

C. Service to Rural Areas

The FCC is concerned that the "relative lack of competition in certain rural and other markets suggests that there is a continuing need for the CMRS spectrum cap in those areas."[187] The issue here is to what degree, if any, the spectrum cap impacts the capability of CMRS carriers to roll out and competitively provide mobile voice and data telephony in rural areas.[188]

In addressing this issue, it is important to note that historically the Commission has promoted service to highly profitable urban areas as a means of subsidizing more costly rural areas.[189] After the divestiture of AT&T, for example, revenues from interexchange service subsidized the local loop through access fees.[190] This most recent policy of universal service arose out of the Commission's appreciation of the fundamental and unavoidable economic principle that long distance providers would seek to maximize profit through primarily offering service to lucrative markets.[191] Likewise, in the CMRS markets, it is reasonable for wireless providers to follow a similar strategy of primarily targeting abundant urban markets.[192] This competitive phenomenon is magnified by the CMRS licensing process.[193]

Allowing this competitive phenomenon to run its natural course will allow CMRS carriers to develop sufficient revenues and economies of scale to penetrate rural markets into which entry is currently economically prohibitive.[194] As margins for CMRS carriers tighten in urban wireless markets—as they will continue to do if the spectrum cap is removed—these carriers will seek to optimize revenue streams from national markets. Joint ventures with rural carriers will allow wireless service growth to track commercial customers that increasingly extend the reach of their goods and services into non-urban areas in search of profit. Indeed, development of nationwide cellular providers is advanced.[195] While digital carriers are aggressively marketing their own nationwide plans to compete with the cellular providers, their entry into rural markets has been partially limited.[196] Digital carriers currently do not reach approximately 20 percent of the nation's population.[197] The fact that PCS and digital SMR entrants offer service to "only" 80 percent of the American population is not related to the spectrum cap. Rather, it is the high cost of delivering service that slows deployment of digital mobile voice telephony as a meaningful substitute for the incumbent cellular providers in unserved areas. Lifting the spectrum cap would afford existing cellular providers the economy of scope to provide unserved customers voice and advanced services that are not otherwise available in the near term. Incumbent status of cellular providers in these unserved areas likely would not preclude PCS and digital SMR entrants from entering the

187 *NPRM, supra* note 15, at para. 46.

188 *See id.* at para. 47.

189 *See* 47 U.S.C. § 214(e)(2) (1994 & Supp. III 1997) (providing that state public utility' commissions will designate "eligible telecommunications carriers" to provide telecommunications service to unserved areas and, accordingly, qualify to receive support from the universal service fund).

190 *See, e.g., In re* MTS and WATS Market Structure, *Third Report and Order*, 93 FCC 2d 241 (Mar. 11, 1983) ("[The] Universal Service Fund will . . . continue to be recovered through carrier's carrier charges. . . . [and] will be designed to preserve universal service by enabling high cost local exchange companies to establish local exchange rates that do not substantially exceed local exchange rates charged by other local exchange companies.").

191 *See In re* Federal-State Joint Board on Universal Service, *Fifth Report & Order*, 14 Comm. Reg. (P&F) 085, para. 6 (Oct. 28, 1998) (stating that without a system of universal service, carriers would "enter markets where rates are artificially high relative to costs, and would not enter markets where rates are kept artificially low [and]. . . . would continue to have to serve the high cost customers without the offsetting benefit of the high-profit revenue streams that previously subsidized serving these high cost areas.").

192 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 19 (Jan. 25, 1999).

193 *See id.* ("Given that CMRS licenses were awarded based on geographically defined markets, which have widely varying populations, it should be expected that within the five-year buildout period adopted by the Commission, competitors will enter first in urban areas with larger numbers and concentrations of potential subscribers.").

194 *See* Comments of Bell South Corporation to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 8 (Jan. 25, 1999) (arguing that the spectrum cap precludes CMRS entrants from contracting with existing rural carriers, and thereby avoiding the significant capital outlay necessary to offer service in underserved areas).

195 *See id.* at 20 (noting that Bell Atlantic Mobile and AT&T Wireless offer their 'Single Rate' and 'One Rate' pricing schemes to both rural and urban consumers).

