Avoiding Rent-Seeking in Secondary Market Spectrum Transactions

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I. INTRODUCTION

The power to allocate spectrum to specific uses and assign licenses to specific users is the power to distribute wealth.¹ Recipients of desirable spectrum assignments, sometimes from the Federal Communications Commission ("FCC" or the "Commission") and sometimes directly from Congress, have benefited handsomely over the years, and it is widely recognized that millions, if not billions, of dollars have been spent on rent-seeking—that is, on lobbying and similar activities designed to secure advantageous outcomes in spectrum allocation decisions.² Such is the nature of government-administered markets.

Beginning in the late 1950s, academics and, eventually, policymakers recognized that spectrum would more likely be put to its highest value use if it was allocated by markets rather than politicians and civil servants.³ The spectrum reform consensus that developed over the course of the next five decades called for the creation of flexible usage rights that allow spectrum to be used for any (legal and non-interfering) purpose, the use of auctions to assign licenses to initial licensees, and the development of secondary markets to allow users to exchange spectrum freely.⁴ In the early 1990s, these recommendations began to be adopted as policy, starting with the use of auctions to distribute newly released spectrum into the market and, later, with the development of secondary markets.⁵ The emergence of a secondary market for spectrum has resulted in billions of dollars in trades and likely improved consumer welfare significantly, relative to the alternative of continued, command-and-control style regulation.⁶

^{1.} In the parlance of spectrum policy, spectrum is "allocated" to a use and "assigned" to a user. For example, certain bands are "allocated" for mobile communications services, and the right to use those bands is then "assigned" (in the form of licenses) to specific users. We will sometimes use the term "allocate" to refer to both steps, and similarly will use "reallocate" to refer to the process of both repurposing spectrum (from one use to another) and to transferring usage rights among licensees.

^{2.} See Anne O. Krueger, *The Political Economy of the Rent-Seeking Society*, 64 AM. ECON. REV. 291, 291-93 (1974) (explaining that because of quantitative restrictions on spectrum allocation, rent-seeking is competitive and can generate large licensing fees).

^{3.} See EVAN KWEREL & WALT STRACK, FCC, AUCTIONING SPECTRUM RIGHTS 2 (2001), available at http://wireless.fcc.gov/auctions/data/papersAndStudies/aucspec.pdf ("An economically efficient licensing mechanism would assign licenses to parties that value them most highly, minimize wasteful private expenditures to obtain spectrum, foster (economically) efficient spectrum use and increase competition with existing spectrum-based services with minimum delay and cost to the government.").

^{4.} Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Dev. of Secondary Mkts., *Notice of Proposed Rulemaking*, FCC 00-402, paras. 2-3 (2000) [hereinafter 2000 NPRM], available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-00-402A1.pdf.

^{5.} *Id.* at para. 2.

^{6.} *Id.*

The emergence of a robust secondary market for the spectrum used for mobile voice and, more recently, mobile broadband is perhaps the single biggest success story of the spectrum reform movement.⁷ Commercial Mobile Radio Service ("CMRS") licenses provide for a substantial degree of flexibility, allowing licensees to use technologies (e.g., CDMA, GSM, Wi-Max, LTE) and offer services (e.g., text messages, voice, web browsing, mobile video) of their choice in the geographic and frequency range they desire.⁸ Thus, to cite a prominent example from 2011, Qualcomm was able to sell spectrum it had been using to provide commercially unsuccessful mobile television service to AT&T, which will use it for two-way mobile voice and data, thereby helping to alleviate the "spectrum crunch" that has come about as a result of the emergence of smart phones and mobile data services.⁹

In addition to flexible rights, the success of secondary markets depends on the ability of market participants to engage in transactions quickly, at relatively low cost, and with a reasonable degree of certainty.¹⁰ Under FCC rules adopted in the mid-2000s, most secondary market transactions were granted "fast track" treatment, resulting in a significant reduction in the time required to obtain approval.¹¹ Many transactions involving CMRS spectrum, however, remain subject to "special" public notice and comment procedures, including those in which a current licensee has foreign ownership or seeks to acquire additional, overlapping spectrum. This practice arguably serves as a *de facto* invitation for the sorts of rent-seeking behavior that plagued the old "command and control" system.¹²

Pursuant to section 310(d) of the Communications Act of 1934 and FCC rules, an acquiring firm must file applications for assignment of licenses with the Commission, asking for permission to consummate the transaction.¹³ Typically, opposition parties (including competitors, trade

10. Eisenach, supra note 8, at 119-23.

12. *Id.*

^{7.} John W. Mayo & Scott Wallsten, *Enabling Efficient Wireless Communication: The Role of Secondary Spectrum Markets*, 22 INFO. ECON. & POL'Y 61, 62 (2010).

^{8.} Jeffrey A. Eisenach, *Spectrum Reallocation and the National Broadband Plan*, 64 FED. COMM. L.J. 87, 123 (2011). The specific spectrum bands subject to flexibility and eligible for secondary market rules have varied over time. Unless otherwise noted, we refer to licenses for spectrum used for mobile radio service and subject to flexibility and trading as "CMRS" licenses.

^{9.} App'n of AT&T Inc. & Qualcomm Inc. for Consent to Assign Licenses & Authorizations, *Order*, FCC 11-188, paras. 4-5 (2011), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-188A1.pdf.

^{11.} Mayo & Wallsten, *supra* note 7, at 64.

^{13. 47} U.S.C. § 310(d) (2012); *see, e.g.*, 47 C.F.R. §§ 1.2111, 73.3597 (2012); App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Dec. 16, 2011) (seeking consent to assign 122 Advanced Wireless Services licenses to Verizon Wireless from SpectrumCo); *see also* App'n of Cellco P'ship d/b/a Verizon Wireless & Cox TMI Wireless, LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Dec. 21, 2011) (seeking consent to assign thirty Advanced Wireless Services licenses to Verizon Wireless from Cox Wireless).

associations, and non-profit groups) respond with petitions asking the FCC to deny approval for the transaction.¹⁴ The petitioners generally fall broadly into two categories—competitors and ideological interest groups—but their complaints are similar: the transaction, regardless of the size, would result in the acquiring firm holding licenses to "too much" spectrum, thereby disadvantaging its competitors and ultimately giving the acquiring firm market power in the market for wireless services.¹⁵ These parties' pleas for relief also have much in common: they typically urge the Commission to either deny permission for the transfer altogether or, in the alternative, to apply various regulatory conditions, many of which would have the effect of improving competitors' market positions. In short, both the competitors and the ideological opponents seek to impose conditions that would transfer rents from the applicants to themselves or other parties while, of course, cloaking their arguments in "the public interest."

Two sets of policy issues present themselves in scenarios where this rent-seeking behavior occurs. First, with respect to any given transaction, do opponents make a convincing case that the transaction would reduce consumer welfare and harm the public interest or, conversely, that the proposed regulatory conditions would generate net benefits? If no public interest harm can be demonstrated, then the application should be approved, and the transaction should be allowed to proceed without conditions.

Second, to what extent is rent-seeking present in secondary spectrum markets, and what are its consequences? We present empirical evidence that rent-seeking is commonplace and becoming more so, and we argue that it results not only in higher transaction costs, increased risk, and longer (often significant) delays, but also in resource misallocation, i.e., that rent-seeking leads to both dynamic and allocative inefficiencies. Indeed, we estimate that delays in FCC review of secondary market transactions have raised costs by nearly \$10 billion since 2003. Thus, the Commission should view the pleas of any interveners it determines to be engaged in rent-seeking with disfavor and make clear that it will view such activities in the future with prejudice.

The remainder of this paper is organized as follows. In Section II, we recount the development of secondary spectrum markets, beginning with a reminder of the failings—including rent-seeking—of the command-and-control system and concluding with an assessment of major secondary market transactions since the adoption of market-oriented reforms in the early 2000s. In Section III, we present a case study on the positions taken

^{14.} See, e.g., Petition to Deny of COMPTEL, AT&T Inc. & BellSouth Corp. App'ns for Approval of Transfer of Control, WC Docket No. 06-74 (filed June 5, 2006) [hereinafter COMPTEL Petition to Deny].

^{15.} Stephen F. Sewell, Assignments and Transfers of Control of FCC Authorizations Under Section 310(d) of the Communications Act of 1934, 43 FED. COMM. L.J. 277, 290 (1991).

by various competitors and other opponents of the 2012 transaction involving Verizon Wireless ("VZW") and SpectrumCo. Section IV discusses the consequences of rent-seeking in secondary markets, and offers some tentative policy recommendations. Section V presents a brief summary of our conclusions.

II. SECONDARY MARKETS AND EFFICIENT SPECTRUM USE

The evolution of spectrum policy from a pure command-and-control system of administrative allocation to today's increasingly market-driven approach has been underway for more than two decades.¹⁶ It was motivated, in part, by the growing recognition that the command-and-control approach led interested parties to engage in rent-seeking, resulting not only in inefficient resource allocation but also wasteful spending on lobbying and related activities.¹⁷ In this section, we describe both the progress and the limitations of the reforms. We begin by discussing the nexus between spectrum allocation and rent-seeking. Next, we describe the policy reforms that have been put in place since the mid-1990s. Finally, we analyze the effects of these policy reforms, noting that they have sped up the review process for smaller transactions but have not eliminated opportunities for rent-seeking in larger ones. Indeed, our analysis of the opposition to large CMRS transactions over the last decade shows that rent-seeking is commonplace.

A. Rent-Seeking and the Case Against Administrative Allocation

Rent-seeking describes the efforts of private actors—individuals or corporations—to use the power of the state to pursue private gain.¹⁸ In situations where the state has the ability to award monopolies or other forms of economic privilege, individuals and citizens will expend resources to capture the resulting economic rents. As Gordon Tullock explained in 1967, "[t]hese expenditures, which may simply offset each other to some extent, are purely wasteful from the standpoint of society as a whole; they

^{16.} Philip J. Weiser & Dale N. Hatfield, *Policing the Spectrum Commons*, 74 FORDHAM L. REV. 663, 670 (2005) ("Over forty years after Coase first argued for it, the FCC began to reform its traditional spectrum management regime and to treat licenses in a more property-like manner. In particular, the FCC began to heed the calls for reform in the early 1990s and, following the congressional directive to use auctions to assign spectrum licensees, the agency has embarked on a number of initiatives to move spectrum policy towards a property rights model.").

^{17.} Jerry Brito, *The Spectrum Commons in Theory and Practice*, 2007 STAN. TECH. L. REV. 1, 34 (2007).

^{18.} See generally Krueger, supra note 2, at 291-303.

are spent not in increasing wealth, but in attempts to transfer or resist transfer of wealth."¹⁹

It is well understood that the administrative allocation of scarce spectrum licenses creates strong incentives for rent-seeking. In his classic 1959 article describing the problems with administrative spectrum allocation, Ronald Coase noted that the FCC had "recently come into public prominence" as a result of disclosures about "the extent to which pressure is brought to bear on the Commission by politicians and businessmen (who often use methods of dubious propriety) with a view to influencing its decisions."²⁰ As he explained,

That this should be happening is hardly surprising. When rights, worth millions of dollars, are awarded to one businessman and denied to others, it is no wonder if some applicants become overanxious and attempt to use whatever influence they have (political and otherwise), particularly as they can never be sure what pressure the other applicants may be exerting.²¹

In the years since, Coase's insight has been well documented.²² Indeed, one study found that expenditures on rent-seeking resulted in the dissipation of up to 94% of the potential rents generated in spectrum lotteries.²³ That is, as much as 94% of the potential gains from the spectrum awarded in the lotteries was spent on efforts to maximize the probability of winning a license. Thus, it is not surprising that the desire to avoid—or at least minimize—rent-seeking in spectrum allocation decisions has been one of the primary motivations for moving to market-based approaches.²⁴

23. See, e.g., Thomas W. Hazlett & Robert J. Michaels, *The Cost of Rent-Seeking: Evidence from Cellular Telephone License Lotteries*, 59 S. ECON. J. 425, 431 (1993) (showing that rent-seeking resulted in the dissipation of as much as 94% of the potential rents from cellular license lotteries).

