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Deputy Assistant Attorney General Jon Sallet of the Antitrust Division Delivers Remarks at the Capitol Forum Broadband Competition Conference

Washington, DC

United States

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Friday, December 16, 2016

Broadband Competition Policy: Final Thoughts and First Principles

Thank you. It's a pleasure to be able to close your conference, the calendar year and, in some small sense, one aspect of the current Administration. I say that because what I'd like to do today is review, from a very personal perspective, the nature of broadband competition policy through the lenses of recent actions of the Antitrust Division of the Department of Justice and the Federal Communications Commission.

In preparing these remarks, I found myself thinking about Louis Brandeis. That is perhaps not a surprise; this is the centenary of his confirmation to the Supreme Court and, more broadly, one often attempts to understand the present by pondering lessons of the past.

Brandeis provides plentiful food for thought today. Justice Brandeis was active, as a lawyer and a judge, during a time when the polity realized that the economy just wasn't working the way it was supposed to work for all Americans. This was the day of muckrakers, the Triangle Shirtwaist factory fire and anticompetitive trusts – Standard Oil perhaps the best known of all. And Justice Brandeis helped pioneer the response – that better antitrust enforcement would be an important means for vindicating competition. He counseled President Wilson on the legislation that created the Clayton Act and the Federal Trade Commission. He subsequently wrote the Supreme Court opinion that set out the test, still used, for deciding whether conduct constitutes an unreasonable restraint of trade under the Sherman Act. He relied upon the rule of law.

Outside the bounds of his antitrust commentary, Justice Brandeis taught us about non- economic values as well. He warned about the potential threat of new technologies to privacy. He stood tall to protect the First Amendment and diversity of speech.

In his advocacy and jurisprudence, Justice Brandeis believed that sound legal judgments must rest upon a careful review of the facts – thereby inventing the so-called Brandeis brief. In the Spring of 1905, he gave a speech on the ethics of legal practice in which he warned that people were discontent and "are beginning to doubt whether there is a justification for the great inequalities in the distribution of wealth" and he concluded that the role of the lawyer was to take part in the solution of these problems. This was, as a lawyer and a judge, his aim.

Each of these themes runs through the topic of these remarks: how the law, as I have seen it develop at the Antitrust Division and the Federal Communications Commission, has and can create and protect economic opportunity in the marketplace of broadband Internet access services provided to individual consumers. I'd like to structure this discussion around four primary themes:

- First, competition is the best driver of innovation and consumer benefits in the Internet ecosystem; that ecosystem in which broadband connectivity is a critical component. Thus it is important to understand the state of competition, especially in those high speed connections that provide today the platform for so many complementary services provided by what we now call "the edge."
- Second, both antitrust law and public policy must rest upon a sound understanding of the incentives and abilities of broadband providers to artificially shape competition not only in the markets for residential Internet access but also in complementary markets across the Internet ecosystem. Here it is valuable to reflect upon the decades-long conclusion that telecommunications networks hold gatekeeper power that can be used to threaten competition.
- Third, government should protect competition from artificial constraint that injures consumers and, especially in dynamic markets, threatens the future of innovation. The shared, overlapping jurisdiction of the FCC and the division focuses on the review of telecommunications mergers. Such reviews should be carried out always with a clear- eyed vision of the impact of market conditions on consumers today and innovation tomorrow.
- Finally, the FCC has determined that an Open Internet advances economic and social goals so important that they must be preserved in the face of both obvious and subtle threats; threats that have long-been identified as well as those that are nascent or novel.

Competition Drives Innovation and Consumer Benefits In Multiple Markets, But Today Broadband Markets Are Concentrated and Broadband Choices Limited.

Competition promotes consumer welfare by reducing price, increasing output, and improving product quality. Although as antitrust enforcers we don't prescribe what price is right or what quantity should be produced or how returns should be invested, the competitive process provides a means of efficiently allocating societal resources in a disaggregated, democratic way. Moreover, competitive markets are open to all such that success depends on the goods and services delivered, not incumbency or size. And most

importantly in consumer technologies like the products in the Internet ecosystem, competition drives innovation.

Our understanding of the importance of competition naturally leads us to an examination of the structure of residential broadband markets.

The fastest residential broadband is, of course, delivered through fixed facilities, typically cable or fiber. Last month, the FCC issued its Report: "Internet Access Services: Status as of December 31, 2015." It showed that growth of fixed broadband connections had increased by only about two percent over the previous year, but that the nature of broadband connections continued to improve. The number of connections providing between 25 Mbps and 100 Mbps grew by almost four times between 2012 and 2015. And the presence of connections with at least 100 Mbps, essentially nonexistent at the end of 2012, topped 15 million by the end of 2015.

