

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Applications of Comcast Corp. and	)	MB Docket No. 14-57
Time Warner Cable Inc.	)	
	)	
For Consent to Assign or Transfer	)	
Control of Licenses and Authorizations	)	

**PETITION TO DENY OF FREE PRESS**

S. Derek Turner, Research Director  
Matthew F. Wood, Policy Director  
Free Press  
1025 Connecticut Avenue, N.W.  
Suite 1110  
Washington, D.C. 20036

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## EXECUTIVE SUMMARY

With these applications, Comcast and Time Warner Cable seek Commission approval to combine the nation's first- and second-largest advanced broadband and cable providers. Its approval would create a telecommunications giant that controls infrastructure reaching into 75 million American homes – nearly 6 out of every 10. The combined company would control 4 out of every 10 current subscribers to advanced broadband service, and half of the nation's bundled Internet access and pay-TV customers. Those market shares would grow quickly as DSL continues its accelerated decline into irrelevancy. This deal would make Comcast the only provider of advanced broadband services available to more than a third of the country, a monopoly position that only strengthens for services with higher speed capabilities.

The merger also would give Comcast control of 30 percent of all pay-TV customers while adding to its already vast broadcast and cable programming holdings, increasing the merged company's incentives and ability to exercise its gatekeeper power. And even though it would control such a substantial portion of America's broadband access market, Comcast and its remaining competitors in this increasingly uncompetitive market would be subject to almost no regulatory oversight, all due to the Commission's current unwillingness to utilize its Title II authority over two-way broadband telecommunications services.

As we demonstrate in this petition, this transaction is taking place in a communications market dramatically different than the one the Commission oversaw during its prior reviews of multichannel video programming distributor mergers. Broadband is now the primary way Americans connect and communicate, and it is rapidly becoming the main conduit for video programming distribution. While a decade ago cable modem and Asymmetric Digital Subscriber Line ("ADSL") services stood on equal footing in terms of capabilities, this is not the case today. First generation ADSL is now as dial-up was a decade ago: a dying technology that consumers

are leaving in droves. As our analysis shows, under the so-called “hypothetical monopolist test” used to determine the appropriate market boundaries for antitrust analysis, cable modem is in a separate “advanced broadband services” market from ADSL, satellite and other wireless high-speed Internet services.

We present analysis that demonstrates streaming video, along with the cable platform’s inherent advantages with respect to operator cost and capacity, are the primary drivers of this shift in the broadband market. In particular, we show that consumer demand for streaming video is finally pushing many cable broadband companies to offer higher transmission speeds (at higher prices), something they have long been reluctant to do for fear of cannibalizing their pay-TV business. Streaming video is therefore an application generating positive externalities in the form of greater speeds for other online content and services. Demand for streaming video is a market force helping the nation achieve the goals of Section 706 of the 1996 Telecommunications Act, and deserves to be protected from broadband provider interference.

As a vertically integrated pay-TV and content provider, Comcast has *tremendous incentives* to relegate streaming video to a niche, complementary product market. Comcast has in fact already taken several steps to frustrate the growth of the streaming video industry. As we establish in this petition, the merger would increase Comcast’s incentives to harm further development of the streaming video market. The merged Comcast-Time Warner Cable would have such a large share of the addressable advanced broadband market, and would face so little competition in this market, that the combination would create a high possibility of unilateral and coordinated harms. These harms would pose grave danger to the development of the streaming video industry, and thus to further development of the U.S. advanced broadband market.

We also present evidence that the transaction would cause substantial additional competitive harms, including public interest harms that lie outside of traditional antitrust review. These harms collectively are too substantial to be remedied with conditions, especially given the fact that the broadband market is not currently governed by the consumer protections in Title II or Title VI of the Communications Act.

For example, we discuss how Comcast would behave in the absence of this merger to achieve the growth it seeks from purchasing Time Warner Cable. If it could not grow through this massive acquisition, Comcast might accelerate its entry into the business markets including special access. Comcast would investigate operating outside of its physical footprint as a virtual MVPD, increasing competition in the pay-TV market. It would have increased incentive to retain its existing video customers and capture new market share by offering less expensive and more flexible pay-TV bundles, increasing MVPD competition. It might invest to expand its metro WiFi deployments, in turn expanding cellular data carrier ability to offload traffic and ultimately benefiting wireless consumers and competition. It would have increased incentives to offer faster, perhaps lower-priced broadband to retain and grow share. And as we show, if it could not get bigger in broadband through *buying* Time Warner Cable, Comcast would expand through *building* more broadband outside its existing footprint. For the same price as this deal, Comcast could gain more customers and potential customers by constructing new gigabit fiber facilities.

Finally, we demonstrate that Comcast and Time Warner Cable's claimed public interest benefits are non-merger specific, non-cognizable, and no match for the adverse competitive impact of this transaction.

In sum, this transaction does not serve the public interest. The Commission should deny the applications in their entirety.

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## I. Introduction

Applicants Comcast Corp. and Time Warner Cable Inc.<sup>1</sup> seek to create the largest telecommunications and pay-TV provider in the country, reaching into 6 out of every 10 U.S. homes and controlling nearly half of the current advanced broadband service subscribers.<sup>2</sup> This proposed transaction would create a telecommunications and pay-TV giant of unprecedented proportion. It would also bestow upon Comcast unprecedented and unchecked gatekeeper power over the Internet, in ways that eclipse the control once held by the monopoly Bell System.

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<sup>1</sup> We refer to Comcast Corp. and Time Warner Cable Inc. as “Comcast” and “Time Warner Cable” (or “TWC”), and collectively as “Applicants,” throughout this Petition to Deny.

<sup>2</sup> As we explain in detail below, there is ample evidence strongly suggesting that there is a unique product market for what we term “advanced broadband” connectivity or “truly high-speed” Internet access service. This refers to a market that includes carriers’ offering of broadband capability that enables end users to send and receive high-quality video and other data content between points of their choosing – a level of service that enables the delivery of multichannel video (purchased through the carrier) or a functional online equivalent (such as high-definition quality online video services, either linear or on-demand).

In general, this includes cable Multiple Systems Operators (“MSOs”) offering DOCSIS 3.x-level services, as well as traditional telecommunications firms offering (i) Fiber-to-the-Home (“FTTH”) or (ii) Fiber-to-the-Node (“FTTN”) Very high speed DSL (“VDSL”) services (together referred to as “FTTx” services). Providers of DOCSIS 3.x cable modem service or FTTx services typically offer a suite of communications and media services, focusing primarily on bundled pay-TV, Internet access, and voice services. As we discuss below, first-generation Asymmetric DSL (“ADSL”) services do not offer the same level of capabilities as cable modem or FTTx services (with ADSL typically reaching a maximum downstream output of less than 7 megabits per second (“Mbps”), and upstream output of less than 1 Mbps). As a consequence of this lower capacity relative to cable modem and FTTx services, ADSL services are being abandoned in droves – not only by consumers who once purchased them, but by the Incumbent Local Exchange Carriers (“ILECs”) that have offered ADSL since the mid- to late-1990s.

The 1996 Telecommunications Act contains the similar term “advanced telecommunications capability,” defined as “broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.” See 47 U.S.C. § 1302(d)(1). The Commission’s current interpretation of this term counts connections that offer 4 Mbps downstream and 1 Mbps upstream (an asymmetric threshold out of step with Congress’s emphasis on “originate” and “receive” in the statutory definition). It is currently considering raising to 10 Mbps its downstream threshold for what constitutes advanced telecommunications capability. See *Tenth Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 14-126, Notice of Inquiry, FCC 14-113 (rel. Aug. 5, 2014).