24. See, e.g., KWEREL & STRACK, supra note 3, at 2 ("Under comparative hearings applicants expend real resources to increase their probability of winning a license – primarily the time of lawyers and engineers in preparing applications, litigating, and lobbying. While such expenditures are privately valuable, they are largely socially unproductive."); see also Evan Kwerel & Alex D. Felker, Using Auctions to Select FCC Licensees 12-13 (FCC OPP Working Paper Series, Working Paper No. 16, 1985)

^{19.} Gordon Tullock, *The Welfare Costs of Tariffs, Monopolies, and Theft*, 5 W. ECON. J. 224, 228 (1967).

^{20.} R.H. Coase, The Federal Communications Commission, 2 J.L. & ECON. 1, 35 (1959).

^{21.} See id. at 35-36.

^{22.} See, e.g., Comments of 37 Concerned Economists at 4 n.2, Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Dev. of Secondary Mkts., WT Docket No. 00-230 (filed Feb. 7, 2001). For a comprehensive critique of early spectrum allocation decisions, see John O. Robinson, *Spectrum Management Policy in the United States: An Historical Account* (FCC OPP Working Paper Series, Working Paper No. 15, 1985).

The potential for rent-seeking is perhaps even greater in the context of spectrum reallocation than in the case of initial allocations, as license transfers often take place in the context of mergers, where firms are vulnerable to regulatory demands to agree "voluntarily" to various conditions.²⁵ As discussed in detail below, it is common practice for both competitors and ideologically motivated interest groups to attempt to capitalize on this vulnerability to obtain self-serving regulatory outcomes, often unrelated to the license transfer or merger.²⁶ This is not to say that all outside participation in spectrum transfer proceedings is inefficient or selfserving. Instead, regulators should view with great skepticism efforts to win conditions, especially when the proposed conditions are tangential to the license transfer itself. Indeed, the National Telecommunications and Information Administration ("NTIA") recognized the potential for rentseeking to disrupt efficient reallocation in its 1991 report recommending a market-based approach to reallocation, finding that "even if spectrum managers [in a command and control regime] are able to design a reallocation plan that is economically efficient, its effects on current users may raise equity concerns and almost certainly will raise political concerns that can make the actual implementation of the plan extremely difficult."27

B. The Emergence of Market-Based Mechanisms for Spectrum Reallocation

The gradual (and still incomplete) transition from administrative allocation to market-based approaches in spectrum allocation has taken

26. See, e.g., Thomas M. Koutsky & Lawrence J. Spiwak, Separating Politics from Policy in FCC Merger Reviews: A Basic Legal Primer of the "Public Interest" Standard, 18 COMMLAW CONSPECTUS 329, 344 (2010) (quoting Frank Easterbrook, The Supreme Court, 1983 Term–Foreword: The Court and the Economic System, 98 HARV. L. REV. 4, 39 (1984) ("Often an agency with the power to deny an application (say, a request to commence service) or to delay the grant of the application will grant approval only if the regulated firm agrees to conditions. The agency may use this power to obtain adherence to rules that it could not require by invoking statutory authority.")).

27. NAT'L TELECOMMS. & INFO. ADMIN., U.S. SPECTRUM MANAGEMENT POLICY: AGENDA FOR THE FUTURE 71 (1991) [hereinafter AGENDA FOR THE FUTURE], available at http://www.ntia.doc.gov/osmhome/91specagen/1991.html.

^{(&}quot;Comparative hearings and lotteries use up a great deal of real resources (primarily the time of legal, engineering, and economic consultants.)").

^{25.} See, e.g., Howard A. Shelanski, From Sector-Specific Regulation to Antitrust Law for US Telecommunications: The Prospects for Transition, 26 TELECOMMS. POL'Y 335, 341 (2002) (noting concerns that regulators have "extracted conditions from the merging parties that the agency never could have obtained under the antitrust laws, that were beyond the FCC's regulatory power to mandate (hence the conditions had to be voluntarily binding, for the carriers), and that were not reviewable by a court of law"); see also Philip J. Weiser, Reexamining the Legacy of Dual Regulation: Reforming Dual Merger Review by the DOJ and the FCC, 61 FED. COMM. L.J. 167, 169-70 (2008) ("[T]he FCC . . . relies on its authority to evaluate whether the acquiring firm should be permitted–under the broad and ill-defined 'public interest' test–to acquire and operate the licenses held by the to-be-acquired firm [T]his unrestrained mandate creates considerable opportunity for mischief.").

place over the course of decades.²⁸ An important milestone occurred with NTIA's 1991 *Agenda for the Future* report, which explicitly called for shifting from administrative allocation towards markets:

NTIA believes that, for most purposes, a spectrum management system that provides users with both incentives and opportunities to use spectrum in ways that are economically efficient will produce greater benefits for society than a centrally planned, highly regulatory system that attempts a "top down" approach to managing spectrum use.

... For most private-sector users, a choice mechanism suggests itself that could be much more efficient than the current system—the market.²⁹

The Commission took some important steps towards reform in the 1980s, including a 1988 Order providing for substantial license flexibility in Digital Cellular Services.³⁰ Most of the focus on market-based reform was on the use of auctions to replace administrative proceedings (e.g., comparative hearings) for the initial allocation of licenses.³¹ By the mid-1990s, attention returned to license flexibility and other steps aimed at facilitating secondary markets.³² In 1996, for example, the Commission permitted CMRS licensees to "disaggregate" and "partition" their licenses;³³ in the early 2000s, it broadened this authority to more licensees and moved to permit spectrum leasing.³⁴

Throughout the reform process, the Commission has been motivated by its recognition of the growing demand for spectrum, especially for

31. U.S. GEN. ACCOUNTING OFFICE, GAO-03-277, TELECOMMUNICATIONS: COMPREHENSIVE REVIEW OF U.S. SPECTRUM MANAGEMENT WITH BROAD STAKEHOLDER INVOLVEMENT IS NEEDED 8 (2003), *available at* http://www.gao.gov/new.items/d03277.pdf. 32. *Id.*

33. Geographic Partitioning & Spectrum Disaggregation by Commercial Mobile Radio Servs. Licensees, *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 96-148, paras. 1-4 (1996), *available at* http://transition.fcc.gov/Bureaus/Wireless/Orders/1996/fcc96474.txt.

34. See 2000 NPRM, supra note 4, at paras. 3-4; see also Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Dev. of Secondary Mkts., Report and Order and Notice of Proposed Rulemaking, FCC 03-113, paras. 2-3 (2003) [hereinafter First Report and Order], available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-113A1.pdf. For a review of the spectrum reform movement, see Eisenach, supra note 8, at 90-97.

^{28.} See generally Weiser & Hatfield, supra note 16.

^{29.} AGENDA FOR THE FUTURE, *supra* note 27, at 71.

^{30.} See, e.g., Amendment of Parts 2 & 22 of the Comm'n's Rules to Permit Liberalization of Tech. & Auxiliary Serv. Offerings, *Report and Order*, FCC 88-317, 3 FCC Rcd. 7033 (1988). Licenses for Personal Communications Services (PCS), auctioned in 1993, have always been subject to considerable flexibility. *See also* Amendment of the Comm'n's Rules to Establish New Pers. Comm. Servs., *Second Report and Order*, FCC 93-451, 8 FCC Rcd. 7700 (1993).

mobile telephone (and now mobile broadband), and its concern that barriers to reallocation were slowing the movement of spectrum from lower-to higher-value uses.³⁵ For example, in its December 2000 *Secondary Markets Policy Statement*, the Commission expressed concern that "[t]he preclusion of higher valued uses might occur if service flexibility is restricted by rule or the cost of trading is high," and noted that "there is continuing growth in demand for spectrum for new data networks and advanced services such as third generation mobile services that offer much faster mobile data speed."³⁶ In short, the concerns that motivated the Commission to promote secondary markets over a decade ago are more or less identical to the concerns that dominate spectrum policy discussions today.³⁷

The Commission's secondary markets reform efforts culminated, in 2003 and 2004, in two major Orders aimed in large part at streamlining procedures for license transfers and assignments. While the Commission is statutorily bound by section 310(d) of the Communications Act to approve transfers of control only upon finding that "the public interest, convenience, and necessity will be served thereby,"³⁸ it concluded in the 2003 and 2004 Orders that its section 10 forbearance authority allowed it to adopt streamlined, "fast-track" approval procedures in many cases.³⁹ The 2003 *First Report and Order* established the underlying foundations for spectrum leasing for Wireless Radio Service⁴⁰ licenses, and established two forms of streamlined approval procedures depending on the type of lease or transfer involved.⁴¹ The 2004 *Second Report and Order* expanded the set of transactions subject to the streamlined procedures, including allowing some

37. See Eisenach, *supra* note 8, at 100 (noting that the language used in the 2010 *National Broadband Plan* to describe the need for additional CMRS spectrum is similar to language used in previous reports, including the 1991 *Agenda for the Future* report).

38. 47 U.S.C. § 310(d) (2012) ("No construction permit or station license, or any rights thereunder, shall be transferred, assigned, or disposed of in any manner, voluntarily or involuntarily, 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. Any such application shall be disposed of as if the proposed transferee or assignee were making application under section 308 of this title for the permit or license in question; but in acting thereon the Commission may not consider whether the public interest, convenience, and necessity might be served by the transfer, assignment, or disposal of the permit or license to a person other than the proposed transferee or assignee.").

39. See First Report and Order, supra note 34, at paras. 150-59.

40. The covered services included virtually all spectrum then being used for CMRS services, and we use the terms "Wireless Radio Service" and CMRS interchangeably unless otherwise noted. *See 2000 NPRM, supra* note 4, at para. 13, n.19.

41. See First Report and Order, supra note 34, at paras. 8-16.

^{35.} Eisenach, supra note 8, at 90-97.

^{36.} Principles for Promoting the Efficient Use of Spectrum by Encouraging the Dev. of Secondary Mkts., *Policy Statement*, FCC 00-401, para. 11 (2000), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-00-401A1.pdf; *see also 2000 NPRM*, *supra* note 4, at para. 7 ("In certain markets, spectrum is becoming increasingly congested and spectrum constraints are threatening to limit the growth of new services, particularly in more densely populated urban areas").

transfers and licenses to be approved without formalized, automatic notice and comment proceedings.⁴² As noted below, these provisions led to significant reductions in the costs and delays associated with many secondary market transactions and generated substantial benefits.⁴³

However, the Commission also determined that certain classes of assignments and transfers "raise the kinds of potential public interest concerns that would necessitate public notice or individualized review prior to granting."⁴⁴ Specifically, the Commission found,

Consistent with our competition policies, however, we will exclude from this approach [transactions] involving spectrum that (1) is, or may reasonably be, used to provide interconnected mobile voice and/or data services and (2) creates a "geographic overlap" with other spectrum used to provide these services in which the spectrum [acquirer] holds a direct or indirect interest (of 10 percent or more), either as a licensee or as a spectrum lessee. Because [such transactions] potentially raise competition concerns, they will continue to be subject to case-by-case review and approval.⁴⁵

Thus, for many transactions involving CMRS licenses, the Commission's secondary market reforms stopped short of eliminating the automatic notice and comment proceedings that effectively invite opponents to challenge license assignments and transfers. As discussed below, these procedural provisions, combined with the Commission's inconsistent approach to assessing competition and imposing conditions, have given rent-seekers both the ability and the incentive to pursue their objectives through license assignment and transfer proceedings.