The presence of competition is a different story. While we've seen a great deal of investment in broadband networks, many local broadband access markets remain dominated by just one or two companies. In about three-quarters of the country, consumers have either no choice or only one choice for a high-speed broadband connection at 25/3 or better. In another 20 percent, consumers have only two choices.

But there's more. Competitive choices are not evenly distributed. Consider the challenges of competitive broadband in rural America, which Figure 2 depicts. The percentage of census blocks with no providers at 25/3 leaps from seven percent to 58 percent when moving from urban to rural census blocks. At 100/10 or better, the percentage of census blocks with no providers moves from 33 percent to 80 percent. Only six percent of rural census blocks has even two choices at 25/3; at 100/10 the number is negligible.

A similarly uneven distribution appears based on incomes – of the wealthiest third of census blocks, 34 percent have a choice of at least two providers at 25/3, while in the rest of the country only 18 percent of census blocks have such choices. It also appears with college education – where the top half of census blocks in terms of share of college graduates housed are significantly more likely to have access to two or more providers than the rest of the country's census blocks.

So there's a problem. We must acknowledge the network-construction challenges in rural America and we should always be alert to the possibility of new forms of high speed broadband. Satellite and wireless, in particular 5G, offer the possibility of new entry and that is to be encouraged and applauded. But it's important to understand that competition turns on the ability of consumers to exercise choice, not simply on the deployment of technology. That means, for example, that the price of a set of competitive products be close enough so that consumers can effectively switch in the face of price increases by one product. It also focuses attention on the ownership structure of broadband facilities; even if they are otherwise substitutes, two services owned by the same company are not really competitive alternatives. And, of course, it shows us the importance of widespread deployment so that advanced telecommunications will be available to "all Americans." The FCC recognized just this principle when it identified the disparity

between urban and rural America as a separate question from the deployment of broadband generally, saying that "[a] digital divide persists between urban and non-urban parts of the country."

Even in mobile broadband, there are only four national competitors and they represent 98 percent of mobile service revenues. And, measured at the national level, the industry appears to be becoming more concentrated in recent years; the regional service providers (all companies other than the four national carriers) held a combined 8.5 percent market share in 2012, which had decreased to 2.0 percent in 2015. As with fixed broadband connections, and perhaps for similar reasons, there tends to be less competition in rural areas than in urban ones.

The impacts of limited broadband competition extend to other, complementary markets. It's not just about where consumers have, or can choose between, competing broadband services. In fact, we now know enough about the Internet to recognize it is not merely a telecommunications platform but a commerce platform—not merely a means of electronic communication, but of electronic capitalism. The Internet has become both the railroad and the telegraph of the 21st Century.

Internet ecosystem innovation has been driven by the constant interplay between complementary markets. The FCC dubbed this as the "virtuous circle." As most of you are by now familiar, in this circle investment in broadband infrastructure provides a platform for the development of advanced broadband-based services and applications, which in turn drives consumer demand for bandwidth that incents further investment in broadband infrastructure. As investments and benefits support one another, the virtuous circle drives the Internet ecosystem forward.

The virtuous circle derives from economic complementarity between the components of the Internet ecosystem. When consumers use the Internet, they typically interact with four components: they use (one) a device to access (two) content through (three) an application, over (four) a broadband connection. Each of these separate product markets complements the others—better devices make consumers want to use more broadband connections to view more content, and so forth. Thus the virtuous circle concept reflects the mutual benefits to these complements from investment and improvements in one another.

Today we see broadband access and high-definition video streaming as a fact of life, maybe even as necessities, but that did not happen accidentally. That progress was driven by innovation and investment from businesses across the Internet ecosystem. In addition to the development of online distributors like Netflix, devices have been developed to make for entertaining streaming experiences, last mile-broadband facilities built to accommodate the explosion in traffic, software code written to manage download and display, and backbone infrastructure built to transport vast quantities of data. The story of the last decade is one of massive innovation and development in product markets all across the Internet ecosystem.

The consumer benefits of all this innovation go well beyond being able to watch video on demand. Internet-based innovation has disrupted traditional businesses like brick-and-mortar retail, transportation, and real estate, and it has fundamentally reshaped how people socialize and communicate. The consumer benefits of that progress are incalculable. And for the U.S. economy, innovation in the

Internet ecosystem has been the goose that lays the golden eggs. In other words, the implications of broadband competition ripple through the economy.