196 *See NPRM, supra* note 15, at para. 45 (noting that as of June 1998, PCS or digital SMR carriers had entered only about forty percent of the nation's BTAs). *See also* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 21 (Jan. 25, 1999) (citing new infrastructure, switch upgrades and other up-front investments as factors that foreclose CMRS carriers from providing competitive new services to rural markets under the spectrum cap).

197 *See NPRM, supra* note 15, at para. 45.

markets as they build out their networks. In fact, once incumbents are established, mandatory resale rules will make it more likely that new entrants will follow incumbents' lead into these currently unserved areas because of reduced costs.[198] Removing the spectrum cap will encourage PCS and digital SMR providers to enter rural markets and create service plans that truly are national in scope. Promoting nationwide competition, in turn, likely will encourage CMRS providers aggressively to seek out rural markets that currently are marginally profitable.[199]

Retaining the spectrum cap would be counterproductive. Rather, the Commission should examine its own universal service policies for the appropriate economic model. Just as urban customers subsidize service to rural subscribers under universal policies, profits that CMRS carriers realize from urban customers—coupled with the lower unit costs that would occur if the the spectrum cap were lifted—will make service to unserved or underserved areas more appealing to new and existing CMRS providers. The Commission must realize that much more spectrum is required in *all* markets to offer advanced services.[200] It would be insufficient merely to lift the cap in rural areas.

Moreover, retaining the cap likely would foreclose CMRS carriers from introducing new services to unserved or rural areas because the huge capital investment is unaccompanied by an equal potential for acceptable returns.[201] The economic reality that less competition exists in rural areas persists whether or not there is a cap, because demand in those markets makes them apparently less profitable.[202] This economic reality is especially compelling when one observes the amorphous and shifting demographics of service areas that defy the regulatory symmetry desired by Congress.[203] Lifting the cap, however, will allow CMRS providers to raise their supply curves incrementally as they seek to expand profit margins in the face of nationwide competition. Thus, as profit margins tighten due to increasingly nationwide competition and saturation of particular markets, service to rural Americans will become more attractive to CMRS providers, causing the supply curve in rural areas to rise by corresponding increments. The Commission should seek to foster a competitive environment in which CMRS providers develop sufficient economies of scale to enter rural markets in search of profit, thereby putting spectrum for those areas to its most efficient use.[204] Even if such economies of scale do

198 *See In re* Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, 86 F.C.C.2d 469, paras. 103-07 (1981). *See also In re* Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, *First Report and Order*, 11 FCC Rcd. 18455, para. 24 (1996).

199 *See* Reply Comments of the Rural Telecommunications Group to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 3 (Feb. 10, 1999) (explaining that investors and potential partners otherwise eager to invest their capital reserves in rural wireless telecommunications companies are stymied by the spectrum cap). *See also* Comments of Triton Cellular Partners, L.P., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 2-3 (Jan. 25, 1999) (noting that many institutional investors were eager to provide the substantial capital investment that allowed Triton to deploy sixteen cellular systems – but only after Triton narrowly obtained a waiver of the spectrum cap from the FCC). Other carriers have not been successful in obtaining waivers of the spectrum cap. *See also, e.g., supra* note 68.

200 Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 33 (Jan. 25, 1999). (stating that in order to deploy advanced services, "considerably more spectrum . . . will be needed in *all* markets."). Denying CMRS providers the spectrum necessary to deploy advanced services "simply because there are only a certain number of other competitors, could thus undercut, not promote, the offering of those advanced public safety and other services in rural markets." *Id.*

201 *See id. See also* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 21 (Jan. 25, 1999) (citing new infrastructure, switch upgrades and other up-front investments as factors that foreclose CMRS carriers from providing competitive new services to rural markets under the spectrum cap).

202 *See* Comments of SBC Wireless, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 7 (Jan. 25, 1999).

203 *See id.* (noting the dynamic and transient nature of American demographics). The particular characteristics of service areas compound the problem of shifting demographic patterns:

> [D]ue to the way in which the MTAs are drawn, what may be a rural cellular market ('RSA') could well be part of an urban MTA. Also, due to population density, what may be defined as a 'rural' service area on the east coast is often equivalent to an MSA in a less densely populated area, so the distinction would be hazy and virtually unenforceable. . . . As cities expand their reach, and bedroom communities encroach on formerly non-urban areas, what may be rural one day could evolve into a suburb of a large city by the simple construction of a few housing tracts.