^{42.} Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Dev. of Secondary Mkts., *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, FCC 04-167, paras. 10-84 (2004) [hereinafter *Second Report and Order*], *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-167A1.pdf; see also Mayo & Wallsten, supra note 7, at 64.

^{43.} See FCC, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 79 (2010), available at http://download.broadband.gov/plan/national-broadband-plan.pdf ("Spectrum flexibility, both for service rules and license transfers, has created enormous value.").

^{44.} Second Report and Order, supra note 42, at para. 103 (footnote omitted). In addition to the competition issues which are the focus of discussion here, the Commission also noted other criteria, such as foreign ownership and transfers by designated entities, that could raise public interest concerns and thus preclude expedited approval. *Id.*

^{45.} *Id.* at para. 25. The language quoted here initially referred only to spectrum leases, but is applied to assignments and transfers, by reference. *Id.* at para. 103. *See also First Report and Order, supra* note 34, at para. 119 (requiring parties to disclose in their applications "whether the . . . arrangement reduces the number of CMRS competitors in the market").

C. Secondary Markets in Practice

License transfers and re-assignments were commonplace even before the development of the robust secondary markets we see today. In a 1985 paper, for example, Kwerel and Felker noted that "[i]n recent years . . . the FCC has annually processed over 600 applications for reassignment or transfer of [Public Mobile Service] licenses,"⁴⁶ and reported that "[b]etween May and December 1984 . . . the FCC approved over 100 license reassignments . . . represent[ing] roughly 5% of the total number of SMRS licenses granted to date."⁴⁷

More recent data from the Commission's Universal Licensing System ("ULS"), reported by Mayo and Wallsten, shows that by the mid-2000s, the FCC was processing over 2,000 license transfers and assignments annually.⁴⁸ Moreover, as shown in Figure 1, the 2003–2004 fast-track reforms appear to have significantly reduced the average time required to obtain approval of secondary market transactions, reducing the average time for approval for all transactions from 340 days in 1998 to seven days in the first quarter of 2012, while the time for approval of Personal Communications Services ("PCS") transactions declined from 326 days to thirty-six days over the same period.⁴⁹

^{46.} Kwerel & Felker, *supra* note 24, at 9.

^{47.} *Id.* at 9-10 (footnote omitted). They also report that, as of 1983, 65% of television broadcast licenses were held by assignees rather than the original licensees. *Id.* at 9 n.12.

^{48.} See Mayo & Wallsten, supra note 7, at 68 (Table 3).

^{49.} Similar data is reported in Mayo & Wallsten, *id.* at 71 (Figure 3). We are grateful to the authors for providing their underlying data and for assistance in replicating their methodology, which allowed us to update their work and produce the updated data reported here.

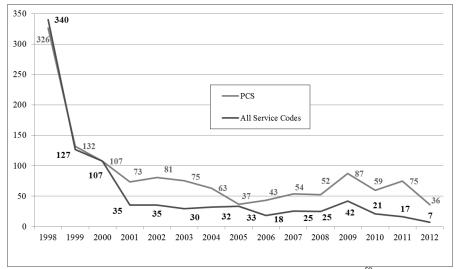


Figure 1: Time from Application to Approval, 1998-2012⁵⁰

Of course, the aggregate data masks the distinction between transactions granted streamlined approval under the 2003–2004 reforms and those still subject to automatic notice and comment procedures. In other words, it masks the distinction between transactions at least partially insulated from rent-seeking and those still vulnerable to it.

Under the Commission's rules, applicants wishing to transfer spectrum that is or can be used for CMRS services must certify whether the proposed transaction (a) involves a geographic overlap of spectrum rights and/or (b) would reduce the number of CMRS competitors in the market.⁵¹ Applications that raise either issue are generally not eligible for streamlined review procedures.⁵² Instead, when such applications are received, the Wireless Telecommunications Bureau issues a public notice, and opens a formal Commission proceeding seeking comment on the application.⁵³ Parties wishing to oppose the transfer must submit petitions to deny the application within fourteen days of the public notice.⁵⁴ The applicants then have an opportunity to file replies in opposition to the petitions to deny, and the remainder of the proceeding goes forward according to a pleading

52. Id.

53. Id.

^{50.} Universal Licensing System, FCC, http://wireless.fcc.gov/uls/index.htm?job=home (last visited Apr. 9, 2013). Our results differ slightly from those reported in Mayo & Wallsten, *supra* note 7, at 71 (Figure 3). In particular, they identify a spike in 2001 approval times for all service codes which does not appear in our data. Based on our discussions with the authors, we attribute this difference to the fact that our figure shows the average days of approval across all transactions, while theirs reports the average approval time across different service codes (i.e., our figure represents an average of averages).

^{51. 47} C.F.R. § 1.948 (2012).

^{54.} *Id.* In some of the major spectrum transactions, the Wireless Telecommunications Bureau has allowed thirty days for the filing of petitions to deny.

cycle established by the Commission, with full opportunity for public comment, including ex parte submissions filed throughout the duration of the review.

The practical effect of this "carve out" is that acquisitions by incumbent CMRS providers of overlapping spectrum licenses are subject to essentially the same procedures that prevailed for all transactions prior to the 2003–2004 Orders, making the streamlined procedures irrelevant in the transactions in which rent-seeking is most likely to occur.

In an effort to reduce uncertainty, the Commission has, on occasion, sought to provide guidance on the standards it will apply with respect to competition issues. For non-exempt transactions (i.e., those involving CMRS spectrum in which the acquiring party holds a 10% or greater interest in geographically overlapping licenses), it has applied a two-part "screen," comprised of (a) a market concentration screen (as measured by the Herfindahl-Hirschman Index, or HHI) in downstream local product markets,⁵⁵ and (b) a spectrum aggregation screen, initially adopted in 2004, which focuses on the acquiring party's post-transaction spectrum holdings in local markets (relative to the total amount of spectrum available for CMRS services).⁵⁶ According to the Commission, the purpose of the spectrum screen was to "to eliminate from further consideration any market in which there is no potential for competitive harm as a result of [the] transaction."⁵⁷ However, both screens have been modified over the years, and petitioners have not hesitated to urge the Commission to conduct detailed reviews of transactions that fail to trigger either screen.

In practice, the Commission's reviews of license transactions have demonstrated the potential to devolve into essentially unstructured public interest reviews in which any and all criteria may be considered and any

^{55.} See Annual Rpt. & Analysis of Competitive Mkt. Conditions with Respect to Mobile Wireless Including Commercial Mobile Servs., *Fourteenth Report*, FCC 10-81, para. 52 (2010), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-81A1.pdf ("The Commission employed an HHI screen in its review of transactions during 2009, including the *AT&T/Centennial* transaction. The HHI screen identified service areas in which (1) the post-transaction HHI would be both greater than 2800 and would increase by at least 100, or (2) the post-transaction HHI would have increased by at least 250.").

^{56.} See, e.g., App'ns of AT&T Wireless Servs., Inc. & Cingular Wireless Corp. for Consent to Transfer Control of Licenses & Authorizations, *Memorandum Opinion & Order*, FCC 04-255, para. 108 (2004) [hereinafter *Consent to Transfer Control Memorandum*], *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-255A1.pdf; App'ns of AT&T Inc. & Cellco P'ship d/b/a Verizon Wireless for Consent to Assign or Transfer Control of Licenses & Authorizations & Modify a Spectrum Leasing Agreement, *Memorandum Opinion and Order*, FCC 10-116, para. 35 (2010), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-116A1.pdf. In 2001, Spectrum screen took the place of the Commission's prior "spectrum cap," which formally limited the amount of CMRS spectrum any carrier could control. *See* 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Servs., *Notice of Proposed Rulemaking*, FCC 01-28, para. 3 (2001), *available at* http://hraunfoss.fcc.gov/ edocs_public/attachmatch/FCC-01-28A1.pdf.

^{57.} Consent to Transfer Control Memorandum, supra note 56, at para. 109.

and all conditions are potentially on the table (i.e., to resemble for practical purposes the "comparative hearings" secondary markets were designed to replace). Indeed, in some respects, the process remains essentially unchanged. For example, in order for the Commission to consider a petition to deny, section 309(d) of the Communications Act⁵⁸ requires that the petitioner must be a "party in interest, i.e., a person aggrieved or whose interests are adversely affected by the Commission's authorization."⁵⁹ Arguably, therefore, the statute not only *encourages* self-interested parties to file, but *requires* that filers be self-interested; and, it forces the Commission to consider the harm allegedly suffered by the aggrieved party, even if only for purposes of establishing standing, in its deliberations.⁶⁰

To assess the extent of rent-seeking in the Commission's reviews of secondary market transactions, we gathered data on the most significant CMRS transactions reviewed by the Commission from 2004 to 2011 (excluding the 2012 Verizon-SpectrumCo transaction), as identified by the FCC in its annual CMRS competition reports. The resulting eighteen transactions are shown in Table 1.

^{58. 47} U.S.C. § 309(d) (2012).

^{59.} See 47 C.F.R. § 1.117 (2012); cf. 47 C.F.R. § 1.939(a) (2012) ("Any party in interest may file with the Commission a petition to deny"); 47 C.F.R. § 1.939(d) (2012) ("A petition to deny must contain specific allegations of fact sufficient to make a *prima facie* showing that the petitioner is a party in interest and that a grant of the application would be inconsistent with the public interest, convenience and necessity.").

^{60.} See, e.g., AmericaTel Corp. App'n for Transfer of Control & Pro Forma Assignment of Section 214 Authorizations, *Memorandum Opinion, Order, Authorization and Certificate*, FCC 94-175, 9 FCC Rcd. 3993, para. 9 (1994) (explaining that under Commission precedents, petitioners must establish that they would suffer direct injury and establish a causal link between the spectrum assignment and the injury); L.A. Cellular Tel. Co. App'n for Renewal of Domestic Pub. Cellular Radio Telecomms. Serv. Station License KNKA351 for Frequency Block A in the L.A., Cal. Metro. Serv. Area, *Order*, File No. 05166-CL-MR-95, para. 5 (1998), *available at* http://transition.fcc.gov/Bureaus/Wireless/Orders/1998/da980411.txt (explaining that Petitioners must establish that "specific competitive harm" would occur in specified markets).

