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Articulating A Modern Approach to FCC Competition Policy

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Abstract: The FCC has taken three different competition policy approaches: the *classic* role of regulating terms and conditions of sale, the *modern* role of using various tools to create largely deregulated, multi-firm, competitive markets, and the *laissez-faire* approach of believing that unregulated markets, even if monopolized, will produce the best outcome. For the most part, a light-handed modern role has proven successful. The FCC should adopt such an approach going forward with a classic regulatory role as a backstop, and it should articulate clearly its competition policy framework so that firms can understand the rules and compete to provide service to customers in a procompetitive manner.

I. Introduction

In creating the Federal Communications Commission ("FCC" or "Commission") in 1934, Congress gave the agency its fundamental mission:

> "Regulating...to make available, so far as possible, to all the people…a rapid, efficient, Nation-wide, and world-wide…communication service with adequate facilities at reasonable charges."

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In the 1996 Telecommunications Act, Congress added this purpose:

> "To promote competition and reduce regulation in order to secure lower prices and higher quality services…and encourage the rapid deployment of new…technologies."

In these two basic documents, as well as many other supplementing statutes, Congress told the FCC to make sure the United States has the best possible information and communications technology platform. For the most part, private firms in many different markets build, operate, and constantly change that platform. To achieve its objective, the FCC acts, sometimes by "[r]egulating," as empowered since 1934, and sometimes by trying "to promote competition and reduce regulation," as mandated in 1996. In deciding what to do with respect to competition, the FCC has taken three different approaches. It has variously chosen:

- the *classic* role of regulating terms and conditions of sale,
- the *modern* role of using various tools to create largely deregulated, multi-firm, competitive markets, and
- the *laissez-faire* approach of believing that unregulated markets, even if monopolized, will produce the best outcome.

In this essay, we offer a short history of each of these three, quite different policies. We conclude by recommending that the FCC, as a new chair composes a new commission, as much as possible adhere to the *modern* approach. It should use its power to promote competitive markets and therefore deregulate firms that then will drive innovation, new services, and benefit consumers. However, not all markets may be amenable to this approach. Therefore, we encourage the newly assembled FCC to explain its reasoning publicly, welcome open discussion, and then consistently follow the policy it chooses for each relevant market -- until the law and facts suggest a policy change would better benefit the economy and society.

Transparency and consistency give guidance to stakeholders, mobilize the staff, enable effective coordination with other agencies, and provide thought leadership. Coherent, cohesive, and comprehensive application of a particular competition policy to a particular market also should aid the FCC in its many inevitable experiences in judicial review and Congressional oversight. In any event, clear guidance from the FCC about its competition policy in a given market will give firms the green light to pursue strategies and tactics beneficial to the economy, and at least will provide a yellow caution light as to actions the FCC believes will harm competition or consumers.

In 2006, we called for the articulation of a competition policy by the agency to ensure the promotion of competitive markets for communications services (Hundt and Rosston, 2006). We hold similar views today, despite, or perhaps because of, significant changes in technology, business practices and market conditions. We believe the FCC can and should take various actions – including rulemaking, enforcement, merger review, spectrum sales – that will open closed markets to competition and allow and encourage firms to create new markets. These multi-firm competitive markets then can be lightly regulated, and the FCC can eschew setting terms and conditions of sale of goods and services.

We concede that the *modern* approach may not be applicable to some markets in transition from monopoly to competition, or to some markets that show characteristics of natural monopoly. We think that instances of natural monopoly in telecommunications markets are few and far between, but they exist. In addition, the *modern* policy choice calls for ingenuity and restraint in crafting pro-competition rules. Nevertheless, we believe that as to most markets most of the time, this approach will unleash the combination of capitalism and technological solutions that best creates gains in productivity, national income, and general welfare gains.

We prefer the FCC to adopt the *classic* approach only temporarily and as a last resort, if at all. Among the defects of this stance, in our view (and the view of many others who have studied the economics and political economy of regulations), are the likelihood that the regulated firms have much better information than the regulator, the capability of the regulated firms to capture agency sympathy and reduce agency willpower, and the significant role that the money of incumbents plays in the elected branches of government.

We believe the *laissez-faire* stance suits some markets on occasion. It may be ideal, for instance, in nascent or rapidly changing markets when technological roadmaps are unclear and bottlenecks are hard to create. However, the FCC ignores its ultimate mission if it allows *laissez faire* to become *laissez dormir.* Congress counts on the FCC to use its historical experience, technical skills, and good culture in constant pursuit of the ultimate objective: make sure America, and the world, has the best ICT platform imaginable. As a result, in some cases where the FCC lets the market work, bottlenecks and exercises of market power may develop as technology changes. In those cases, it may be beneficial for the FCC to step in with new, pro-competitive rules to ensure consumers benefit to the extent possible.

The purpose of this essay is to encourage all stakeholders in the FCC's mission to engage in the reasoned discussion that most benefits good decision-making at the agency. There is no shortage of important decisions in various markets that each call for the FCC to articulate a competition philosophy.

As of this writing, the issues calling for the expression of a competition policy include at least the following: (1) Addressing the Open Internet order; (2) Ensuring a competitive broadband market that benefits consumers, including new services, and privacy; (3) Fulfilling its role to maximize the value of the spectrum resource (including the role of satellites); (4) Monitoring the transition to IP networks; (5) Determining the role of government in negotiations between content and multi-channel video distribution providers; and (6) Reviewing mergers in conjunction with the antitrust agencies. The FCC can expressly state its competition policy choice in a manner that resembles the DOJ/FTC Merger Guidelines. Or it can reveal its policy choice on a case-by-case basis. We believe a combination of both means of expression will provide the most clarity to the FCC's many stakeholders. Reasoned explanation and consistent application amount to the forward-looking guidance much prized by investors and generally beneficial to the workings of markets.

