Senate Judiciary Committee Hearing On
Why Net Neutrality Matters: Protecting Consumers and Competition Through Meaningful Open Internet Rules
September 17, 2014
Questions for the Record from Senator Patrick Leahy

Question for Jeffrey Eisenach

1. You testified that in a paid prioritization world, broadband providers would have an incentive to give startups the lowest cost access. Doesn't that argument ignore the fact that many startups offer products or services that compete with products or services offered by broadband providers?

Answer: No. First, edge providers do not, by definition, offer Internet access services. However, to the extent Internet access providers may offer services that compete with those offered by new entrants, the entrants' rights to compete fairly are protected by the antitrust laws. Net neutrality regulation goes much further, by forcing Internet access providers to provide free services to all edge providers, regardless of whether there is any chance of competition. Second, Internet access providers benefit from the innovative services generated by edge providers of all kinds, including new entrants, while entrants are far more likely to pose a competitive threat to existing edge providers than to the ISPs.

The opinions expressed in this response are my own and do not necessarily represent the views of the American Enterprise Institute or any other organization with which I am affiliated.

Senator Grassley's Written Questions for Senate Judiciary Committee Hearing, "Why Net Neutrality Matters: Protecting Consumers and Competition through Meaningful Open Internet Rules" – September 17, 2014

Questions for Dr. Eisenach

1. Proponents of net neutrality claim that if we want broadband Internet access to operate in a manner that preserves the Internet's open character, then the best approach is to establish that expectation in advance through regulation.
    a. Do you agree with this approach? Will regulation-before-the-fact preserve and promote the Internet's openness better than, let's say, targeting an actual market failure or anti-competitive behavior that has occurred?

Answer: I do not agree that regulation is needed to protect the open nature of the Internet. Indeed, broadband networks have operated without the sort of regulation now being considered from the very beginning – for nearly two decades – and the number of alleged (not necessarily actual) Net Neutrality violations advanced by Net Neutrality advocates can still be counted on one hand.

    b. In a dynamic, ever-changing environment such as the Internet, is there a greater justification for ex ante regulation as compared to ex post enforcement?

Answer: No. Ex ante regulation is especially costly in dynamic markets, where it inhibits the innovation and technological progress which are responsible for improving consumer welfare creating economic growth. Regulations take years – in the case of Net Neutrality, a decade and counting – to put in place, while markets may be transformed in a matter of months. Ex post enforcement of competition principles, on the other hand, has the capacity to adjust as markets change.

2. I asked this question at the hearing, but would like you to give a more detailed response in writing. It has been argued that antitrust analysis is purely a numbers game that doesn't take into account important non-economic values.
    a. Do you agree? Does an antitrust analysis only consider financial and economic values, or can it, in fact, constitute a broader consumer welfare-based analysis that looks at other consumer values?

Answer: Antitrust answer is focused on protecting the competition and, by so doing, enhancing consumer welfare. The underlying values behind antitrust are grounded in the

principles of individual liberty and empowerment: By precluding anticompetitive actions that may create or preserve monopoly power, they ensure that all Americans have an opportunity to enter markets and compete on an equal footing. At the same time, they promote and protect the ability of all citizens to create and market products and services that are valued by their fellow citizens and consumers – without political interference or excessive government control. In the realm of speech, antitrust prevents large and powerful entities from using unfair practices to prevent others from speaking out, while at the same time protecting the rights of all parties (the powerful as well as the weak) to engage in speech-related commerce so long as they do so without engaging in exclusionary or other harmful conduct. To be sure, the antitrust laws are not social policy, and they do not provide a basis for "industrial policy" or legitimize policies that consciously seek to favor one group or business over another. But whatever maybe said in favor of such policies, they cannot in general be promoted as favoring "consumer welfare."

3. It has been claimed that we have had a *de facto* net neutrality policy regime for the past 20 years. Do you agree with this observation? Why or why not?

Answer: The answer to this question depends someone on how one defines "net neutrality policy." It is simply not accurate to suggest that the FCC has had in place regulations that resemble in any meaningful way the regulations now being considered. It is, however, true that the "un-regulatory" policies put in place beginning under the Clinton Administration in the late 1990s have resulted in the most open and empowering communications technology in history, and in that sense have advanced the causes espoused by many Net Neutrality advocates.

4. It has been claimed that the Internet needs "basic rules of the road to ensure that it remains open." Do you agree with this sentiment? Would adopting clear rules provide marketplace certainty and promote investment? If so, what rules specifically should we adopt?

Answer: The basic rules of the road required for the Internet to continue to prosper are contained in the extensive laws and regulations already in place, including the antitrust laws, Section 5 of the Federal Trade Commission Act, and a wide variety of privacy and consumer protection laws and regulations in place at both the Federal and state levels. The "basic rules" being proposed by the FCC, on the other hand, would create the impetus for further regulation, litigation and lobbying activity that lead to tremendous regulatory uncertainty and thereby impede investment and innovation.

5. Some net neutrality proponents argue that without government regulation, certain content providers may be prohibited from getting their content online. Do you agree or disagree with this statement and why?

Answer: There is no basis for concluding that ISPs would discriminate against content providers. Rather, the net neutrality rules would themselves prove to be discriminatory, as the FCC set out to decide which classes of Internet users should be given favorable treatment and which should be discriminated against. The current proposals, for example, prohibit ISPs from charging content providers to use their networks, but place no restrictions on their ability to charge consumers, who as a result would bear the full costs of supporting the network.

6. You testified that free market principles should guide the interactions of a dynamic internet ecosystem. However, another witness testified that there should be an internet market "open to all." Are these two principles compatible under economic theory?

Answer: The "open to all" thesis is a canard. The question is who will pay for what. As described in my response to question 5, under the net neutrality rules as proposed, consumers pay for 100 percent of the network while content and other edge providers are given free access. So, "open to all" means "open to all corporations but only open to consumers for a fee." In a market-driven system, costs are allocated based on the value created and the benefits received by all parties.

7. It has been said that there is a "strong argument that Internet access is a 'telecommunications service'" within the definitions of the Communications Act.
    a. Do you agree with this assertion? Why or why not?

Answer: I am an economist and not an attorney, but it is my opinion that the FCC's decisions finding that the "information service" aspect of Internet access is inseparable from the telecommunications aspect, and therefore that Internet access is not appropriately classified as a telecommunications service, are sound from an economic perspective.

    b. How would classifying Internet access as a Title II "telecommunications service" result in the regulation of the larger Internet ecosystem? Are you concerned that it could possibly ensnare other things like content, applications or edge providers? How could that impact the Internet?

Answer: Yes. Classifying Internet access as a Title II service would risk setting off a free-for-all in which all firms in and around the Internet ecosystem would seek favorable treatment under the resulting rules. Because computing and communications are inextricably interwoven in the modern Internet architecture, and becoming more so, there are no clear boundaries by which to distinguish between "exempt" and "non-exempt" services. The result would be the

politicization of decisions regarding relationships between players in the Internet ecosystem which heretofore have been made through pragmatic, flexible, market-based processes.

8. I've heard concerns that vertical contracts between ISPs and content providers – such as "paid prioritization" agreements and differentiated pricing structures – will only harm consumers and the Internet marketplace overall. It has been claimed that the proposed FCC regulations are necessary to "preserve" the freedom and openness that has until now been a central characteristic of the Internet.
    a. Are these concerns warranted?

Answer: To the extent vertical contracts and pricing structures evolve from market-based negotiations, subject to oversight under the antitrust and consumer protection statutes, they are highly likely to increase consumer choice and improve consumer welfare. Concerns to the contrary are not warranted.

    b. Are there any benefits or efficiencies that consumers will gain from such arrangements?

Answer: Yes. "Zero-rating" or "sponsored data" plans are a specific example. Under such plans, content providers subsidize the ability of "marginal" consumers (those who cannot afford to pay the full costs of mobile data plans) to access online content, such as Facebook or Twitter. Under such plans, content providers pay more and consumers pay less, thus benefiting consumers. From a broader economic perspective, such "competitive price discrimination" increases overall economic efficiency by allowing content providers and ISPs to recoup the fixed costs of providing their services while still offering the most price-sensitive consumers the ability to participate, and offering all consumers the positive "network effects" generated by extending the Internet ecosystem.

Questions for the Record

Sept. 17, 2014 Judiciary Committee Hearing

Senator Lee

For Dr. Eisenach:

1. At the Committee's hearing, you expressed concern that FCC net neutrality regulations might encourage rent-seeking behavior. In particular, you mentioned that the FCC has had a regrettable history of encouraging rent seeking by special interests.

    a. Please elaborate on the FCC's past experience with rent-seeking behavior by regulated parties.

Answer: As Nobel Prize winner Ronald Coates discussed in his 1959 article on "The Federal Communications Commission" (Attachment A), the FCC's ability to allocate broadcast licenses, set prices and determine other economic rights is in effect the power to allocate wealth among private parties. The affected parties react by employing lobbyists, attorneys and others in an effort to turn the Commission's decision in their favor. I describe the history of rent seeking at the FCC in a paper jointly authored with Hal Singer, "Avoiding Rent-Seeking in Secondary Market Spectrum Transactions." (Attachment B.)

    b. Do you believe the proposed net-neutrality regulations could lead to similar problems?

Answer: Yes. By establishing itself as the arbiter of what services can be provided by ISPs to other firms in the Internet ecosystem, and at what prices, the FCC would create powerful incentives for all such firms to engage in rent seeking, that is to seek to expand or contract the Commission's authorities (depending on their self-interests) and to assure that pricing and other regulatory decisions are set in such a way as to contribute to their profitability. Firms which feel they would benefit from the FCC's "non-discrimination" rules will have strong incentives to have them enforced as expansively as possible, including, for example, challenging in court any efforts by the Commission to forbear from or exercise discretion in its use of such authority.

2. Apart from the net-neutrality regulations discussed at the hearing, I would like to ask you about a related subject concerning the future of the Internet: the transition of oversight of the domain name system from the U.S. National Telecommunications and Information Administration to the independent Internet Corporation for Assigned Names and Numbers (ICANN).

    a. A number of groups and individuals have expressed concerns with the Administration's vague announcement that it would not renew its

contract with ICANN—and that ICANN must implement a new mechanism, built on a multi-stakeholder model, that maintains the openness of the Internet. Some of these groups have proposed a minimum set of protections that should be in place before the United States agrees to relinquish its oversight. What protections do you believe ICANN should implement before the United States relinquishes its oversight, and why are such protections necessary?

Answer: The IANA function which is immediately at issue in the transition announced by the Department of Commerce is inherently technical in nature, but the technical outcomes that result from that process have potentially far reaching implications. Heretofore, technical decisions have been made on technical grounds through a transparent process, with the U.S. government serving as a backstop against politicization. Before any changes are made, it is essential for the U.S. government to be assured that whatever new process is put in place is both transparent and insulated from politicization.

b. If the transition is not completed in a thoughtful way, is there any potential for other governments or intergovernmental organizations to hijack the Internet and threaten its openness?

Answer: Yes.

c. In your opinion, assuming adequate protections are in place, will the proposed transition create a more open and freedom-enhancing Internet?

Answer: In my opinion, the effect of the transition depends both on how it is structured and on the going-forward effectiveness of U.S. diplomacy in the Internet space. The fact that the U.S. is in the position of being pressured to divest the IANA function is a signal that we have not been as effective as we would like in persuading the international community of the value of having a strong U.S. role in these issues.

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THE FEDERAL COMMUNICATIONS COMMISSION*

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I. The Development of Government Regulation

In the United States no one may operate a broadcasting station unless he first obtains a license from the Federal Communications Commission. These licenses are not issued automatically but are granted or withheld at the discretion of the Commission, which is thus in a position to choose those who shall operate radio and television stations. How did the Commission come to acquire this power?

About the turn of the century, radio began to be used commercially, mainly for ship-to-shore and ship-to-ship communication.[1] This led to various proposals for legislation. Some of these were concerned with the promotion of

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[1] This short account of the development of radio regulation does not call for extensive documentation, but sources are given for all quotations and in other cases where they might be difficult to identify. I found the following books and the references contained therein particularly helpful: H. P. Warner, Radio and Television Law (1948), and L. F. Schmeckebier, The Federal Radio Commission (1932).

safety at sea, requiring the installation of radio equipment on ships, the employment of skilled operators, and the like. Others, and it is these in which we are interested, were designed to bring about government control of the operations of the industry as a whole.

The reason behind such proposals can be seen from a letter dated March 30, 1910, from the Department of the Navy to the Senate Committee on Commerce, which described, "clearly and succinctly" according to the Committee, the purpose of the bill to regulate radio communication which was then under discussion. The Department of the Navy explained that each radio station

> considers itself independent and claims the right to send forth its electric waves through the ether at any time that it may desire, with the result that there exists in many places a state of chaos. Public business is hindered to the great embarrassment of the Navy Department. Calls of distress from vessels in peril on the sea go unheeded or are drowned out in the etheric bedlam produced by numerous stations all trying to communicate at once. Mischievous and irresponsible operators seem to take great delight in impersonating other stations and in sending out false calls. It is not putting the case too strongly to state that the situation is intolerable, and is continually growing worse.