In order to gain the Commission's approval for this staggering consolidation of the nation's first- and second-largest pay-TV/Internet access providers, Applicants must demonstrate that approving the acquisition would serve the public interest. They simply cannot meet that burden. The merger would seriously harm competition, consumers, and the public interest. It would bestow upon Applicants outsized market power, which the combined company would exercise to thwart growth in the industry that is propelling the U.S. broadband market forward: streaming video.

This merger takes place in the absence of any coherent regulatory authority over our nation's preeminent mass-market two-way communications services, as the Commission currently cannot apply any common carrier obligations to broadband access providers. In the face of the obvious harms of this merger, all Applicants can offer consumers are promises to adhere to a suite of meaningless and time-limited voluntary commitments. But in the absence of industry-wide regulatory authority, neither these commitments nor any other conditions could mitigate the competitive harms of this transaction, as such conditions would not address the coordinated effects that this merger will produce across the industry.

Applicants fail to identify any merger-specific benefits, and would have the Commission turn a blind-eye to the obvious merger-specific harms. The Commission should deny these applications for transfer of licenses and reject this transaction.

## **II. Statement of Interest**

Free Press is a national nonpartisan organization with more than 750,000 members. We work to reform the media and increase informed public participation in crucial communications policy debates. Free Press has participated in numerous merger proceedings before the Federal



Communications Commission.<sup>3</sup> In each, Free Press has advocated for policies that promote competition and serve the public interest.

As such, Free Press constitutes a “party in interest” within the meaning of Section 309(d) of the Communications Act of 1934, as amended, and has standing to participate in this proceeding as demonstrated herein and in the attached declarations. Part of our mission is to promote diversity of viewpoints and content in the media and online, and also to ensure open and affordable broadband choices for telecommunications customers and Internet access users. Free Press has members that reside in areas served by the Applicants. Grant of the applications therefore would harm Free Press and its members by causing a loss of diversity of viewpoints and a decrease in the competitiveness and affordability of broadband offerings available to them.

**III. The Proposed Transaction Would Not Serve the Public Interest Because It Would Substantially Increase Comcast’s Market Power in the Advanced Broadband Services Market, as Well as the National Market for Delivery of Content via Advanced Broadband Services, Resulting in Substantial Unilateral Harms and Exacerbating Coordinated Effects.**

The proposed merger of Comcast and Time Warner Cable would dramatically concentrate the U.S. advanced broadband industry. It would confer outsized gatekeeper market power on the merged entity, threatening the growth of the entire Internet economy and, in turn, harming consumers through loss of access to quality online services. Comcast’s resulting nationwide market reach and power also would lead to direct consumer harms, such as reduced output, higher prices, and increased barriers to entry for new competitors.

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<sup>3</sup> For example, Free Press filed petitions to deny and/or extensive comments in *Applications of AT&T, Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Docket No. 11-65; *Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licensees*, MB Docket No. 10-56; *Consolidated Application for Authority To Transfer Control of XM Radio Inc. and Sirius Satellite Radio Inc.*, MB Docket No. 07-57; and *AT&T Inc. and BellSouth Corporation, Application for Transfer of Control*, WC Docket No. 06-74.

In determining whether a transaction serves the public interest, the Commission considers that transaction's competitive effects.<sup>4</sup> This analysis "is informed by, but not limited to, traditional antitrust principles."<sup>5</sup> To find that a merger is in the public interest, it is not enough for the Commission to find that the transaction will not harm competition; the Commission also must "be convinced that [the combination] will *enhance* competition."<sup>6</sup>

This transaction impacts multiple product markets, including the pay-TV market, the market for pay-TV content distribution, the customer premises equipment market, the market for retail broadband access services, the market for retail advanced broadband access services, and the market for online content distribution. In assessing the competitive impact of this transaction, the Commission should focus on each of these product markets, and how they interact.<sup>7</sup> In particular, the Commission should determine that the key relevant product market is mass-market advanced broadband connectivity, which is viewed from the perspective of online content providers as a nationwide market. Yet whatever market or markets the Commission ultimately determines relevant, it cannot escape the conclusion that the merger will decrease competition and raise serious antitrust and public interest concerns.

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<sup>4</sup> *News Corporation and DIRECTV Group, Inc., Transferors, and Liberty Media Corporation Transferee*, Memorandum Opinion and Order, 23 FCC Rcd 3265, ¶¶ 23-24 (2008).

<sup>5</sup> *Id.* ¶ 24.

<sup>6</sup> *Applications of NYNEX Corp., Transferor, and Bell Atlantic Corp., Transferee*, Memorandum Opinion and Order, 12 FCC Rcd 19985, ¶ 2 (1997) (emphasis added).

<sup>7</sup> For example, while advanced broadband access services and pay-TV services lie in different product markets (*i.e.*, a consumer cannot substitute one-way pay-TV service for two-way broadband connectivity), the overwhelming majority of consumers purchase these services from an incumbent cable MSO in bundled packages. We estimate based on data reported by SNL Kagan that the combined Comcast-Time Warner Cable (post-divestiture) would have 82 percent of its high-speed Internet customers and 75 percent of its video customers subscribed to a double or triple-play bundle. See Tony Lenoir, "Breaking out stand-alone and bundle HSD and video subs for 6 MSOs shows video's growing reliance on triple-play," *SNL Kagan*, June 3, 2014.

**A. This Transaction Impacts Several Product Markets. The Primary Relevant Product Markets are the Advanced Broadband Services Market and the National Market for the Delivery of Content via Advanced Broadband Services.**

Comcast's proposed acquisition of Time Warner Cable is a massive merger that would combine the operations of the nation's two-largest pay-TV providers, two-largest advanced broadband service providers, and first and third-largest Internet access providers. The reach of the combined company, in terms of homes passed and subscribers, has not been seen in the U.S. communications markets since the days of Ma Bell. The merged entity would control the cable infrastructure that reaches into 75 million American homes – nearly 6 out of every 10 – and would be the only provider of advanced communications services available to more than 40 million of those homes – a third of the country.<sup>8</sup> Comcast would immediately control half of the nation's bundled Internet access and pay-TV customers, a share that would quickly grow as DSL continues its now-accelerated decline into irrelevancy.<sup>9</sup>

Comcast also would control 30 percent of all pay-TV customers while adding to its already vast broadcast and cable programming holdings, with all the incentives to exercise its gatekeeper power that come along with this vertical integration. And even though it would control such a substantial portion of America's broadband access market, Comcast and its remaining competitors in this increasingly uncompetitive market would be subject to almost no regulatory oversight, due to the Commission's mothballing of its Title II authority.

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<sup>8</sup> See *infra* Figures 1 and 2 for detailed estimates and discussion of methodology.

<sup>9</sup> We estimate, based on figures reported by companies and additional estimates from SNL Kagan, that post-divestiture Comcast-Time Warner Cable will control approximately 22 million pay-TV/Internet (with or without voice) bundled customers, out of an approximate 45 million. This share would be higher than the combined companies' share of the >10 Mbps market (an estimated 41 percent) in part because AT&T's U-Verse TV service is only available in a portion of the area where its highest-speed broadband is marketed. AT&T had 5.9 million U-Verse video subscribers at the end of June 2014, but totaled 11.4 million U-Verse Internet customers. By comparison, Verizon FiOS had 5.4 million video subscribers, close to its 6.3 million FiOS Internet customers.

The critical public interest issues raised by this transaction go well beyond the classic antitrust issues raised by mergers generally. Yet as the analysis definitively demonstrates, this merger fails both the public interest test and the antitrust test. As the Department of Justice (“DOJ”) and Commission consider the applications, they must first define the relevant product market or markets. As noted above, this merger impacts many. We believe that for purposes of the Commission’s public interest analysis (which must account for current and future market developments), the most relevant product market is for nationwide advanced broadband services.