Id.

204 *See* Comments of BellSouth Corporation to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 13 (Jan. 25, 1999) ("[T]he Commission should focus on ensuring that spectrum in rural areas is put to its highest and best possible

not cause CMRS providers to enter rural markets, lifting the cap nevertheless would benefit rural Americans.[205] Removing the cap would free existing rural CMRS providers to offer a panoply of wireless services.[206] It would be more advantageous to provide rural Americans an array of wireless services through one or two carriers, than merely to provide limited wireless options through a number of competitors.[207] Finally, there are many alternative policies the Commission could promote that would have a more significant and lasting effect than the spectrum cap.[208] The spectrum cap is a competition-thwarting measure that impedes carriers' ability to develop the revenue streams and economies of scale that are necessary to make entry into rural markets economically viable.[209] Retaining the spectrum cap would leave rural markets with only the most basic wireless service, which, in comparison to the layers of services urban subscribers will enjoy, will make rural Americans resemble "techno-peasants."[210]

V. OTHER RESTRAINTS OF ANTICOMPETITIVE BEHAVIOR SUGGEST A MORE SENSIBLE REGULATORY POLICY

A. Competition-eroding Spectrum Consolidation?

A concern that competition-eroding spectrum consolidation could occur in the CMRS industry absent the spectrum cap is unfounded because various regulatory tools and specific market forces will prevent such an occurrence.[211] Simultaneous multi-round auctions, FCC authority to grant or deny license transfers under Section 310(d), antitrust review by the DOJ and the FTC, private rights of action and the cellular cross-interest rule will adequately ensure that no firm can or will be able to exercise market power.

While the Commission focuses on market forces as a check on anticompetitive behavior, it is necessary to recognize that there are significant regulatory forces that will limit the size to which CMRS providers will grow. The Department of Justice's antitrust review, the Federal Trade Commission's power to assess civil damages for anticompetitive conduct and the FCC's public interest review, which subsumes the Commission's authority under the Clayton Act, provide adequate safeguards against anticompetitive behavior and undesirable consolidations.[212] The DOJ and the FTC possess an array of criminal and civil sanctions that would deter and punish potential anticompetitive behavior.[213] Furthermore, the DOJ and the FCC both maintain authority to prevent the consummation of mergers.[214] Additionally, private rights of action augment governmental police powers.[215]

The Commission may be inclined to decide that the spectrum cap may result in certain regulatory

use in a manner that promotes the public interest of rural Americans.").

205 *See id.*

206 *See id.*

207 *See* Comments of BellSouth Corporation to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 12–13 (Jan. 25, 1999) (arguing that the D.C. Circuit accepted the argument in *BellSouth Corp. v. FCC* that high cost and low-margin characteristics of rural markets should cause the Commission to focus on ensuring that spectrum in such areas is utilized in a manner that most efficiently benefits rural Americans where no other potential competitors are apparent).

208 *See* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 17 (Jan. 25, 1999) ("[T]he flexible partitioning of broadband PCS service areas and spectrum disaggregation, enforcement of the Commission's build-out rules for smaller BTA broadband PCS licenses, and enhancing CMRS carriers' eligibility for universal service support will do more to advance the deployment of new, competitive services to undeserved rural areas."). *See also* 47 C.F.R. §§ 24.203(a)-(b) (1998) (buildout requirements) and 24.714 (partitioning and disaggregation); *In re* Federal-State Joint Board on Universal Service, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 13 FCC Rcd. 21252, at paras. 74-78 (Oct. 26, 1998) (discussing elimination of rule).

209 *See supra* notes 187, 192-93.

210 David A. Irwin, *The Effect of Emerging Technologies on Rural Markets*, Speech Before the National Regulatory Conference at New Mexico State University, Mar. 1999 (coining the term "technopeasant").