The letter went on to point out that the Department of the Navy, in cooperation with other Government departments,

> has for years sought the enactment of legislation that would bring some sort of order out of the turbulent condition of radio communication, and while it would favor the passage of a law placing all wireless stations under the control of the Government, at the same time recognizes that such a law passed at the present time might not be acceptable to the people of this country.[2]

The bill to which this letter referred was passed by the Senate but was not acted upon by the House of Representatives. Toward the end of 1911 the same bill was reintroduced in the Senate. A subcommittee concluded that it "bestowed too great powers upon the departments of Government and gave too great privileges to military and naval stations, while it did not accurately define the limitations and conditions under which commercial enterprises could be conducted."[3] In consequence, a substitute bill was introduced, and this secured the approval both of the Senate and of the House of Representatives and became law on August 13, 1912. The Act provided that anyone operating a radio station must have a license issued by the Secretary of Commerce. This license would include details of the ownership and location of the station, the wave length or wave lengths authorized for use, the hours for which the station was licensed for work, etc. Regulations, which could be

[2] S. Rep. No. 659, 61st Cong., 2d Sess. 4 (1910).

[3] S. Rep. No. 698, 62d Cong., 2d Sess. 3 (1912).

waived by the Secretary of Commerce, required the station to designate a normal wave length (which had to be less than 600 or more than 1,600 meters), but the station could use other wave lengths, provided that they were outside the limits already indicated. Amateurs were not to use a wave length exceeding 200 meters. Various other technical requirements were included in the Act. The main difference between the bill introduced in 1910 and the Act as passed was that specific regulations were set out in the Act, whereas originally power had been given to the Secretary of Commerce to make regulations and to prevent interference to "signals relating to vessels in distress or of naval and military stations by private and commercial stations"; power to make regulations was also given to the President.[4]

It was not long before attempts were made to change the law. The proposal that the Secretary of Commerce should have power to make regulations was revived. A bill was even introduced to create a Post Office monopoly of electrical communications. In 1917 and 1918, bills were introduced which would have given control of the radio industry to the Department of the Navy. Indeed, the 1918 bill was described, quite accurately, by Josephus Daniels, the Secretary of the Navy, as one which "would give the Navy Department the ownership, the exclusive ownership, of all wireless communication for commercial purposes." Mr. Daniels explained that radio was "the only method of communication which must be dominated by one power to prevent interference. . . . The question of interference does not come in at all in the matter of cables or telegraphs but only in wireless." Some members of the House Committee to which Mr. Daniels was giving evidence asked whether it would not be sufficient to regulate the hours of operation and the wave lengths used by radio stations, while leaving them in private hands. But Mr. Daniels was not to be moved from his position:

> My judgment is that in this particular method of communication the government ought to have a monopoly, just like it has with the mails—and even more so because other people could carry the mails on trains without interference, but they cannot use the air without interference.

Later Mr. Daniels explained: "There are only two methods of operating the wireless: either by the government or for it to license one corporation—there is no other safe or possible method of operating the wireless." That led one of the Committee to ask: "That is because of the interference in the ether, is it?" Mr. Daniels replied: "There is a certain amount of ether, and you cannot divide it up among the people as they choose to use it; one hand must control it." Later, Commander Hooper, one of Mr. Daniels' advisers, told the Committee:

[4] Mention should also be made of one bill (S. 5630, 62d Cong. [1912]) which gave the task of regulating radio communication to the Interstate Commerce Commission and another (H.R. 23716, 62d Cong. [1912]) which provided for government ownership of wireless telegraphs.

. . . radio, by virtue of the interferences, is a natural monopoly; either the government must exercise that monopoly by owning the stations, or it must place the ownership of these stations in the hands of one concern and let the government keep out of it.[5]

The Navy in 1918 was in a much stronger position to press its claim than in the period before the 1912 Act. It had controlled the radio industry during the war and, as a result of building stations and the acquisition by purchase of certain private stations, owned 111 of the 127 existing American commercial shore stations. Nevertheless, the House Committee does not appear to have been convinced by the Navy Department's argument, and no further action was taken on this bill. Nor was this proposal ever to be raised again. The emergence of the broadcasting industry was to make it impossible in the future to think of the radio industry solely in terms of point-to-point communication and as a matter largely of concern to the Department of the Navy.

The broadcasting industry came into being in the early 1920's. Some broadcasting stations were operating in 1920 and 1921, but a big increase in the number of stations occurred in 1922. On March 1, 1922, there were 60 broadcasting stations in the United States. By November 1, the number was 564.[6] Mr. Herbert Hoover, as Secretary of Commerce, was responsible for the administration of the 1912 Act, and he faced the task of preventing the signals of these new stations from interfering with each other and with those of existing stations. In February, 1922, Mr. Hoover invited representatives of various government departments and of the radio industry to the first Radio Conference. The Conference recommended that the powers of the Secretary of Commerce to control the establishment of radio stations should be strengthened and proposed an allocation of wave bands for the various classes of service. Other conferences followed in 1923, 1924, and 1925.[7] Bills were introduced in Congress embodying the recommendations of these conferences, but none passed into law. The Secretary of Commerce attempted to carry out their recommendations by inserting detailed conditions into the licenses. However, his power to regulate radio stations in this way was destroyed by court decisions interpreting the 1912 Act.

In 1921, Mr. Hoover declined to renew the license of a telegraph company, the Intercity Radio Company, on the ground that its use of any available wave length would interfere with the signals of other stations. The company took legal action, and in February, 1923, a court decision held that the Secretary of Commerce had no discretion to refuse a license.[8] This meant, of course,

[5] Hearings on H.R. 13159, A Bill to Further Regulate Radio Communication, before the House Committee on the Merchant Marine and Fisheries, 65th Cong., 3d Sess. (1918).

[6] See Schmeckebier, op. cit. supra note 1, at 4.

[7] For details of these conferences, see Schmeckebier, op. cit. supra note 1, at 6–12.

[8] Hoover v. Intercity Radio Co., 286 Fed. 1003 (App. D.C., 1923).

that the Secretary had no control over the number of stations that could be established. However, the wording of the court decision seemed to imply that the Secretary had power to choose the wave length which a licensee could use. A later decision was to deny him even this power. In 1925 the Zenith Radio Corporation was assigned the wave length of 332.4 meters, with hours of operation limited from 10:00 to 12:00 P.M. on Thursday and then only when this period was not wanted by the General Electric Company's Denver station. These terms indicate the highly restrictive conditions which Mr. Hoover felt himself obliged to impose at this time. Not unnaturally, the Zenith Company was not happy with what was proposed and, in fact, broadcast on wave lengths and at times not allowed by the license. Criminal proceedings were then taken against the Zenith Company for violation of the 1912 Act. But in a decision rendered in April, 1926, it was held that the Act did not give the Secretary of Commerce power to make regulations and that he was required to issue a license subject only to the regulations in the Act itself.[9] As we have seen, these merely required that the wave length used should be less than 600 or more than 1,600 meters. The decision in the Zenith case appeared in certain respects to be in conflict with that in the Intercity Radio Company case, and the Secretary of Commerce asked the Attorney General for an opinion. His opinion upheld the decision in the Zenith case.[10] This meant that the Secretary of Commerce was compelled to issue licenses to anyone who applied, and the licensees were then free to decide on the power of their station, its hours of operation, and the wave length they would use (outside the limits mentioned in the Act). The period which followed has often been described as one of "chaos in broadcasting." More than two hundred stations were established in the next nine months. These stations used whatever power or wave length they wished, while many of the existing stations ceased to observe the conditions which the Secretary of Commerce had inserted in their licenses.

For a number of years Congress had been studying various proposals for regulating radio communication. The Zenith decision added very considerably to the pressure for new legislation. In July, 1926, as a stop-gap measure designed to prevent licensees establishing property rights in frequencies, the two houses of Congress passed a joint resolution providing that no license should be granted for more than ninety days for a broadcasting station or for more than two years for any other type of station. Furthermore, no one was to be granted a license unless he executed "a waiver of any right or of any claim to any right, as against the United States, to any wave length or to the use of the ether in radio transmission. . . ." This echoed an earlier Senate reso-

[9] United States v. Zenith Radio Corp., 12 F.2d 614 (N.D. Ill., 1926).

[10] 35 Ops. Att'y Gen. 126 (1926). The question was submitted on June 4, 1926, and the opinion rendered on July 8, 1926.

lution (passed in 1925), in which the ether and the use thereof had been declared to be "the inalienable possession of the people of the United States. . . ." When Congress reconvened in December, 1926, the House and Senate quickly agreed on a comprehensive measure for the regulation of the radio industry, which became law in February, 1927.

This Act brought into existence the Federal Radio Commission. The Commission, among other things, was required to classify radio stations, prescribe the nature of the service, assign wave lengths, determine the power and location of the transmitters, regulate the kind of apparatus used, and make regulations to prevent interference. It was provided that those wanting licenses to operate radio stations had to make a written application which was to include such facts as the Commission

> may prescribe as to the citizenship, character, and financial, technical, and other qualifications of the applicant to operate the station; the ownership and location of the proposed station and of the stations, if any, with which it is proposed to communicate; the frequencies or wave lengths and the power desired to be used; the hours of the day or other periods of time during which it is proposed to operate the station; the purposes for which the station is to be used, and such other information as it may require.

The Commission was authorized to issue a license if the "public interest, necessity or convenience would be served" by so doing. Once the license was granted, it could not be transferred to anyone else without the approval of the Commission. And, incorporating the sense of the 1926 joint resolution, licensees were required to sign a waiver of any claim to the use of a wave length or the ether.

The Commission was thus provided with massive powers to regulate the radio industry. But it was prohibited from censoring programs:

> Nothing in this Act shall be understood or construed to give the licensing authority the power of censorship over the radio communications or signals transmitted by any radio station, and no regulation or condition shall be promulgated or fixed by the licensing authority which shall interfere with the right of free speech by means of radio communications.

Nonetheless, the Act did impose some restrictions on a station's programing. Obscene, indecent, or profane language was prohibited. A station was not allowed to rebroadcast programs without the permission of the originating station. The names of people paying for or furnishing programs had to be announced. Finally, it was provided that, if a licensee permitted a legally qualified candidate for public office to broadcast, equal opportunities had to be offered to all other candidates.

The regulatory powers of the Federal Radio Commission did not extend to radio stations operated by the federal government, except when the signals

transmitted did not relate to government business. These government stations were subject to the authority of the President. In fact, the allocation of frequencies for government use was carried out under the auspices of the Interdepartment Radio Advisory Committee, which had originally been formed in 1922 but which continued in existence after the establishment of the Federal Radio Commission.

In 1934 the powers exercised by the Federal Radio Commission were transferred to the Federal Communications Commission, which was also made responsible for the regulation of the telephone and telegraph industries. This change in the administrative machinery made little difference to the relations between the regulatory authority and the radio industry. Indeed, the sections of the 1934 Act dealing with the radio industry very largely reproduced the 1927 Act.[11] Amendments have been made to the 1934 Act from time to time, but these have related mainly to procedural matters, and the main structure has been unaffected.[12] In all essentials, the system as it exists today is that established in 1927.

II. The Clash with the Doctrine of Freedom of the Press

The situation in the American broadcasting industry is not essentially different in character from that which would be found if a commission appointed by the federal government had the task of selecting those who were to be allowed to publish newspapers and periodicals in each city, town, and village of the United States. A proposal to do this would, of course, be rejected out of hand as inconsistent with the doctrine of freedom of the press. But the broadcasting industry is a source of news and opinion of comparable importance with newspapers or books and, in fact, nowadays is commonly included with the press, so far as the doctrine of freedom of the press is concerned. The Commission on Freedom of the Press, under the chairmanship of Mr. Robert M. Hutchins, used the term "press" to include "all means of communicating to the public news and opinions, emotions and beliefs, whether by newspapers, magazines, or books, by radio broadcasts, by television, or by films."[13] Professor Zechariah Chafee had little doubt that the broadcasting industry came

[11] The main difference between these two acts was the insertion in the 1934 Act of two new provisions. One was a prohibition against the advertisement or conduct of lotteries (Section 316, presently Title 18, U.S.C. § 1304). The other required anyone maintaining studios to supply programs (whether by wire or otherwise) for foreign stations which could be heard in the United States to obtain a permit from the Commission (Section 325(b)).

[12] The Davis Amendment of 1928 which directed the Commission to make an equal allocation of broadcasting facilities among five zones of the United States and an equitable distribution, according to population, among the states in each zone was incorporated in the 1934 Act. But in 1936 the original wording of the 1927 Act, which merely required the Commission to make "a fair, efficient and equitable distribution" was reinstated.