This unprecedented merger is the largest between two mass-market pay-TV/Internet access service providers since broadband became Americans’ preferred communications medium. It comes at a time when the cable platform has proven the dominant broadband access technology in America, now and for the foreseeable future.<sup>10</sup> The Commission’s prior reviews of multichannel video programming distributor (“MVPD”) mergers focused primarily on public interest and competitive impacts in the pay-TV market, with emphasis on program carriage.<sup>11</sup>

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<sup>10</sup> See *infra* Part III.A.ii for analysis (noting that ADSL’s platform share has decreased from 41 percent to 20 percent in the last six years, a period in which cable modem’s platform share increased from 55 percent to more than 59 percent. During this time FTTx’s platform share grew from 3 percent to 21 percent); see also Dana Blankenhorn, “The Simple Lesson in Broadband Numbers: People Want Speed,” *The Street*, Aug. 18, 2014 (Noting the cable platform’s 59 percent market share, and stating that “[t]he bottom line is this: Cable infrastructure delivers more speed than phone infrastructure. People prefer it. Change will only come from massive capital investment, and no one wants to make it. The last mile of the Internet belongs to cable.”).

<sup>11</sup> See, e.g., *Applications for Consent to the Assignment and/or Transfer of Control of Licenses from Adelphia Communications Corporation, Assignor, to Time Warner Cable Inc. and Comcast Corporation, Assignees and Transferees*, Memorandum Opinion and Order, 21 FCC Rcd 8203, ¶ 60 (2006) (“*Adelphia/TWC/Comcast Order*”) (“In analyzing MVPD transactions, the Commission has generally examined two separate but related product markets: (1) the distribution of programming to consumers . . . and (2) the acquisition of programming . . . . The Applicants are significant participants in both of these product markets, and we therefore . . . examine whether the transactions are likely to contravene Commission policy goals by analyzing the potential effects the transactions may have on MVPD competition and on the flow of video programming to consumers.”) (internal citations omitted).

This transaction raises some similar concerns to these prior MVPD transactions. The most troubling aspects of the present deal stem from concentration of the broadband access market, particularly the advanced broadband market. But whether focused on pay-TV or broadband, the underlying concern of the prior and present transactions is gatekeeper control.<sup>12</sup>

The primary concern about the merger of Comcast and Time Warner Cable is a result of the influence the merged entity would have from controlling nearly half of all subscribers to retail advanced broadband services. Comcast would have unchallenged ability to shape how advanced broadband and bundled communications services are offered to end-users, as it would not only control a large proportion of existing subscribers but face no advanced broadband competition in nearly 60 percent of its service territory – which itself covers nearly 60 percent of U.S. homes.<sup>13</sup> And it could operate in a market that exists in a virtually regulation-free limbo, thanks to the Commission’s prior misguided decisions to classify these services that are clearly “telecommunications services” as “information services.”<sup>14</sup>

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<sup>12</sup> While antitrust plays a prominent role in the Commission’s review of cable company mergers, the Communications Act requires it to consider whether a transaction will “assure that cable communications provide and are encouraged to provide the widest possible diversity of information sources and services to the public” and “promote competition in the delivery of diverse sources of video programming.” 47 U.S.C. § 521(4); *id.* § 532(a).

<sup>13</sup> We estimate, based on company figures and additional estimates from SNL Kagan, that post-divestiture Comcast-TWC would face FTTx competition in approximately 42 percent of its service area (measured by housing units passed). However, due to the portion of FTTx passings that are below 25 Mbps, the merged entity’s exposure to fully equivalent competition is lower.

<sup>14</sup> *See* 47 U.S.C. § 153(50) (“The term ‘telecommunications’ means the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received”); *id.* § 153(53) (“The term ‘telecommunications service’ means the offering of telecommunications for a fee directly to the public . . . , regardless of the facilities used”); *id.* § 153(24) (“The term ‘information service’ means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . . but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.”).

In past MVPD merger reviews, the Commission and DOJ saw broadband as a product market of concern. For example, in reviewing AT&T's acquisition of MediaOne, DOJ noted that a "relevant product market affected by this transaction is the market for aggregation, promotion, and distribution of broadband content and services"<sup>15</sup> and found for it that the "relevant geographic market . . . is the United States."<sup>16</sup> It also made other findings relevant today, noting that "[t]hrough its control of Excite@Home and substantial influence or control of Road Runner, AT&T would have substantially increased leverage in dealing with broadband content providers, which it could use to extract more favorable terms for such services."<sup>17</sup> This is important because Excite@Home and Road Runner were *non-overlapping* cable Internet Service Providers, just as Comcast and Time Warner Cable are now.<sup>18</sup>

DOJ had grave concerns even though AT&T-MediaOne did not involve one ISP simply merging with another. AT&T owned a majority but not all voting interest in Excite@Home; and MediaOne held only a 34 percent stake in Road Runner. Although AT&T would only gain a minority stake in RoadRunner, DOJ had substantial concerns about the company's gatekeeper control, noting that "[i]f the proposed merger were consummated, concentration in the market for aggregation, promotion, and distribution of residential broadband content and services would be substantially increased, and competition between Excite@Home and Road Runner in the provision of such services may be substantially lessened or even eliminated."<sup>19</sup>

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<sup>15</sup> *United States v. AT&T Corp. and MediaOne Group, Inc.*, Case No. 1:00CV01176 (RCL), Amended Complaint, ¶ 25 (filed May 26, 2000) ("*AT&T-MediaOne Amended Complaint*").

<sup>16</sup> *Id.* ¶ 28.

<sup>17</sup> *Id.* ¶ 33.

<sup>18</sup> Excite@Home began as third-party ISPs offering services to cable MSOs. Road Runner was Time Warner Cable's branded ISP service, and it also offered ISP services to other MSOs – some of which, like MediaOne, held an equity stake in Road Runner.

<sup>19</sup> *AT&T-MediaOne Amended Complaint*, ¶ 33.

DOJ concluded that “by exploiting its ‘gatekeeper’ position in the residential broadband content market AT&T could make it less profitable for unaffiliated or disfavored content providers to invest in the creation of attractive broadband content, and thereby reduce the quantity and quality of content available.”<sup>20</sup> It arrived at this conclusion based in part on the two ISPs’ control of 2.2 million out of more than 4 million broadband lines in service at the time, a share close to what the merged Comcast-TWC would have in the advanced broadband market.<sup>21</sup>

The Commission has considered and reached similar conclusions in its reviews of other mergers and acquisitions.<sup>22</sup> A key theme in reviews involving broadband is gatekeeper control and the merged entity’s ability to thwart over-the-top competition, either through blocking or discriminatory treatment.<sup>23</sup> Given that third-party ISPs are now a historical footnote, and the

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<sup>20</sup> *Id.* ¶ 34 (noting the combined entity “could profit from . . . direct ownership of a favored content provider, or by obtaining payments from favored content providers”).

<sup>21</sup> DOJ noted that as of March 2000, Excite@Home had 1.5 million customers and Road Runner had 730,000. *Id.* ¶¶ 5, 8. According to the first FCC High-Speed Internet Access Report, there were 4.3 million high-speed lines in service as of June 30, 2000. This meant the combined AT&T-MediaOne would have an equity interest (but not outright control) over an approximate 50-55 percent share of all high-speed Internet subscribers. DOJ also noted that the two ISPs offered services for cable companies that controlled approximately 60 percent of U.S. cable subscribers (35% from AT&T Corp., 25% from MediaOne and Time Warner Cable combined). By comparison, Comcast-TWC would control between 40 and 50 percent of current advanced broadband subscribers (depending on the exact product market definition) and the merged company would be the sole available ISP for 62 percent of U.S. “cable” subscribers (figures do not include Bright House Networks, or SpinCo subscribers, which would increase these totals).

<sup>22</sup> See, e.g., *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc., and America Online, Inc., et al.*, Memorandum Opinion and Order, 16 FCC Rcd 6547, ¶ 80 (2000) (“*AOL-Time Warner Order*”); see also *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, ¶¶ 150-154 & App. F (2007).