211 *See NPRM, supra* note 15, at para. 38 (inquiring whether there exist "dis-economies of scale that will limit the size to which firms will grow, and thus tend to ensure that the CMRS sector will assume a competitive structure even in the absence of a spectrum cap.") The Commission also questioned whether it is "possible that capital markets will not finance attempts by individual firms to acquire spectrum in amounts or construct systems of sizes that would threaten competition." *Id.*

212 *See supra* notes 61 – 67. *See also* Comments of Airtouch Communications, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 14 (Jan. 25, 1999).

213 *See supra* notes 61 - 67 and accompanying text.

214 *See id.*

215 The FCC elsewhere has indicated that the existence of private rights of remedy is a justification for repealing regulation. *See, e.g., In re* Elimination of Unnecessary Broadcast

efficiencies that weigh in favor of its retention.[216] Such reasoning all but ignores the Commission's own expressed regulatory policy to affirmatively regulate only when *identifiable* market failure exists.[217] Moreover, Congress has consistently and clearly signaled to the Commission that it should not engage in "problem avoidance," but exercise its regulatory authority in a proactive manner when—and only when—the public interest so demands.[218] Conversely, "[w]here the rationale for an agency's rule has been achieved, the rule should no longer be retained. Agencies cannot rely on original reasons for a rule where those reasons are no longer applicable."[219] The significant benefits of lifting the spectrum cap are not overcome by so-called regulatory efficiencies.[220] The spectrum cap is unnecessary largely because the prior approval processes of the Hart-Scott-Rodino Antitrust Improvements Act and the FCC's license transfer authority under Section 310(d) serve to prevent spectrum aggregation that might lead to the exercise of market power through merger.

If concerns arise about potential market foreclosure because a competitor begins to amass too much spectrum in a given service area, the FCC could also address them by enlarging the amount of spectrum designated for mobile services by reallocating bandwidth.[221] In fact, the amount of spectrum the Commission has allocated to CMRS consistently has increased, more than tripling from 50 MHz to 180 MHz since the cap was established.[222] To whom the Commission allocates new spectrum also can protect and promote competition in CMRS markets.[223] Thus, rather than "promoting" competition through restrictive regulatory mechanisms, the Commission should encourage wireless as a substitute for wireline service through further spectrum auctions that would provide opportunities that entice new competitors into a market characterized by increasing consumer demand.[224] The fact that the Commission can reallocate spectrum to CMRS in the event of market foreclosure would tend to undercut any competitor's attempt to roll out new wireless service.[225] Incumbent wireless carriers, therefore, would be reluctant to expose the significant capital outlay necessary to introduce new wireless service in a market subject to devaluation.[226]

The regulations governing auctioning of new wireless spectrum add another check on a single

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Regulation, 59 RR 2d 1500 (1986). *See also, e.g.,* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 455 (1994) (noting that suits brought by private plaintiffs account for approximately 90% of all antitrust cases).

216 *See NPRM, supra* note 15, at para. 32 (explaining that the Commission has found the spectrum cap to be an "administratively simple" method of promoting competition).

217 *See supra* note 102; *see also NPRM, supra* note 15, at para. 3 (stating that if the Commission finds that a regulation does not serve the public interest, it has an "affirmative obligation to repeal or modify that regulation.").

218 *See id.*

219 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 14 (Jan. 25, 1999). *See also* Geller v. FCC, 610 F.2d 973 (D.C. Cir. 1979) (reversing an FCC decision retaining cable television regulations after the factual predicate for the rules had changed); Meredith v. FCC, 809 F.2d 863 (D.C. Cir. 1987) (reversing a Commission decision where in a subsequent proceeding its finding "largely undermined the legitimacy of its own rule."); Bechtel v. FCC, 957 F.2d 873 (D.C. Cir. 1992) (stating that "it is settled law that an agency may be forced to reexamine its approach if a significant factual predicate of a prior decision has been removed.").

220 *See supra* notes 68 - 77.

221 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 11 (Jan. 25, 1999).

222 *See id.* at 10.

223 *See NPRM, supra* note 15, at para. 40 (stating that auctions of entrepreneur blocks C and F will help promote and protect competition).