How best to promote competition, including through spectrum policy, is a subject far beyond the scope of these remarks. But there is one truth that I believe the 20th Century proved to be self-evident. The day of reliance on monopoly networks – regulated or not – is past. It is not enough to bring connections; it is vital as well to bring real competition to consumers.

Telecommunications Network Providers Have Incentives and Abilities To Artificially Shape Competition And Have Long Been Associated With the Exercise of Gatekeeper Power

The structure of markets is, of course, just a starting point. Of particular concern to policymakers over the course of decades has been the historical identification of the incentive and ability of telecommunications providers to use gatekeeper power to threaten competition. Although the modern application of this principle has engendered spirited debate, I believe this insight is firmly rooted both in the history of telecommunications and in the characteristics of the modern Internet ecosystem. (And to be clear at the outset, I don't mean to say that network providers are the only players in the Internet ecosystem that can ever be capable of developing or exploiting this power.)

By gatekeeper power, I mean the ability, through the control of network facilities, to determine which traffic will reach end consumers and on what terms. Most dramatically, a gatekeeper could foreclose the ability of consumers to reach the applications, content and services they desire, which would, of course, impede upstream companies from reaching consumers. Or the gatekeeper might use the threat of this foreclosure to extract from the other platform participants all of the returns above marginal cost—an upstream provider would accept such a deal rather than lose access altogether. And if a gatekeeper can use its power to extract the rents from other platform participants, it can reduce the returns on investment upstream altogether and thus thwart the virtuous circle. Or it might, as in vertical combinations, foreclose competition in either input or consumer markets.

We first see a concern about gatekeeper power at least as far back as the Kingsbury Commitment in 1913, when AT&T settled monopolization charges with the Department of Justice by agreeing to provide access to its long-distance services to local telephone operators. By agreeing not to block the access of local telephone operators to AT&T's nation-leading long-distance network, AT&T was agreeing not to abuse a kind of gatekeeper power over long- distance in a particular way.

At the same time the Department of Justice was negotiating the Kingsbury Commitment, Louis Brandeis was working as an attorney opposed to the monopolization of the railroads. At the time, the railroads controlled businesses' access to regional and national markets in much the same way broadband providers now control access to the digital marketplace. And Brandeis had firsthand experience: "his family's wholesale grain business depended upon rail transportation, and increased charges of even a few dollars per hundredweight could make a difference between profit and loss." Brandeis understood how gatekeeper power could harm businesses, even if exercised only on the margins.

The FCC's Carterfone decision in 1968 is similar. AT&T had foreclosed access to its telephone network to the competitors of Western Electric, like Carterfone, and of course the FCC required the company instead to permit any lawful device to access the network. And here we see how gatekeeper power can foreclose investment in network complements: prior to Carterfone there had been relatively little innovation in telephone handset equipment compared to the era that followed. The companies that invested in developing answering machines, modems, fax machines and all kinds of differentiated customer equipment would never have made those investments if they feared that AT&T could prevent their attachment to the network, or demand payment for the ability to do so that extracted all the value from their innovation.

And, as the two agencies have together said, "The roots of the [Open Internet] debate can be traced back to 1980 and Computer II, in which the Commission separated data-processing activities from...telecommunications services...in order to enable new information services to flourish free from the 'bottleneck' power of telephone companies."

The statistics we went over earlier bear out how little choice most Americans have for high-speed broadband connections. Even in the homes with some limited choice, there are problems of switching costs that create gatekeeper power for broadband providers. As the FCC discussed in its Open Internet order, consumers face significant switching costs if they want to choose a new broadband provider, and they simply will not do so in response to minor service disruptions. Gatekeeper power might be exercised in ways that seem minor from one perspective, but work a considerable impact on competition from another. Consider an integrated broadband/MVPD company that selectively blocks a single rival online video distributor ("OVD"). To the individual consumer, the impact may seem small, but to the nascent OVD seeking broad distribution to cover fixed costs, the effects could be very large.

And it's always important to recall that action need not be unilateral, especially in a highly-concentrated market. Consider, for example, the DOJ's recent complaint against DIRECTV for exchanging information with competitors in Dodgers Channel negotiations. In their concentrated markets, broadband providers certainly have the ability to discuss business decisions with one another in ways that increase the likelihood of coordinated outcomes.