Issue 3

Application Date	Assignee	Assignor	Description	Valuation (\$000)
9/26/2003	Cingular	Nextwave	Purchase of NextWave spectrum licenses by Cingular (34 markets)	\$1,400,000
3/18/2004	Cingular	AT&T	Acquisition of AT&T Wireless by Cingular	\$41,000,000
1/24/2005	Alltel	Western Wireless	Acquisition of Western Wireless Alltel (1.4 million customers in 19 states)	\$6,000,000
2/8/2005	Sprint	Nextel	Merger between Sprint and Nextel (40 million subscribers)	\$70,000,000
12/2/2005	Alltel	Midwest Wireless	Acquisition of Midwest Wireless by Alltel (400,000 subscribers)	\$1,075,000
3/31/2006	AT&T	Bellsouth	Acquisition of BellSouth by AT&T, including consolidation of Cingular Wireless JV	\$86,000,000
6/25/2007	Atlantis	Alltel	Acquisition of Alltel announced by TPG Capital and GS Capital Partners ("GSCP")	\$27,500,000
7/13/2007	AT&T	Dobson	Acquisition of Dobson Communications Corporation by AT&T (1.7 million subscribers)	\$2,800,000
10/1/2007	T-Mobile	SunCom	Acquisition of SunCom by T-Mobile Inc.	\$2,400,000
6/10/2008	Verizon Wireless	Alltel	Acquisition of Alltel by Verizon	\$28,100,000
10/29/2007	AT&T	Aloha	Purchase of Aloha 700 MHz licenses by AT&T (12 MHz covering 196 million people)	\$2,500,000
6/6/2008	Clearwire	Sprint-Nextel	Combination of Sprint Nextel spectrum with Clearwire spectrum in new Clearwire JV	\$3,300,000
9/4/2007	Verizon Wireless	Rural Cellular	Acquisition of Rural Cellular Corp. by Verizon Wireless (~716,000 subscribers in 5 regions)	\$2,670,000
11/21/2008	AT&T	Centennial	Acquisition of Centennial Communications Corp. by AT&T (~1,100,000 subscribers)	\$945,000
5/22/2009	AT&T	Verizon Wireless	Divestiture of Alltel spectrum from Verizon-Alltel acquisition	\$2,350,000
6/16/2009	Atlantic Tele- Network	Verizon Wireless	Divestiture of Alltel spectrum from Verizon-Alltel acquisition	\$200,000
1/13/2011	AT&T	Qualcomm	Purchase of Qualcomm spectrum licenses by AT&T	\$1,930,000
4/21/2011	AT&T	T-Mobile	Acquisition of T-Mobile USA by AT&T	\$39,000,000

Table 1: Major CMRS Spectrum Transactions Reviewed by the FCC, 2004-2011⁶¹

These transactions are broadly representative of the diversity of major secondary market deals. Several (e.g., Alltel-Western Wireless, AT&T-Dobson) represent acquisitions of operating CMRS carriers by other CMRS carriers; others (e.g., Atlantis-Alltel, Clearwire-Sprint/Nextel) involve restructurings, in which the identities of the spectrum licensees changed, but the operating entities remained essentially the same; and, still others (e.g., Cingular-Nextwave, AT&T-Aloha) are transfers of licenses to operating companies from licensees who were not using the spectrum, as in the case of VZW-SpectrumCo.⁶²

Our primary interest is in the extent and nature of lobbying activities by potential rent-seekers. Accordingly, using the Commission's Electronic Comment Filing System ("ECFS"), we gathered, for each proceeding, a variety of information on the review process, including: (a) the number of

^{61.} See *Reports*, FCC, https://www.fcc.gov/reports?filter_terms%5B96%5D=96&op =Apply+Filter (last visited July 8, 2013), for the CMRS Competition Reports and the Wireless Competition Reports that contain the data used in this Table.

^{62.} One of the deals—the merger of AT&T and BellSouth—involved substantial landline assets, but we include it nonetheless since it also involved the consolidation of ownership of CMRS carrier Cingular, which was a joint venture of AT&T and BellSouth.

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parties that filed petitions to deny; (b) the number of distinct conditions petitioners sought to place on the transaction; (c) the total number of private-party filings in the proceeding; and, (d) the duration of review, measured as the number of days from submission to disposition. These data are summarized in Table 2.

	Year Review	Petitions for	Distinct Conditions	Total Public	Duration of
Transaction	Completed	Denial	Sought	Filings	Review
Cingular - Nextwave Telecom	2004	1	1	8	138
Cingular - AT&T	2004	4	1	247	218
Alltel - Western Wireless	2005	2	2	64	168
Sprint - Nextel	2005	6	3	232	176
Alltel - Midwest Wireless	2005	1	1	32	304
AT&T - Bellsouth	2006	8	4	12,138	273
Atlantis - Alltel	2007	0	0	9	123
AT&T - Dobson	2007	2	1	40	129
T-Mobile - SunCom	2008	1	1	10	130
Verizon Wireless - Alltel	2008	16	7	211	147
AT&T - Aloha	2008	0	0	3	88
Clearwire - Sprint-Nextel	2008	2	3	133	151
Verizon Wireless - Rural Cellular	2008	3	7	97	331
AT&T - Centennial	2009	2	5	90	349
AT&T - Verizon Wireless	2010	4	3	197	396
ATN - Verizon Wireless	2010	4	1	129	308
AT&T - Qualcomm	2011	7	10	215	343
AT&T - T-Mobile	2011	57	6	44,577	216*
Average		6.7	3.1	3246	222
* Application withdrawn					

Table 2: Characteristics of FCC Review Proceedings, 2004-2011⁶³

Three aspects of the data in Table 2 are especially noteworthy. First, all of the transactions that involved the transfer of spectrum between active operators of CMRS, or related services, prompted petitions to deny, while the two that did not—Atlantis' acquisition of Alltel and AT&T's acquisition of Aloha—involved non-operating entities. Moreover, it is commonplace for petitions to be filed and conditions to be sought even in transactions where public-interest-based concerns about adverse effects on competition seem difficult to justify, such as Alltel's 2005 acquisition of Western Wireless and T-Mobile's 2008 acquisition of SunCom.⁶⁴

^{63.} See *Electronic Comment Filing System*, FCC, http://apps.fcc.gov/ecfs/ (last visited July 8, 2013) (click 'Search for Filings,' and search the database by entering the docket numbers obtained from the CMRS Competition Reports and Wireless Competition Reports in Table 1 in the 'DA/FCC Number' field), for the data used in this Table.

^{64.} Petition for Clarification or, in the Alternative, Declaratory Ruling Under Section 310(b)(4) of the Comm. Act of 1934, as Amended, & Request for Streamlined Processing of T-Mobile USA, Inc. & Suncom Wireless Holdings, Inc. at 3-4, SunCom Wireless Holdings, Inc. Petition for Determination of the Pub. Interest Under Section 310(b)(4) of the Comm. Act of 1934, as Amended, File No. ISP-PDR-20071001-00013 (filed Oct. 1, 2007), *available at* https://wireless2.fcc.gov/UlsEntry/attachments/ attachmentViewRD.jsp?applType=search&fileKey=877777018&attachmentKey=18245881 & attachmentInd=applAttach.

Second, both the level of opposing activity involved in FCC reviews and the duration of reviews have increased in the past decade. Applications for which reviews were completed between 2004 and 2008 attracted an average of 3.5 petitions to deny, as compared with 14.8 for those since 2008; the average number of filings rose from about 1,000 (between 2004 and 2008) to over 9,000 (thereafter);⁶⁵ the average number of conditions sought increased from 2.38 (from 2004 to 2008) to 5.00 (thereafter); and, arguably most importantly, the duration of the average review increased from 183 days (from 2004 to 2008) to 349 days (thereafter).

Third, to better understand the substance of the issues involved in these proceedings, we examined the filings submitted by opponents of the transactions (that is, those submitting petitions for denial) to determine whether and to what extent they simply opposed the transaction unconditionally, as opposed to asking the Commission to impose conditions. To the extent conditions were requested, we noted the nature of the conditions demanded by opponents. Specifically, for each entity which filed petitions to deny in two or more proceedings,⁶⁶ we noted the number of instances in which each entity demanded a particular condition, such as mandatory roaming, handset exclusivity, etc.⁶⁷ Table 3 displays the results of this analysis.

^{65.} These trends hold even if one omits outliers. Specifically, omitting VZW-Alltel and AT&T-T-Mobile from the petitions count, the averages are 2.5 petitions per application for 2004–2008 and 3.4 petitions per application for 2009–2011; similarly, omitting AT&T-Bellsouth and AT&T-T-Mobile from the public filings count, the averages are 91 filings per proceeding for 2004–2008 and 158 filings per proceeding for 2009–2011.

^{66.} We do not show results for an additional seventy-four petitioners, who each filed in only one proceeding, nor for three federal agencies. We also exclude COMPTEL, which filed in two proceedings (AT&T-BellSouth and AT&T-T-Mobile). However, COMPTEL's filing in BellSouth was limited to landline issues, and it did not demand conditions in AT&T-T-Mobile. *See* COMPTEL Petition to Deny, *supra* note 14; Petition to Deny of COMPTEL, App'ns of AT&T Inc. & Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses & Authorizations, WT Docket No. 11-65 (rel. May 31, 2011).

^{67.} In counting petitioners and conditions, we treated joint petitioners as if they had filed separately. For example, Consumers Union filed jointly with Free Press in two transactions. In our tabulations, we attributed the conditions demanded in those filings to both Consumers Union and Free Press.

	Condition							
			Ban on		Handset			
	Transactions	Mandatory	Handset		Inter-	Net		
Petitioner	Petitioned	Roaming	Exclusivity	Divestiture	operability	Neutrality	Other	Total
Competitors								
Cellular South	5	3	4	1	2	0	0	10
Rural Telecom. Group	4	3	3	1	1	0	3	11
Rural Cellular Association	3	2	1	0	2	0	1	6
COMPTEL	2	0	0	0	0	0	0	0
Cincinnati Bell	2	2	2	1	0	0	1	6
DISH Network	2	0	0	1	0	0	0	1
King Street Wireless	2	0	1	0	1	0	1	3
Leap Wireless	2	1	1	1	0	0	1	4
MetroPCS	2	2	1	2	0	0	0	5
NTELOS	2	2	1	2	0	0	0	5
National Association of Black Owned Broadcasters	2	0	0	1	0	0	1	2
United States Cellular	2	0	0	1	0	0	1	2
Subtotal	30	15	14	11	6	0	9	55
Ideological Interest Groups								
Consumers Union	6	2	1	3	1	2	7	16
Chatham Avalon Park Community Council	3	0	0	2	0	0	1	3
Consumer Fed. of Am.	3	1	0	2	0	0	4	7
Free Press	3	2	1	1	1	1	6	12
Media Access Project	2	1	1	0	1	1	2	6
New America Foundation	2	1	1	0	1	1	2	6
Public Knowledge	2	1	1	0	1	1	2	6
Subtotal	21	8	5	8	5	6	24	56
Total	51	23	19	19	11	6	33	111

Table 3: Repeat Petitioners and their Demands, 2004–2011⁶⁸

Several aspects of the data in Table 3 are noteworthy. First, 100% of the petitioners were prepared to allow transactions to proceed if the Commission would add one or more conditions. While in some cases the conditions demanded were plausibly related to some alleged anticompetitive effect of the proposed transaction—i.e., at least *consistent with* a public interest motivation—in many cases the Commission concluded the requested conditions were not consistent with the public interest.

Second, the most frequently demanded conditions across all petitioners, accounting for nearly two-thirds (72 out of 111) of the total, were mandatory roaming, spectrum divestitures, bans on handset exclusivity, and handset interoperability. Each of these types of conditions, if granted by the Commission, would directly benefit the petitioning competitors. Mandatory roaming would provide competitors with the right to utilize applicants' networks for roaming at non-commercial rates rather than at (presumably higher) commercially negotiated ones. Required divestitures would give competitors opportunities to acquire spectrum at below market, forced-sale prices. Handset exclusivity bans would remove the competitive advantages acquired by some firms through successful product differentiation; and, handset interoperability would force firms operating in certain spectrum bands to purchase more expensive handsets in order for them to be able to operate on spectrum bands used by their

^{68.} See Electronic Comment Filing System, supra note 63. The comments resulting from the search described were analyzed for proposed conditions to the transactions and divided into two categories: competitors and ideological interest groups.

competitors. That is, each of the conditions most-frequently demanded by opponents represents prima facie rent-seeking.

Third, and perhaps of greatest interest, there is very little difference between the conditions demanded by competitors and those demanded by ideologically motivated opponents. The four most common rent-seeking conditions, just discussed, account for 85% of the demands made by competitors, and also account for nearly half (46%) of those made by ideological opponents. In contrast, the one markedly "ideological" condition that makes the list, network neutrality, was not demanded by any competitors, and accounts for only 9% of the demands made by ideological opponents (five out of fifty-six).