[13] The Commission on Freedom of the Press, A Free and Responsible Press 109 (1947).

within the protection of the First Amendment.[14] A dictum in the Supreme Court expressed a similar view: "We have no doubt that moving pictures, like newspapers and radio, are included in the press whose freedom is guaranteed by the First Amendment."[15] Yet, as Mr. Louis G. Caldwell has pointed out, a

> broadcasting station can be put out of existence and its owner deprived of his investment and means of livelihood, for the oral dissemination of language which, if printed in a newspaper, is protected by the First Amendment to the Constitution against exactly the same sort of repression.[16]

In the discussions preceding the formation of the Federal Radio Commission, Mr. Hoover distinguished between two problems: the prevention of interference and the choice of those who would operate the stations:

> . . . the ideal situation, as I view it, would be traffic regulation by Federal Government to the extent of the allotment of wave lengths and control of power and the policing of interference, leaving to each community a large voice in determining who are to occupy the wave lengths assigned to that community.[17]

But, as we have seen, both of these tasks were given to the Federal Radio Commission. Some interpreted the fact that the Commission was denied the power of censorship as meaning that it would not concern itself with programing but would simply act as "the traffic policeman of the ether." But the Commission maintained—and in this it has been sustained by the courts—that, to decide whether the "public interest, convenience or necessity" would be served by granting or renewing a license, it had to take into account proposed or past programing. One commentator remarked, that by 1949, the "Commission had travelled far from its original role of airwaves traffic policeman. Control over radio had become more than regulation based on technological necessity; it had become regulation of conduct, and the basis was but emerging."[18]

The Commission is instructed to grant or renew a license if this would serve the "public interest, convenience or necessity." This phrase, taken from public utility legislation, lacks any definite meaning. It "means about as little as any phrase that the drafters of the Act could have used and still comply with the constitutional requirement that there be some standard to guide the administrative wisdom of the licensing authority."[19] Furthermore, the many

[14] Z. Chafee, Government and Mass Communications 235–41 (1947).

[15] United States v. Paramount Pictures, Inc., 334 U.S. 131, 166 (1948).

[16] Caldwell, Freedom of Speech and Radio Broadcasting, 177 Annals 179, 203 (1935).

[17] Opening Address of Herbert Hoover before the Fourth Annual Radio Conference (1925). Reproduced in Hearings on S. 1 and S. 1754, Radio Control, before the Senate Committee on Interstate Commerce, 69th Cong., 1st Sess. 50, 57–58 (1926).

[18] Old Standards in New Context: A Comparative Analysis of FCC Regulation, 18 U. of Chi. L. Rev. 78, 83 (1950).

[19] Caldwell, The Standard of Public Interest, Convenience or Necessity as Used in the Radio Act of 1927, 1 Air L. Rev. 295, 296 (1930).

inconsistencies in Commission decisions have made it impossible for the phrase to acquire a definite meaning in the process of regulation. The character of the program proposals of an applicant for a frequency or channel is, of course, one of the factors taken into account by the Commission, and any applicant with a good lawyer will find that his proposals include live programs with local performers and programs in which public issues are discussed (these being program types which appear to be favored by the Commission). And when the time comes for renewal of the license, which at the present time is every three years, the past programing of the station is reviewed.[20]

A good illustration of the difference between the position of the owner of a broadcasting station and the publisher of a newspaper is provided by the case of Mr. Baker, who operated a radio station in Iowa and was denied a renewal of his license in 1931 because he broadcast bitter personal attacks on persons and institutions he did not like. The Commission said:

> This Commission holds no brief for the Medical Associations and other parties whom Mr. Baker does not like. Their alleged sins may be at times of public importance, to be called to the attention of the public over the air in the right way. But this record discloses that Mr. Baker does not do so in any high-minded way. It shows that he continually and erratically over the air rides a personal hobby, his cancer cure ideas and his likes and dislikes of certain persons and things. Surely his infliction of all this on the listeners is not the proper use of a broadcasting license. Many of his utterances are vulgar, if not indeed indecent. Assuredly they are not uplifting or entertaining.
>
> Though we may not censor, it is our duty to see that broadcasting licenses do not afford mere personal organs, and also to see that a standard of refinement fitting our day and generation is maintained.[21]

It is hardly surprising that this decision has been described as "in spirit pure censorship."[22]

The Commission's attempts to influence programing have met with little opposition, except on two occasions, when the broadcasting industry made vigorous protests. The first arose out of the so-called *Mayflower* decision of 1940. A Boston station had broadcast editorials urging the election of certain candidates for public office and expressing views on controversial questions. The Commission criticized the station for doing this and renewed its license

[20] It is unnecessary for my purpose to review the policies of the Federal Radio Commission and the Federal Communications Commission in choosing among applicants and passing on the renewal of licenses. For discussions of such questions, the reader is referred to Warner, op. cit. supra note 1; J. M. Edelman, The Licensing of Radio Services in the United States, 1927 to 1947 (1950); Federal Communications Commission, Report of the Network Study Staff on Network Broadcasting (1957), particularly Chapter 3, "Performance in the Public Interest."

[21] Decisions of the FCC, Docket No. 967, June 5, 1931. Quoted from Caldwell, Censorship of Radio Programs, 1 J. Radio Law 441, 473 (1931).

[22] Ibid.

only after receiving assurances that the station would no longer broadcast editorials. In 1948 the Commission re-examined the question and issued a report which, while not explicitly repudiating the *Mayflower* doctrine, nevertheless expressed approval of editorializing subject to the criterion of "overall fairness." The Commission agreed that its ruling involved an abridgment of freedom but that this was necessary:

> Any regulation of radio, especially a system of limited licensees, is in a real sense an abridgment of the inherent freedom of persons to express themselves by means of radio communications. It is howerever, a necessary and constitutional abridgment in order to prevent chaotic interference from destroying the great potential of this medium for public enlightment [*sic*] and entertainment.

The Commission then went on:

> The most significant meaning of freedom of the radio is the right of the American people to listen to this great medium of communications free from any governmental dictation as to what they can or cannot hear and free alike from similar restraints by private licensees.

It is not clear to me what the Commission meant by this. It could hardly have been the intention of the Commission to pay a tribute to the "invisible hand."[23]

The second controversy arose out of the publication of the so-called Blue Book by the Federal Communications Commission in 1946, entitled *Public Service Responsibility of Broadcast Licensees*. In this report the Commission indicated that it was going to pay closer attention to questions of programming and that those stations which carried sustaining programs, local live programs, and programs devoted to the discussion of public issues and which avoided "advertising excesses" would be more likely to have their licenses renewed. In the case of sustaining programs, it was suggested that they should be used with a view to

> (*a*) maintaining an overall program balance, (*b*) providing time for programs inappropriate for sponsorship, (*c*) providing time for programs serving particular minority tastes and interests, (*d*) providing time for non-profit organizations—religious, civic, agricultural, labor, educational, etc., and (*e*) providing time for experiment and for unfettered artistic self-expression.[24]

It was argued (by Justin Miller, of the National Association of Broadcasters, among others) that the publication of the Blue Book was unconstitutional, as being contrary to the First Amendment, but on this the courts have not given an opinion.

[23] Editorializing by Broadcast Licensees, 13 F.C.C. 1246, 1257 (1949). Cf. Mayflower Broadcasting Corp., 8 F.C.C. 333 (1940).

[24] Federal Communications Commission, Public Service Responsibility of Broadcast Licensees 55 (1946).

The examination by the Commission of the past activities of applicants has at times posed a threat to other freedoms. One example is furnished by the proceedings in the *Daily News* case. The publishers of the New York *Daily News* applied for permission to construct an FM station. The American Jewish Congress intervened, arguing that the application should be denied because the *Daily News* had

> evidenced bias against minority groups, particularly Jews and Negroes, and has published irresponsible and defamatory news items and editorials concerning such minorities . . . the *News* had thus demonstrated . . . that it is unqualified to be the licensee of a radio station because it could not be relied upon to operate its station with fairness to all groups and points of view in the community.

The admissibility of such evidence was questioned, but the Commission held that it could be received, although pronouncing it inconclusive in this case. The application of the owners of the *Daily News* was finally rejected on other grounds, although it has been suggested that the evidence of the American Jewish Congress in fact played a part in bringing about the decision. What seems clear is that a newspaper which has an editorial policy approved of by the Commission is more likely to obtain a radio or television license than one that does not. The threat to freedom of the press in its strictest sense is evident.[25] Another case involved the political activities of an owner of a radio station, Mr. Edward Lamb. In earlier hearings, Mr. Lamb had denied having Communist associations. When the license of his station came up for renewal in 1954, the Commission charged that his previous statements were false. According to Professor Ralph S. Brown, the Broadcast Bureau of the Commission "produced in support of its charge as sorry a collection of unreliable and mendacious witnesses as have appeared in any recent political case." Finally, after lengthy proceedings, the license was renewed, but the Commission in its decision rejected the view that it "had no right to inquire into past associations, activities, and beliefs. . . ."[26]

If we ask why it is that the Commission's policies have met with so little opposition, the answer, without any doubt, is that the Commission has been exremely hesitant about imposing its views on the broadcasting industry. Sometimes licenses have been renewed on condition that the programs to which the Commission objected were not broadcast in the future. Some operators have not had their licenses renewed largely or wholly because of objec-

[25] See WBNX Broadcasting Co., 12 F.C.C. 805 (1948). For the view that this evidence may have had some effect on the Commission's decision, see Radio Program Controls: A Network of Inadequacy, 57 Yale L. J. 275 (1947).

[26] R. S. Brown, Jr., Loyalty and Security: Employment Tests in the United States 371–72 (1958). For further details of this case and the questions it raises, see an article by the same author, Character and Candor Requirements for FCC Licensees, 22 Law & Contemp. Prob. 644 (1957).

tions to the programs transmitted. But the number of such cases is not large, and the programs to which objection was taken were devoted to such topics as fortune-telling, horse-racing results, or medical advice or involved attacks on public officials, medical associations, or religious organizations.[27]

It is difficult for someone outside the broadcasting industry to assess the extent to which programing has been affected by the views and actions of the Commission. On the face of it, it would seem improbable that the Commission's cautious approach would intimidate many station operators. However, the complete compliance of the industry to the *Mayflower* decision may be cited as evidence of the power of the Commission. Furthermore, the Commission has many favors to give, and few people with any substantial interests in the broadcasting industry would want to flout too flagrantly the wishes of the Commission.

III. The Rationale of the Present System

Professor Chafee has pointed out that the newer media of communication have been subjected to a stricter control than the old:

> Newspapers, books, pamphlets, and large meetings were for many centuries the only means of public discussion, so that the need for their protection has long been generally realized. On the other hand, when additional methods for spreading facts and ideas were introduced or greatly improved by modern inventions, writers and judges had not got into the habit of being solicitous about guarding their freedom. And so we have tolerated censorship of the mails, the importation of foreign books, the stage, the motion picture, and the radio.[28]

It is no doubt true that the difference between the position occupied by the press and the broadcasting industry is in part due to the fact that the printing press was invented in the fifteenth and broadcasting in the twentieth century. But this is by no means the whole story. Many of those who have acquiesced in this abridgment of freedom of the press in broadcasting have done so reluctantly, the situation being accepted as a necessary, if unfortunate, consequence of the peculiar technology of the industry.

Mr. Justice Frankfurter, in delivering the opinion of the Supreme Court in one of the leading cases on radio law, gave an account of the rationale of the present system:

> The plight into which radio fell prior to 1927 was attributable to certain basic facts about radio as a means of communication—its facilities are limited; they are not

[27] See the Report of the Network Study Staff on Network Broadcasting, op. cit. supra note 20, at 150–51. The exact number of cases in which the failure to renew a license was due to past programing (that is, in which the renewal would have been made had the programing been different) is uncertain. See E. E. Smead, Freedom of Speech by Radio and Television 123 n. 7 (1959).

[28] Z. Chafee, Free Speech in the United States 381 (1942).

available to all who may wish to use them; the radio spectrum simply is not large enough to accommodate everybody. There is a fixed natural limitation upon the number of stations that can operate without interfering with one another. Regulation of radio was therefore as vital to its development as traffic control was to the development of the automobile. In enacting the Radio Act of 1927, the first comprehensive scheme of control over radio communication, Congress acted upon the knowledge that if the potentialities of radio were not to be wasted, regulation was essential.

To those who argued that we should "regard the Commission as a kind of traffic officer, policing the wave lengths to prevent stations from interfering with each other," Mr. Justice Frankfurter answered:

But the Act does not restrict the Commission merely to supervision of traffic. It puts upon the Commission the burden of determining the composition of that traffic. The facilities of radio are not large enough to accommodate all who wish to use them. Methods must be devised for choosing from among the many who apply. And since Congress itself could not do this, it committed the task to the Commission.

The Commission was, however, not left at large in performing this duty. The touchstone provided by Congress was the "public interest, convenience or necessity."

. . . The facilities of radio are limited and therefore precious; they cannot be left to wasteful use without detriment to the public interest. . . . The Commission's licensing function cannot be discharged, therefore, merely by finding that there are no technological objections to the granting of a license. If the criterion of "public interest" were limited to such matters, how could the Commission choose between two applicants for the same facilities, each of whom is financially and technically qualified to operate a station? Since the very inception of federal regulation of radio, comparative considerations as to the services to be rendered have governed the application of the standard of "public interest, convenience or necessity."[29]

The events which preceded government regulation have been described very vividly by Professor Charles A. Siepmann:

The chaos that developed as more and more enthusiastic pioneers entered the field of radio was indescribable. Amateurs crossed signals with professional broadcasters. Many of the professionals broadcast on the same wave length and either came to a gentleman's agreement to divide the hours of broadcasting or blithely set about cutting one another's throats by broadcasting simultaneously. Listeners thus experienced the annoyance of trying to hear one program against the raucous background of another. Ship-to-shore communication in Morse code added its pulsing dots and dashes to the silly symphony of sound.