Each of the topics cited above involves competition. For example, one might think the Open Internet order addresses market access (content providers seeking to reach consumers through an Internet access bottleneck), or one might argue that the potential for multi-firm competition in Internet access means no enduring bottleneck exists. But regardless of the point of view about competition, either the FCC, typically through its chair, states its competition policy and explains its application, or the policy is discerned by examining FCC decisions. Either way, the Commission adopts a competition framework – the question is whether it will be articulated persuasively, clearly, and in a manner that permits prediction.

II. An Independent Agency Needs to Explain Its Purpose

The Commission is an independent regulatory agency – a creature not envisioned in the Constitution or created by any Amendment.[4] It is part of what is sometimes called the Fourth Branch of government. Similar entities include the Securities Exchange Commission and the Federal Energy Regulatory Commission. As such, the FCC chair and commissioners can choose and apply the competition policy of their choice and, for the reasons we elaborate on below, other than the all-important consideration of judicial review, not too many checks on their authority exist.

By contrast, for example, the Environmental Protection Agency (EPA) is not truly independent. The head of the EPA reports to the President. Its proposed rules do not go into effect without the permission of the White House. If these were not meaningful constraints, it is likely that the EPA would exercise more authority over environmental impacts than it has done. The FCC chair is one of a maximum of five commissioners, each of whom is appointed by the President for a term, subject to Senate confirmation. No President can name more than three commissioners from the President's political party. The agency, therefore, is intentionally designed to be composed in a bipartisan way, in the hope that it will achieve consensus on most matters. Indeed in usually more than 90% of its actions, normally numbering a thousand or more annually, the FCC acts unanimously. Such is the culture. The exceptions of course draw the most public attention, but in most circumstances the FCC draws fairly little coverage from major media. It

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[4] 44 U.S.C. 3502(5) contains a list of such agencies.

attracts a great deal of scrutiny from affected stakeholders, and from members of Congress that the stakeholders or self-motivation cause to take an interest.

The President, without Senate approval, selects the Chair from among the commissioners by the simple act of writing a letter of selection. The President cannot order the Chair to take a particular regulatory or enforcement action. The agency does not have to submit its proposed rules to the White House (OIRA in OMB) for approval. The President, typically acting through the Department of Commerce, can express in writing a preference for certain action, but by law and norms the FCC does not report to the Executive or Legislative Branch. Congress conveys to the FCC authority to issue implementing regulations, grant or deny license transfers (and hence in effect approve or disapprove mergers including license transfers), engage in enforcement actions, auction spectrum, and take many other actions important to many companies. The legislative delegation of power is often very broad. Sometimes too the empowering laws require the FCC to resolve ambiguity or conflict in statutory language, or to update mandated rules as technological solutions and factual circumstances change. As a result, the political and policy tussles over the regulations and other matters are often as or more confrontational than the debates over the laws. In the issuance and application of regulation, members of Congress (and especially senior members, given that in the House and Senate seniority matters a great deal) try to influence by word, appropriations, and occasionally new legislation the FCC's decisions. Another way that the Senate tries to influence the agency is by placing staff members in jobs as commissioners. Some White House personnel offices resist this; some do not. The results are shown in the table below.

Table — FCC Non-Chairman Commissioners

	Start Date	Hill Experience?	President's party?
O'Reilly	n/a	Yes	
Rosenworcel	May-12	Yes	Yes
Pai	May-12	Yes	
Clyburn	Aug-09		Yes
Baker	Jul-09		
McDowell	Jun-06		Yes
Tate	Dec-05		Yes
Adelstein	Dec-02	Yes	
Martin	Jul-01		Yes
Copps	May-01	Yes	
Abernathy	May-01		Yes
Powell	Nov-97		
Tristani	Nov-97		Yes
Furchtgott-Roth	Nov-97	Yes	
Ness	May-94		Yes
Chong	May-94		

Source: FCC website; authors.

Of course, stakeholders in the outcomes of FCC action can and usually do appeal to the Courts of Appeal for reversal. The Court of Appeal for the District of Columbia, a common recipient of appeals of agency rulemaking, is quite willing to overturn or modify agency rulemakings. In addition, stakeholders may try to influence, or sidestep the FCC by urging the FTC or DOJ to exercise their authority over a particular issue. A common meme for incumbent firms is to assert that the FCC should not have what they call duplicative jurisdiction over competition issues, although the FCC has a unique ability to execute on its competition policies in a prospective and multifaceted way. Despite the various fronts on which the FCC must fight to preserve its authority, for the most part the FCC can find a way to put its policies into effect. In most important respects, the FCC is its own boss. Congress would find it quite difficult to impeach a commissioner,[5] and Congress to pass a law overturning an agency decision. The agency as a Fourth Branch of government is as to the markets in its purview the most important of all the branches. In the end, timorousness and uncertainty are the primary checks on the Commission's discretion.

The FCC's domain, or jurisdiction, includes at least some part of the markets for broadcast television and radio, satellite, wireless, broadband, media content, communications equipment,

[5] In 1960 Eisenhower's FCC chair, John Doerfer, was forced to resign over taking what appeared to be bribes. See M. Hilmes, Only Connect: A Cultural History of Broadcasting in the United States, p. 217.

the Internet, export and import of communications goods and services, and even, indirectly, newspapers. Somewhere between a tenth and a sixth of the American economy is in its purview. Regulation is probably not as important to this sector as technological change, access to capital, or marketplace competition. But it is very important.

III. Three Eras of FCC Competition Policy

The FCC's 79-year history can be divided into three overlapping eras of regulatory philosophy, each based on a premised simplified for purposes of this essay: (1) the classic view that competition wastes resources, so should be replaced by regulated monopoly, running roughly from 1934 to 1993, and occasionally appearing since then; (2) the modern view that multi-firm competition and ease of entry produce better outcomes, beginning in the 1970s and reaching its zenith in the 1990s; (3) the laissez-faire view that regulation is a bad idea whether or not a market is competitively structured, flourishing in the 2000s.