These findings strongly suggest that the so-called "bootleggers and Baptists" ("B&B") phenomenon is prevalent in FCC spectrum transfer proceedings.⁶⁹ As put forward by economist Bruce Yandle, the B&B theory of regulation states that

Durable social regulation evolves when it is demanded by both of two distinctly different groups. "Baptists" point to the moral high ground and give vital and vocal endorsement of laudable public benefits promised by a desired regulation. Baptists flourish when their moral message forms a visible foundation for political action. "Bootleggers" are much less visible but no less vital. Bootleggers, who expect to profit from the very regulatory restrictions desired by Baptists, grease the political machinery with some of their expected proceeds. They are simply in it for the money.⁷⁰

To be clear, the B&B phenomenon does not imply that ideologically motivated "Baptist" groups "sell out" their principles to advance the rentseeking objectives of the "bootleggers." To the contrary, the ideologues' desired policy outcomes—which, in this case, amount to the imposition of a particular type of industry structure through regulation—happen to be consistent with policy decisions that simultaneously serve the interests of more traditionally "self-serving" industry actors.⁷¹ Similarly, we are not

^{69.} See generally Bruce Yandle, Bootleggers and Baptists in Retrospect, 22 REG. 5 (1999), available at http://www.cato.org/sites/cato.org/files/serials/files/regulation/1999/10/ bootleggers.pdf.

^{70.} Id.

^{71.} A complete review of the motivations behind each claim in each proceeding is beyond the scope of this study. Two typical examples, however, illustrate the point. In its filing in opposition to the Clearwire-Sprint/Nextel transaction, RCA made no apology for acting on behalf of the interests of a competitor as opposed to protecting competition. Indeed, RCA stated that its filing was based on its concern that "[*t*]*he increase in competition* [resulting from the transfers] can be expected to cause Cellular South to sustain economic injury that is direct, tangible and immediate." Petition to Deny of Rural Cellular Ass'n at 3, App'ns of Sprint Nextel Corp. & Clearwire Corp. for Consent to Transfer Control of Licenses, Authorizations, & De Facto Transfer Spectrum Leases, WT Docket No.

saying that conditions proposed by a competitor can never advance the public interest. However, as a general matter, horizontal competitor complaints in merger proceedings are inherently suspect since in most cases they benefit from reduced competition, but suffer when mergers result in lower costs (i.e., economic efficiencies) for the merging firms.⁷²

More broadly, we acknowledge that these results provide only an initial look at the extent and nature of rent-seeking in FCC reviews of secondary market transactions, and that more granular, case-by-case research into the incentives of the various parties and the likely effects of their demands would certainly be worthwhile. At the same time, we believe the data presented above demonstrate that rent-seeking plays an important role in these proceedings, and thus provide a useful lens through which to assess opponents' claims concerning the VZW-SpectrumCo transaction. We turn to those claims in the remaining sections.

III. A CASE STUDY: RENT-SEEKING BEHAVIOR IN THE VERIZON WIRELESS - SPECTRUMCO PROCEEDING

In December 2011, Verizon Wireless ("VZW") announced that it had reached an agreement with SpectrumCo LLC and, separately, with Cox TMI Wireless LLC to acquire roughly 20 MHz of nationwide spectrum for approximately \$3.6 billion, making the transfer one of the largest secondary market transactions for bare licenses ever.⁷³ As in previous secondary market transactions, two groups of filers petitioned to block the VZW-SpectrumCo merger: competitors and ideological interest groups.⁷⁴

^{08-94 (}filed July 24, 2008) (emphasis added). By contrast CFA's more public-interested justification for its petition to deny the Sprint-Nextel merger argues that "FCC approval of this transaction will harm consumers by allowing one entity to control an excessive amount of mobile broadband communications spectrum in many markets throughout the county." Petition to Deny of Consumer Fed'n of Am. & Consumers Union at 1, Nextel Comm. & Sprint Corp. Seek Consent to Transfer Control of Licenses, WT Docket No. 05-63 (filed Mar. 30, 2005).

^{72.} See Alan A. Fisher et al., Price Effects of Horizontal Mergers, 77 CAL. L. REV. 777, 782 (1989).

^{73.} Tim McElgunn, *Verizon Wireless and CableCos Agree to \$3.6B Spectrum Swap*, BLOOMBERG BNA (Dec. 7, 2011), http://www.bna.com/verizon-wireless-cablecos-n12884904947/.

^{74.} In addition to the petitioners shown in Table 4 and discussed below, one individual, Maneesh Pangasa, also filed a petition to deny. Petition to Deny of Maneesh Pangasa, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo, LLC & Consent TMI Wireless, LLC Seek FCC Consent to the Assignment of AWS-1 Licenses, WC Docket No. 12-4 (filed Feb. 3, 2012). As of June 14, 2012, Mr. Pangasa had submitted a total of 294 additional filings, or an average of approximately two per business day. *See* Search for FCC Filings of Maneesh Pangasa in 12-4, FCC, http://apps.fcc.gov/ecfs/comment_search/input?z=td7wl (enter '12-4' in 'Proceeding Number,' 'Maneesh Pangasa' in 'Name of Filer,' and '6/4/12' in 'To' under 'Received). In addition to Mr. Pangasa, a number of other parties have filed comments in the proceeding, including a group of Boston Community Leaders, the Communications Workers of American, the Competitive Enterprise Institute,

	Condition						
Petitioner	Mandatory Roaming	Handset Exclusivity	Divestiture	Handset Interoper- ability	Other	Total	Other Transaction Petitioned
Competitors							
Hawaiian Telcom	0	0	0	0	1	1	0
MetroPCS	1	0	0	0	0	1	2
NTCH	1	1	0	1	2	5	0
RCA	1	1	1	1	1	5	3
RTG	0	0	1	0	0	1	4
T-Mobile	0	0	0	0	0	0	0
Subtotal	3	2	2	2	4	13	9
Ideological Interest							
Groups							
Public Knowledge	1	0	0	1	1	3	2
Access Humboldt*	1	0	0	1	1	3	0
Benton Foundation*	1	0	0	1	1	3	0
New America Foundation*	1	0	0	1	1	3	2
Center for Rural Strategies*	1	0	0	1	1	3	0
Future of Music Coalition*	1	0	0	1	1	3	1
Media Access Project*	1	0	0	1	1	3	2
Nat. Consumer Law Ctr*	1	0	0	1	1	3	0
Writers Guild of Am.*	1	0	0	1	1	3	1
Diogenes Telecom. Project	0	0	0	0	0	0	1
Free Press	0	0	0	0	0	0	3
NJ Div. of Rate Counsel	0	0	1	0	0	1	1
Rural Broadband Policy							
Group**	0	0	0	0	0	0	0
Subtotal	9	0	1	9	9	28	13
	12	2	3	11	13	41	22

Table 4 shows six competitors and thirteen ideological opponents that filed timely petitions to deny in the docket assigned to the transactions.⁷⁵

Table 4: VZW-SpectrumCo Transaction: Petitions to Deny⁷⁶

Sprint-Nextel, and The Greenlining Institute. *See* Reply Comments of Massachusetts Cmty. Leaders, Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WC Docket No. 12-4 (filed Mar. 26, 2012); Reply Comments of the Competitive Enter. Inst., App'ns of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC & Cox TMI Wireless, LLC for Consent to Assign Licenses, WC Docket No. 12-4 (filed Mar. 5, 2012); Comments of Sprint Nextel Corp., App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WC Docket No. 12-4 (filed Feb. 22, 2012); Opening Comments of the Greenling Inst., App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WC Docket No. 12-4 (filed Feb. 21, 2012). As of June 14, 2012, approximately 502 public filings (not including Mr. Pangasa's) had been filed—more than in all but two of the proceedings (AT&T/BellSouth and AT&T-T-Mobile), detailed in Section II above. *See* Search for FCC Filings of 12-4, FCC, http://apps.fcc.gov/ecfs/comment_search/input?z=td7wl (enter '12-4' in 'Proceeding Number' and '6/4/12' in 'To' under 'Received).

75. In addition, Information Age Economics filed an untimely Petition to Deny proposing five other conditions: (1) a data roaming mandate; (2) AWS capability for future LTE devices; (3) interoperability with other CDMA/LTE devices; (4) certain conditions on the proposed auction of Verizon's Lower 700 MHz band A and B frequencies; and (5) a two to three year timeframe for consummation of AWS spectrum transactions involved. Petition to Condition or Otherwise Deny of Info. Age Econ. at 8-10, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Aug. 7, 2012) [hereinafter Information Age Economics Petition].

By definition, each group demanded that the Commission deny the proposed license assignments.⁷⁷ However, as in the transactions discussed above, virtually all of the competitors and many of the ideological opponents also sought conditions on the transaction, if approved.⁷⁸ Both sets of parties, in other words, were hoping to extract something of benefit from their participation in the proceeding. Below, we analyze public versions of their filings to assess the nature of the "rents" being sought by those opposing the VZW-SpectrumCo transaction. We take no position on the net societal benefits of the transaction; the purpose of this section is to describe the position of petitioners and to summarize the outcome of their efforts.

A. The Competitors

As shown in Table 4, six competitors, or competitor trade associations, filed petitions to deny. A review of the competitor filings shows that each petitioner's primary concern was that the transaction would make VZW a more efficient competitor, and thus place them (as competitors) at a disadvantage. Each of the competitive petitioners, in other words, begged the Commission to protect them from what they acknowledged—implicitly and sometimes even explicitly—to be an efficiency-enhancing transaction.⁷⁹ Moreover, all but one of the petitioners—T-Mobile—asked for specific conditions to be attached to approval, and three of these five are "repeat conditioners," meaning they previously filed petitions to deny and demanded conditions in one or more of the secondary market transactions listed in Table 1.⁸⁰

We begin with T-Mobile, which filed the most extensive petition to deny and reply comments, complete with expert and reply declarations by two economists, as well as multiple follow-up ex parte presentations.⁸¹ While T-Mobile did not formally propose conditions, it did advance a clear and unambiguously self-serving objective. The company sought to have the Commission deny the transfer so that it could purchase the spectrum from

80. See, e.g., sources cited infra notes 81, 89, 95, 97, 98, 110.

^{76.} See Search for Petitions to Deny in WT Docket No. 12-4, FCC, http://apps.fcc.gov/ecfs/comment_search/ (enter '12-4' in 'Proceeding Number' and select 'Petition' from 'Type of Filing') (last visited July 8, 2013).

^{77.} See 47 U.S.C. § 309(d)(1) (2012).

^{78.} See supra Table 2; see also Information Age Economics Petition, supra note 75.

^{79.} Of course, each petitioner cloaks its claims in the argument that it is necessary to protect them, as competitors, in order to preserve competition.

^{81.} See Petition to Deny of T-Mobile USA, Inc., App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012) [hereinafter T-Mobile Petition]; Reply to Opposition to Petition to Deny of T-Mobile, USA, Inc., App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent To Assign Licenses & App'n of Cellco P'ship d/b/a Verizon Wireless & Cox TMI Wireless, LLC, for Consent to Assign Licenses, WT Docket No. 12-4 (filed Mar. 26, 2012) [hereinafter T-Mobile Reply].