224 *See In re* Implementation of Section 309(j) – Competitive Bidding, *Third Report and Order*, 9 FCC Rcd. 2941, paras. 12-13 (May 10, 1994). The Commission followed the following principles when it designed its auctions:

> (1) licenses with strong value interdependencies should be auctioned simultaneously; (2) multiple round auctions, by providing bidders with information regarding other bidders' valuations of licenses, generally will yield higher revenues and more efficient allocations of licenses, especially where there is substantial uncertainty as to value; and (3) because they are relatively expensive to implement and time-consuming, simultaneous and/or multiple round auctions become less cost-effective as the value of licenses decreases. . . . [S]imultaneous multiple round bidding was most likely to award interdependent licenses to the bidders who value them the most. We also indicated that this method will facilitate efficient aggregation of licenses across spectrum bands thereby *resulting in vigorous competition among several strong service providers who will be able rapidly to introduce a wide variety of services highly valued by end users.*

Id. (emphasis added)(citations omitted).

225 *See* Comments of Bell Atlantic Mobile, Inc., to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 12 – 13 (Jan. 25, 1999).

226 Assets committed by incumbents rightly could be characterized as "sunk costs." *See* 1992 Merger Guidelines § 1.32 (defining sunk costs as "the acquisition cost of tangible and intangible assets that cannot be recovered through the redeployment of these assets outside the relevant market, *i.e.*, costs uniquely incurred to supply the relevant product and geographic market.").

entity obtaining enough spectrum to exercise market power.[227] Auctions of wireless spectrum follow a procedure that allows for simultaneous multi-round bidding.[228] Simultaneous multi-round bidding is an open proceeding in which CMRS providers that are vulnerable to a rival competitor's attempt to exercise market power are able to respond to such overtures with a higher bid.[229] Accordingly, if the Commission were to allocate additional spectrum to CMRS, it would be in the interest of those providers whose market share may be threatened by another competitor's acquisition of spectrum to pay not only for the perceived intrinsic value of the spectrum, but also to pay for the value of depriving a competitor the use of that spectrum.[230] It is probable that the bidder seeking to establish market power will not be willing to pay for more than the perceived primary value[231] of the additional spectrum.[232] Thus, it is likely that any competitor's attempt to exercise market power through acquisition of spectrum likely would be thwarted by the self-interest of rivals.[233]

B. The Cellular Cross-Interest Rule

Unlike the spectrum cap, the cellular cross-interest rule is a much more limited barrier to competition, because, among other things, the Commission has discretionary enforcement. Section 22.942 of the Commission's rules forbids CMRS licensees from holding an attributable interest in other CMRS licensees in a given CGSA *if the combination threatens competition.*[234] The fact that the Commission may find in its informed discretion that cellular providers' cross-interest does not threaten competition makes it much less restrictive than the spectrum cap.

There are several reasons why the cross-ownership rule is worthy of retention. First, while competition exists in most markets,[235] the cross-interest rule will help prevent two incumbent cellular providers from joining forces to preclude a PCS provider from entering one of the few markets it does not serve already. Second, the rule does not sweep in many beneficial and efficient mergers and partnerships.[236] Finally, the rule will aug-

227 *See generally In re* Implementation of Section 309(j) – Competitive Bidding, *Second Memorandum Opinion and Order,* 9 FCC Rcd. 7245, paras. 39 - 42 (Aug. 15, 1994) (concluding that disclosing the identity of bidders, along with the value of the bids, will allow meaningful comparisons and accurate valuations of licenses among competitors).

228 *See In re* Implementation of Section 309(j) – Competitive Bidding, *Second Report and Order,* 9 FCC Rcd. 2348, para. 106 (Apr. 20, 1994).

229 *See Federal Communications Commission: All About Auctions* (last modified Mar. 8, 1999) *available at* <http:www.fcc.gov/wtb/auctions> ("The principle advantage of a multiple round auction for assigning spectrum is the information that it provides bidders about the value other bidders place on licenses."). The Commission acknowledges that the major benefit of multiple round auctions is that it encourages strategic thinking:

> This information [about the value that other bidders place on spectrum] increases the likelihood that licenses will be assigned to the bidders that value them the most and will generally yield more revenue than auctions where there is much uncertainty about common factors that affect the value of a license to all bidders, i.e., who bid and how much was bid. . . . In a multiple round auction, bidders need not guess about the value the second highest bidder places on the license because bidders have the opportunity to raise their bids if they are willing to pay more than the current high bidder. Multiple round bidding is also more likely than single round bidding to be perceived by participants and observers as open and fair. No bidder can realistically argue that it did not have the opportunity to obtain the license if it was willing to pay enough.