1. The Classic Approach

In the first era, the FCC's policy choice was aligned with the philosophy of the first New Deal. It was thought that the nation had too much supply; markets needed to re-organized to reduce capacity and avoid inefficient production.. Therefore, government needed to play a significant role in business decisions in the economy. Moreover, telephone service, as well as other networks, was a natural monopoly in any event. If two or three networks could be consolidated into one, that one would produce the most efficient use of invested capital. As a necessary corollary, the FCC should regulate the terms and conditions of sale of that network. The owner should not be allowed to extract rents (monopoly profits) either by charging too much or by lowering the quality (and hence cost) of what was sold. Moreover, the regulator also should insist that the monopoly firm provide certain public goods or solve difficult problems like universal service that a multi-firm market might not address. Adhering to the *classic* view, the FCC selected the number of firms for markets: monopoly (AT&T, cable), duopolies (early wireless), or three-firm oligopoly (broadcast networks). The FCC's regulations covered end user prices, prices between parties in a supply chain, the nature and quality of service offerings, specific capital expenses, and interconnection to other networks.

2. The Modern Era

Starting in the 1970s, the FCC and others began to challenge the New Deal consensus. In the 1993 budget law, OBRA '93, Congress gave the FCC authority to auction spectrum. In doing so, it enabled the FCC to create a multi-firm wireless market, while largely abandoning regulation of the terms and conditions of sale in that industry. The 1996 Telecommunications Act had as its central operating principle the commandment to issue rules that promoted competition and to strike from the books rules that restricted competition. (An exception that by contrast made the central theme clearer was the Congressional demand that the FCC adopt the *laissez-faire* approach to broadcast radio; this led to very rapid consolidation of the radio market.)

The logical conclusion of a successful and permanent implementation of the *modern* approach would be that the FCC, like the state in Marxist theory, could wither away. Indeed, in aviation and trucking, Congress decided that neither the CAB nor the ICC needed to continue to exist, because transportation had become sufficiently varied and competitive to serve public interest purposes without interventions by these agencies. So the *modern* era could lead to the *laissez-faire* era. If the FCC no longer needed to open closed or new markets, its other functions could be parceled out to other agencies. If the government still needed to auction spectrum, OMB or GAO could do that job. If consumers occasionally needed more information, such as cell phone alerts of dangerous weather conditions, the FTC could handle that sort of regulation. The most courageous FCC chair, under this approach, would have been the one, like Fred Kahn at the CAB, who announced that the agency could shut its doors.

3. *Laissez Faire and beyond*

In the early 2000s, the Bush Administration's Commission moved at least toward final innings, if not to the last out. Aided by the District of Columbia Court of Appeals, the agency moved to undo many Clinton era regulations prohibiting increased concentration and promoting competitors. Chairman Michael Powell expressly announced that "intermodal" competition existed. Cable, broadcast and satellite competed in video markets. Cable offered competition with the telephone network in voice communications. Telephone potentially could compete with cable in Internet access. In short, all networks could compete with each other. In only some markets was intermodal competition extant. In some, standard antitrust and economic analysis did not support the conclusion that actual or potential competition constrained monopoly practices. But Chairman Powell and his successor Chairman Kevin Martin seemed to adhere, for the most part, to the *laissez faire* view. Hence, they led the FCC to abandon the unbundling rules for the telephone network, approve most mergers, and remove spectrum caps. However, Powell did block satellite consolidation, harking back to the *modern* view, and Martin tried to unbundle cable video offerings more in the *classic* regulatory view.

Soon after Barack Obama was inaugurated, the American Recovery and Reinvestment Act (ARRA or Recovery Act) provided $7 billion for broadband development.[6] This astonishingly large sum – only one percent of the total stimulus, roughly, but a very big sum for a one-time public capital expenditure on broadband – called for a competition policy choice. Was the money to be spent promoting regulated monopolies or multi-firm market structures? Operating under the White House mantra of "timely, targeted, and temporary," the NTIA in the Commerce

[6] American Recovery and Reinvestment Act of 2009, P.L. 111-5.

Department and RUS in the Agriculture Department were supposed to make sure the money was spent quickly, with maximum job creation, and yet no ongoing commitments to spend more.

The rule of "temporary" caused the NTIA and RUS to reject the idea of creating a revolving loan fund for stimulating private firm build out in rural and high cost areas. The other idea to be rejected quickly was a race to the top auction where firms would win by providing the highest ratio of new broadband subscribers per stimulus dollar. This might have promoted multi-firm market structures. The Department of Education had great success in its race to the top. But in broadband the idea lacked advocates (other than a group of 73 economists who submitted such a plan, Milgrom et al, 2009) and went nowhere. The Administration chose instead to conduct a beauty contest, using a subjective multi-factor assessment of competing applications for grants. (See Rosston and Wallsten, 2013, draft). Some of the guiding principles were not to spend on creating competition with existing firms, and to require that the government-funded networks be open to all content. The "open" requirement essentially was the same as common carrier requirements drawn from the FCC's 1934-93 regulatory regime, and not taken as the guiding light by the FCC in the 1990s.

In fall 2009, the new FCC chair, Julius Genachowski, opened a proceeding about "net neutrality," which later led to the "Open Internet" order. The premise of the rulemaking appeared to be that broadband Internet access was prone to being a monopoly (perhaps a function of cable's successful strategy and the Bush era's abandonment of unbundling the telephone network) or a duopoly (such as where Verizon had deployed FIOS to compete with cable broadband). However, the FCC implied that it saw no reasonable prospect of substantial additional competition. Therefore, the FCC needed to assure by rule that wireline broadband was open in the sense that anyone could send or receive any content. It might require Internet access providers to refrain from discriminating among over-the-top providers, such as by giving one company faster speed or lower prices for transmission of content. Or it might set prices to end users, although the Commission said it had no intent to do so.

In the Open Internet order, the FCC seemed to be applying *classic* regulation drawn from the 1992 Cable Act or the 1934 Communications Act. In the meantime, in 2010, Comcast proposed merging with NBC Universal. In approving that merger, the FCC effectively inserted net neutrality as a condition for Comcast alone. However, it also imposed provisions important to competing content-bundling companies that seemed to partake of the *modern* era's approach by ensuring access to Comcast's content.