<sup>23</sup> See e.g. *AOL-Time Warner Order*, ¶ 61 n.176 (“Discrimination by AOL Time Warner . . . could take the form of an outright refusal to carry such ISPs, or it might occur more subtly – for example, by degrading unaffiliated ISPs’ quality of service, limiting their features and functionalities, or discriminating against them in terms and conditions of access.”). The Commission also reasoned that AOL Time Warner could leverage its own video programming to obtain exclusive or preferential treatment for AOL broadband access or content. See *id.*

court rulings that nondiscrimination is a common carrier obligation,<sup>24</sup> this transaction creates problems neither the Commission nor competitive market forces are presently equipped to solve.

Control over the free flow of information is a core concern of the First Amendment<sup>25</sup> and the Communications Act. Congress directed the Commission “to enhance effective competition”<sup>26</sup> by placing limits on how much of the nation a single cable provider could reach. This was based on Congress’ concern about gatekeeper control in a highly concentrated market<sup>27</sup> – concentration of the sort that the advanced broadband market already displays (at both the national and local levels),<sup>28</sup> and that this merger would exacerbate. In response, the Commission on multiple occasions devised a 30 percent limit on the share of nationwide MVPD subscribers.<sup>29</sup>

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<sup>24</sup> As the court made clear in remanding the Open Internet nondiscrimination rule, unless the Commission classifies broadband as a common carrier service, it cannot compel operators of those facilities to hold them out “indifferently for public use.” See *Verizon v. FCC*, 740 F.3d 623, 656 (D.C. Cir. 2014) (quoting *FCC v. Midwest Video Corp.*, 440 U.S. 689, 706 n.16 (1979)).

<sup>25</sup> See, e.g., *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367, 390 (1969) (“It is the purpose of the First Amendment to preserve an uninhibited marketplace of ideas . . . rather than to countenance monopolization of that market, whether it be by the Government itself or a private licensee.”); see also *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622, 657 (1994) (“The potential for abuse of this private power over a central avenue of communication cannot be overlooked” and government may “ensure that private interests not restrict, through physical control of a critical pathway of communication, the free flow of information and ideas.”).

<sup>26</sup> See 47 U.S.C. § 533(f)(1)(A).

<sup>27</sup> See Cable Television Consumer Protection and Competition Act of 1992, P.L. 102-385, § 2(a)(4) (“The cable industry has become highly concentrated. The potential effects of such concentration are barriers to entry for new programmers and a reduction in the number of media voices available to consumers.”).

<sup>28</sup> We estimate that at the household level, the HHI for advanced broadband services is more than 6,000. At the national level, the HHI for services above 10 Mbps is more than 2,000, while the HHI for services above 25 Mbps is more than 2,500.

<sup>29</sup> See *Implementation of Sections 11 and 13 of the Cable Television Consumer Protection and Competition Act of 1992*, Second Report and Order, 8 FCC Rcd 8565 (1993); *Implementation of Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992*, Third Report and Order, 14 FCC Rcd 19098 (1999); *Implementation of Section 11 of the Cable Television Consumer Protection and Competition Act of 1992*, Fourth Report and Order, 23 FCC Rcd 2134 (2008).



The Commission's most recent justification of the 30 percent cap was vacated by the D.C. Circuit.<sup>30</sup> Despite the absence of this specific horizontal limit, Applicants have seen fit to voluntarily divest 3.9 million MVPD customers in order to fall slightly below the vacated bright line. Certainly Applicants did not make this move based on their fiduciary duty to maximize profits for shareholders; they must have anticipated there being legitimate public interest concerns from exceeding a 30 percent share of the national MVPD market.

If there are legitimate public interest concerns about exceeding 30 percent of the MVPD market, which even the Applicants seem tacitly to acknowledge, then there should be a greater level of concern about the combined entity's control of the broadband access market – particularly the advanced broadband market, which now exists as a separate product market. In the MVPD business, Applicants face a minimum of two competing Direct Broadcast Satellite (DBS) providers at every location served. When factoring in telco video and MSO overbuilders, Applicants face an average of 2.4 MVPD competitors. Compare this to broadband, where Applicants face on average less than *one* other wired competitor – *at any* speed. If we consider only those providers offering broadband services capable of more than 10 Mbps in the downstream direction, Applicants face on average just 0.4 other wired competitors. If the threshold is 25 Mbps, the average number of competitors Applicants face drops to 0.3. And if the threshold is set at 50 Mbps, the average number of competitors drops to just above 0.1.

Thus, we see Applicants dropping below a 30 percent national share in a market where they face substantially more competition than they do in broadband, a market where their combined national share ranges from 34 percent (at >3Mbps downstream) to 51 percent (at >50 Mbps downstream) (See Figure 1).

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<sup>30</sup> *Comcast Corp. v. FCC*, 579 F.3d 1 (D.C. Cir. 2009).

This level of control without the possibility of the disciplining effects of potential competition is substantial, especially considering that the merged company would pass 56 percent of all U.S. housing units (see Figure 2), and 59 percent of all U.S. housing units served by at least one wired broadband provider *at any speed* (see Figure 3).

**Figure 1:  
The U.S. Broadband Market – Share of Subscribers by Downstream Speed  
(June 30, 2014 Estimates)**

Company	Share of Subscribers by Downstream Speed*				
	Any Speed	> 3 Mbps	> 10 Mbps	> 25 Mbps	> 50 Mbps
Comcast+TWC (post-divestiture)	32%	34%	41%	47%	51%
Charter (post-divestiture)	6%	7%	8%	9%	9%
Cox	5%	5%	7%	8%	7%
Cablevision	3%	3%	4%	4%	4%
SpinCo (post-divestiture)	2%	3%	3%	4%	3%
Bright House Networks	2%	2%	2%	2%	2%
Suddenlink	1%	1%	2%	2%	2%
Mediacom	1%	1%	1%	1%	1%
Wide Open West	1%	1%	1%	1%	1%
Cable ONE	1%	1%	1%	1%	1%
RCN	0%	0%	0%	1%	1%
Other Cable MSOs	3%	3%	3%	4%	4%
Verizon	10%	9%	9%	10%	13%
AT&T	18%	16%	11%	5%	0%
Century Link	7%	6%	4%	1%	0%
Frontier	2%	2%	1%	0%	0%
Windstream	1%	1%	1%	0%	0%
Fairpoint	0%	0%	0%	0%	0%
Cincinnati Bell	0%	0%	0%	0%	0%
Other Local Exchange Carrier	4%	3%	2%	1%	0%
All Cable MSO	58%	62%	72%	83%	86%
All Local Exchange Carrier	42%	38%	28%	17%	14%

*Source: Free Press Research, estimates based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan.\* Figures reflect market shares as of June 30, 2014, and include residential and business lines. Excludes mobile wireless, fixed wireless and satellite connections. Values rounded to nearest percent, thus some non-zero values are presented as "0%."*

**Figure 2:  
Broadband Availability by Speed – For All U.S. Housing Units  
(June 30, 2014 Estimates)**

Company	Availability by Downstream Speed (Percent of All U.S. Housing Units)				
	Any Speed	> 3 Mbps	> 10 Mbps	> 25 Mbps	> 50 Mbps
Comcast+TWC (post-divestiture) & LEC	56%	55%	23%	18%	8%
Comcast+TWC (post-divestiture) ONLY	0%	1%	33%	38%	48%
Charter (post-divestiture) & LEC	12%	12%	4%	3%	1%
Charter (post-divestiture) ONLY	0%	0%	8%	9%	11%
SpinCo (post-divestiture) & LEC	5%	5%	2%	2%	1%
SpinCo (post-divestiture) ONLY	0%	0%	3%	3%	4%
Bright House Networks & LEC	3%	3%	1%	1%	1%
Bright House Networks ONLY	0%	0%	2%	2%	2%

*Source: Free Press Research, estimates based on analysis of company reports, National Broadband Map data, and data collected by SNL Kagan. Figures reflect estimates of availability as of June 30, 2014. Excludes mobile wireless, fixed wireless and satellite providers. Values rounded to nearest percent, thus some non-zero values are presented as "0%."*

However, if the product market is the advanced broadband market, and the line is drawn at 10 Mbps of downstream capability, the data summarized in Figure 3 shows that Comcast will pass 62 percent of all U.S. homes with such capabilities, and will be the *only* option for 36 percent of these homes. Of those homes where 25 Mbps and greater-level service is available, Comcast will pass 68 percent of these homes, and will be the sole available provider for 46 percent.