Of course, it has been argued that broadband providers themselves benefit from the development of their complements in the Internet ecosystem, but we have seen in recent merger reviews that a focus on short-term profits can drive corporate strategy in the opposite direction. And probably more importantly in terms of economic incentives, the technological reality we face is that facilities-based broadband providers are nearly always incumbent video providers. This feature arose because the network infrastructure cable companies built to provide video provided a competitive advantage in building broadband facilities, and the network infrastructure of telephony gave itself to simultaneous upgrades for high-speed broadband and video. But regardless of how it happened the fact remains: most broadband providers are video incumbents.

The dual business lines of broadband provider/video incumbents shifts their incentives towards seeking to maintain the returns long enjoyed in video distribution. Online video – a major feature in the Internet

ecosystem – threatens those returns. That threat warps the incentives of broadband providers away from encouraging the virtuous circle.

The Department and FCC reviews of the Comcast/Time Warner Cable and Charter/Time Warner Cable transactions demonstrated how these broadband providers' incentives were skewed by video incumbency. As broadband providers, one might expect the merging entities to see the advent of online video as a windfall – as another turn in the virtuous circle that would drive demand for broadband. But some companies' internal analyses of online video had a different emphasis: they demonstrated concern at the potential disruption online video would cause to their incumbent video distribution services. For example, a Time Warner Cable document featured in the Charter/TWC complaint depicted "emerging" online video providers as an asteroid hurtling toward the earth.

Literally, the company's internal presentation represented emerging online video as a giant asteroid that looks a lot to me like the one that destroyed the dinosaurs 65 million years ago—perhaps that's what the author had in mind. Say what you will about that characterization, it's hardly how a company eager to benefit from the virtuous circle would view investment in new online services.

Working Together, the DOJ and the FCC have Carefully Scrutinized Telecommunications Transactions, With an Eye Towards Careful Delineation of Relevant Product Markets.

Telecommunications mergers are generally reviewed by both the Antitrust Division and the FCC. And in this Administration, the two agencies have worked hand-in-hand. Consider: The division's court challenge to AT&T/T-Mobile followed review at both agencies, and later both agencies cast a skeptical eye at a possible Sprint-T-Mobile merger that would similarly have reduced the number of national wireless broadband providers from four to three. As Bill Baer explained last year, "[d]ue in part to our experience with bottlenecks in the video and broadband markets, we have been wary of wireless carriers' efforts to combine."

And there's more: closely coordinating our analysis of Comcast's proposed acquisition of Time Warner Cable, which threatened harm to OVDs and was abandoned in the face of the agencies' careful review; our work together in curbing competitive harm that could have arisen from Comcast's acquisition of NBCU and Charter's acquisition of Time Warner Cable; and the reviews of the AT&T/DIRECTV merger.

Careful competition enforcement demands an understanding of market circumstances and particularly of how competition is benefitting consumers. In telecommunications, it means a forward-looking focus, because competition is benefitting consumers by driving innovation in the development of products and services, not merely by keeping prices down and output up (although of course those benefits are important as well).

It also means a careful examination of all of the markets in which actions of the merged company may cause harm. For example, Comcast's acquisition of NBCU was a vertical merger that, in part, threatened to disadvantage customers of NBCU, such as rival MVPDs. Mergers can sometimes harm competition by providing a vertical mechanism by which the merging company can impose upstream burdens on rivals that cause harm to the downstream market. That was the case in the Charter/TWC merger where the

division included in the consent decree a provision barring the new company from using its greater bargaining power with upstream content providers to disadvantage OVDs. Similarly, although Comcast and Time Warner Cable did not directly compete in residential markets where consumers buy broadband connections, they did both compete in the upstream, national market for the distribution of content over the Internet. Students of recent merger reviews should particularly note the existence of national upstream markets for the distribution of certain video programming and Internet-based content.

The competitive context is always important in merger reviews. When then-Senator Obama announced his presidential run in February 2007, Netflix only delivered content by mail, in little red envelopes with silver discs inside that you had to return when you were done. And many people happily paid for that service – at the time it was the only available means of catching up on, among other things, any episodes of the original M*A*S*H you might have missed. That archaic mail system was actually for the best at the time, because if Netflix had tried to stream content most users had neither the Internet connections nor the devices to receive it. In fact in 2007 only half the country had access to a broadband connection, and the iPad was not even launched until 2010.