Professor Siepmann sums up the situation in the following words: "Private enterprise, over seven long years, failed to set its own house in order. Cutthroat competition at once retarded radio's orderly development and subjected listeners to intolerable strain and inconvenience."[30]

[29] National Broadcasting Co. v. United States, 319 U.S. 190, 213, 215–17 (1943).

[30] C. A. Siepmann, Radio, Television and Society 5–6 (1950).

Notwithstanding the general acceptance of these arguments and the eminence of the authorities who expound them, the views which have just been quoted are based on a misunderstanding of the nature of the problem. Mr. Justice Frankfurter seems to believe that federal regulation is needed because radio frequencies are limited in number and people want to use more of them than are available. But it is a commonplace of economics that almost all resources used in the economic system (and not simply radio and television frequencies) are limited in amount and scarce, in that people would like to use more than exists. Land, labor, and capital are all scarce, but this, of itself, does not call for government regulation. It is true that some mechanism has to be employed to decide who, out of the many claimants, should be allowed to use the scarce resource. But the way this is usually done in the American economic system is to employ the price mechanism, and this allocates resources to users without the need for government regulation.

Professor Siepmann seems to ascribe the confusion which existed before government regulation to a failure of private enterprise and the competitive system. But the real cause of the trouble was that no property rights were created in these scarce frequencies. We know from our ordinary experience that land can be allocated to land users without the need for government regulation by using the price mechanism. But if no property rights were created in land, so that everyone could use a tract of land, it is clear that there would be considerable confusion and that the price mechanism could not work because there would not be any property rights that could be acquired. If one person could use a piece of land for growing a crop, and then another person could come along and build a house on the land used for the crop, and then another could come along, tear down the house, and use the space as a parking lot, it would no doubt be accurate to describe the resulting situation as chaos. But it would be wrong to blame this on private enterprise and the competitive system. A private-enterprise system cannot function properly unless property rights are created in resources, and, when this is done, someone wishing to use a resource has to pay the owner to obtain it. Chaos disappears; and so does the government except that a legal system to define property rights and to arbitrate disputes is, of course, necessary. But there is certainly no need for the kind of regulation which we now find in the American radio and television industry.

In 1951, in the course of a comment dealing with the problem of standards in color television, Mr. Leo Herzel proposed that the price mechanism should be used to allocate frequencies. He said:

> The most important function of radio regulation is the allocation of a scarce factor of production—frequency channels. The FCC has to determine who will get the limited number of channels available at any one time. This is essentially an economic decision, not a policing decision.

And, later, Mr. Herzel suggested that channels should be leased to the highest bidder.[31] This article brought a reply from Professor Dallas W. Smythe of the Institute of Communications Research of the University of Illinois and formerly chief economist of the Federal Communications Commission. In his article, Professor Smythe presented the case against the use of the price mechanism in broadcasting.[32]

First of all, Professor Smythe pointed out that commercial broadcasting was not a "dominant user of spectrum space" but "a minor claimant on it." He explained that "the radio spectrum up to at least 1,000,000 Kc is susceptible of commercial exploitation, technologically. On this basis, the exclusive use of frequencies by broadcasters represents 2.3 per cent of the total and the shared use, 7.2 per cent." But, according to Professor Smythe, even these percentages may overstate the importance of broadcasting. "The FCC has allocated the spectrum to different users as far as 30,000,000 Kc. And on this basis commercial broadcasters use exclusively less than one tenth of one per cent, and, on a shared basis, two tenths of one per cent."[33]

Professor Smythe then went on to explain who it was that used most of the radio spectrum. First, there were the military, the law-enforcement agencies, the fire-fighting agencies, the Weather Bureau, the Forestry Service, and the radio amateurs, "the last of which by definition could hardly be expected to pay for frequency use." (This is, of course, in accordance with the modern view that an amateur is someone who does not pay for the things he uses.) Then there were many commercial users other than broadcasters. There were the common carriers, radiotelegraph and radiotelephone; transportation agencies, vessels on the high seas, railroads, street railways, busses, trucks, harbor craft, and taxis. There were also various specialized users, such as electric power, gas and water concerns, the oil industry (which used radio waves for communication and also for geophysical exploration), the motion-picture industry (for work on location), and so on. Professor Smythe commented:

> Surely it is not seriously intended that the non-commercial radio users (such as police), the non-broadcast common carriers (such as radio-telegraph) and the non-broadcast commercial users (such as the oil industry) should compete with dollar bids against the broadcast users for channel allocations.

To this Mr. Herzel replied:

[31] "Public Interest" and the Market in Color Television Regulation, 18 U. of Chi. L. Rev. 802, 809 (1951).

[32] Smythe, Facing Facts about the Broadcast Business, 20 U. of Chi. L. Rev. 96 (1952), and a Rejoinder by the student author, Mr. Leo Herzel, which appeared in 20 U. of Chi. L. Rev. 106 (1952).

[33] Of course not all these frequencies would be equally desirable for use in the broadcasting industry.

It certainly is seriously suggested. Such users compete for all other kinds of equipment or else they don't get it. I should think the more interesting question is, why is it seriously suggested that they shouldn't compete for radio frequencies?

Certainly, it is not clear why we should have to rely on the Federal Communications Commission rather than the ordinary pricing mechanism to decide whether a particular frequency should be used by the police, or for a radiotelephone, or for a taxi service, or for an oil company for geophysical exploration, or by a motion-picture company to keep in touch with its film stars or for a broadcasting station. Indeed, the multiplicity of these varied uses would suggest that the advantages to be derived from relying on the pricing mechanism would be especially great in this case.

Professor Smythe also argued that the use of market controls depends on "the economic assumption that there is substantially perfect competition in the electronics field." This is a somewhat extreme view. An allocation scheme costs something to administer, will itself lead to a malallocation of resources, and may encourage some monopolistic tendencies—all of which might well make us willing to tolerate a considerable amount of imperfect competition before substituting an allocation scheme for market controls. Nonetheless, the problem of monopoly is clearly one to be taken seriously. But this does not mean that frequencies should not be allocated by means of the market or that we should employ a special organization, the Federal Communications Commission, for monopoly control in the broadcasting industry rather than the normal procedure. In fact, the antitrust laws do apply to broadcasting, and recently we have seen the Department of Justice taking action in a case in which the Federal Communications Commission had not thought it necessary to act.[34] The situation is not simply one in which there are two organizations to carry out one law. There are, in effect, two laws. The Federal Communications Commission is not bound by the antitrust laws and may refuse an application for a license because of the monopolistic practices of the applicant, even though these may not have been illegal under the antitrust laws. Thus, the broadcasting industry, while subject to the antitrust laws, is also subject to another not on the statute book but one invented by the Commission.[35]

It may be wondered whether such an involved system is required for the broadcasting industry, but this is not the question with which I am mainly concerned. To increase the competitiveness of the system, it may be that cer-

[34] See United States v. Radio Corp. of America, 358 U.S. 334 (1959).

[35] Compare the statement of the court in Mansfield Journal Co. v. FCC, 180 F.2d 28, 33 (App.D.C., 1950): "Whether Mansfield's activities do or do not amount to a positive violation of law, and neither this court nor the Federal Communications Commission is determining that question, they still may impair Mansfield's ability to serve the public. Thus, whether Mansfield's competitive practices were legal or illegal, in the strict sense, is not conclusive here. Monopoly in the mass communication of news and advertising is contrary to the public interest, even if not in terms proscribed by the antitrust laws."

tain firms should not be allowed to operate broadcasting stations (or more than a certain number) and that certain practices should be prohibited; but this does not mean that those regarded as eligible to operate broadcasting stations ought not to pay for the frequencies they use. It is no doubt desirable to regulate monopolistic practices in the oil industry, but to do this it is not necessary that oil companies be presented with oil fields for nothing. Control of monopoly is a separate problem.

IV. The Pricing System and the Allocation of Frequencies

There can be little doubt that the idea of using private property and the pricing system in the allocation of frequencies is one which is completely unfamiliar to most of those concerned with broadcasting policy. Consider, for example, the comment on the articles by Mr. Herzel and Professor Smythe (discussed in the previous section) which appeared in the Journal of the Federal Communications Bar Association and which was therefore addressed to the group with the greatest knowledge of the problems of broadcasting regulation in the United States: "The whole discussion will be over the heads of most readers."[36] Or consider the answers given by Mr. Frank Stanton, president of Columbia Broadcasting System and one of the most experienced and able men in the broadcasting industry, when Representative Rogers in a congressional inquiry raised the possibility of disposing of television channels by putting them up for the highest bids:

Mr. Rogers. Doctor, what would you think about a proposition of the Government taking all of these channels and opening them to competitive bidding and let the highest bidder take them at the best price the taxpayers could get out of it?

Mr. Stanton. This is a novel theory and one to which I have not addressed myself during my operating career. This is certainly entirely contrary to what the Communication Act was in 1927 and as it was later amended.

Mr. Rogers. I know, but if the Government owns a tract of land on which you raise cattle, they charge a man for the use of the land.

Why would it not be just as reasonable to charge a man to use the avenues of the air as it would be to use that pasture? Why should the people be giving one group something free and charging another group for something that is comparable?

Mr. Stanton. This is a new and novel concept. I think it would have to be applied broadly to all uses of the spectrum and not just confined to television, if you will.

Mr. Rogers. I understand that. Do you not think that would really be free enterprise where the taxpayer would be getting the proceeds?

Mr. Stanton. You have obviously given some thought to this and you are hitting me for the first time with it.[37]

[36] Recent Articles, 13 Fed. Com. B.J. 89 (1953).

[37] Hearings on Subscription Television before the House Committee on Interstate and Foreign Commerce, 85th Cong., 2d Sess. 434 (1958).

This "novel theory" (novel with Adam Smith) is, of course, that the allocation of resources should be determined by the forces of the market rather than as a result of government decisions. Quite apart from the malallocations which are the result of political pressures, an administrative agency which attempts to perform the function normally carried out by the pricing mechanism operates under two handicaps. First of all, it lacks the precise monetary measure of benefit and cost provided by the market. Second, it cannot, by the nature of things, be in possession of all the relevant information possessed by the managers of every business which uses or might use radio frequencies, to say nothing of the preferences of consumers for the various goods and services in the production of which radio frequencies could be used. In fact, lengthy investigations are required to uncover part of this information, and decisions of the Federal Communications Commission emerge only after long delays, often extending to years.[38] To simplify the task, the Federal Communications Commission adopts arbitrary rules. For example, it allocates certain ranges of frequencies (and only these) for certain specified uses. The situation in which the Commission finds itself was described in a recent speech by Commissioner Robert E. Lee. He explained that the question of undertaking a study of assignments below 890 mc was being considered, but whether this would be done was uncertain.

> There is considerable discussion of such a move within and without the Commission. . . . The examination of the more crowded spectrum below 890 mc presents an extremely difficult administrative problem. While this should be no excuse, I hope that all will appreciate the limitations of our overburdened staff, which, as a practical matter, must be given great weight.

And, after referring to a possible change in procedure, he added:

> I am finding it increasingly difficult to explain why a steel company in a large community, desperate for additional frequency space cannot use a frequency assigned, let us say, to the forest service in an area where there are no trees.[39]

This discussion should not be taken to imply that an administrative allocation of resources is inevitably worse than an allocation by means of the price mechanism. The operation of a market is not itself costless, and, if the costs of operating the market exceeded the costs of running the agency by a sufficiently large amount, we might be willing to acquiesce in the malallocation of resources resulting from the agency's lack of knowledge, inflexibility, and exposure to political pressure. But in the United States few people think

[38] A former chairman of the Federal Communications Commission argued that it could not be intelligent in its regulation "if . . . [the Commission's] information lags behind the latest developments and policies of the industry—if the industry knows more than the government does." Edelman, op. cit. supra note 20, at 20. But it is inevitable that the industry will know more than the Commission.

[39] Broadcasting, February 4, 1957, p. 96.

that this would be so in most industries, and there is nothing about the broadcasting industry which would lead us to believe that the allocation of frequencies constitutes an exceptional case.

An example of how the nature of the pricing system is misunderstood in current discussions of broadcasting policy in the United States is furnished by a recent comment which appeared in the trade journal *Broadcasting:*

> In the TV field, lip service is given to a proposal that television "franchises" be awarded to the highest bidder among those who may be qualified. This is ridiculous on its face, since it would mean that choice outlets in prime markets would go to those with the most money.[40]

First of all, it must be observed that resources do not go, in the American economic system, to those with the most money but to those who are willing to pay the most for them. The result is that, in the struggle for particular resources, men who earn $5,000 per annum are every day outbidding those who earn $50,000 per annum. To be convinced that this is so, we need only imagine a situation occurring in which all those who earned $50,000 or more per annum arrived at the stores one morning and, at the prices quoted, were able to buy everything in stock, with nothing left over for those with lower incomes. Next day we may be sure that the prices quoted would be higher and that those with higher incomes would be forced to reduce their purchases—a process which would continue as long as those with lower incomes were unable to spend all they wanted. The same system which enables a man with $1 million to obtain $1 million's worth of resources enables a man with $1,000 to obtain a $1,000's worth of resources. Of course, the existence of a pricing system does not insure that the distribution of money between persons (or families) is satisfactory. But this is not a question we need to consider in dealing with broadcasting policy. Insofar as the ability to pay for frequencies or channels depends on the distribution of funds, it is the distribution not between persons but between firms which is relevant. And here the ethical problem does not arise. All that matters is whether the distribution of funds contributes to efficiency, and there is every reason to suppose that, broadly speaking, it does. Those firms which use funds profitably find it easy to get more; those which do not, find it difficult. The capital market does not work perfectly, but the general tendency is clear. In any case, it is doubtful whether the Federal Communications Commission has, in general, awarded frequencies to firms which are in a relatively unfavorable position from the point of view of raising capital. The inquiries which the Commission conducts into the financial qualifications of applicants must, in fact, tend in the opposite direction.[41]

[40] Broadcasting, February 24, 1958, p. 200.