Put another way, if the future of the American broadband market is advanced broadband connectivity at a level of 25 Mbps or more, Comcast would control nearly half of all such subscribers, and for nearly half of this addressable market it would be the *only* option available.

Below in Section IV we discuss in detail the problems inherent in a single company controlling this much access to the addressable market, and how it will impact competition, investment and innovation in the online services markets. But at the outset we simply suggest

that if there are substantial public interest concerns with a single company having a 30 percent share of the customers in a nationwide market with more than three providers available to the average customer, then surely there should be concerns when a single company controls between 40 and 50 percent of the customers in a market and that company faces *no* competition in a third to half of that addressable market.

**Figure 3:  
Broadband Availability by Speed –  
For All Housing Units Where The Given Downstream Speed is Available  
(June 30, 2014 Estimates)**

Company	Availability by Downstream Speed (Percent of U.S. Housing Units Passed By Broadband at Each Respective Downstream Speed Tier)				
	Any Speed	> 3 Mbps	> 10 Mbps	> 25 Mbps	> 50 Mbps
Comcast+TWC (post-divestiture) & LEC	59%	59%	26%	22%	10%
Comcast+TWC (post-divestiture) ONLY	0%	1%	36%	46%	59%
Charter (post-divestiture) & LEC	13%	13%	5%	4%	1%
Charter (post-divestiture) ONLY	0%	0%	8%	11%	14%
SpinCo (post-divestiture) & LEC	5%	5%	2%	2%	1%
SpinCo (post-divestiture) ONLY	0%	0%	3%	4%	5%
Bright House Networks & LEC	3%	3%	1%	1%	1%
Bright House Networks ONLY	0%	0%	2%	3%	3%

*Source: Free Press Research, estimates based on analysis of company reports, National Broadband Map data, and data collected by SNL Kagan. Figures reflect estimates of availability as of June 30, 2014. Excludes mobile wireless, fixed wireless and satellite providers. Values rounded to nearest percent, thus some non-zero values are presented as “0%.”*

Applicants assert that because they operate in non-overlapping geographies, this merger creates no competitive concerns. But the above data and the realities of broadband competition from both the end-user and content-provider perspective makes it clear that Applicants’ assertions about this transaction’s competitive impacts are absurd.<sup>31</sup>

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<sup>31</sup> Even if we set aside the reality that the merger will enhance Applicants’ pricing power in the national retail market (as we discuss *infra*, ISPs largely set rates on a national basis, deviating from this structure only occasionally with promotions in *some* regional markets where triple-play

Because of the natural monopoly and historical market structure, other than overbuilders that comprise about 1 percent of the market, no two cable MSOs compete for the same set of retail customers, just as no two ILECs compete for the same set of customers (despite all the promises of overbuilding made during the 1996 overhaul of the Communications Act and the last raft of ILEC mergers a decade ago). This reality is meaningless for the public interest and antitrust analysis of this transaction. In its review the Commission must address the implications of Comcast increasing its national coverage, and how that change will enhance its gatekeeper market power in the pay-TV and broadband markets. The Commission must confront how this increased market reach will not only impact Comcast's offerings to its own mass market retail customers (and their ability to receive online content), but also how the overall market concentration will impact customers of other providers due to the coordinated effects created by the transaction.

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telco providers *other than MSOs* advertise more competitively priced packages), Applicants' assertion of no competitive effects from merging two MSOs ignores the reality of benchmarking. That is, in Designated Market Areas where consumers routinely are exposed to the advertising of both Comcast and Time Warner, there will be a competitive impact, as this exposure helps consumers set a "benchmark" on what the going market rate is for the various advertised services. *See Adelphia/TWC/Comcast Order*, ¶¶ 78, 83 (internal citations omitted):

Free Press argues that even if there is no direct competition within a franchise area, consumers benefit in terms of service and price when neighboring franchise areas are served by different cable operators. Free Press reasons that cable operators are less likely to raise prices or reduce service when consumers have a readily available basis for comparison . . . We [ ] agree with Free Press that adjacent service areas can provide a useful benchmark for consumers to compare price and service. As CWA/IBEW point out, the Los Angeles area is an example where all three Applicants currently operate in adjacent franchise areas. Following the transactions, only one of the Applicants, Time Warner, will operate in that metropolitan area. We recognized in the SBC-Ameritech Order that regulatory efficacy is enhanced when there are a 'sufficient number of independent sources of observation available for comparison.' We believe that not only regulators, but also consumers, can benefit from the ability to observe how different cable operators are serving proximate areas.

These are not a novel concerns, as they are the basis of prior regulatory and statutory limitations on a single company's national market share. Surely Comcast would not suggest that it be allowed to acquire every single cable MSO in the country, based on the not-so-coincidental reality that the MSOs have divided the nation among themselves and effectively refused to compete against each other to this point. And in fact, when it was seeking approval for its previous mega-merger, with NBC Universal, no less an authority than Comcast's own CEO cited Time Warner Cable as a competitor to his company.<sup>32</sup> There can be little dispute that Comcast and TWC compete in several of the content and distribution product markets described above, and other product markets as well.

Likewise, there is no controversy about the fact that the general or nationwide broadband market is an important one, and that access to this addressable market by online content providers is a key competitive concern. Applicants of course contend that any concerns about gatekeeper authority are misplaced, but they do not go so far as to suggest that broadband is not a market potentially impacted by this transaction. There is ample Commission, DOJ and Federal Trade Commission precedent supporting the need to view the broadband market as a relevant product market impacted by MVPD mergers. The question for the Commission is how to draw the boundaries around that market. The agencies found, in previous reviews, that high-speed Internet access and dial-up Internet access were not in the same product market. We suggest that the same determination holds here with respect to advanced broadband, on one hand, and both wireless Internet access services and first-generation ADSL services on the other.

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<sup>32</sup> See Remarks of Brian Roberts, Chairman and CEO, Comcast Corp., "The Comcast/NBC Universal Merger: What Does the Future Hold for Competition and Consumers?" Hearing Before the United States Senate Committee on the Judiciary, Subcommittee on Antitrust, Competition Policy and Consumer Rights, at 17 (Feb. 4, 2010) ("So there are robust distributors – DirecTV, Dish Network, Time Warner [Cable], Ms. Abdoulah's company – all negotiating with other programmers.").

**i. Mobile Wireless, Fixed LTE and Satellite Services Are Not in the Same Product Market as Advanced Broadband Services.**

The overwhelming market and economic evidence shows that wireless access is in a distinct product market from Applicants' broadband services. Mobile, Fixed LTE and satellite broadband are not products that are "reasonably interchangeable by consumers for the same purposes"<sup>33</sup> as wired broadband in general (and they certainly are not interchangeable for the same purposes as the advanced broadband services to which consumers are flocking, as discussed in detail below). Because of data caps and other network management limitations,<sup>34</sup> it is simply economically infeasible to substitute a wireless connection (even a fixed-line LTE or satellite connection) for a wired connection. According to data from Sandvine, in the first part of 2014, the average North American fixed broadband line consumed 51.4 gigabytes (GB) of data each month, while the average wireless user's monthly data consumption was 465 megabytes (MB).<sup>35</sup> If a user purchased Verizon's "Home Fusion" Fixed LTE service and consumed 51.4 GB of monthly data, her bill would be \$340 before taxes, fees and equipment costs.<sup>36</sup> This of

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<sup>33</sup> See *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956); see also *United States v. Microsoft*, 253 F.3d 34, 52 (D.C. Cir. 2001).