Indeed, the review of Comcast/TWC focused on innovation and nascent competition in dynamic markets, even though the merger would not have eliminated horizontal competition between Comcast and TWC in any local broadband market. The Comcast/TWC merger would have given Comcast unprecedented control over high-speed Internet access in the United States – nearly 60 percent of U.S. subscribers at download speeds of 25Mbps.

Some of the initial public attention about that merger seemed to focus on a series of high-profile disputes between Netflix, which had turned to broadband as its primary delivery system, and some large broadband providers. But also important was the emergence of different kinds of business models, think DISH Sling or Sony Vue, offering different forms of OVD services that look and feel more like cable television. And, while I was at the FCC then, we understood that entrants are particularly vulnerable when competition is in its early stages. This is an important point. Sometimes questions of policy are portrayed as battles among the big. Of course, competition is critical to competitors of all sizes. But I think it's important to understand the special importance of new forms of competition that, as the FCC has said, are busy being born

The AT&T/DIRECTV transaction is a good example of careful innovation-focused merger enforcement in telecommunications. In a traditional incumbent video distribution market, that transaction would have reduced the number of competitors from 4 to 3 in portions of the country, arguably raising the potential for a harm to competition in those local markets.

However the transaction, AT&T argued, would permit it to offer integrated bundles of video and broadband services, in ways that neither it nor DIRECTV could achieve on its own. Applying its public interest standard, the FCC found the merger would create bundled alternatives to cable, and that consumers would gain broadband choices as a result of the requirement AT&T act on its incentives to deploy Fiber-to-the-Premises to 12.5 million locations within four years.

The Open Internet: Public Policy Promoting Consumer Choice, Competition and Diversity of Viewpoints.

Even without the consolidated control of broadband networks that the AT&T/T-Mobile or Comcast/TWC transactions would have created, we are still left with broadband providers that have the ability to exploit gatekeeper power. And whether because they are video incumbents or because they are seeking short-term profitability, they have incentives to use that gatekeeper power in ways that do not always accord with consumer welfare. Enter the principles of an Open Internet.

As much as any of the governmental action we've discussed today, debate in the development of Open Internet rules has helped foster wise public policy. And I believe that the debate has revealed that certain bright line rules can provide clarity, reduce administrative costs, and maximize welfare with little relative risk, while on the other, it has revealed other areas deserve more cautious case-by-case scrutiny. It's a similar approach to antitrust doctrine, which identifies some conduct as sufficiently problematic to be labeled per se unlawful, while other conduct is left to a rule of reason inquiry assessing costs and benefits.

It's worth noting this distinction because sometimes case-by-case adjudication, looking to common-law principles, is criticized as too uncertain and thus unfair to industry actors. In my mind, the answer is simple: When it comes to rule-making power, certainty should not outstrip knowledge.

So, the FCC in 2015 adopted three bright-line rules: No blocking, no throttling, no paid prioritization. No blocking is a simple concept, and not a new one: Consumers should have the ability to use their broadband connections to reach any legal content of their choosing. Take the no-blocking rule as an appropriate use of a bright-line rule.

The rules against throttling and paid prioritization are similar. We've talked about how the virtuous circle drives Internet innovation, but it requires for its operation that the investment in new products and services may be able to earn a return. Along with blocking, both paid prioritization and throttling could, for certain applications, be used to extract an artificially large part of the value of broadband-based services. Given the gatekeeper role described above, such practices would destroy the virtuous circle and rob it of its driving force.

Other practices, however, are not so straightforward that they can be governed by a bright line rule, and the FCC has left those practices to be analyzed under a case-by-case approach. And without this case-by-case catchall, the bright line rules might serve not as absolute barriers but only as the kind of gates set up on a downhill slalom course – obstacles simply to be avoided. And with dispatch.

Consider sponsored data plans, which the FCC has said that it will review under the case-by-case approach. Imagine that a broadband carrier sells to its own upstream programming affiliate and also to other independent programmers the ability to pay for their content to be exempt from a data cap or a consumer's data plan. A fundamental principle in this area has been non-discrimination: The notion that similarly-situated entities be treated the same. Assume in this hypothetical that the "price" charged to all programmers is the same but that one of the rivals asserts that the upstream programming affiliate is not really paying the same price because the transfer of money from it to the broadband provider is an

intra-corporate transfer. This is the kind of issue that benefits from close economic and factual development and, yes, from the submission of "Brandeis" briefs.