[41] On the Commission's policies with regard to financial qualifications, consult Edelman, op. cit. supra note 20, at 62–64, and Warner, op. cit. supra note 1, § 22a.

And if we take as examples of "choice outlets in prime markets" network-affiliated television stations in the six largest metropolitan areas in the United States on the basis of population (New York, Chicago, Los Angeles, Philadelphia, Detroit, and San Francisco), we find that five stations are owned by American Broadcasting–Paramount Theatres, Inc., four by the National Broadcasting Company (a subsidiary of the Radio Corporation of America), four by the Columbia Broadcasting System, Inc., and one each by the Westinghouse Broadcasting Company (a subsidiary of the Westinghouse Electric Corporation), the Storer Broadcasting Company, and three newspaper publishing concerns.[42] It would be difficult to argue that these are firms which have been unduly handicapped in their growth by their inability to raise capital.

The Supreme Court appears to have assumed that it was impossible to use the pricing mechanism when dealing with a resource which was in limited supply. This is not true. Despite all the efforts of art dealers, the number of Rembrandts existing at a given time is limited; yet such paintings are commonly disposed of by auction. But the works of dead painters are not unique in being in fixed supply. If we take a broad enough view, the supply of all factors of production is seen to be fixed (the amount of land, the size of the population, etc.). Of course, this is not the way we think of the supply of land or labor. Since we are usually concerned with a particular problem, we think not in terms of the total supply but rather of the supply available for a particular use. Such a procedure is not only practically more useful; it also tells us more about the processes of adjustment at work in the market. Athough the quantity of a resource may be limited in total, the quantity that can be made available to a particular use is variable. Producers in a particular industry can obtain more of any resource they require by buying it on the market, although they are unlikely to be able to obtain considerable additional quantities unless they bid up the price, thereby inducing firms in other industries to curtail their use of the resource. This is the mechanism which governs the allocation of factors of production in almost all industries. Notwithstanding the almost unanimous contrary view, there is nothing in the technology of the broadcasting industry which prevents the use of the same mechanism. Indeed, use of the pricing system is made particularly easy by a circumstance to which Professor Smythe draws our special attention, namely, that the broadcasting industry uses but a small proportion of "spectrum space." A broad-

[42] The first four firms are so well known as not to require any notation. The Storer Broadcasting Company owns television stations in Toledo, Cleveland, Detroit, Atlanta, and Wilmington and radio stations in Toledo, Cleveland, Detroit, Philadelphia, Wheeling, Atlanta, and Miami. Of the three stations owned by newspaper publishing concerns, one in Philadelphia is owned by Triangle Publications (which publishes the Philadelphia Inquirer and other papers, owns four other television stations and some radio stations), one in Detroit is owned by the publisher of the Detroit News, and one in San Francisco is owned by the publisher of the San Francisco Chronicle.

casting industry, forced to bid for frequencies, could draw them away from other industries by raising the price it was willing to pay. It is impossible to say whether the result of introducing the pricing system would be that the broadcasting industry would obtain more frequencies than are allocated to it by the Federal Communications Commission. Not having had, in the past, a market for frequencies, we do not know what these various industries would pay for them. Similarly, we do not know for what frequencies the broadcasting industry would be willing to outbid these other industries. All we can say is that the broadcasting industry would be able to obtain all the existing frequencies it now uses (and more) if it were willing to pay a price equal to the contribution which they could make to production elsewhere. This is saying nothing more than that the broadcasting industry would be able to obtain frequencies on the same basis as it now obtains its labor, buildings, land, and equipment.

A thoroughgoing employment of the pricing mechanism for the allocation of radio frequencies would, of course, mean that the various governmental authorities, which are at present such heavy users of these frequencies, would also be required to pay for them. This may appear to be unnecessary, since payment would have to be made to some other government agency appointed to act as custodian of frequencies. What was paid out of one government pocket would simply go into another. It may also seem inappropriate that the allocation of resources for such purposes as national defense or the preservation of human life should be subjected to a monetary test. While it would be entirely possible to exclude from the pricing process all frequencies which government departments consider they need and to confine pricing to frequencies available for the private sector, there would seem to be compelling reasons for not doing so. A government department, in making up its mind whether or not to undertake a particular activity, should weigh against the benefits this would confer, the costs which are also involved: that is, the value of the production elsewhere which would otherwise be enjoyed. In the case of a government activity which is regarded as so essential as to justify any sacrifice, it is still desirable to minimize the cost of any particular project. If the use of a frequency which if used industrially would contribute goods worth $1 million could be avoided by the construction of a wire system or the purchase of reserve vehicles costing $100,000, it is better that the frequency should not be used, however essential the project. It is the merit of the pricing system that, in these circumstances, a government department (unless very badly managed) would not use the frequency if made to pay for it. Some hesitation in accepting this argument may come from the thought that, though it might be better to provide government departments with the funds necessary to purchase the resources they need, it by no means follows that Congress will do this. Consequently, it might be better to accept the waste

inherent in the present system rather than suffer the disadvantages which would come from government departments having inadequate funds to pay for frequencies. This, of course, assumes that government departments are, in general, denied adequate funds by Congress, but it is not clear that this is true, above all for the defense departments, which, at present, use the bulk of the frequencies. Furthermore, it has to be remembered that a pricing scheme for frequencies would not involve any budgetary strain, since all government payments would be exactly balanced by the receipts of the agency responsible for disposing of frequencies, and there would be a net gain from the payments by private firms. In any case, such considerations do not apply to the introduction of pricing in the private sector and, in particular, for the broadcasting industry.

The desire to preserve government ownership of radio frequencies coupled with an unwillingness to require any payment for the use of these frequencies has had one conequence which has caused some uneasiness. A station operator who is granted a license to use a particular frequency in a particular place may, in fact, be granted a very valuable right, one for which he would be willing to pay a large sum of money and which he would be forced to pay if others could bid for the frequency. This provision of a valuable resource without charge naturally raises the income of station operators above what it would have been in competitive conditions. It would require a very detailed investigation to determine the extent to which private operators of radio and television stations have been enriched as a result of this policy. But part of the extremely high return on the capital invested in certain radio and television stations has undoubtedly been due to this failure to charge for the use of the frequency. Occasionally, when a station is sold, it is possible to glimpse what is involved. Strictly, of course, all that can be sold is the station and its organization; the frequency is public property, and the grant of a license gives no rights of any sort in that frequency. Furthermore, transfers of the ownership of radio and television stations have to be approved by the Federal Communications Commission. However, the Commission almost always approves such negotiated transfers, and, when these take place, there can be little doubt that often a great part of the purchase price is in fact payment for obtaining the use of the frequency. Thus when WNEW in New York City was sold in 1957 for $5 million or WDTV in Pittsburgh in 1955 for $10 million or WCAV (AM, FM, and TV) in Philadelphia in 1958 for $20 million, it is possible to doubt that it would cost $5 million or $10 million or $20 million to duplicate the transmitter, studio equipment, furniture, and the organization, which nominally is what is being purchased.[43] The result of sales at such prices is, of course, to reduce the return earned by the new owners to (or at

[43] See the Annual Report of the Federal Communications Commission for 1957 at p. 123, and for 1958, at p. 121.

any rate nearer to) the competitive level. When, as happened in the early days of radio regulation but less often since the Commission refused to sanction transfers at a price much more than the value of the physical assets and the organization being acquired, the effect was simply to distribute the benefits derived from this free use of public property more widely among the business community: to enable the new as well as the old owners to share in it. I do not wish to discuss whether such a redistribution of the gain is socially desirable. My point is different: there is no reason why there should be any gain to redistribute.

The extraordinary gain accruing to radio and television station operators as a result of the present system of allocating frequencies becomes apparent when stations are sold.[44] Even before the 1927 Act was passed, it was recognized that stations were transferred from one owner to another at prices which implied that the right to a license was being sold.[45] Occasionally, references to this problem are found in the literature, but the subject has not been discussed extensively. In part, I think this derives from the fact that the only solution to the problem of excessive profits was thought to be rate regulation or profit control.[46] Such solutions were unlikely to gain support for a number of reasons. Although in the early days of the broadcasting industry it was commonly thought that it would be treated as another public utility, this view was later largely abandoned. An attempt to make broadcasters common carriers failed. And broadcasting has come to be thought of, so far as its business operations are concerned, as an unregulated industry. As the Supreme Court has said: ". . . the field of broadcasting is one of free competition."[47] In any case, the determination of the rates to be charged or the level of profits to be allowed would not seem an easy matter, although it has been claimed that "it should be possible for resource and tax economists to develop norms for levying such special franchise taxes."[48] Furthermore, rate or profit regulation with the concomitant need for control of the quality of the programs is hardly an attractive prospect.

It is an odd fact that the obvious way out of these difficulties, which is to

[44] See Radio and Television Station Transfers: Adequacy of Supervision under the Federal Communications Act, 30 Ind. L. J. 351 (1955), and Warner, op. cit. supra note 1, Chapter V, "The Transfer and Assignment of Broadcasting Licenses." Compare C. C. Dill, Radio Law 208–9 (1938).

[45] See Hearings on S. 1 and S. 1754, Radio Control, before the Senate Committee on Interstate Commerce, 69th Cong., 1st Sess. 38–47 (1926).

[46] Consult Stewart, The Public Control of Radio, 8 Air L. Rev. 131 (1937); Hettinger, The Economic Factor in Radio Regulation, 9 Air L. Rev. 115 (1939); Salsbury, The Transfer of Broadcast Rights, 11 Air L. Rev. 113 (1940); Lissner, Public Control of Radio, 5 Am. J. Econ. & Soc. 552 (1946).

[47] FCC v. Sanders Bros. Radio Station, 309 U.S. 470, 474 (1940).

[48] Lissner, op. cit. supra note 46.

make those wishing to use frequencies bid for them (allowing the profits earned to be determined not by a regulatory commission but by the forces of competition), received no attention in the literature, so far as I know, until comparatively recently. Mr. Herzel's article contains the first reference I have found. More recently, the suggestion has been mentioned on a number of occasions. In 1958 the proposal for bidding made its appearance in a bill introduced by Representative Henry S. Reuss. This bill would have established an order of priority for the various categories of applicants for radio and television licenses but contained the provision that, where there was more than one applicant falling into the highest category, the Federal Communications Commission would then grant the license to the highest bidder in that category, with the money to be "deposited in the Treasury of the United States to the credit of miscellaneous receipts." The same procedure would be applied when a license was transferred. Representative Reuss explained: "The airwaves are the public domain, and under such circumstances a decision should be made in favor of the taxpayers, just as it is when the government takes bids for the logging franchise on public timberland."[49]

It is to be expected that even so modest a suggestion for bidding as that of Representative Reuss would not be welcomed. From the earliest days of radio regulation suggestions have been made that those holding radio licenses should pay a fee to the regulating authority, but this has never been incorporated in the law. When, a few years ago, the Federal Communications Commission announced that it was considering a proposal that radio and television licenses should pay a fee to cover the costs of the licensing process (that is, the cost of the Federal Communications Commission), the Senate Committee on Interstate and Foreign Commerce quickly adopted a resolution suggesting that the Commission should suspend consideration of this proposal for the time being, since "the proposal for license fees for broadcasting stations raises basic questions with regard to the fundamental philosophy of regulation under the Communications Act. . . ."[50]

It is not easy to understand the feeling of hostility to the idea that people should pay for the facilities they use. It is true that this attitude has been suppored by the argument that it was technologically impossible to charge for the use of frequencies, but this is clearly wrong. It is difficult to avoid the conclusion that the widespread opposition to the use of the pricing system for the allocation of frequencies can be explained only by the fact that the possibility of using it has never been seriously faced.

[49] Press release dated April 14, 1958, from the office of Congressman Henry S. Reuss. See H.R. 11893, 85th Cong., 2d Sess. (1958).

[50] 100 Cong. Rec. 3783 (1954).

V. Private Property and the Allocation of Frequencies

If the right to use a frequency is to be sold, the nature of that right would have to be precisely defined. A simple answer would be to leave the situation essentially as it is now: the broadcaster would buy the right to use, for a certain period, an assigned frequency to transmit signals at a given power for certain hours from a transmitter located in a particular place. This would simply superimpose a payment on to the present system. It would certainly make it possible for the person or firm who is to use a frequency to be determined in the market. But the enforcement of such detailed regulations for the operation of stations as are now imposed by the Federal Communications Commission would severely limit the extent to which the way the frequency was used could be determined by the forces of the market.