Meanwhile, in 2010, the FCC released its "National Broadband Plan."[7] The plan contained many creative ideas for delivering more access to more people, with more public goods digitally provided, as well as a number of competition ideas of the *modern* school. However, the FCC did not make the Broadband Plan a vehicle for expressing an overall preference in competition policy. Moreover, by the fact of its existence, the Broadband Plan implied a rejection of the doctrine that if network firms were left alone they would build what people wanted and was best for society. In the end, the Commission did not use the Broadband Plan to articulate the choice of a regulated monopoly approach to Internet access or a multi-firm market approach.

However, as to wireless, in 2011 FCC was firmly in the *modern* era of preferring multi-firm competition when it rejected the AT&T acquisition of T-Mobile on the grounds of excess consolidation. Its analysis of the wireless market in that case sounded the death knell for the transaction. It also demonstrated the agency's capability for academic excellence.

4. Changing Congressional competition policies

At times Congress has very directly told the FCC what competition policy to adopt, and at other times it has refrained. For example, after the Antitrust Division of the DOJ under the antitrust titan Bill Baxter decided (and forced AT&T to agree, in 1982) that long distance could and should be competitive, the local telephone networks were left as monopolies and Congress did not intervene. The FCC, however, carved out data as a potentially competitive market (in contrast to voice). It also chose, against Congressional pressure, to impose price caps, instead of traditional rate regulation as to the price of interconnection between long distance and the local monopolies (Brock, 1998). In the first Bush Administration, the FCC also aspired to enable the local telephone companies to compete against cable in pay video. In sum, in the 1980s and early 1990s, the FCC, with little help from Congress, tried to employ a mixture of *modern* and *classic* approaches. Congress changed its views on its preferred competition policy (regulated monopoly vs. multi-firm market structure) as to cable several times. In the 1984 Cable Act, Congress saw cable as a competitive force against the consolidated broadcast networks, and took actions to help cable, while preserving local broadcast against the power of the networks. In the 1992 Cable Act, Congress believed cable had developed substantial market power for pay video services, and directed the FCC to regulate cable prices to the consumers. That was a *classic* move. But at the same time Congress ordered the FCC to make much content owned by cable available to satellite pay video competition through Program Access rules, in what we would regard as a *modern* move creating a multi-firm market structure. Then, just four years later, in

[7] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(k)(2)(D), 123 Stat. 115, 516 (2009) (Recovery Act). Prior to its release, we were both subject to people from around the world, including in the U.S., criticizing the U.S. for "not having a broadband plan." At least since then, we have not heard this critique.

1996, Congress appeared to view the video marketplace as more competitive and ordered the FCC to curtail cable price regulation. This was rather *laissez faire.*

Through the Omnibus Budget Reconciliation Act of 1993 (OBRA '93), Congress gave the FCC authority to auction spectrum for the first time.[8] The auction authority was very broad – it did not tell the FCC how to auction the spectrum, and equally importantly, it did not tell the FCC how to allocate the spectrum to be auctioned. OBRA '93 set forth a very aggressive timetable to conduct the auctions, but did not express a point of view on most major policy issues, except to say that minorities and women, small businesses and rural telephone companies should be able to participate to some degree in the industry. The FCC used its discretion to introduce complex and risky simultaneous multiple round auctions with spectrum caps in an effort to increase efficiency and competition in the provision of wireless services.

From the date of the AT&T break-up, the local Bell companies insisted on being able to compete in long distance and any other adjacent market to local telephony. The Department of Justice believed that the local access monopolies should not be allowed to seek market power in adjacent markets. However, in 1996, Congress passed the historic Telecommunications Act which allowed the local telephone companies the freedom to expand the scale and scope of their businesses, in return for granting rivals the opportunity to lease portions of their local access network at regulated rates. The leasing provision was as radical a borrowing of a monopoly network as any legislature has ever ordered. The FCC's decisions about how that would occur, and what price was to be paid, were complex and hotly contested. The regulations, known as "unbundling," jump-started expansion of competitive carriers, including Internet access start-ups, and eventually were rescinded by the Bush Administration's FCC chairs. By linking their actions to D. C. Circuit decisions, and not attempting to amend the rules to garner court approval, the Commission in effect repealed portions of the 1996 Telecommunications Act, without the approval of Congress. Interestingly, the Congress and the FCC of the 1990s saw their unbundling policies adopted in many other countries.

More recently, Congress adopted one of the recommendations of the National Broadband Plan and gave the FCC authority to conduct what has become known as the "Broadcast Incentive Auction." Congress gave the FCC broad discretion about how to structure the details of the auction, but set parameters on the FCC's ability to repack broadcasters after the auction, and included several other provisions that to some extent attempt to micromanage the auction process and post-auction market structure.

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[8] See Kwerel and Rosston (2000) for a discussion of the mechanisms that led to the grant of auction authority and the FCC implementation of that authority.

Through all the eras of debate about competition policy, the one continuous theme has been the clamor in the industry to understand (and endorse, dispute, or bar the application of) the FCC's choice of competition policy.

IV. The Modern Multi-firm Approach Has Produced Wireless Success

As early as in the work of Ronald Coase, economists had been arguing against the FCC's management of industries. Coase famously made the case in 1959 for privatizing spectrum in the way that ultimately led to the spectrum auctions more than 30 years later (Coase, 1959 based in part on his reading of Herzel, 1951). The general view among economists was that competition, even if not the textbook model of perfect competition, could better protect consumers than a regulatory framework with its attendant weaknesses that tended to stultify innovation and favor incumbent firms. The late 1970s provided the deregulation of trucking, rail, and airlines, and the pursuit of the AT&T monopolization case. In the 1980s, the success of deregulation and the new competition in long distance services provided the support for the view that competition could benefit consumers (Winston, 1993). As a result, a regulator might be better served by setting rules to promote competition, entry and innovation rather than trying to set retail prices for incumbent monopolists and pursue social goals within an anticompetitive framework.