SpectrumCo at a lower price.⁸² Thus, while T-Mobile never formally sought "divestiture," its declared purpose was to cancel the transaction and thus force the spectrum back onto the market. T-Mobile later withdrew its opposition upon its own acquisition of spectrum from Verizon (discussed below).⁸³

T-Mobile was hardly the only party pleading in self-interest. The Rural Telecommunications Group ("RTG"), for example, argued that the transaction should be denied because it would "make it harder for *rural carriers* to properly compete."⁸⁴ RCA, formerly the Rural Carriers Association, now the Competitive Carriers Association, complained of "the substantial harms that will accrue *to competitive carriers* if the Transactions are allowed to proceed."⁸⁵ Like T-Mobile, both groups cast their arguments in public interest terms, arguing in part that there would be few, if any, efficiency benefits from the transaction.⁸⁶ On the other hand, NTCH, Inc., a Tier III wireless carrier, which competes with Verizon in a handful of markets,⁸⁷ argued the transaction should be disapproved precisely because of its efficiency benefits:

Verizon devotes the lion's share of its Opposition to demonstrating that it needs additional spectrum to grow bigger and to operate more efficiently . . . These arguments show conclusively that Verizon doesn't get it: no one disputes these points because they are true, and *that is precisely what makes these deals objectionable.*⁸⁸

^{82.} See T-Mobile Petition, supra note 81; T-Mobile Reply, supra note 81.

^{83.} Jon Brodkin, *T-Mobile Likely to End Attempt to Block Verizon Spectrum Purchase*, ARS TECHNICA (June 25, 2012), http://arstechnica.com/information-technology/2012/06/t-mobile-likely-to-end-attempt-to-block-verizon-spectrum-purchase/.

^{84.} Petition to Deny of the Rural Telecomms. Grp., Inc. at i, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses & App'n of Cellco P'ship d/b/a Verizon Wireless & Cox TMI Wireless, LLC, for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012) [hereinafter RTG Petition] (emphasis added).

^{85.} Petition to Condition or Otherwise Deny Transactions of RCA–The Competitive Carriers Ass'n at 2, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses & App'n of Cellco P'ship d/b/a Verizon Wireless & Cox TMI Wireless, LLC, for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012) [hereinafter RCA Petition] (emphasis added).

^{86.} See RTG Petition, supra note 84; RCA Petition, supra note 85.

^{87.} See Petition for Reconsideration of NTCH at 9, App'ns of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC & Cox TMI, LLC for Consent to Assign AAWS-1 Licenses, WT Docket No. 12-4 (filed Sept. 24, 2012).

^{88.} Reply of NTCH, Inc. at 1-2, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses & App'n of Cellco P'ship d/b/a Verizon Wireless & Cox TMI Wireless, LLC, for Consent to Assign Licenses, WT Docket No. 12-4 (filed Mar. 26, 2012) (emphasis added). In a clear case of rhetorical intemperance, even by the standards of modern political advocacy, NTCH goes on to compare VZW to Nazi Germany:

As noted above, all of the competitive petitioners, except T-Mobile, demanded that if the Commission did approve the transaction, it should apply one or more conditions.⁸⁹ RCA's list was the most comprehensive:

RCA recommends that the Commission impose the following conditions on any grant of the proposed Transactions: (1) substantial divestitures of un- or under-used LTE-ready, currently usable spectrum *to existing operating carriers*; (2) Verizon must offer voice and data roaming rates at least as favorable to those provided to the Cable Companies under the reseller agreements; (3) an interoperability requirement for Verizon handsets operating in the 700 MHz and AWS bands; and (4) conditions to ensure that the market for special access is not further constrained.⁹⁰

As explained above, all of these conditions would have the effect of benefitting RCA's member carriers. Indeed, RCA took care to ask that any conditions imposed by the Commission were crafted so as to benefit its members specifically, by asking that the Commission require divestitures only for "existing operating carriers," thereby excluding new entrants, and require the roaming rates offered to RCA members satisfy a "most-favored nation" clause.⁹¹

In Verizon's view, what is good for Verizon is presumptively good for the public. To see the fallacy in this approach, we need only recall that pre-World War II Germany's annexation of all surrounding German-speaking territories permitted it to operate more efficiently, unified the German Volk, eliminated artificial boundaries, and gave Germany access to additional resources needed to fuel its further growth. By that measure, the policy of Anschluss made perfect sense. The problem is that it was disastrous for the rest of Europe that had to suffer the consequences of this new and improved German Reich.

Id. at 2.

^{89.} In addition to the competing petitioners discussed below, Hawaiian Telecom ("HT") asked the Commission to deny the application or condition it on excluding Hawaii from the joint marketing agreements, or delaying their implementation there, on the grounds that HT would be harmed by the more robust competition the joint marketing agreements would produce in wireline services. *See* Hawaiian Telecom Comm., Inc. Petition to Deny or Condition Assignment of Licenses at 14-15, App'n of Cellco P'ship d/b/a Verizon Wireless & Spectrum Co LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012).

^{90.} Reply to Opposition to Petition to Condition or Otherwise Deny Transactions of RCA–The Competitive Carriers Association at 35, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Mar. 26, 2012) (emphasis added).

^{91.} See id. at 35, 38 ("Consequently, at an *absolute minimum*, Verizon must offer the following reseller rates, offered to the Cable Companies, as roaming rates to any facilities-based provider." (followed by a listing of specific prices)).

RCA's ongoing efforts to secure various regulatory benefits for its members illustrate the extended, "repeat play" nature of rent-seeking in this environment. This aspect of the process also helps to explain another of RCA's concerns with the transaction, which is that the four SpectrumCo companies "at one time were important allies for competitive carriers."92 Indeed, as recently as 2011, Cox held a seat on RCA's board of directors, but by mid-April 2012 it seems to have resigned,⁹³ thus presumably costing RCA both financially and in terms of its perceived influence with policymakers. On the other hand, RCA gained an important ally when, roughly two weeks before reply comments in the VZW-SpectrumCo transaction were due, T-Mobile became a new member of their association.⁹⁴ To be clear, we do not mean to suggest there is anything nefarious or improper about these shifting memberships and alliances, which are to be expected as markets shift and interests converge and diverge over time. Our point is simply that the process is clearly a political one, in which the public interest surely plays a role, but advocacy and alliances-i.e., the stuff of rent-seeking-are also present.

B. The Ideological Opponents

Thirteen ideological interest groups submitted petitions to deny VZW's applications, with nine of them filing jointly in a petition led by Public Knowledge.⁹⁵ Others include the Diogenes Telecommunications Project, Free Press, the New Jersey Division of Rate Counsel, and the Rural Broadband Policy Group, itself an alliance of seven mostly-rural organizations.⁹⁶ Eight of these thirteen petitioners are "repeat filers" who have filed petitions to deny in at least one of the previous proceedings identified in Table 1.⁹⁷

96. See supra Table 4.

^{92.} Id. at 8.

^{93.} See Press Release, Competitive Carriers Ass'n, CCA Elects 2011/2012 Board of Directors (Apr. 19, 2011), available at http://rca-usa.org/press/rca-press-releases/rca-elects-20112012-board-of-directors/914748; see also 2012/2013 CCA Board of Directors, COMPETITIVE CARRIERS ASS'N, http://rca-usa.org/about/board-of-directors/2011-2012/91201 (last visited Mar. 25, 2013).

^{94.} See Phil Goldstein, *T-Mobile Joins RCA, Bolstering Rural Carrier Group's Ranks*, FIERCEWIRELESS (Mar. 13, 2012), http://www.fiercewireless.com/story/t-mobile-joins-rca-bolstering-rural-carrier-groups-ranks/2012-03-13.

^{95.} See supra Table 4; Petition to Deny of Pub. Knowledge, Media Access Project, New Am. Found. Open Tech. Initiative, Benton Found., Access Humboldt, Ctr. for Rural Strategies, Future of Music Coal., Nat'l Consumer Law Ctr., on Behalf of Its Low-Income Clients, & Writers Guild of Am., W., App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012) [hereinafter Public Knowledge Petition].

^{97.} See, e.g., Petition to Deny of Free Press at 8, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012) [hereinafter Free Press Petition] ("Free Press has participated in numerous merger proceedings before the Federal Communications Commission. In each, Free Press

As noted above, nothing in public choice theory suggests that the "Baptists" in the Baptists and Bootleggers model are anything less than sincere, and we have no reason to doubt the sincerity of the opposing petitioners in this case. When, for example, the Rural Broadband Policy Group states that "[i]nstead of depending on big corporations, RBPG supports decisions that encourage local ownership; support communitybased broadband networks; and invest in the sustainable future of our communities," ⁹⁸ we believe this accurately states the group's motivations. Similarly, Free Press' criticism of the Commission's "long legacy of failing to adequate [sic] encourage and promote competition within and between the wireless and wireline markets," wherein "[m]erger after merger and license transfer after license transfer were approved,"99 resulting in an "accelerating slide towards monopoly"¹⁰⁰ is surely heartfelt, even if we disagree with it as a matter of analysis. Public Knowledge et al. undoubtedly believe that the transaction would aggravate "existing anticompetitive problems with spectrum aggregation."¹⁰¹

Whereas the competitive petitioners seek regulatory conditions to improve their competitive positions, the ideological opponents view rejection of VZW's proposal as a step towards establishing a precedent for increased regulatory scrutiny in general. As Free Press puts it, there is "no reason this pattern of poorly protecting the public interest has to continue," if the Commission will only "[get] serious about the competition crisis," beginning with rejecting the transaction,¹⁰² and continuing with the articulation of a "vision for competition." According to Free Press, "[c]onditions are not the same as comprehensive competition policy, and it is far past time for the Commission to articulate its vision for competition, and put actions to its words."

Similarly, in their reply comments, Public Knowledge and its cofilers presented a lengthy discussion of the Commission's authority to regulate spectrum allocation in general and to deny or condition approval of secondary market transactions (including VZW-SpectrumCo) in

99. Free Press Petition, *supra* note 97, at 52-53.

100. See id. at 52.

102. Free Press Petition, supra note 97, at 52-53.

has advocated for policies that promote competition and serve in the public interest. As such, Free Press constitutes a 'party in interest' within the meaning of Section 309(d) of the Communications Act of 1934, as amended, and has standing to participate in this proceeding.").

^{98.} Petition to Deny of Members of the Rural Broadband Policy Grp.: Ctr. for Rural Strategies, Access Humboldt, Virginia Rural Health Ass'n, Virginia Rural Health Res. Ctr. Highlander Research & Educ. Ctr., Main St. Project, & P'ship of African Am. Churches at 4, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 21, 2012).

^{101.} Public Knowledge Petition, supra note 95, at 2.

^{103.} Reply to Opposition of Free Press at 3, App'ns of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo. LLA & Cox TMI Wireless, LLC for Consent to Assign Wireless Licenses, WT Docket No. 12-4 (filed Mar. 26, 2012).

particular.¹⁰⁴ The ideological opponents, in other words, saw regulation as an end in itself and denial of (or imposition of conditions on) the application as a step towards that objective. With respect to specific conditions, Public Knowledge et al. offered a series of proposals. These included roaming obligations;¹⁰⁵ "a tight schedule for deployment" with "use it or share it" provisions that would obligate VZW to make undeployed spectrum available to competitors at "reasonable rates;"¹⁰⁶ provisions to force VZW to allow unlicensed use of its spectrum by others while its own buildout is in process;¹⁰⁷ and an equipment interoperability mandate.¹⁰⁸ As is evident from Table 4, these conditions tracked closely with those advanced by the competitors.