Id.

230 *See, e.g., In re* Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking,* 12 FCC Rcd. 12545, at para. 171 (Mar. 13, 1997) (noting that although bidders in auctions likely will base their bids on their evaluation of the intrinsic value of the spectrum, some bidders "would have the additional incentive to protect their market power and preserve a stream of future profits."); *see also In re* FCC Report to Congress on Spectrum Auctions, WT Docket No. 97-150, *Report,* 1997 WL 629251 at *5 (Oct. 9, 1997) ("Auctions also provide valuable information about the opportunity cost of spectrum because they reflect the value that the next most efficient firm places on the spectrum license. This information allows both the private marketplace and policy makers to manage spectrum more effectively.").

231 The perceived intrinsic value of the spectrum to offer new or additional services as opposed to secondary effects of diminishing a competitor's current market share.

232 *See In re* FCC Report to Congress on Spectrum Auctions, WT Docket No. 97-150, *Report,* 1997 WL 629251 at *5 (Oct. 9, 1997) (noting that auctions encourage bidders to value spectrum according to its most productive and innovative use).

233 *See supra* notes 221 – 224.

234 *See supra* notes 78 - 80.

235 *See NPRM, supra* note 15, at para. 81 (observing that numerous markets are served by two broadband PCS providers, an SMR carrier and two cellular carriers).

236 *See* Comments of GTE to the *Notice of Proposed Rulemaking* in WT Dkt. No. 98-205, at 30 - 31 (Jan. 25, 1999).

ment current antitrust laws—as enforced by the Department of Justice, the Federal Trade Commission and private rights of action—to police anticompetitive practices on a case-by-case basis.[237]

The cross-ownership rule will not prove quite the impediment to innovation that the cap is because it does not deny CMRS providers in underserved areas of low density the option of investment from entities with fallow capital reserves. Furthermore, joint ventures with wealthy partners may be permitted if the Commission finds there is not threat to competition.[238] The rapidly growing CMRS industry relies on access to large amounts of investment capital, and reliance upon the cross-ownership rule in the place of the cap would reduce anxiety and reluctance among otherwise enthusiastic investors.[239]

VI. CONCLUSION

Promoting the wireless industry as a competitor—if not a substitute—in the local loop serves the public interest, but the FCC needs to be careful not to overregulate. While it scarcely can be denied that there is greater competition in the wireless industry than before the spectrum cap was implemented, the Commission fails to establish by any quantitative or qualitative means a causal connection between present competition and the spectrum cap. In this regard, the 45 MHz cap is overbroad; the focus on sheer quantitative measures of competition through HHI calculations has the effect of proscribing consolidations that have desirable market efficiencies. The spectrum cap runs contrary to the will of Congress, which requires the Commission to seek regulatory symmetry and the least intrusive regulations necessary to implement its policies. The Commission's repeal of rules where it has found such competitive conditions bolsters the argument that it should remove the CMRS spectrum cap regulatory regime. The spectrum cap is superfluous because, in the face of meaningful competition, existing antitrust rules, private rights of action and the cellular cross-interest rule are sufficient to guard against anticompetitive spectrum aggregation that might lead to exercise of market power. The regulations governing auctioning of new wireless spectrum would add another check on a single entity obtaining enough spectrum to exercise market power. The national marketplace transcends the constraints of a designated service area such that the FCC's analysis of the validity of the spectrum cap cannot properly be restricted to a particular service area definition. Lifting the spectrum cap will encourage greater investment in new wireless technologies. Mandatory resale obligations make entry into unserved or underserved more attractive for new entrants. Finally, retaining the spectrum cap would leave rural markets with only the most basic wireless service. The result would be that in comparison to the layers of services urban subscribers will enjoy, rural Americans would resemble technopeasants.

The Commission should remove the spectrum cap, but retain the cellular cross-interest rule as a reasonable discretionary check on exclusionary practices. In doing so, the FCC will promote a symmetrical, voluntary, and market-driven wireless industry that will provide the benefits of wireless technologies to all Americans.

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237 *See id.*

238 *See supra* note 192.

239 *See id.*