The problem with this theory was two-fold. First, the FCC tended to believe that some regulations were necessary to promote entry into markets historically closed to competition. So the path to deregulation ran through regulatory action. That slight paradox has flummoxed many people, especially in Congress. Second, technological solutions arrive in unpredictable and rapid ways in the markets within the FCC's jurisdiction. At the same time, when confronting an overly consolidated market, the FCC often should at least consider the possibility that adjacent market entry, divided technical leadership or groundbreaking technological solutions will do a better job opening that market to competition than will an FCC rule. In other words, the FCC can be pro-competitive but decide on a case-by-case basis whether to be pro-active.

A worthwhile case to examine is the wireless marketplace, which shows the power of facilitating entry and promoting competition through rules that prevent exclusionary conduct.[9] As discussed below, in the 1980s the FCC chose duopoly as the competition policy for wireless. In the 1990s the FCC chose multi-firm market structure and no price regulation. This we did and still favor. In the 2000s the FCC began to move to laissez-faire. In 2010-2012 the FCC and DOJ moved back to promoting multi-firm market structure. For the future, the new Commission must decide.

[9] Among various other important illustrations of the *modern* approach are program access and pole attachment rules.

In 1984, the FCC began assigning reallocated spectrum from broadcast television for mobile telephone services. At the time, no one knew how important mobile communications would become. The FCC had initially proposed that a single firm be given a monopoly on cellular service with 40 MHz of spectrum. After pressure from the Department of Justice and others, the FCC split the 40 MHz into two licenses, reserving one for a new entrant and the other for the incumbent local telephone company. The FCC allowed mobile phone service, but set a single analog standard and prohibited dispatch service on the cellular spectrum because it feared such use would be "inefficient."[10] Despite these restrictions, cellular use advanced much more rapidly than predicted and by 1989 the FCC had identified microwave spectrum that it could reallocate to provide additional cellular service and potentially competition to the duopoly providers.

The FCC did not make the new Personal Communications Service ("PCS") spectrum available until Congress passed OBRA '93. In that act, Congress gave the FCC authority to assign licenses via auctions, set stringent timelines for the implementation of the auctions for the PCS spectrum licenses, and created a new regulatory framework for Commercial Mobile Radio Services. While Congress set broad guidelines, the FCC had several decisions about how to move forward with the new spectrum allocation.

The FCC defined PCS very broadly – it did not prescribe services that could be offered and it did not mandate specific technology. Rosston and Steinberg (1997), in a paper that was originally intended to be a Commission Policy statement, but did not get the votes of two commissioners so was released by the Chair as a staff working paper, outlined the view that led to the flexible allocation decisions.

In addition to the flexible service rules, the FCC set spectrum caps in the auction that prevented the cellular carriers from buying the large new PCS licenses in their region.[11] These spectrum caps ensured that every region would have at least four licensees after the conclusion of the first broadband PCS auctions ended in 1995.[12] Without such caps, it is possible that the incumbents would have acquired the licenses in part to preclude additional competition. The auction worked well and consumers benefitted from the subsequent vigorous competition that included substantial price declines and an array of new and innovative wireless products and services. The introduction of at least two new competitors to the duopoly cellular market illustrates the

[10] See Rosston (1994) for a fuller discussion of the path to cellular service.

[11] The FCC had PCS specific spectrum caps limiting any provider to 40 MHz of PCS spectrum. In addition, it adopted a 45 MHz CMRS spectrum cap. Since the cellular licensees had 25 MHz of spectrum (they were each awarded an additional 5 MHz of spectrum in 1986 with little fanfare or debate), they could buy two of the 10 MHz PCS licenses, but were not allowed to buy a 30 MHz PCS license in their region. Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, GN Docket No. 93-252, Third Report and Order, 9 FCC Rcd 7988, 8100 ¶ 238, 8109 ¶ 263 (1994) (CMRS Third Report and Order).

[12] The C block auction that began in late 1995 should have ensured a fifth provider with at least 25 MHz of spectrum in every area, but failed to do so quickly because of the bankruptcy protection for some bidders.

potential benefits of competition. With only two providers, wireless prices were very high and usage was low. In 1994, before the auction, the average bill was $56 for 119 minutes of use for about $0.47 per minute. The new entrants caused prices to drop dramatically immediately upon entry as they fought to acquire market share from the incumbents and new customers from those who had not yet subscribed to wireless. Five years later, the average revenue per minute had been cut in half, to $0.22.[13]

Wireless has now become the primary common medium of communication in the United States, and the world, just as the Internet is the chief common medium of information exchange. Both wireless and Internet markets stand as extremely powerful evidence of the benefits of the modern approach that jump-started their success stories. They also show, now, tendencies toward consolidation that demonstrate that the government should never be terminally laissez-faire.

The success of the wireless market was not due just increasing the amount of spectrum, ensuring a competitive number of firms, and flexible use rights, although those were important and led to immediate benefits. Competing against an entrenched incumbent provider can require regulatory intervention to ensure that a new entrant can get a foothold as well, and the promise of wireless as an alternative to traditional wireline telephone service would not have happened in nearly the same way without a rule to facilitate interconnection with the incumbent network. Prior to the Telecommunications Act of 1996, state regulators set local connection rates above cost for termination on the incumbent wireline network to keep monthly local telephone rates low. For example, it was typical for a cellular company to pay three cents per minute to terminate a call on the wireline network.[14] When calls went from the wireline network and were terminated on the wireless network, a typical payment might be on the order of one cent per minute. With a typical local calling volume of 1,000 minutes per month for a household, and most of those calls going from wireless (which had comparatively few subscribers) to wireline phones (which almost everyone had), a three cent per minute expense would put the monthly service cost of using a wireless phone as a landline replacement at $30 before the wireless firm could start to cover its own network costs. As a result, wireless networks charged high per minute fees and consumers did not see wireless as a replacement for landline service. That was the intention of the wireline firms.

The 1996 Telecom Act permitted the FCC to change the interconnection rules. It required that “transport and termination” of traffic be “reciprocal.”[15] Incumbent wireline telephone companies made the argument that three cents one way and one cent the other way was “reciprocal” so that

[13] CTIA.

[14] *See* FCC (1996), para 1082.