More broadly, all of the petitions to deny were consistent with the competitors' universal desire to have the transaction stopped and the spectrum, one way or another, ultimately put in the hands of someone other than VZW.¹⁰⁹ The New Jersey Division of Rate Counsel, for example, argued specifically for re-auctioning the spectrum to a new owner, a position that coincided perfectly with T-Mobile's:

Spectrum is a public asset: rather than allow cable companies to benefit from having hoarded spectrum since 2006, the FCC should require them to return the spectrum to the FCC (with compensation to the cable companies based on the price they originally paid through the auction, with interest, plus reasonable compensation for their investment in clearing microwave links and testing) to be re-auctioned on an expedited basis.¹¹⁰

Thus, despite the fact that the ideological opponents' motives differed from those of the competitors, each group sought to gain something from its intervention in the review, and, at the end of the day the proposed remedies—disapprove the transaction, or impose regulatory conditions upon it—were essentially the same. Moreover, the net effects of their rent-seeking activities on the process itself were ultimately identical.

^{104.} Reply Comments of Pub. Knowledge, Media Access Project, New Am. Found. Open Tech. Initiative, Access Humboldt, Benton Found., & Nat'l Consumer Law Ctr., on Behalf of Its Low-Income Clients at 25-35, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Mar. 26, 2012).

^{105.} Public Knowledge Petition, supra note 95, at 48.

^{106.} Id. at 49.

^{107.} Id. at 50.

^{108.} Id. at 53.

^{109.} Free Press Petition, *supra* note 97, at 53 ("[T]he Commission has no choice but to tell Verizon no.").

^{110.} Petition to Deny of New Jersey Div. of Rate Counsel at v, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (filed Feb. 17, 2012).

C. The Aftermath

In May 2012, the Commission granted opponents' petitions to suspend its self-imposed 180-day "shot-clock" to approve or disapprove the transaction,¹¹¹ and announced that its review would not be complete before August 7—233 days from the date when the initial filing was made.¹¹² The extensions were justified on the basis of the need to allow review—by both competitors and ideological opponents of the transaction—of thousands of pages of confidential documents provided by Verizon and the other applicants.¹¹³ In the meantime, the commercial and ideological opponents of the deal formally joined forces, forming a new lobbying group called the "Alliance for Broadband Competition," whose members included T-Mobile USA, RCA, and Public Knowledge.¹¹⁴ This move seemed to blur, if not obliterate completely, the lines between self-interested and principled opposition.

In August 2012, the Commission issued an Order approving the with conditions.¹¹⁵ The Verizon-Spectrum Co transaction, VZW-SpectrumCo Order concluded that "absent mitigating measures, the acquisition . . . would be substantially likely to result in certain public interest harms through foreclosure or raising of rivals' costs, and that the associated benefits would be insufficient to determine on balance that the transaction as proposed was in the public interest."¹¹⁶ The Commission noted that in June 2012, Verizon Wireless had "reached an agreement with T-Mobile to, among other things, assign a significant number of AWS-1 licenses from Verizon Wireless to T-Mobile, including a number of licenses that Verizon Wireless was proposing to acquire from SpectrumCo. Cox, and Leap."117 The Commission also noted that VZW "filed a letter offering certain commitments with respect to the provision of roaming service and to the aggressive buildout of the AWS-1 licenses it would acquire in these pending transactions."¹¹⁸ The Commission concluded that

^{111.} Letter from Rick Kaplan, Chief, Wireless Telecomms. Bureau, to Michael Samsock, Cellco P'ship dba Verizon Wireless, et al. (May 1, 2012) [hereinafter Kaplan Letter], *available at* http://apps.fcc.gov/ecfs/document/view?id=7021917354.

^{112.} See Marguerite Reardon, Verizon Likely to Divest Wireless Spectrum to Get Cable Deal OK, CNET (May 25, 2012) http://news.cnet.com/8301-1035_3-57441306-94/verizon-likely-to-divest-wireless-spectrum-to-get-cable-deal-ok/.

^{113.} See Kaplan Letter, supra note 111.

^{114.} See Phil Goldstein, *T-Mobile, RCA Join Forces to Stop Verizon's Cable Deals*, FIERCEWIRELESS (May 14, 2012), http://www.fiercewireless.com/story/t-mobile-rca-join-forces-stop-verizons-cable-deals/2012-05-14.

^{115.} App'ns of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC & Cox TMI, LLC for Consent to Assign AWS-1 Licenses, *Memorandum Opinion and Order and Declaratory Ruling*, FCC 12-95, para. 17 (2012), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-12-95A1.pdf.

^{116.} *Id.* at para. 2.

^{117.} Id. at para. 4.

^{118.} Id.

the divestiture and the voluntary commitments would "mitigate the spectrum concentration harms."¹¹⁹ According to a February 2012 study by Deutsche Bank, absent any divestiture, VZW's share of all spectrum holdings, whether in use or not, would have increased from 15% to 19% with the acquisition of SpectrumCo's and Cox's spectrum.¹²⁰

On the date of the *VZW-SpectrumCo Order*, the Commission concurrently issued a news release that described the divestiture to T-Mobile as "unprecedented."¹²¹ While it is not clear what the FCC intended to convey with this language, there appears to be no prior instance in which any designated petitioner was able to secure spectrum *before* the FCC conditionally approved a transaction. While divestitures may represent an appropriate remedy in the abstract, divested assets should not be awarded to designated petitioners during the petitioning process; rather, they should be sold to whoever can put them to the highest alternative use pursuant to a consent order that closes the agency's review. The FCC's unbounded ability to extract merger-related concessions on behalf of petitioning parties has arguably reached a peak. In the following section, we provide remedies that would curtail this agency's ability to distribute merger-related rents and redirect competitors' energies to more productive activities.

IV. THE COSTS OF RENT-SEEKING AND RECOMMENDATIONS FOR REFORM

Rent-seeking imposes costs. At a minimum, it uses up resources in what is, at best, a zero-sum battle for government largesse. As noted above, the amounts wasted in this way are not trivial. Often, however, the costs associated with rent-seeking go well beyond the direct costs of participating in the process. In the context of the secondary markets for spectrum, rent-seeking imposes delays, increases uncertainty, raises the likelihood of regulatory error, and discourages, or even prevents, welfareenhancing transactions from taking place. In short, it defeats the purposes of creating secondary markets in the first place.

In this section, we briefly detail the costs of rent-seeking in secondary spectrum markets and suggest some reforms designed to improve the process. Before beginning, we want to note that we are not naïve regarding the role of politics in markets. The fact that firms attempt to use the regulatory process to advance their objectives or make life difficult for competitors is not news; and, absent the complete elimination

^{119.} Id.

^{120.} SCOTT WALLSTEN, COMMENTS ON THE VERIZON-SPECTRUMCO DEAL 5 (2010) (citing Brett Feldman, Key Updates on Major Spectrum Deals (2012)).

^{121.} Press Release, FCC, FCC Concludes Review of Verizon Wireless-SpectrumCo Deal and Approves Related Spectrum Transactions (Aug. 23, 2012) (on file with author) ("To address staff concerns regarding spectrum concentration, Verizon Wireless undertook an *unprecedented* divestiture of spectrum to a competitor, T-Mobile.") (emphasis added).

of regulation, such activities will always play a role in the relationship between business and government. Similarly, ideological groups of all stripes will continue to petition for the adoption of policies they believe serve the public interest and in doing so will, intentionally or otherwise, find themselves in league with the private firms that stand to benefit from the same policies. Rent-seeking, in other words, is not going to end anytime soon; there will always be "Baptists" and "Bootleggers."

Nonetheless, it is important to recognize that rent-seeking has costs, and that sound public policy requires reducing those costs as much as possible.

A. The Costs of Rent-Seeking in Secondary Spectrum Markets

Based on our analysis of the nineteen major transactions discussed in this paper (the eighteen in Table 1 plus VZW-SpectrumCo), we identify three specific categories of costs associated with rent-seeking in secondary spectrum markets: direct costs, costs of delay, and increased regulatory risk.

The most obvious form of direct costs are the costs of participation in year-long regulatory proceedings that not only involve hundreds, sometimes thousands, of filings at the FCC but often spill over into full-fledged lobbying campaigns complete with advertising, grass roots activities, and Congressional hearings.¹²² Another direct cost is the requirement that applicants reveal sensitive competitive information.¹²³ It is increasingly commonplace for the FCC to demand such information, and to allow all participants in a proceeding access to the information, subject to a protective order.¹²⁴ While the protective orders are designed to limit viewing of this information to attorneys and others not engaged in developing competitors' business strategies, the applications process might result in the release of firms' competitive secrets to third parties. Further, it is clear that third parties value having such information as they often expend resources demanding it.¹²⁵ While these direct costs are difficult to quantify, they are certainly non-trivial.

^{122.} Brito, supra note 17, at 62.

^{123.} See generally Thomas W. Hazlett, The Wireless Craze, the Unlimited Bandwidth Myth, the Spectrum Auction Faux Pas, and the Punchline to Ronald Coase's "Big Joke": An Essay on Airwave Allocation Policy, 14 HARV. J.L. & TECH. 335 (2001).

^{124.} See, e.g., App'ns of Deutsche Telekom AG, T-Mobile USA, Inc. & MetroPCS Comm., Inc. for Consent to Assign or Transfer Control of Licenses & Authorizations, Second Protective Order, DA 12-1665, para. 1 (2012), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-12-1665A1.pdf.

^{125.} See, e.g., MetroPCS Comm., Inc. Reply to Joint Opposition to Petitions to Deny & Comments at 2-3, App'n of Cellco P'ship d/b/a Verizon Wireless & SpectrumCo LLC for Consent to Assign Licenses, WT Docket No. 12-4 (rel. Mar. 26, 2012) ("MetroPCS urged the Commission . . . to require the Applicants to provide a market-by-market analysis of (1) the amount of spectrum Verizon Wireless holds in each geographic area; (2) the precise extent to which the spectrum has been placed in commercial service to serve independent

The second type of cost imposed by rent-seeking is delay, which can be quite expensive. Kwerel and Felker estimate the cost to the applicants of a year's delay at 9% of the value of the transaction.¹²⁶ In addition, as explained by Hazlett and Munoz, the annual increase in consumer surplus from deployment of additional spectrum is approximately equal to the total value of the spectrum to producers.¹²⁷ Thus, the lost consumer surplus from delays is substantially greater than the private costs with the annual loss of consumer surplus equal to roughly the transaction's price. Based on these metrics, we calculated the costs of delay for each of the seventeen completed transactions shown in Table 1, where we measured delay as the actual duration of each review less the duration of the shortest review (eighty-eight days, for the AT&T-Aloha transaction).¹²⁸ As shown in Table 5, the private costs of delay for the seventeen transactions as a group are over \$8.2 billion, while the lost consumer surplus from the delayed transactions adds another \$1.5 billion.¹²⁹ These are significant costs by any standard

subscribers; and (3) the nature of the service provided and the utilization as shown in traffic studies. In essence, the Commission has accepted the MetroPCS position by seeking detailed information from the Applicants precisely along the lines recommended by MetroPCS in the FCC Discovery.").

^{126.} See Kwerel & Felker, supra note 24, at 11-12.

^{127.} See, e.g., Thomas W. Hazlett & Roberto E. Muñoz, A Welfare Analysis of Spectrum Allocation Policies, 40 RAND J. ECON. 424 (2009); see also Gregory L. Rosston, The Long and Winding Road: The FCC Paves the Path with Good Intentions, 27 TELECOMMS. POL'Y 501, 513 (2003); Jerry A. Hausman, Valuing the Effect of Regulation on New Services in Telecommunications, 1997 BROOKINGS PAPERS: MICROECONOMICS 1 (1997).

^{128.} We excluded AT&T–T-Mobile on the grounds that the FCC determined that the transaction was not in the public interest, though we do not share that view. In addition, we recognize that some might argue that our calculations assume that extended FCC reviews of these transactions produced no countervailing benefits, e.g., in the form of welfare-enhancing conditions. We are not aware of any evidence that lengthier reviews produce superior outcomes in this sense; indeed, to the extent (as we discuss below) that the duration of reviews is extended by rent-seeking, we believe it likely that any resulting conditions reduce rather than increase consumer welfare.