<sup>34</sup> For example, users on a large number of the so-called "unlimited" mobile wireless plans will find themselves throttled to near-dial up speeds if they consume more than 2.5 GB in a monthly billing period. Many mobile wireless carriers include substantial use restrictions in their Acceptable Use policies, such as prohibitions on the use of Peer-to-Peer (P2P) applications. We note also that the Commission has applied (and presently proposes to apply) different and substantially weaker Open Internet rules to mobile broadband than to fixed-line services.

<sup>35</sup> See Sandvine, "Global Internet Phenomena Report: 1H 2014," at 5, 8 (2014). The median monthly value for fixed lines was 19.4 GB, and 102 MB for wireless. See *id.*

<sup>36</sup> Verizon's Home Fusion fixed LTE service offers up to 30GB monthly data plans for \$120. Customers are billed \$10 for each additional gigabyte. See <http://goo.gl/cZeM38>. AT&T's fixed LTE is priced identically to Verizon's, but also requires users to purchase voice service for an additional \$20 per month. See <http://goo.gl/KBW8Ab>.

course is something even Verizon doesn't anticipate as the typical outcome, since the service is marketed "to customers with limited broadband options."<sup>37</sup>

This example illustrates how even higher capacity fixed LTE services are not economic substitutes for wired broadband. But Applicants would have the Commission consider *all mobile* wireless services to be in the same product market as cable modem service. This is of course a plainly absurd proposition to the average consumer. First, the cost of using a mobile wireless service as a substitute for fixed line broadband is prohibitive.<sup>38</sup> Second, it isn't clear that a mobile wireless user could even use the connection in a similar manner to fixed line service, because all carriers employ network management practices such as throttling and traffic shaping<sup>39</sup> as well as outright restricting certain uses that are common on wired connections.<sup>40</sup>

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<sup>37</sup> *Id.* ("LTE Internet (Installed) is a residential Internet solution that uses Verizon's 4G LTE network to bring reliable, high-speed Internet service *to customers with limited broadband options.*" (emphasis added)).

<sup>38</sup> *See, e.g.,* Kate Cox, "Comcast Says Mobile Data Is Competitive, But It Costs \$2k To Stream Breaking Bad Over LTE," *Consumerist*, Aug. 18, 2014. This article notes that consuming 139.5GB of monthly data (for the purpose of watching one season of the AMC drama *Breaking Bad*) would cost nearly \$1,300 on most satellite plans, and nearly \$2,000 on most mobile wireless service plans.

<sup>39</sup> *See, e.g.,* Jon Brodtkin, "It's not just Verizon: All major US carriers throttle 'unlimited' data," *Ars Technica*, July 28, 2014.

<sup>40</sup> For example, consider the following language from AT&T Mobility's Terms and Conditions:

AT&T's wireless data services may not be used in any manner that has the effect of excessively contributing to network congestion, hindering other customers' access to the network, or degrading network performance by maintaining a sustained and continuous wireless data service connection or active wireless Internet connection. For example, this includes, but is not limited to, server devices or host computer applications such as continuous Web camera posts or broadcasts, automatic data feeds, or automated machine-to-machine connections; 'auto-responders,' 'cancel-bots,' or similar automated or manual routines that generate excessive amounts of traffic or that disrupt user groups or email use by others; *use of the service as a substitute or backup for private lines or full-time or dedicated data connections*; peer-to-peer (P2P) file sharing services; and software or other devices that maintain continuous active Internet connections when a connection would otherwise be idle or any 'keep alive' functions, unless they adhere to AT&T data



Third, unless the customer is on a plan that authorizes the use of a smartphone as a wireless hotspot, the use of that connection is limited solely to the handset and cannot support other devices such as laptop or desktop computers, or the myriad other devices that are increasingly used in the modern “connected home.”

Neither Verizon nor AT&T market their respective fixed LTE services to users in urban markets with cable broadband. Mobile wireless carriers in general do not market their services as fixed line substitutes.<sup>41</sup> And satellite providers focus solely on attracting subscribers in primarily rural markets who have limited or no wired broadband options.

The Commission and the DOJ have previously found that mobile wireless data services are not in the same market as fixed services.<sup>42</sup> But the market data indicates that the reverse holds true as well, based on the hypothetical monopolist test that DOJ and the Federal Trade Commission employ to determine whether a group of products in a candidate market is sufficiently broad to constitute a relevant antitrust market.<sup>43</sup>

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retry requirements . . . . AT&T’s wireless data services also *may not be used with high bandwidth applications*, services and content that are not optimized to work with AT&T’s wireless data services and, therefore disproportionately and excessively contribute to network congestion. This includes, but is not limited to, redirecting television signals for viewing on computing devices, web broadcasting, and/or the operation of servers, telemetry devices, or supervisory control and data acquisition devices, unless they meet AT&T’s wireless data services optimization requirements.

*See* AT&T Wireless Customer Agreement, Section 6.2, *available at* <http://goo.gl/uLCP4Y> (emphases added).

<sup>41</sup> *See id.* (AT&T explicitly stating that its wireless data service is not to be used as a “substitute or backup” for private lines, landlines, or full-time or dedicated data connections).

<sup>42</sup> *See, e.g., United States v. AT&T Inc., T-Mobile USA, Inc. and Deutsche Telekom AG*, Case 1:11-cv-01560, Complaint, ¶ 12 (filed Aug. 31, 2011).

<sup>43</sup> *See* U.S. Department of Justice and Federal Trade Commission, “Horizontal Merger Guidelines,” § 4.1.1 (2010) (“*Horizontal Merger Guidelines*”). The Department of Justice and Federal Trade Commission note that the “SSNIP” test “is employed solely as a methodological tool for performing the hypothetical monopolist test; it is not a tolerance level for price increases resulting from a merger.” *Id.*

Specifically, the agencies define the relevant product market as the smallest group of competing products for which a hypothetical monopoly provider of the products would profitably impose at least a “small but significant and non-transitory increase in price” (SSNIP), presuming no change in the terms of sale of other products.<sup>44</sup> “Put a different way, when one product is a reasonable substitute for the other in the eyes of *a sufficiently large number of consumers*, it is included in the relevant product market even though the products themselves are not identical.”<sup>45</sup> If a category of products does not constitute a reasonable substitute for those sold by the merging firm, then the antitrust market definition should exclude that category. In this case, evidence in the market affirmatively demonstrates that a SSNIP will not result in a critical level of customers substituting mobile wireless for cable modem services, and therefore should not factor into the analysis.

Over the past several years the capabilities (in terms of downstream and upstream speeds) of mobile networks have increased, which is why Applicants insist these services belong in the same product market as cable modem services. But over this same period, the prices for wired high-speed data services also increased.<sup>46</sup> Under the hypothetical monopolist test, if mobile, fixed wireless or satellite data services were in the same product market as wired cable modem and other wired high-speed Internet access services, we should have seen a *significant* number of consumers substitute wireless services for wired services as their *only* home broadband

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<sup>44</sup> *Id.*

<sup>45</sup> *Skyterra Communications and Harbinger Capital Partners Funds*, Memorandum Opinion and Order and Declaratory Ruling, 25 FCC Rcd 3059, ¶ 37 (2010) (emphasis added).