It might be argued that this is by no means an unusual situation, since the rights acquired when one buys, say, a piece of land, are determined not by the forces of supply and demand but by the law of property in land. But this is by no means the whole truth. Whether a newly discovered cave belongs to the man who discovered it, the man on whose land the entrance to the cave is located, or the man who owns the surface under which the cave is situated is no doubt dependent on the law of property. But the law merely determines the person with whom it is necessary to make a contract to obtain the use of the cave. Whether the cave is used for storing bank records, as a natural gas reservoir, or for growing mushrooms depends, not on the law of property, but on whether the bank, the natural gas corporation, or the mushroom concern will pay the most in order to be able to use the cave. One of the purposes of the legal system is to establish that clear delimitation of rights on the basis of which the transfer and recombination of rights can take place through the market. In the case of radio, it should be possible for someone who is granted the use of a frequency to arrange to share it with someone else, with whatever adjustments to hours of operation, power, location and kind of transmitter, etc., as may be mutually agreed upon; or when the right initially acquired is the shared use of a frequency (and in certain cases the FCC has permitted only shared usage), it should not be made impossible for one user to buy out the rights of the other users so as to obtain an exclusive usage.

The main reason for government regulation of the radio industry was to prevent interference. It is clear that, if signals are transmitted simultaneously on a given frequency by several people, the signals would interfere with each other and would make reception of the messages transmitted by any one person difficult, if not impossible. The use of a piece of land simultaneously for growing wheat and as a parking lot would produce similar results. As we have seen in an earlier section, the way this situation is avoided is to create property rights (rights, that is, to exclusive use) in land. The creation of similar rights

in the use of frequencies would enable the problem to be solved in the same way in the radio industry.

The advantage of establishing exclusive rights to use a resource when that use does not harm others (apart from the fact that they are excluded from using it) is easily understood. However, the case appears to be different when it concerns an action which harms others directly. For example, a radio operator may use a frequency in such a way as to cause interference to those using adjacent frequencies.

Let us start our analysis of this situation by considering the case of *Sturges v. Bridgman,*[51] which illustrates the basic issues. A confectioner had used certain premises for his business for a great many years. When a doctor came and occupied a neighboring property, the working of the confectioner's machinery caused the doctor no harm until, some eight years later, he built a consulting room at the end of his garden, right against the confectioner's premises. Then it was found that noise and vibrations caused by the machinery disturbed the doctor in his work. The doctor then brought an action and succeeded in securing an injunction preventing the confectioner from using his machinery. What the courts had, in fact, to decide was whether the doctor had the right to impose additional costs on the confectioner through compelling him to install new machinery, or move to a new location, or whether the confectioner had the right to impose additional costs on the doctor through compelling him to do his consulting somewhere else on his premises or at another location.[52] What this example shows is that there is no analytical difference between the right to use a resource without direct harm to others and the right to conduct operations in such a way as to produce direct harm to others. In each case something is denied to others: in one case, use of a resource; in the other, use of a mode of operation.[53] This example also brings out the reciprocal nature of the relationship which tends to be ignored by economists who, following Pigou, approach the problem in terms of a difference between private and social products but fail to make clear that the suppression of the harm which A inflicts on B inevitably inflicts harm on A. The problem is to avoid the more serious harm. This aspect is clearly brought out in *Sturges v. Bridgman,* and the case would not have been different in essentials if the doctor's complaint had been about smoke pollution rather than noise and vibrations.

Once the legal rights of the parties are established, negotiation is possible to

[51] 11 Ch. D. 852 (1879).

[52] Another possibility is that the doctor or confectioner might abandon his activity altogether.

[53] In the case of Sturges v. Bridgman, the situation would not have been analytically different had the dispute concerned the ownership of a piece of land lying between the two premises on which either the doctor could have installed his laboratory or the confectioner could have installed his machinery.

modify the arrangements envisaged in the legal ruling, if the likelihood of being able to do so makes it worthwhile to incur the costs involved in negotiation. The doctor would be willing to waive his right if the confectioner would pay him a sum of money greater than the additional costs he would have incurred in carrying out his consulting at another location (which we will assume to be $200). The confectioner would be willing to pay up to an amount slightly less than the additional costs imposed on him by the decision of the court in order to induce the doctor to waive his rights (which we will assume to be $100). With the figures given, the doctor would not accept less than $200, and the confectioner would not pay more than $100, and the doctor would not waive his right. But consider the situation if the confectioner had won the case (as well he might). In these circumstances the confectioner would be willing to waive his right if he could obtain more than $100, and the doctor would be willing to pay slightly less than $200 to induce the confectioner to do so. Thus it should be possible to strike a bargain which would result in the confectioner's waiving his right. This hypothetical example shows that the delimitation of rights is an essential prelude to market transactions; but the ultimate result (which maximizes the value of production) is independent of the legal decision.[54]

What this analysis demonstrates, so far as the radio industry is concerned, is that there is no analytical difference between the problem of interference between operators on a single frequency and that of interference between operators on adjacent frequencies. The latter problem, like the former, can be solved by delimiting the rights of operators to transmit signals which interfere, or might potentially interfere, with those of others. Once this is done, it can be left to market transactions to bring an optimum utilization of rights. It is sometimes implied that the aim of regulation in the radio industry should be to minimize interference. But this would be wrong. The aim should be to maximize output. All property rights interfere with the ability of people to use resources. What has to be insured is that the gain from interference more than offsets the harm it produces. There is no reason to suppose that the optimum situation is one in which there is no interference. In general, as the distance

[54] It is, of course, true that the distribution of wealth as between the doctor and the confectioner was affected by the decision, which is why questions of equity bulk so largely in such cases. Indeed, if the efficiency with which the economic system worked was completely independent of the legal position, this would be all that mattered. But this is not so. First of all, the law may be such as to make certain desirable market transactions impossible. This is, indeed, my chief criticism of the present American law of radio communication. Second, it may impose costly and time-consuming procedures. Third, the legal delimitation of rights provides the starting point for the rearrangement of rights through market transactions. Such transactions are not costless, with a result that the initial delimitation of rights may be maintained even though some other would be more efficient. Or, even if the original position is modified, the most efficient delimitation of rights may not be attained. Finally, a waste of resources may occur when the criteria used by the courts to delimit rights result in resources being employed solely to establish a claim.

from a radio station increases, it becomes more and more difficult to receive its signals. At some point, people will decide that it is not worthwhile to incur costs involved in receiving the station's signals. A local station operating on the same frequency might be easily received by these same people. But if this station operated simultaneously with the first one, people living in some region intermediate between the stations may be unable to receive signals from either station. These people would be better off if either station stopped operating and there was no interference; but then those living in the neighborhood of one of these other stations would suffer. It is not clear that the solution in which there is no interference is necessarily preferable.

In some circumstances it has been suggested that cost considerations may lead to a minimizing of interference. Thus it has been said of mobile radio:

> Dollar discipline is a very effective force which prevents unwarranted overdesign of land mobile communications system. Vehicular communication is a business tool and like any other tool, the return on investment suffers if excessive overcapacity is provided. Experience has shown that land mobile station licensees are not willing to pay for equipment to provide coverage significantly in excess of their requirements. This attitude serves to effectively reduce adjacent area, co-channel interference to a minimum.[55]

But cost considerations alone cannot always be relied upon to bring about such happy results. The reduction of interference on adjacent frequencies may require costly improvements in equipment, and operators on one frequency could hardly be expected to incur such costs for the benefit of others if the rights of those operating on adjacent frequencies have not been determined. The institution of private property plus the pricing system would resolve these conflicts. The operator whose signals were interfered with, if he had the right to stop such interference, would be willing to forego this right if he were paid more than the amount by which the value of his service was decreased by this interference or the costs which he would have to incur to offset it. The other operator would be willing to pay, in order to be allowed to interfere, an amount up to the costs of suppressing the interference or the decrease in the value of the service he could provide if unable to use his transmitter in a way which resulted in interference. Or, alternatively, if this operator had the right to cause interference, he would be willing to desist if he were paid more than the costs of suppressing the interference or the decrease in the value of the service he could provide if interference were barred. And the operator whose signals were interfered with would be willing to pay to stop this interference an amount up to the decrease in the value of his service which it causes or the costs he has to incur to offset the interference. Either way, the

[55] Testimony of Motorola Inc., Statutory Inquiry into the Allocation of Frequencies to the Various Non-Government Services in the Radio Spectrum between 25 mc and 890 mc, FCC Docket No. 11997, March 30, 1959, at p. 29.

result would be the same. It is the problem of the confectioner's noise and vibrations all over again.

The fact that actions might have harmful effects on others has been shown to be no obstacle to the introduction of property rights. But it was possible to reach this unequivocal result because the conflicts of interest were between individuals. When large numbers of people are involved, the argument for the institution of property rights is weakened and that for general regulations becomes stronger. The example commonly given by economists, again following Pigou, of a situation which calls for such regulation is that created by smoke pollution. Of course, if there were only one source of smoke and only one person were harmed, no new complication would be involved; it would not differ from the vibration case discussed earlier. But if many people are harmed and there are several sources of pollution, it is more difficult to reach a satisfactory solution through the market. When the transfer of rights has to come about as a result of market transactions carried out between large numbers of people or organizations acting jointly, the process of negotiation may be so difficult and time-consuming as to make such transfers a practical impossibility. Even the enforcement of rights through the courts may not be easy. It may be costly to discover who it is that is causing the trouble. And, when it is not in the interest of any single person or organization to bring suit, the problems involved in arranging joint actions represent a further obstacle. As a practical matter, the market may become too costly to operate.

In these circumstances it may be preferable to impose special regulations (whether embodied in a statute or brought about as a result of the rulings of an administrative agency). Such regulations state what people must or must not do. When this is done, the law directly determines the location of economic activities, methods of production, and so on. Thus the problem of smoke pollution may be dealt with by regulations which specify the kind of heating and power equipment which can be used in houses and factories or which confine manufacturing establishments to certain districts by zoning arrangements. The aim of such regulation should not, of course, be to eliminate smoke pollution but to bring about the optimum amount of smoke pollution. The gains from reducing it have to be matched with the loss in production due to the restrictions in choice of methods of production, etc. The conditions which make such regulation desirable do not change the nature of the problem. And, in principle, the solution to be sought is that which would have been achieved if the institution of private property and the pricing mechanism were working well. Of course, as the making of such special regulations is dependent on the political organization, the regulatory process will suffer from the disadvantages mentioned in the previous section. But this merely means that, before turning to special regulations, one should tolerate a worse functioning market than would otherwise be the case. It does not mean that

there should be no such regulation. Nor should it be thought that, because some rights are determined by regulation, there cannot be others which can be modified by contract. That zoning and other regulations apply to houses does not mean that there should not be private property in houses. Businessmen usually find themselves both subject to regulation and possessed of rights which may be transferred or modified by contracts with others.

There is no reason why users of radio frequencies should not be in the same position as other businessmen. There would not appear, for example, to be any need to regulate the relations between users of the same frequency. Once the rights of potential users have been determined initially, the rearrangement of rights could be left to the market. The simplest way of doing this would undoubtedly be to dispose of the use of a frequency to the highest bidder, thus leaving the subdivision of the use of the frequency to subsequent market transactions. Nor is it clear that the relations between users of adjacent frequencies will necessarily call for special regulation. It may well be that several people would normally be involved in a single transaction if conflicts of interests between users of adjacent frequencies are to be settled through the market. But, though an increase in the number of people involved increases the cost of carrying out a transaction, we know from experience that it is quite practicable to have market transactions which involve a multiplicity of parties. Whether the number of parties normally involved in transactions involving users of adjacent frequencies would be unduly large and call for special regulation, only experience could show. *Some* special regulation would certainly be required. For example, some types of medical equipment can apparently be operated in such a way as to cause interference on many frequencies and over long distances. In such a case, a regulation limiting the power of the equipment and requiring shielding would probably be desirable. It is also true that the need for wide bands of frequencies for certain purposes may require the exercise of the power of eminent domain; but this does not raise a problem different from that encountered in other fields. It is easy to embrace the idea that the interconnections between the ways in which frequencies are used raise special problems not found elsewhere or, at least, not to the same degree. But this view is not likely to survive the study of a book on the law of torts or on the law of property in which will be found set out the many (and often extraordinary) ways in which one person's actions can affect the use which others can make of their property.