^{129.} We treat the spectrum transferred in AT&T–Qualcomm as unused since it is being used to provide a commercially unsuccessful (and sparsely utilized) service.

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		Cost of Delay to	Lost Consumer Surplus from Delayed
Transaction	Delay	Transacting Parties	Deployment
Cingular - Nextwave Telecom	50	\$17,260	\$191,781
Cingular - AT&T	130	\$1,314,247	-
Alltel - Western Wireless	80	\$118,356	-
Sprint - Nextel	88	\$1,518,904	-
Alltel - Midwest Wireless	216	\$57,255	-
AT&T - Bellsouth	185	\$3,923,014	-
Atlantis - Alltel	35	\$237,329	-
AT&T - Dobson	41	\$28,307	-
T-Mobile - SunCom	42	\$24,855	-
Verizon Wireless - Alltel	59	\$408,797	-
AT&T - Aloha	0	-	-
Clearwire - Sprint-Nextel	63	\$51,263	-
Verizon Wireless - Rural Cellular	243	\$159,981	-
AT&T - Centennial	261	\$60,817	-
AT&T - Verizon Wireless	308	\$178,471	-
ATN - Verizon Wireless	220	\$10,849	-
AT&T - Qualcomm	255	\$121,352	\$1,348,356
Total	134	\$8,231,056	\$1,540,137

Table 5: Costs of Delays in Reviewing Major Spectrum Transactions, 2004-2011¹³⁰

Of course, these costs can be attributed to rent-seeking only to the extent that rent-seeking is the cause of the delays. Intuitively, we would expect not only that greater opposition would result in lengthier reviews, but that the inherent complexity of the transaction (measured, perhaps, by the transaction's value) might also play a role. To test these hypotheses, we analyzed the statistical correlation between the duration of regulatory review and four other transaction; (2) the number of petitions for denial; (3) the total number of public filings; and (4) the number of distinct conditions demanded by petitioners.¹³¹

Of these four characteristics, the only one showing a strong correlation was the number of distinct conditions demanded by the petitioning parties, with a correlation coefficient of 0.5, which was statistically significant at a 95% confidence interval.¹³² We also utilized a simple ordinary least squares regression to assess the relationship between the number of conditions demanded and the duration of review, and found that the coefficient on conditions demanded was positive and significant at a 95% confidence level. Moreover, the magnitude of the regression coefficient indicates that each additional condition demanded adds

^{130.} The delay was calculated based on the date of the Commission's Final Order, less the date of the assignment application filing and the 88 day shortest review. See *supra* Table 2 and the search described in *Electronic Comment Filing System*, *supra* note 63, for this data.

^{131.} Again, we did not include AT&T–T-Mobile, in this case because the duration of review was truncated with AT&T's decision to withdraw its application.

^{132.} None of the other correlations exceeded 0.15, and none were statistically significant at any meaningful level.

seventeen days to the duration of review. While there is some risk in overinterpreting these results, it is worth noting that the average number of conditions requested is 3.1, suggesting that this factor adds roughly fifty-three days to the average review, or about 40% of the average delay of 134 days.

We interpret these results as demonstrating that rent-seeking, as proxied by the number of distinct conditions opposing petitioners seek to have applied to a transaction, contributes significantly to the delay in obtaining approval of secondary market spectrum transactions.

The third and final category of costs imposed by rent-seeking is increased risk, which can be thought of as taking two distinct forms. First, there is the risk to the applicants that a transaction will be *unexpectedly* delayed, saddled with costly conditions, or even disapproved. We emphasize the word "unexpectedly" here to distinguish between predictable and unpredictable costs of a transaction. As the Commission explained in the *First Report and Order*,

We note that to the extent we can create more certainty for the parties involved in transactions, we are more likely to promote efficient secondary markets. We believe we can best promote certainty for parties negotiating spectrum lease agreements by establishing clearly defined rules and benchmarks for what will and will not be permitted, consistent with our competition policies and public interest requirements.¹³³

As noted above, rent-seeking detracts from the ability of spectrum market participants to have certainty about the timing and conditions under which transactions can take place. For example, when the Commission seriously entertains pleas to alter the spectrum screen—and thus the very nature of its review—during the course of a transaction, it adds to the uncertainty faced by all future applicants.

The second form of risk that is increased by rent-seeking is the risk of regulatory error, i.e., that the Commission will impose welfaredestroying conditions, or even disapprove a transaction that, in fact, serves the public interest. As Koutsky and Spiwak note, the risk of regulatory error through the imposition of conditions on specific transactions is almost surely higher than if the same policies were deliberated through the regular order of the rulemaking process:

The merger condition drafting and adoption process ... often occurs in negotiations between the FCC and the merging entities with very little opportunity for public input and review. Are consumers really well-served by backroom,

^{133.} First Report and Order, supra note 34, at para. 257.

closed-door negotiations between the regulator and prospective merging parties over important public issues?¹³⁴

The propensity for administrative decision-making to lead to inefficient outcomes in spectrum allocation procedures is partly a function of the incentives and behaviors of administrative agencies. As Robinson explained in his 1985 history of administrative allocation,

With very few exceptions, Commission policy has been to provide some spectrum for all proposed radio services rather than attempt to optimize the value of scarce spectrum resources. This is in part simply a natural consequence of bureaucratic organization. Bureaucrats . . . will seek to avoid resolving issues in ways that lead to complaints by interested factions. This leads to a "something-for-everybody" system of allocation, even though it is by no means clear that this type of allocation actually maximizes the value of scarce spectrum rights to society.¹³⁵

Accordingly, in the context of the secondary market reviews considered here, the "something-for-everybody" phenomenon likely results in a proclivity for granting conditions—a roaming mandate, an interoperability requirement, a strategic divestiture—that cannot easily be justified on consumer welfare grounds, but serve to reduce complaints by "interested factions."

While it is not possible to quantify the total direct and indirect costs associated with rent-seeking, the evidence presented above leaves little doubt that they are significant and growing. By raising the costs of transactions, rent-seeking drives a wedge between prospective buyers and sellers, functioning in effect as a transactions tax, reducing the number and magnitude of presumptively welfare-enhancing trade that occurs and ultimately lowering the value of the underlying commodity.¹³⁶

B. Proposals for Reform

While rent-seeking cannot be eliminated entirely, it can be reduced. Here we offer a few thoughts on how to do so. Our preferred outcome would be for Congress to limit directly or indirectly the FCC's discretion to

^{134.} Koutsky & Spiwak, supra note 26, at 346.

^{135.} Robinson, *supra* note 22, at 79.

^{136.} For other types of costs, see T. RANDOLPH BEARD ET AL., TAXATION BY CONDITION: SPECTRUM REPURPOSING AT THE FCC AND THE PROLONGING OF SPECTRUM EXHAUST 4 (2012) ("[T] axation by condition will discourage the larger scale transactions necessary to resolve spectrum exhaust") (emphasis added) (internal quotation marks omitted).

review secondary market transactions under the public interest standard.¹³⁷ The allure of reassigning merger-related rents is so strong that we are skeptical that reform can ever be achieved from within the agency. Congress could directly limit the FCC's discretion by assigning all merger-related reviews of wireless transactions to an antitrust agency. A more modest step would be for Congress to clarify the criteria under which parties are permitted to file petitions to deny spectrum transactions by replacing the section 309(d) "person in interest" criterion, which requires petitioners to show private harm,¹³⁸ with a consumer welfare criterion that requires petitioners to present specific allegations of fact, and clear and convincing evidence, that the approval of the transaction would harm *consumer* welfare.

Alternatively, in lieu of Congressional intervention, we propose three specific steps that the Commission could embrace on its own. First, the Commission can and should consider changing the criteria under which spectrum transactions enjoy presumptive, fast-track approval, thereby raising the costs of attempting to block or condition a transaction to potential rent-seekers. Most obviously, the Commission can and should refrain from opening notice and comment proceedings on matters that fail to trigger specific competitive screens. At a minimum, transactions involving divestitures mandated by the Commission under prior Orders (such as ATN-Verizon)¹³⁹ should not be subjected to de novo review.

Second, and relatedly, the Commission should make clear that it will no longer engage in mid-review deliberations on whether to change preannounced review criteria. The current practice of changing the rules after the game has started increases the very type of uncertainty secondary markets are designed to reduce, creates incentives for rent-seekers to try to raise the bar on specific transactions, and forces deliberations on what are inherently policy issues into transaction-specific proceedings, where they are more likely to be decided incorrectly.

Third, the Commission should recognize that its reviews of spectrum allocation transactions are a game with repeated plays. That means what it does in one review affects the behavior of other players in the future. Specifically, each time the Commission applies a condition in one transaction, or even considers doing so,¹⁴⁰ it raises the expected returns to

^{137.} For an elaboration of this position, see ROBERT E. LITAN & HAL J. SINGER, THE NEED FOR SPEED: A NEW FRAMEWORK FOR TELECOMMUNICATIONS POLICY FOR THE 21ST CENTURY (2013).

^{138.} See 47 U.S.C. § 309(d) (2012).

^{139.} See, e.g., App'ns of Atl. Tele-Network, Inc. and Cellco P'ship d/b/a Verizon Wireless for Consent to Assign or Transfer Control of Licenses or Authorizations, *Memorandum Order and Opinion*, DA 10-661, at paras. 46-59 (2010), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-661A1.pdf.

^{140.} For example, RCA justifies its demand for mandated roaming in VZW-SpectrumCo in part on the Commission's willingness to consider such a condition in AT&T-Qualcomm. *See* RCA Petition, *supra* note 85, at 56 ("Notably, the Commission was

rent-seekers in all future transactions and ultimately increases instances of rent-seeking behavior. If the Commission fails to deny with prejudice competitors' efforts to get the agency to violate the section 310(d) prohibition on considering the public interest benefits of a transfer to an alternative licensee, it will be inviting future efforts of the same sort and risk turning the review process into de facto comparative hearings.¹⁴¹

V. CONCLUSIONS

It is clear that the objectives of the FCC's decade-old secondary market reform efforts are not being fully realized. Rather than allowing spectrum to flow smoothly to its highest-valued uses, the FCC engages in lengthy and contentious administrative reviews of most major secondary market transactions. As Commissioner Robert McDowell said in a June 2012 speech, the current process has in many respects come to resemble the widely-derided comparative hearings procedures from the 1970s, and before.¹⁴²

In this paper, we demonstrated that the costs of delay and uncertainty associated with rent-seeking in secondary market proceedings runs, at a minimum, into the billions of dollars. The unquantifiable costs of uncertainty and regulatory risk—potentially translating into transactions that are never even proposed, let alone consummated—are likely far larger. Further reform of the FCC's secondary market review process along the lines we have recommended above could significantly reduce these costs, and increasingly allow spectrum to be used more efficiently and allocated to its highest valued use.

willing in the *AT&T/Qualcomm Order* to 'carefully consider whether to impose a roaming condition' on that transaction, due to its nationwide competitive impact. Such careful consideration here requires the Commission to adopt a robust voice and data roaming condition that allows smaller carriers the ability to provide services that are competitive to those services offered by Verizon.").

^{141. 47} U.S.C. § 310(d) (2012).

^{142.} See Robert M. McDowell, Commissioner, FCC, Remarks Before TIA 2012: Inside The Network (June 7, 2012), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0607/DOC-314505A1.pdf ("By working under this unwieldy, time-consuming and unpredictable process, the Commission has essentially relegated the secondary market for spectrum transfers to the comparative hearing model of yore used to award broadcast licenses.").