[15] Telecommunications Act (1996), §251(b)(5) and §252(d)(2). “Transport and termination” refers to the connection fees charged for connecting a call to an end user on a network.

there was no need to change any rules or payments. Because this pattern of payments would inoculate the wireline companies from competition, and the notion that the incumbent phone companies had the best idea about their costs and had the highest volume of calls, the FCC interpreted the word "reciprocal" in the legislation as synonymous with "symmetric." So if the Incumbent Local Exchange Carrier ("ILEC") charged a high price for its termination, it would also have to pay a high price for its outgoing calls.[16]

The reduction in termination payments, from three cents per minute to a fraction of a penny a minute allowed facilities-based local competitors like wireless companies and cable companies to compete with the ILECs; the sea change ushering in facilities-based competition would not have occurred had the ILECs been able to pay a low rate for their outgoing traffic and charge a much higher rate for incoming traffic. Wireless carriers were able to take advantage of the much lower and symmetric termination payments and began to offer new services like "free nights and weekends" in addition to the mobile-to-mobile calling that avoided the wireline termination payments altogether. Ultimately, the reduction in termination payments contributed to AT&T's ability to offer the Digital One Rate in 1998 that started the move to big packages of minutes usable anywhere in the country, and also to VoIP services that compete with the ILECs.

The reciprocity rule illustrated the power of regulation to promote multi-firm competition in other ways too. The ILECs apparently did not foresee the change in demand due to the Internet.[17] They focused their attention on the rules for the pricing of unbundled network elements and ignored this subtle change in the rules, although this change made an enormous difference in competition for facilities-based providers. Once the ILECs, with the view that interconnection would involve voice services, primarily terminating on their networks, set a high termination price, innovative Competitive Local Exchange Carriers ("CLECs") signed contracts with dial-up Internet Service Providers like AOL that received incoming calls and made virtually no outgoing calls. As a result, the above-cost termination payments went to the CLECs and the ILECs found themselves paying out much larger amounts than they had anticipated. ILECs subsequently reduced significantly the rates for symmetric termination, while fighting for and eventually getting the FCC to change the rules to allow for differential rates, but ISPs had already gotten a big leg up on the ILECs in the race to define Internet access in the first, critical, dial-up era.

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[16] FCC (1996), para's 1069 – 1096.

[17] The Telecom Act of 1996 was also hailed as a grand bargain between rival long-distance and local telephone companies. By providing the carrot of long-distance entry to the local carriers, Congress forced the local carriers to open their local networks to competition. Removal of these barriers also tore down the artificial distinction between local and long distance telephone calls that had evaporated due to dramatic decreases in the cost of transmitting calls over long distance.

The technological advances in wireless, broadband, and VOIP led to different parties with different interests vying for influence in Congress and at the FCC. Some of these newly interested parties pushed for low-cost interconnection and the resulting changes in regulation that promoted the interests of these new competitors led to an increased diversity of competition that in turn has lessened the need for traditional monopoly regulation through its reduction of horizontal monopoly power.[18]

Wireless penetration grew rapidly from the PCS auctions in 1995 through the end of the century. With the election of George W. Bush in 2000, Michael Powell moved from being a Commissioner to being Chairman of the FCC. In that role he was able to effectuate his desire to abolish the 45 MHz CMRS spectrum cap and institute a case-by-case approach to spectrum transactions:

"The intended effects of this action are to "sunset" the spectrum cap rule effective January 1, 2003; permit the Commission to consider, in conjunction with the United States Department of Justice (DOJ), substantive and processing guidelines for the Commission's case-by-case review of transactions that would raise concerns similar to those that the spectrum cap was designed to address; raise the spectrum cap to 55 MHz in all markets during the transition period; and eliminate the cellular cross-interest rule in Metropolitan Statistical Areas (MSAs), while retaining it in Rural Service Areas (RSAs)."[19]

It could be argued that there had been substantial change in the wireless marketplace over the previous few years – enormous growth, changes in pricing plans, and as described above, the implementation of precompetitive termination payments that reduced the cost of wireless service tremendously. In addition, there was a move to allocate more spectrum to Commercial Mobile Radio Service. Rosston and Topper (2010) document the subsequent change in wireless competition over the next several years.

With additional CMRS spectrum, there is no doubt that any fixed numerical cap should be increased. But the question remains: when would caps be appropriate? One key aspect of the spectrum cap compared to a case-by-case approach is the use in auctions. The FCC has settled on the use of a simultaneous auction framework that allows firms to compete for licenses and pursue backup strategies if other licenses become relatively too expensive. The benefit of a clear ex ante rule for spectrum aggregation is that the auction process would not have an extra layer of

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[18] Harris, Rosston and Teece (1995) argued that with advances in local telephone competition, ultimately the only regulation would possibly be to ensure competitive interconnection charges.

[19] Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01-14, Report and Order, (2001), available at https://www.federalregister.gov/articles/2002/01/14/02-868/2000-biennial-regulatory-review-spectrumaggregation-limits-for-commercial-mobile-radio-services .

uncertainty, and the spectrum aggregation concerns would be addressed in a consistent manner, instead of trying to determine whether it makes sense to prohibit spectrum acquisitions after the close of an auction which might require re-running the entire auction to get the efficient outcome. As a result, caps make more sense in an auction context than for non-auction situations where there are fewer interrelated transactions occurring simultaneously.

V. Upcoming Competition Policy Choices

1. The Open Internet order

The wireless story leads to the present. The FCC seems committed to a proactive competition policy in wireless, with the corollary that it sees no need for rate regulation or behavioral regulation in that sector.

This approach intersects at a crossroads of decision with wireline. (We do not think that at this point in time the FCC will declare that wireless is a competitive substitute for wireline broadband.) Does the FCC prefer, or in fact can it promote multi-firm competition in broadband Internet access, or should it choose for that market a different competition policy, either *classic* or *laissez-faire.* When the Court of Appeals rules on the FCC's Open Internet rule, the result will be to ask the new FCC, composed of a group four of whom did not vote on that rule, whether to fight for, change, or abandon the rule. The FCC response to the Court's decision will be tantamount to selecting a competition policy for wireline broadband.