If the problems faced in the broadcasting industry are not out of the ordinary, it may be asked why was not the usual solution (a mixture of transferable rights plus regulation) adopted for this industry? There can be little doubt that, left to themselves, the courts would have solved the problems of the radio industry in much the same way as they had solved similar problems in other industries. In the early discussions of radio law an attempt was made

to bring the problems within the main corpus of existing law. The problem of radio interference was examined by analogy with electric-wire interference, water rights, trade marks, noise nuisances, the problem of acquiring title to ice from public ponds, and so on. It was, for example, pointed out that a "receiving set is merely a device for decoying to the human ear signals which otherwise would not reach it," and an analogy was drawn with a case in which one man had maintained a decoy for wild ducks but another on neighboring land had frightened the ducks away by shooting, so that they avoided the decoy. Some of the analogies were no doubt fanciful, but most of them presented essentially the same problem as that posed by radio interference. And when the problem came before the courts, there seems to have been little difficulty in reaching a decision.[56] No doubt, in time, statutes prescribing some special regulation would also have been required. But this line of development was stopped by the passage of the 1927 Act, which established a complete regulatory system.[57]

Support for the 1927 Act came, in part, from a belief that no other solution was possible, and, as we have seen, the rationale which has developed since certainly largely reflects this view. But some of those who favored government regulation in the early 1920's did so in order to prevent the establishment of property rights in frequencies. Their reasons for wanting government regulation were vividly expressed by Mr. Walter S. Rogers:

There is no question that certain private radio companies believe that by something analogous to what we call "Squatters' Rights" they can secure an actual out-and-out ownership of the right to use wave lengths, and they do not want to get the right to use wave lengths through a license from any government or as a result of any international agreement. They want to hold completely the right to the use of wave lengths which they employ in their services. In a certain sense the development of radio has opened up a new domain comparable to the discovery of a hitherto unknown continent. No one can foresee with certitude the possible development of the transmission of energy through space. Really great stakes are being gambled for. And private inter-

[56] See S. Davis, The Law of Radio Communication (1927), particularly Chapter VII, "Conflicting Rights in Reception and Transmission." Articles dealing with this question are: Rowley, Problems in the Law of Radio Communication, 1 U. of Cinc. L. Rev. 1 (1927); Taugher, The Law of Radio Communication with Particular Reference to a Property Right in a Radio Wave Length, 12 Marq. L. Rev. 179, 299 (1928); Dyer, Radio Interference as a Tort, 17 St. Louis L. Rev. 125 (1932). In the case of Tribune Co. v. Oak Leaves Broadcasting Station (Cir. Ct., Cook County, Illinois, 1926), reproduced in 68 Cong. Rec. 216 (1926), it was held that the operator of an existing station had a sufficient property right, acquired by priority, to enjoin a newcomer from using a frequency so as to cause any material interference.

[57] Although attempts were made to assert property rights in frequencies after the establishment of the Federal Radio Commission, such claims were not sustained. See Warner, op. cit. supra note 1, at 543.

ests are trying to obtain control of wave lengths and establish private property claims to them precisely as though a new continent were opened up to them and they were securing great tracts of land in outright ownership.[58]

Similar views were held in Congress. Mr. Harry P. Warner has explained that, during the period before the 1927 Act,

> the gravest fears were expressed by legislators, and those generally charged with the administration of communications . . . that government regulation of an effective sort might be permanently prevented through the accrual of property rights in licenses or means of access, and that thus franchises of the value of millions of dollars might be established for all time.[59]

It may be that in some cases these views reflected a dislike of the institution of private property as such, but in the main what seems to have been feared is that private persons and organizations might establish property rights in frequencies without making any payment for appropriating what was called "the last of the public domain." The view that property rights in frequencies should be acquired in an orderly fashion and that those acquiring these rights should be required to pay for them is clearly one which commands respect. But this is not what happened as a result of the 1927 Act. In fact, government regulation brought about the very results which some of its supporters had sought to avoid. Because no charge has been made for the use of frequencies, franchises worth millions of dollars have been created, have been bought and sold, and have served to enrich those to whom they were first granted. Intertwined with the dislike of property rights acquired by priority of use was the fear that monopolies might be established. But, as we have seen (although in discussions of broadcasting policy it is often overlooked), it is not necessary to abolish the institution of private property in order to control the growth of monopolies.

When we contemplate the simple misunderstandings which are rife in discussions of government policy toward the radio industry, it is difficult to resist the conclusion that one factor that has helped to bring this about is terminological in character.[60] I have spoken, following the normal usage, of the allocation of frequencies (or the use of frequencies) and of the establishment of property rights in frequencies (or the use of frequencies). But this way of speaking is liable to mislead. Every regular wave motion may be described as a frequency. The various musical notes correspond to frequencies in sound

[58] Rogers, Air as a Raw Material, 112 Annals 251, 254 (1924). Mr. Rogers was adviser to the American Delegation to the Peace Conference in Paris, 1919. Compare Childs, Problems in the Radio Industry, 14 Am. Econ. Rev., 520 (1924).

[59] Warner, op. cit. supra note 1, at 540.

[60] In the development of my ideas on this subject, I was greatly helped by an article by Segal and Warner, "Ownership" of Broadcasting "Frequencies": A Review, 19 Rocky Mt. L. Rev. 111 (1947).

waves; the various colors correspond to frequencies in light waves. But it has not been thought necessary to allocate to different persons or to create property rights in the notes of the musical scale or the colors of the rainbow. To handle the problem arising because one person's use of a sound or light wave may have effects on others, we establish the rights which people have to make sounds which others may hear or to do things which others may see.

Clarity of thought is even more difficult to achieve when we speak not of ownership of frequencies but of ownership of the ether, the medium through which the wave travels. Mr. James G. McCain has argued that the "radio wave [should] be clearly distinguished from the medium through which it is transmitted. Metaphorically, it is the difference between a train and a tunnel." His reason for making this distinction is that it affords the "most satisfactory" basis for holding radio communication to be interstate commerce. His argument, briefly, is that the ether by reason of its omnipresence and the use to which it is devoted constitutes a natural channel for interstate commerce, thus making federal regulation of radio communication constitutional under the commerce clause.[61] The Senate once declared the ether or its use to be "the inalienable possession" of the United States, and today all those to whom radio or television licenses are granted have to sign a waiver of any right not only to the use of a frequency but also to the use of the ether. This attempt to nationalize the ether has not been without its critics. There is some doubt whether the ether exists. Certainly, its properties correspond exactly to those of something which does not exist, a tunnel without any edges. And Mr. Stephen Davis has remarked: "Whoever claims ownership of a thing or substance may very properly be required to prove existence before discussing title."[62]

What does not seem to have been understood is that what is being allocated by the Federal Communications Commission, or, if there were a market, what would be sold, is the right to use a piece of equipment to transmit signals in a particular way. Once the question is looked at in this way, it is unnecessary to think in terms of ownership of frequencies or the ether. Earlier we discussed a case in which it had to be decided whether a confectioner had the right to

[61] McCain, The Medium through which the Radio Wave Is Transmitted as a Natural Channel of Interstate Commerce, 11 Air L. Rev. 144 (1940). The grounds on which radio communication has been held to be interstate commerce are not those advanced by Mr. McCain. As he explains, the reasons given by the courts for holding radio communication to be interstate commerce are that radio waves cross state lines (even though the communication is intrastate) and potentially interfere with interstate communication. The advantage of Mr. McCain's approach would appear to be that it would allow federal regulation of intrastate communication which interferes with no one. Other articles dealing with this question are: Fletcher, The Interstate Character of Radio Broadcasting: An Opinion, 11 Air L. Rev. 345 (1940), and Kennedy, Radio and the Commerce Clause, 3 Air. L. Rev. 16 (1932).

[62] Davis, op. cit. supra note 56, at 15. See also the article by Segal and Warner, op. cit. supra note 60, at 112–14.

use machinery which caused noise and vibrations in a neighboring house. It would not have facilitated our analysis of the case if it had been discussed in terms of who owned sound waves or vibrations or the medium (whatever it is) through which sound waves or vibrations travel. Yet this is essentially what is done in the radio industry. The reason why this way of thinking has become so dominant in discussions of radio law is that it seems to have developed by using the analogy of the law of airspace. In fact, the law of radio and television has commonly been treated as part of the law of the air.[63] It is not suggested that this approach need lead to the wrong answers, but it tends to obscure the question that is being decided. Thus, whether we have the right to shoot over another man's land has been thought of as depending on who owns the airspace over the land.[64] It would be simpler to discuss what we should be allowed to do with a gun. As we saw earlier, we cannot shoot a gun even on our own land when the effect is to frighten ducks that a neighbor is engaged in decoying. And we all know that there are many other restrictions on the uses of a gun. The problem confronting the radio industry is that signals transmitted by one person may interfere with those transmitted by another. It can be solved by delimiting the rights which various persons possess. How far this delimitation of rights should come about as a result of a strict regulation and how far as a result of transactions on the market is a question that can be answered only on the basis of practical experience. But there is good reason to believe that the present system, which relies exclusively on regulation and in which private property and the pricing system play no part, is not the best solution.

In defininining property rights, it would be necessary to take into account the existence of international agreements on the use of radio frequencies.[65] Such agreements do not, of course, prevent bidding by individuals and firms for the facilities which have been allocated to the United States. But, to the extent that the ways in which frequencies can be used are specified in the agreements, the transfer and recombination of rights through the market are restricted. However, the reservation contained in the present agreements by which frequencies can be used "in derogation of the table of frequency allo-

[63] See, e.g., Jome, Property in the Air as Affected by the Airplane and the Radio, 4 J. Land Pub. Util. Econ. 257 (1928). The Air Law Review dealt with radio law and aviation law. And lawbooks, for example, Manion, Law of the Air (1950), are often organized in the same way.

[64] See Ball, The Vertical Extent of Ownership in Land, 76 U. Pa. L. Rev. 631 (1928); Niles, The Present Status of the Ownership of Airspace, 5 Air L. Rev. 132 (1934); and W. L. Prosser, Law of Torts 85 (1941).

[65] For a detailed discussion of international agreements on the use of radio frequencies, see G. A. Codding, Jr., The International Telecommunication Union (1952), and an article by the same author, The International Law of Radio, 14 Fed. Com. B.J. 85 (1955).

cations" when this does not cause harmful interference to stations in foreign countries operating in conformity with the table would seem to permit considerable flexibility in the way frequencies are used. (There is no legal restriction on military use of radio frequencies.)[66] The aim of the United States government should be to secure the maximum freedom for countries to use radio frequencies as they wish. To read the intentions of a government from the proceedings of an international conference is obviously hazardous. But on the surface it is not clear that the United States government wished to secure this maximum of freedom. In the conference of 1947, the group of countries led by the United States "wanted to take the frequency requirements of all the countries of the world and fit them 'by engineering principles' into the available frequency spectrum." The group led by the Soviet Union "wanted to use the old international frequency list as a point of departure, assigning frequencies on the basis of dates of notification."[67] In effect, the Soviet Union seemed to want the establishment of international property rights based on priority. Since the Soviet Union had registered notifications of claim to large parts of the radio spectrum, it is probably true that the acceptance of their proposals would have given the Soviet Union advantages. But it also seems clear from the conference proceedings that the Soviet Union was unwilling to give the details required for an assessment of its needs and did not wish to be bound in its internal arrangements by the decisions of an international conference.[68] In the National Missile Conference held in Washington in May, 1959, two scientists (British and American) called for "the creation of an international communications commission to administer and police future myriad uses of the electronics spectrum in space communications, overseas space television, weather reports and other activities."[69] If this international body is to be patterned after the the Federal Communications Commission, there are obvious dangers in this proposal. It would not be wise for the United States to press (possibly against Russian opposition) for the establishment of an international planning system which would make it difficult or impossible to operate a free-enterprise system in the United States.

VI. The Present Position

The Federal Communications Commission has recently come into public prominence as a result of disclosures before the House Subcommittee on Legislative Oversight, concerning the extent to which pressure is brought to bear on the Commission by politicians and businessmen (who often use

[66] See Codding, The International Law of Radio, 14 Fed. Com. B.J. 85, 91–2, 97–8 (1955).

[67] Id., at 94 n. 40.

[68] See Codding, The International Telecommunication Union 380 (1952).

[69] Broadcasting, June 1, 1959, p. 79.

methods of dubious propriety) with a view to influencing its decisions.[70] 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. Some of the suggestions for improving the situation—for example, the enactment of a statutory code of ethics—may have merit in themselves. Others, such as the creation of administrative courts, may secure greater honesty at the expense of efficiency. But what needs to be emphasized is that the problem, so far as the Federal Communications Commission is concerned, largely arises because of a failure to charge for the rights granted. If these rights were disposed of to the highest bidder, the main reason for these improper activities would disappear. In the panel discussion on the Administrative Process and Ethical Questions held by the Subcommittee, a similar point of view was expressed by Professor Clark Byse of the Harvard Law School:

A TV license in some areas often is worth millions of dollars. The Administrative agency dispensing this bonanza operates under the broadest type of congressional direction. The agency is told to grant an application if public convenience, interest, or necessity will be served. It is true that the Commission has developed a number of criteria to govern its exercise of this broad grant of power. But the criteria are so general and numerous that it is often difficult to determine whether Commission action is the product of reasoned deliberation or of caprice. Would it not have been better if Congress had established some basic criteria concerning competence, diversification of mass communication media, and monopoly, and then had provided that the licenses should go to the highest bidder? There may be drawbacks to this suggestion in the TV area, and the device of automatic criteria perhaps cannot be widely adopted. But certainly the goal should be to limit discretion to the narrowest legitimate limits, particularly when the legislation authorizes distribution of a bonanza or contemplates the substitution of an administrative decision for a decision which would otherwise be determined by the forces of competition.[71]

[70] See Hearings on Investigation of Regulatory Commissions and Agencies before the Special Subcommittee and Agencies before the Special Subcommittee on Legislative Oversight of the House Committee on Interstate and Foreign Commerce, 85th Cong., 2d Sess. (1958). The Subcommittee was not simply concerned with the Federal Communications Commission but with the operations of all the independent regulatory commissions. The publicity received and the emphasis on improper personal conduct in the hearings was due to the activities of Dr. Bernard Schwartz, chief counsel of the Subcommittee, who exerted himself with a zeal which went beyond the call of duty and whose services with the Subcommittee were finally terminated. See B. Schwartz, The Professor and the Commissions (1959).