In the realm of public policy, additional, non-economic interests are protected. The Internet, after all, is a marketplace of ideas as well as commerce. The Open Internet Order is expressly premised on the importance of ensuring that controversial or political or unpopular speech cannot be blocked or burdened. I have spoken on this issue at greater length but, for present purposes, it is enough to recognize that Congress has long instructed the FCC to further speech-interests, and the Supreme Court, in the Turner II case expressly upheld the legitimacy of such interests in upholding "must-carry" obligations applied to cable systems. Justice Breyer's concurrence, which supplied the fifth vote for the majority's outcome, both characterized the existing cable system as a "bottleneck" and separately concluded that, without regard to the goal of stopping anti-competitive conduct, the must-carry requirement should be upheld because of the importance in preserving the "widespread dissemination of information from a multiplicity of sources." Justice Breyer explained that this "basic noneconomic purpose" had long been a foundational element of federal communications policy — a policy that "seeks to facilitate the public discussion and informed deliberation, which, as Justice Brandeis pointed out many years ago, democratic government presupposes and the First Amendment seeks to achieve."

As I mentioned at the outset, I looked to biographies of Justice Brandeis when I was working on these remarks precisely because I thought that his focus on competition, evidence and social values of privacy and free speech might prove informative. Even so, I was surprised, when reaching the last chapter of Jeffrey Rosen's recent intellectual history of Brandeis' thinking, to read that the author believes Justice Brandeis "would have appreciated that the most important recent developments in free speech have involved not only the libertarian rulings of the Supreme Court but the Federal Communications Commission's endorsement of 'net neutrality'...." Moreover, Professor Rosen continues, Brandeis would have encouraged the FCC to focus on the free-speech implications of corporate combinations of Internet distribution and content creation because "[i]n controlling both the production and distribution of content," such companies "have the power to favor their own content over that of their competitors on a range of platforms," an observation that couples my discussions of non-discrimination and free-speech interests.

One last policy point. It is important to always remember the beneficiaries of sound policy in this arena. In dynamic contexts, we act, not for ourselves as governmental officials, and not even only for today's consumers, who benefit when the competitive process delivers lower prices, greater output and improved quality.

We also act, importantly, for the next new competitors whose presence may lower prices even more, increase output even more, improve quality in ways unimaginable, and bring all of the fruits of innovation to the benefit of consumers and the economy at large. Whose impact on pricing may allow families to afford that which has been out of reach. Whose impact on output may be to bring innovation to more people than were previously served.

Emphasis on what may come is hard because incumbents are visible but future innovation is, by definition, something we have never before seen. The next great innovator rarely appears before the antitrust agencies or files a comment in an FCC proceeding. But we know that competition drives

innovation, that innovation drives economic growth and that it is critical that all Americans can benefit from that economic growth. We're not here merely to referee in the battle of big companies, although all of society deserves compliance with the rule of law. We're here to ensure fair access to the market for all lawful participants. I have made this point earlier in these remarks in describing our recognition of nascent OVD business models in the Comcast/TWC reviews, but I believe it deserves emphasis.

In 1912, Brandeis gave a speech to the Economic Club of New York. He talked about the importance of the Sherman Act, and identified challenges to its effective enforcement. He described the operation of "trusts" and explained how coordinated control of a product market forced consumers to pay higher prices, saying "while trusts are sometimes efficient, just as independent concerns are sometimes efficient, it is not their efficiency, but the fact that they control the markets, that accounts for the huge profits."

But although this was important, Brandeis said there was something else even more important. The people have come, he said, "to realize the effect of monopoly in arresting programs, arresting that advance in industry without which a great industrial future is unattainable." Drawing from recent experience in the steel industry, he said, "that modern trade combinations tend strongly toward constancy of prices and products, and by their very nature are opposed to new processes and new products." Although not all of Brandeis' views are easily translatable to our times, this thought retains its vitality more than one hundred years later: Innovation can come from many sources – some big, some small; some established, some nascent – but the work of antitrust is to ensure that its arrival is not artificially limited; its potential impact not shunted aside by those with something to lose from its arrival.

Conclusion

Before I conclude, let me say thank you. No one deserves a job in government; for all of us, government service is an opportunity for which we are grateful. Grateful because it is interesting and important work, yes, but also because it provides an opportunity to repay some very small portion of the debt we owe to those that built and have maintained fundamental American values. I want to start by thanking the career staff of the FCC's Office of General Counsel and of the Antitrust Division. The career staff are the people who are the heart and soul of both agencies. They are dedicated and professional and we should all be grateful for their contributions. I am fortunate to have served with them. I want to also say thanks to my colleagues – career and otherwise – at both agencies.