<sup>46</sup> *See infra* Part III.A.ii discussing how since 2009, the price of Comcast’s entry-level broadband tier has increased 60 percent while the price of its mid-level tier has increased 26 percent. Comcast earlier this year increased the price for its premium 50 Mbps tier by nearly 6 percent, while the monthly fee for the 25 Mbps tier increased 3 percent. These are prices for stand-alone broadband. Over the past 5 years, the price of Comcast’s most popular triple play tier has increased by 20 percent.

connection. However, there has been no appreciable change in the proportion of mobile-only broadband households in recent years.

According to Form 477 Data, the number of satellite high-speed data lines increased from 0.7 million (out of 65.6 million fixed lines) in 2007 to 1.6 million (out of 94.2 million) in 2013.<sup>47</sup> According to estimates from SNL Kagan, the number of mobile wireless-only lines in service was 0.5 million at the end of 2007. SNL Kagan estimates this increased to 2.5 million at the end of 2013. But during this time the wired broadband market grew substantially as well. Indeed, we estimate based on SNL Kagan's data that the percentage of wireless broadband-only U.S. homes actually decreased from 2012 to 2013, from 2.8 percent to 2.7 percent.<sup>48</sup>

That this slight decline occurred at a time when wireless data prices from *some* carriers on *certain* plans declined (on a flat-rate basis as well as a capacity-adjusted basis)<sup>49</sup> as wired broadband prices increased is strong evidence that these products exist in separate markets.<sup>50</sup>

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<sup>47</sup> Compare "High-Speed Services for Internet Access: Status as of June 30, 2007," Industry Analysis and Technology Division, Wireline Competition Bureau (Mar. 2008) with "Internet Access Services: Status as of June 30, 2013," Industry Analysis and Technology Division, Wireline Competition Bureau (June 2014).

<sup>48</sup>"U.S. High-Speed Data Projections," *SNL Kagan* (archived reports for 2008-2018; 2009-2019; 2010-2020; 2011-2021; 2012-2022; 2013-2023; and 2014-2024).

<sup>49</sup> In spring of 2013, T-Mobile became the first nationwide mobile wireless carrier to offer lower-priced services, albeit for users that did not require a direct handset subsidy. See Chris Ziegler, "T-Mobile's new contract-free pricing plans: \$70 per month for unlimited data, talk, and text," *The Verge*, Mar. 24, 2013. Sprint subsequently offered lower-priced plans, though the savings were only for those customers who purchased services jointly. See Sprint Press Release "Sprint Launches Unlimited Guarantee and New Unlimited, My Way Plan," (July 11, 2013). Other carriers responded by offering more monthly data for the same price. See, e.g., Brian Malina, "Smartphone Options for the Budget-Minded," VerizonWireless.com (May 15, 2013).

<sup>50</sup> Since 2011, during the wireless industry's rollout of LTE, the number of wireless only high-speed data lines increased by just 0.5 million. However, the largest increase in the number of consumers relying solely on wireless was between the end of 2008 and 2009, when 0.8 million new wireless-only lines were added. This suggests that there is an income effect, and that during the great recession a very small subset of consumers opted for mobility when facing an income constraint. However, during 2009, cable and telco HSD connections increased by 4.3 million,

And though the percentage of wireless-only homes is *expected* to rise in coming years, the expected increase is minor.<sup>51</sup>

While there are approximately 2.5 million customers that do rely solely on wireless for home Internet access, this is a non-significant portion of the overall market; and these customers for the most part are not making this product choice because they want to, they're doing so because they face income constraints and place value on mobility.<sup>52</sup> The substantial majority of wireless data consumers subscribe to both wired and wireless data connections, which is a strong indication that consumers do not view mobile as a substitute for fixed broadband.

This reality should come as no surprise to the Commission, or to the Applicants themselves, since it reflects their long-held views on this issue. Former Time Warner Cable Chief Executive Officer Glenn Britt once said that his company sees “wireless as complementing wireline and having different features. Obviously it offers mobility of devices. Nobody that I’ve talked to thinks that anytime soon wireless is going to be able to beat the wireline capacity, both in terms of speed and throughput. So we think the two will complement each other.”<sup>53</sup> Another TWC executive was quoted last year saying, “[t]he way we think about it is, wire-line and

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even as the number of occupied U.S. housing units increased by just 0.7 million. Thus, while a very small percentage of consumers may substitute mobile for fixed when faced with an income constraint, this population is not enough to include the two services in the same product market.

<sup>51</sup> Based on SNL Kagan’s most recent projections, the percentage of broadband homes that rely solely on wireless is expected to increase from 2.7 percent to just under 5 percent by the end of 2018. However, it should be noted that the firm’s projections for 2013 consistently exceeded what was actually observed. For example, just over a year ago, SNL Kagan estimated that the level of wireless-only broadband homes would be 3.2 percent at the end of 2013, higher than the 2.7 percent value observed at year’s-end. *See* “U.S. High-Speed Data Projections, 2012-2023,” *SNL Kagan*, Apr. 24, 2013; *See also* “U.S. High-Speed Data Projections, 2013-2024,” *SNL Kagan*, Apr. 29, 2014

<sup>52</sup> *See supra* note 50; *see also* Stacey Higginbotham, “Broadband cord cutters? If this is a thing, ISPs, regulators and Silicon Valley have utterly failed,” *GigaOm*, May 30, 2013.

<sup>53</sup> *See* “TWC CEO Glenn Britt says wireless broadband won’t cut into wired Internet business,” *The Associated Press*, July 29, 2009.

wireless networks are going to coexist. . . . It would be hard for somebody to rationalize getting rid of their home connection and moving all of that traffic to a wireless rate plan.”<sup>54</sup>

There is simply no evidence to support Applicants’ contention that wireless services belong in the same product market as their cable modem broadband services. And there also is growing evidence that first-generation ADSL services are quickly becoming the equivalent to what dial-up became a decade ago: an exceedingly slow and insufficient method for accessing the Internet, one that consumers are abandoning in droves.

**ii. First-Generation ADSL Services Are Not in The Same Product Market as Advanced Broadband Services.**

While the merging parties would have the Commission define the relevant product market to include any two-way data service, the economic data demonstrates that consumers see the relevant product market as much more narrow. The product most customers purchase is a pay-TV and communications bundle. For those customers and many others, the anchor service they demand is advanced broadband, which has the capability to transmit high-bandwidth services and applications including, most notably, streaming video. As we demonstrate below, since approximately 2010–2011, the adoption data definitively shows that the relevant product market definition is narrower than the more expansive “high-speed Internet” market.<sup>55</sup>

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<sup>54</sup> See Anton Troianovski, “Cord-Cutters Lop Off Internet Service More than TV,” *Wall Street Journal*, May 29, 2013.

<sup>55</sup> See *Horizontal Merger Guidelines*, § 4.1.4 (“If a hypothetical monopolist could profitably target a subset of customers for price increases, the Agencies may identify relevant markets defined around those targeted customers, to whom a hypothetical monopolist would profitably and separately impose at least a SSNIP. Markets to serve targeted customers are also known as price discrimination markets. In practice, the Agencies identify price discrimination markets only where they believe there is a realistic prospect of an adverse competitive effect on a group of targeted customers.”).

Before high-speed Internet technologies first began to supplant dial-up, cable modem was the dominant platform amongst those who did opt for higher speeds. Incumbent telephone companies initially were slow to deploy ADSL, and reticent to lose their lucrative “second-line” revenues that dial-up brought in. At the end of the 20th century, cable modem accounted for 8 out of every 10 home high-speed lines, which in turn accounted for only 5 percent of home Internet connections.<sup>56</sup>

By the mid-2000s, however, high-speed connections had taken over the market, with dial-up in a rapid descent into irrelevancy. By the end of 2005, ADSL was available to 8 out of every 10 homes served by a LEC, and cable modem was available at more than 9 out of every 10 homes passed by cable TV services.<sup>57</sup> ILECs, though initially slow to the broadband market, quickly gained market share, eating into cable’s lead until the end of 2007.<sup>58</sup> From 2008 onward, cable modem’s share slowly increased from 55 percent to near 60 percent today. However, during these last 7 years, ADSL’s share of the total broadband market has plummeted to just 20 percent as of June 30, 2014 (see Figure 4). This is a steep and rapid decline from ADSL’s high of a 42 percent share at the beginning of 2008.