[71] See the panel discussion by representatives of law schools, of the government, and of the bar, in Hearings, op. cit. supra note 70, at 166–67. A similar point was raised by Professor Arthur S. Miller of Emory University Law School. Id., at 172.

At the present time the idea of using the pricing mechanism in the radio industry is coldly received, and it is not surprising that Professor Byse's suggestion was not taken up in the report of the Subcommittee. In part, this hostile attitude is a reflection of the misunderstandings which have been discussed in previous sections;[72] but there is more to it than that. When Professor Smythe had completed his economic case against using the pricing system (in the article discussed earlier), he introduced an argument of a quite different character. He said that a

second broad postulate which seems to underlie proposals such as that advanced [by Mr. Herzel] is politico-economic in nature: that the public weal will be served if broadcasting, like grocery stores, uses the conventional business organization, subject only to general legal restraints on its profit-seeking activity. This postulate carries with it, usually, the parallel assumption that the educational and cultural responsibilities of broadcast station operators ought to be no more substantial at the most than those of the operators of the newspapers and magazines. . . .

. . . [D]espite the extensive use made of these two assumptions by business organizations for propaganda purposes, there is a powerful tradition in the United States that the economic, educational and cultural rights and responsibilities of broadcasting are unique.[73]

Professor Smythe's position would seem to be that broadcasting plays (or should play) a more important role, educationally and culturally, than newspapers and magazines (and, I assume he would add, books) and that, therefore, there ought to be stricter governmental regulation of what is broadcast than of what is printed. It is possible to dispute both parts of this argument. But Professor Smythe is right to claim that this view (or something like it) has been long and firmly held by most of those concerned with broadcasting policy in the United States. Thus Mr. Hoover in 1924 said:

Radio communication is not to be considered as merely a business carried on for private gain, for private advertisement, or for entertainment of the curious. It is a public concern impressed with the public trust and to be considered primarily from the standpoint of public interest in the same extent and upon the basis of the same general principles as our other public utilities.[74]

And the present chairman of the Federal Communications Commission, Mr. John C. Doerfer, in 1959, said that regulation of programing

[72] During the Hearings Representative Moulder asked Professor Byse whether his proposal would not lead the Commission to "award the license not to the most competent, but to the one who has the most money?" Id., at 186.

[73] Smythe, Facing Facts about the Broadcast Business, 20 U. of Chi. L. Rev. 96, 104 (1952). See note 32 supra.

[74] Hearings on H.R. 7357, To Regulate Radio Communication, before the House Committe on the Merchant Marine and Fisheries, 68th Cong., 1st Sess. 10 (1924).

stems from the potential power inherent in broadcasting to influence the minds of men and the concomitant scarcity of the available frequencies. . . . The conjunction . . . of potentially great persuasive powers and the insufficiency of desirable spectrum space, has been the mainspring of all actions: legislative, administrative or court, which has qualified those freedoms generally enjoyed by the journalist, the artist and the minister.[75]

If the aim of government regulation of broadcasting is to influence programing, it is irrelevant to discuss whether regulation is necessitated by the technology of the industry. The question does, of course, arise as to whether such regulation is compatible with the doctrine of freedom of speech and of the press. In general, this is not a question which has disturbed those who wished to see the Federal Communications Commission control programing, largely because they thought a clear distinction could be drawn between broadcasting and the publication of newspapers, periodicals, and books (for which few would advocate similar regulation).[76] Thus, in a comment on the *Mayflower* doctrine, we read:

> . . . radio is unique. It involves a medium which, while quantitatively limited, has almost infinite capacities as a means for mass communication of ideas, and which is essentially unthinkable as a subject of any but public ownership. To draw an analogy to freedom of the individual or of the press is fruitless in this area.[77]

The Supreme Court made the distinction between broadcasting and the publication of newspapers rest on the fact that a resource used in broadcasting is limited in amount and scarce. But, as we have seen, this argument is invalid. Another common argument is that, since broadcasters are making use of public property, the government has a right to see that such public resources are used "in the public interest." "Radio is a public domain to which licensees have only conditional and temporary access. Its 'landlord' is the public. Licensees are 'tenant farmers'. The public's 'factor' is the FCC."[78] This would seem to give the government the right to influence what is printed in newspapers, periodicals, and books if one of the resources used were public property or subject to government allocation. Mr. Justin Miller, the president of the National Association of Broadcasters, in evidence to a Senate subcom-

[75] Address by John C. Doerfer at Chicago before the National Association of Broadcasters (March 17, 1959).

[76] There have been some who interpret the doctrine of freedom of speech and of the press not as an absolute prohibition of certain types of government action but as being "permissive and . . . subject (under due proces of law) to forfeiture," if it results in "serious damage to some aspect of the public interest" (Siepmann, op. cit. supra note 30, at 231). The establishment of a Federal Press Commission with powers similar to those of the Federal Communications Commission would presumably be compatible with this interpretation of the meaning of freedom of speech and of the press.

[77] Radio Editorials and the Mayflower Doctrine, 48 Col. L. Rev. 785, 788 (1948).

[78] Siepmann, op. cit. supra note 30, at 222.

mittee in 1947, pointed out that government regulation of what a newspaper could print would be held unconstitutional. But broadcasting also came within the protection of the First Amendment, and therefore, he argued, regulation designed to influence the programing of broadcasting stations was unconstitutional. The senators seem to have been completely unconvinced by Mr. Miller's arguments. Senator McFarland said:

> . . . there is a difference between the press and the radio. You can compare them but you cannot assume they are alike. You are granting frequencies in the radio field. Once a license is granted, it is worth a lot of money. That is not true with the press at all. That is where you people get off base, in my opinion.

And Senator White said:

> I just do not get at all the idea that there is a complete analogy between a broadcast license, which comes from the Government and is an exercise of power by Government, and the right of anybody to start a newspaper, anybody who wants to, without any let or permission or hindrance from the Government. . . . [I]t is pretty difficult for me to see how a regulatory body can say that a licensee is or is not rendering a public service if it may not take a look and take into account the character of the program being broadcast by that licensee.[79]

These comments point clearly to the misunderstanding involved in this defense of the present system. The argument moves from the existence of public property in frequencies to the assertion of the right which this gives to influence programing. But, as we have seen, there is no reason why there should not be private property in frequencies.[80] If regulation of programing is desirable, it has to be advocated on its own merits; it cannot be justified simply as a by-product of particular economic arrangements. To say that resources

[79] Hearings on S. 1333, to Amend the Communications Act of 1934, before the Senate Committee on Interstate and Foreign Commerce, 80th Cong., 1st Sess. 120, 123 (1947). Mr. Miller's statement will also be found in National Association of Broadcasters, Broadcasting and the Bill of Rights 1–35 (1947). This interchange between Mr. Miller and the Senators is discussed in Regulation of Broadcasting: Half a Century of Government Regulation of Broadcasting and the Need for Further Legislative Action, a study by Mr. Robert S. McMahon, for the House Subcommittee on Legislative Oversight, 85th Cong., 2d Sess. (1958).

[80] It was a weakness of Mr. Miller's presentation that he accepted the need for government allocation of frequencies and apparently was unaware of the possibility of disposing of frequencies by using the pricing mechanism. Mr. Miller attempted to bring the Senators to see the validity of his analogy between broadcasting and the publication of newspapers, so far as the First Amendment was concerned, by citing a hypothetical example. He said that there was a shortage of newsprint and that "some of these days we may have a government agency authorized to make allotments of newsprint. . . . Would it be proper, under such circumstances, for such a government body to impose the sort of abridgments upon freedom of the press that are now imposed on radio broadcasting? The question would seem to answer itself." But if the government allocated newsprint to users without charge, there can be little doubt that it would take into account what the newsprint was being used to produce. The obvious way to avoid the government's doing this would be to sell the newsprint at a price which equated demand to supply.

should be used in the public interest does not settle the issue. Since it is generally agreed that the use of private property and the pricing system is in the public interest in other fields, why should it not also be in broadcasting?

Mr. William Howard Taft, who was Chief Justice of the Supreme Court during the critical formative period of the broadcasting industry, is reported to have said: "I have always dodged this radio question. I have refused to grant writs and have told the other justices that I hope to avoid passing on this subject as long as possible." Pressed to explain why, he answered:

> . . . interpreting the law on this subject is something like trying to interpret the law of the occult. It seems like dealing with something supernatural. I want to put it off as long as possible in the hope that it becomes more understandable before the court passes on the questions involved.[81]

It was indeed in the shadows cast by a mysterious technology that our views on broadcasting policy were formed. It has been the burden of this article to show that the problems posed by the broadcasting industry do not call for any fundamental changes in the legal and economic arrangements which serve other industries. But the belief that broadcasting industry is unique and requires regulation of a kind which would be unthinkable in the other media of communication is now so firmly held as perhaps to be beyond the reach of critical examination. The history of regulation in the broadcasting industry demonstrates the crucial importance of events in the early days of a new development in determining long-run governmental policy. It also suggests that lawyers and economists should not be so overwhelmed by the emergence of new technologies as to change the existing legal and economic system without first making quite certain that this is required.

[81] C. C. Dill, Radio Law 1–2 (1938). Mr. Taft was Chief Justice of the Supreme Court from 1921 to 1930. So far as I can discover, the Supreme Court did not consider any radio case while Mr. Taft was Chief Justice.

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]

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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

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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.

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

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

12. *Id.*

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

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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]

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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).

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)

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 self-serving. 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 rent-seeking 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

("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.").

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.

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

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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).

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.

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 Service[40] 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

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 . . . .").

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.

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.

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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.

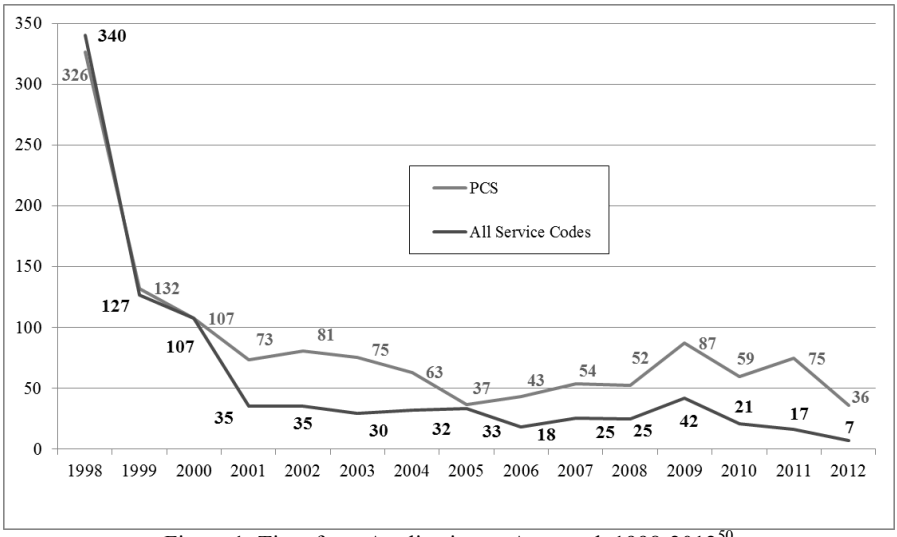

Figure 1: Time from Application to Approval, 1998-2012[50]

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

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).

52. *Id.*

53. *Id.*

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

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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 Act[58] 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).

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, 2004-2011[61]

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.

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.

Transaction	Year Review Completed	Petitions for Denial	Distinct Conditions Sought	Total Public Filings	Duration of 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, 2004-2011[63]

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.

Petitioner	Transactions Petitioned	Condition						
		Mandatory Roaming	Ban on Handset Exclusivity	Divestiture	Handset Inter-operability	Net 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, 2004–2011[68]

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 rent-seeking 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

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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,

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

	Condition						
Petitioner	**Mandatory Roaming**	**Handset Exclusivity**	**Divestiture**	**Handset Interoper-ability**	**Other**	**Total**	**Other Transactions 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*
Total	12	2	3	11	13	41	22
*Joint filing with Public Knowledge							
** Members include Center fro Rural Strategies, Access Humboldt, Virginia Rural Health Association, Virginia Rural Health Resource Center, Highlander Research and Education Center, Mainstreet Project and Partnership of African American Churches							

Table 4: VZW-SpectrumCo Transaction: Petitions to Deny[76]

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

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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.

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

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]

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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]

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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].

96. *See supra* Table 4.

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 community-based 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."[103]

Similarly, in their reply comments, Public Knowledge and its co-filers 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

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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).

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

100. *See id.* at 52.

101. Public Knowledge Petition, *supra* note 95, at 2.

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

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.

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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 Verizon-Spectrum Co transaction, with conditions.[115] The *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

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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, welfare-enhancing 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

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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.

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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.

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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.

Transaction	Delay	Cost of Delay to Transacting Parties	Lost Consumer Surplus from Delayed 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, 2004-2011[130]

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 characteristics reported in Tables 1 and 2: (1) the value of the 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 welfare-destroying 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

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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 pre-announced 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

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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.

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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 a*t 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.").