Finally, thanks to Tom Wheeler and Renata Hesse, both courageous public servants. Both have provided important insights into the way we understand the topic of broadband competition.

Tom with his insistence – as he calls it his mantra – that the public interest is furthered by "competition, competition," A mantra that has typified his agenda at the Commission.

Renata, not only for her leadership on specific mergers that we have discussed, but for her clear explanation of the essential purpose of the division in assessing the practical realities of competition. As she has explained, "[r]ather than focusing on measuring consumer welfare in an academic fashion, we are

looking more broadly at the effects of business practices on competition, and that is getting us back to what the drafters of the Sherman and Clayton Acts intended."

Antitrust – and popular support for antitrust – are built on the principles that competitive markets are critical to the ability of individuals and businesses to succeed in our economy. That is to say, competition is an important means of achieving economic opportunity for all Americans.

One last word about Louis Brandeis. It is said that "Brandeis remained hungry for facts and optimistic about human perfectibility until the end." An approach, I believe, that we should all embrace.

Thank you.

Broadband Competition Policy: Final Thoughts and First Principles

Silicon Flatirons conference Feb 2017

Fiona Scott Morton

SUMMARY:

Institutional ownership of stocks in the US has grown tremendously in the last 30 years. The four or five largest funds now control about five percent of the US stock market each and are the largest shareholder in many publicly traded companies. A large diversified mutual fund (especially an index fund) will tend to hold all the rivals in an oligopoly. In an oligopoly, rival firms gain when they compete more softly. Funds generally want the stock prices of the stocks they hold to rise. Funds that manage investments for investors typically vote those shares and engage in corporate governance on behalf of investors. There are broadly two schools of thought on corporate governance. One is that owners just tick off boxes concerning governance processes and there is little substance involved. The other is that owners/funds engage with management on substantive issues. For these reasons large funds, whether mutual funds, sovereign wealth funds, or pensions funds, have both the incentive to encourage softer competition (because they hold all rivals and this raises profits) as well as the ability to encourage softer competition.

The established tool to examine these effects is the MHHI index developed by Steve Salop and Dan O'Brien. There is a new economics literature relating increases in MHHI due to fund ownership to increases in prices or to executive compensation. Azar, Schmalz and Tecu (2016) show that increases in common ownership (MHHIΔ) cause fare increases in the airline industry. Azar, Raina, and Schmalz (2016) show that increases in common ownership cause fee increases and interest rate decreases in retail banking. Lastly, Anton, Ederer, Gine, and Schmalz (2016) show that increases in common ownership cause executive compensation to be more strongly increasing in rival's performance and less in own performance (more geared toward absolute performance and less toward relative performance).

The antitrust laws were designed to deal with common ownership of this type; indeed the plain language of the Clayton Act is applicable (see Elhauge (2016)). Harmed consumers may sue investment funds under the Clayton Act. Enforcement agencies could of course also enforce the Clayton Act. However, the competitive impact of an investment by a fund depends on what other large investors are holding. This is because influence on management may be strong if, for example, a fund holds 4% of a company and all other investors are tiny, whereas a 4% owner may not have influence if there are two other owners holding 12% each. If liability depends on the holdings of other owners, a fund could find it difficult to choose an investment strategy that was always legal. Private litigation in different courts could establish conflicting precedent that might take many years to unify, and would adversely affect the cost of saving and the health of the investment industry in the meanwhile.

Low-cost saving and product market competition appear to be in conflict. On the one hand, diversified mutual funds are a low-cost, low risk way for savers to invest and save. On the other hand, large owners who own product market rivals will tend to soften competition and cause higher prices. Since the two goals conflict, the saver/consumer would benefit most from a government policy that measured the tradeoffs and chose an optimal set of rules given the costs and benefits. There will be distributional consequences to any such policy. The bottom 80% of the wealth distribution holds very little stock. Such a consumer benefits from the price effects of increased competition, and gains almost nothing from any

policy that limits diversification. The top 1% of the wealth distribution will have the opposite preferences since they own large amounts of equities.

In a recent paper "A proposal to limit the power of institutional investors," (Posner, Scott Morton, Weyl (2016)) we propose a policy that limits funds to holding one firm in an oligopoly if they want to own more than 1% of any competitor. Small funds (below 1%) and holdings in competitive industries are unaffected. We then give an approximate answer to the question of the costliness of this diversification proposal, but do not conduct any detailed empirics. Recent estimates claim more than a quarter of the American industry is oligopolies, and suppose prices move by 5-10 percentage points when competition is restored, as is supported by the current empirical literature. This would be a consumer saving of billions of dollars, which is a first-order gain to the consumer/saver. Reducing diversification by holding only one firm in an industry is a second order change because stocks within an industry are highly correlated. Moreover, this is not a reduction in the mean return but in the variance, which has a small impact on the utility of the consumer/saver. Thus we argue the net benefit of restoring competition through a policy such as this one is almost surely positive.