The Open Internet rule itself did not articulate a competition policy or even a framework for assessing competition issues. Indeed, the rule allowed carriers to impose data caps and usage-based pricing. Both practices in some circumstances might enhance welfare gains. They might in other situations amount to inappropriate monopolistic practices. The rule did not suggest when and how the FCC should decide if caps and usage-based pricing should ever be barred or whether those practices always should be permitted. In any event, the D.C. Circuit may or may not permit the FCC to consider such rate regulation under the Open Internet auspices. The FCC may have to decide that broadband Internet access is to be treated as a regulated monopoly and declare it to be a "communications service" under Title II, suitable for "common carrier" classification. Or it may elect, instead, to seek ways to create more robust multi-firm competition in wireline broadband Internet access. It also might find ways to help wireless provide more effective competition in Internet access.

In any case, the FCC will need to decide what problem of competition it is trying to solve. In our view, the FCC's competition analysis should start with recognizing that broadband networks have two sides: sender and receiver. There is a rich economic literature on "two-sided markets." A network owner can charge either or both sides. The credit card business provides a useful analogy: a credit card company can charge the cardholder and/or the restaurant that takes the card. A two-sided network owner determines its charges based on the relative elasticity of demand (which can also be a function of network size). Typically a credit card company gives away cards to get a user base, then charges restaurants a commission when cardholders pay for meals with their cards. Similarly, a broadband network operator might charge a low price to users and a high price to content sellers until it had a large user base. Conversely, a network might be able to provide such good access that it could charge high prices to end users, say for example, if it had very high speed mobile service relative to all of its competitors.

Yet not all content is of equal value to the network owner. ESPN is said to be considering paying wireless carriers to allocate more bandwidth to carry ESPN's content. The carriers might well garner new revenue from the upstream, content side of their networks by ensuring quality just as FedEx and the USPS provide priority delivery of packages. Nor are all broadband customers of equal value to access network owners. Access providers are seeking to price discriminate among customers through usage caps, time of day pricing, and other marketing programs. While such arrangements may treat customers differently depending on their elasticities, it is not clear whether such arrangements harm or help efficiency overall.

The FCC needs to put in place a framework for all of its decisions so that companies will understand how such arrangements will be evaluated; without clear guidance, like that provided by the DOJ/FTC merger guidelines, firms will not know how the FCC will judge their actions. Uncertainty about the framework might lead some firms to eschew certain practices that would be beneficial and other firms to adopt harmful practices with the view that they might be allowed to proceed, or that their actions will make it harder for the FCC to condemn such actions.

Without deciding all issues in advance, and with attention to the actual facts of any dispute, the FCC has many reasons to retain jurisdiction over arrangements on both sides of the network. For example, if wireless carriers treated PBS worse than ESPN, many would argue that the FCC should intervene to assure that at least some non-profit educational content can reach consumers as quickly, with as high a quality level, as sports.[20] On the other hand, if the FCC used regulation to insist that ESPN and PBS be unbundled and separately offered, either as pay video or as over-the-top content, consumers might well be worse off.[21]

[20] For another example of a potentially problematic practice within a vertically integrated firm, "The Deutsche Telekom [data caps] proposal is controversial not only because it would impose the nation's first comprehensive download limits on landline broadband service; Deutsche Telekom also plans to exempt from the limits the traffic generated by its own Internet television service, Entertain. At the same time, the operator does not plan to exempt the traffic of rival services, like YouTube, from Google; iTunes, from Apple; or Facebook." New York Times, May 12, 2013.

[21] For a good discussion of these issues, see http://mruniversity.com/courses/economics-media. Another scenario where the FCC may someday be asked to intervene would be where a content provider blocks access to its websites from broadband customers of an MVPD with which it is having a dispute over payment for video programming, but allows access from other broadband providers with competing video services.

None of these questions about two-sided networks are easy. Nor are they unusual.

Applying that 1993 experience of regulating the cable pay video industry to the issue of regulating the cable broadband network in 2009, the FCC could have drawn three lessons:

- Regulating price or content in broadband would produce the same firestorm of lobbying against the FCC that it had experienced in 1993, with probably the same result that obtained in 1996 when cable companies persuaded Congress to undo almost all regulation of its business.

- Creating opportunities for adjacent market entry against any dominant broadband network would be a productive avenue. In the case of cable broadband, that would mean using regulations to promote new entry and expanded offerings from competitive providers, such as wireless access. In this connection, special access reform and spectrum licensing and availability would be vital.

- It would be important to limit efforts by any access monopolist to entrench its position by creating the equivalent of Microsoft's "application barrier," such as by gaining exclusive access to content. This was reflected in conditions imposed on the Comcast acquisition of NBC Universal, and historically in the program access rules that allowed satellite MVPDs to gain a foothold in competition with cable television systems.

The history of the last four years for the FCC could have been much different had it been guided from the beginning of the Obama Administration by a clear regulatory philosophy coupled with a detailed analysis of the competitive structure of the markets in its broad jurisdiction.

If the FCC had stated in 2009 that net neutrality applied only to dominant firms, for example only to cable where it was the dominant Internet access provider, then the rule would not have seemed so intrusive and arguably retrograde. Moreover, because it wanted to clear the way toward closing its acquisition of NBC Universal, Comcast might have led the cable industry to stipulating to the rule.[22] With a clear definition of how it would determine "dominance," the FCC then would have been able to link market power with net neutrality.

As individual disputes might arise in this domain, but also in its other areas of authority, the FCC could study the specific facts and develop a body of case-by-case decisions that amounted to doctrine. Of course, the case-by-case decisions should be governed by an overall competition framework, much as Bill Baxter's Merger Guidelines have led to case law governing antitrust enforcement.

[22] Ultimately, Comcast agreed to a form of net neutrality as a condition of approval of its acquisition.

2. *Maintaining the success of wireless*

The other big battleground where a competition policy must be chosen lies in wireless. The broadband plan articulated the idea that the Commission could use market forces to transition spectrum from television to mobile use.

The incentive auction legislation states "the Commission may not prevent a person from participating in a system of competitive bidding."[23] But it also empowers the FCC set a generally applicable rule for ownership of spectrum. "Nothing in subparagraph (A) affects any authority the Commission has to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition."[24] The latter clause once again re-affirms the FCC's role as a competition agency. At the least it must be read to call for the FCC to consider a general rule, or screen, or aggregation principle. That inevitably must reveal an antitrust philosophy. But should that rule come before or after the next spectrum auction?

It would be incredibly bad policy to hold an auction and then afterwards determine if the winner can be permitted to buy the spectrum licenses. Surely bidders ought to know going into an auction whether they can or cannot close on the volume of spectrum they may choose to try to buy. Resurrecting spectrum caps would increase certainty about the ability to acquire spectrum in an auction.

Another problem is that in the incentive auction legislation, the House put more constraints on the FCC's auction authority than Congress has ever done. And the Senate put more pressure on the agency to use auction proceeds for specific purposes such as funding a public safety network, than Congress has ever done.[25] But the legislation does not tell the FCC what competition policy to follow. Once again the agency has the challenging role of being, in all important respects, on its own.

The FCC has already moved forward to try to implement a complex two-sided auction that may occur in 2014 or 2015. In the first part, the "reverse auction," broadcasters will bid for how much (or little) they would accept to cease broadcasting or to move to a different spectrum band (e.g. from UHF to upper or lower VHF channels, and from upper VHF to lower VHF). Once the FCC determines the amount of money required to pay off the broadcasters for vacating a certain amount of spectrum, it can then hold a forward auction in which blocks of wide area

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[23] Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6404 (17)(A).

[24] Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6404 (17)(B).

[25] The funding for public safety is not limited to the broadcast incentive auction – proceeds from other auctions, such as the H Block (1915-1920 MHz and 1995-2000 MHz) auction that the FCC has proposed to hold in 2014, possibly in advance of the broadcast incentive auction, would also count toward the revenues to fund public safety.

flexible use licenses are put up for sale. When this auction stops, the FCC will compare the revenue from the forward auction to the revenue requirement from the reverse auction (potentially including money for public safety, relocation, and other costs) to see if the auction will "clear." If revenue is sufficient for clearing, the auction would close.

If not, the FCC would reduce the spectrum target and continue the reverse auction to clear fewer broadcasters in each area (leading to a lower revenue target). Then the FCC will resume the forward auction with a smaller amount of spectrum available. Presumably the price per MHz-pop will increase, but because of the smaller amount of spectrum available, the total revenue may increase or decrease. The revenues will again be compared to the revenue requirement and the process continues until the clearing rule is met, or there is little or no spectrum left to auction.

The incentive auction is an example of an attempt to use market forces to move spectrum from one constrained use to a more highly valued use. Television has created large consumer surplus, but with over-the-air television watched by a very small minority of households, the consumer welfare benefits of the marginal over-the-air television station are likely to be small relative to the benefits from additional spectrum for flexible use. It likely would have been politically impossible to mandate a transition, so even had the FCC wanted to return to the regulation era, the transition is much more likely to occur as a result of relying on market forces.

VI. Conclusion: Consistent Clear Application of a Competition Policy Will Strengthen the Communications Sector

Broadband is not a goal. Michael Porter states that the only right economic goal for a government is a high and rising standard of living for *all* citizens (Porter, 1998, emphasis added).

High-speed data access (broadband), then, must be a means to some economic end, or it has no particular economic significance. As set forth in Hundt and Levin, 2012, one way broadband could lead to a high and rising standard of living is if it efficiently conveys faster, better, cheaper public goods (like education and health care) to everyone in the country.

One view is that the FCC's twin purpose should be to expand the scope and scale of public goods broadband can digitally deliver and to expand the number of people who have access to these public goods in an efficient manner. Another view is that the FCC's job is to let technology move forward and get out of the way. To implement either of these views, or any other view about its role, however, the FCC needs a point of view about competition.

We know many of the current FCC employees. We know and respect former chair Genachowski, Clyburn and prospective chair Wheeler and other commissioners. This is a very able, upstanding, honest, well-informed group, based on our personal knowledge of their skills and reputation in the community. If we had their jobs, we would not know exactly what to do.

We are sufficiently officious, however, to suggest that there are better and worse ways to decide what to do.

Here are some reasonably workable ways to come to a decision. First, as Chairman Genachowski often said, decisions should be driven by data. In a town where global warming is not the subject of consensus, one might suspect that all data is regarded as dubious or politicized. But the FCC has usually made decisions based on a widely accepted understanding of facts. A competition policy depends first on facts, not law. In fact, markets can be dangerously consolidated, robustly competitive, or in between. Learning the facts about where a market stands and is likely to move is an essential first step. Each market is its own story. All markets deserve the same sort of analysis, but in each market that analysis should lead to a coherent and predictable set of competition policy decisions.

Second, it is important to have a consolidation policy.Market forces and appropriate rules can enable firms to enter and exit, but the FCC can and should protect against anticompetitive mergers. In 1994, Michael Porter told us at the FCC to make sure we auctioned at least enough licenses to let at least one fail in every market, because only then would we know we had auctioned enough to achieve maximum competition. That actually is more or less what we did, although by accident and by dint of some strange doings in bankruptcy court. His axiom is worth remembering, even if not applied exactly as he put it.

Third, standing up for competition usually turns out to be the same as standing up for entrepreneurship, innovation, the little guy who wants to get big, the spirit of rivalry, and the right of people to make what they can of themselves rather than be told by the government what they can or cannot accomplish. In most businesses government does not limit the number of entrants. The FCC should remember that. It also should also remember it does not actually have a crystal ball that works any better than the forecasting done, for instance, by major technology firms in the United States who miss market and product shifts. The genius and devil of technology is its unpredictability. Therefore, in our view, assuring a robustly competitive structure is the alpha and omega of policy for every market. As long as the FCC makes certain that anyone can come in and do something insanely great in any market, then the agency will have been a fine umpire, rules-maker, guideline-drawer, and contributor to the well-being of these United States.

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