We argue that enforcement agencies should develop helpful policy in this area in light of the growing empirical evidence of the harm to competition.

Procompetitive Regulatory Policy: Competition Catalysts

Tim Wu[†]

In its March 26, 2016 issue, the *Economist* magazine announced that "America needs a giant dose of competition." Its study of industry concentration and profits suggested that, after decades of consolidation, competition had decreased across a broad range of the American economy. An April 2016 issue brief by the Council of Economic Advisors reached similar conclusions, stating that "competition appears to be declining" due to "increasing industry concentration, increasing rents accruing to a few firms, and lower levels of firm entry and labor market mobility."

The promotion of competition in the American economy is a task that has traditionally fallen to the antitrust law and its enforcement agencies at the federal and state level. However, in recent years, the problem of declining competition has prompted a renewed interest in the use of alternatives to antitrust to "catalyze" competition. That is to say, there is increasing interest in using either industry-specific statutes, rulemakings, or other tools of the regulatory state to achieve the traditional competition goals associated with antitrust laws.

While conducting competition policy outside of the antitrust laws is not entirely new, it has come into some recent prominence through an April 16, 2016 Executive Order issued by the White House. In that order, the President charged the executive agencies as follows:

Executive departments and agencies with authorities that could be used to enhance competition (agencies) shall, where consistent with other laws, use those authorities to promote competition, arm consumers and workers with the information they need to make informed choices, and eliminate regulations that restrict competition without corresponding benefits to the American public.¹

The use of regulation to catalyze competition may, to an earlier generation of thinkers, sound oxymoronic, given a traditional use of regulation to impose restraints on entry and exit. Nonetheless, even before the recent interest in pro-competitive regulation, some agencies – especially the Federal Communications Commission, and the Federal Trade Commission – have seen as part of their mission the use of regulation to promote

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¹ April 16, 2016 Executive Order

competition in industries that, for a variety of reasons, are unlikely to otherwise experience vigorous competition. One question, over coming decades, is whether other agencies might follow suit, and if so, what lessons can be learned from existing practice.

This paper has two goals. The primary goal is to better describe the tools of procompetitive regulation – the so-called "competitive catalysts." This paper attempts to develop both a vocabulary and basic theoretical account that helps to understand the major approaches to catalyzing competition. It does so by providing a broad look at many major efforts to catalyze competition using pro-competitive regulation. It consider a series of first-generation statutory and regulatory efforts, including the Airline Deregulation Act of 1978, The FTC Eyeglass Rule of 1977, the Hatch Waxman Act, and the Telecommunications Act of 1996. The paper then considers more recent initiatives pursued by the Administration over the mid-2010s, such as the FCC's Net Neutrality rule, and the Competition Initiative just mentioned.

This is an area where the vocabulary used is particularly undeveloped. For example, under the banner of "deregulation" there have been efforts both to eliminate regulations, but also increased regulation of monopoly to try and catalyze competition.² What we lack is an effort to name and describe the regulatory tools that are used to open industries to competition. This paper categorizes competition catalysts based on the approach taken. It covers *Separation Rules* (the breaking of longstanding industry ties), *Pro-competitive Deregulation* (eliminating regulatory barriers to entry), or *Switching Cost Reduction*, *Leveling* (equalizing the general conditions of competition in some way) and *Truth-in-Pricing* rules.

The history of efforts to catalyze competition has notable successes and failure. A second goal of the paper is to try and understand, even roughly why some competition initiatives seem to work, while others fail in their self-stated goals. As these are highly complex industries with many variables, the conclusions cannot be definitive. Nonetheless, a study of the efforts to jump-start competition shows a clear pattern of success and failures, from which best-practices may be derived, and from which any future regulator should learn. The paper concludes with a list of best-practices or rules-of-thumb for those who would hope to use laws to catalyze competition in the future.

The paper proceeds in three parts. Part I provides background and context. Part II discusses some of the economic theory behind procompetitive regulation. Part III discusses both the potential, but also the limitations and possible perils of regulatory competition policy.

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² Kearney and Merrill make this point.