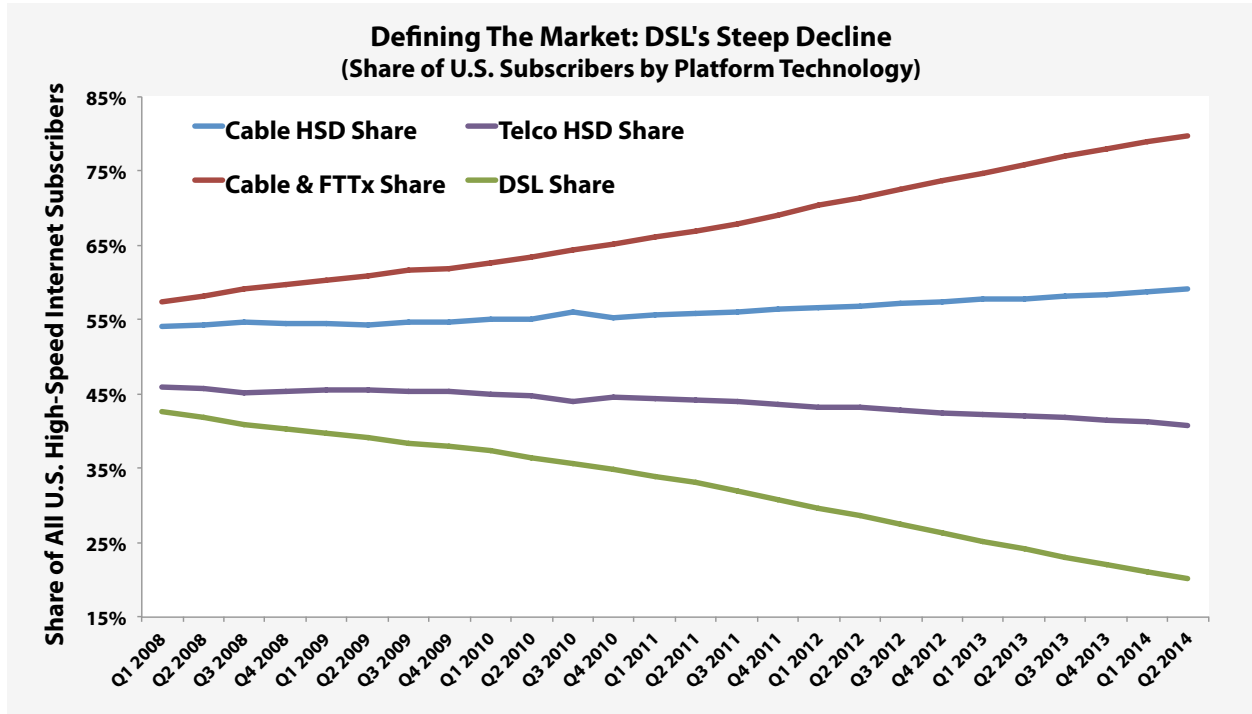
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<sup>56</sup> See “High-Speed Services for Internet Access: Subscribership as of June 30, 2000,” Industry Analysis Division, Common Carrier Bureau (Dec. 2000); *see also* John B. Horrigan, “Home Broadband Adoption 2006,” Pew Internet & American Life Project (May 28, 2006); U.S. Census Bureau, “Computer and Internet Use in the United States,” (May 2013).

<sup>57</sup> See “High-Speed Services for Internet Access: Subscribership as of December 31 2005,” Industry Analysis Division, Wireline Competition Bureau (July 2006). These figures stood at 85 percent for DSL and 97 percent for ADSL and cable modem services respectively as of June 30, 2012, the last time the FCC reported this information. See “High-Speed Services for Internet Access: Subscribership as of June 30, 2012,” Industry Analysis Division, Wireline Competition Bureau (May 2013).

<sup>58</sup> According to our analysis of FCC Form 477 data, cable’s residential platform share declined to 55.6 percent of all fixed lines (excluding fixed wireless and satellite) as of the end of 2007. ADSL peaked at 41.9 percent of such lines as of June 30, 2007 (fiber-to-the-home line growth added to the ILECs total, which peaked at 44.4 percent at the end of 2007).

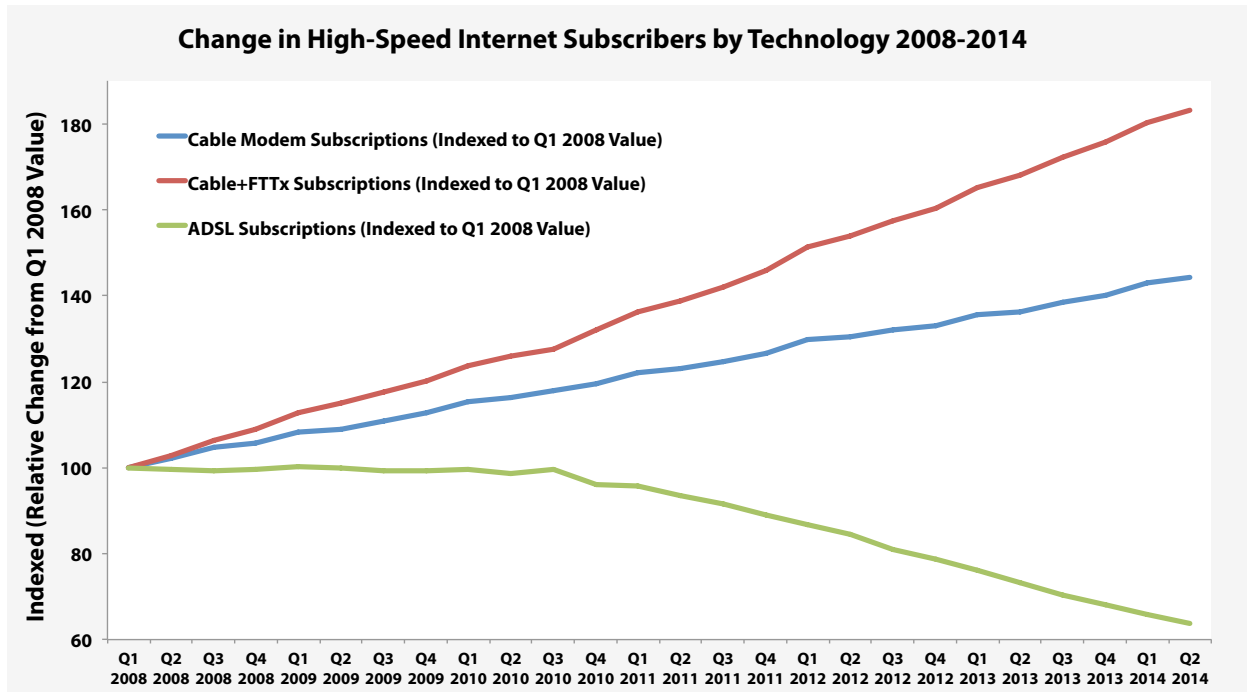
Figure 4:



Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan. Includes residential and commercial connections.

During this time, the number of ADSL subscribers dropped 36 percent, while the number of cable modem customers increased by 44 percent (see Figure 5, which plots the relative changes in the number of subscribers for cable modem, ADSL and cable modem+FTTx lines since the first quarter of 2008). As Figure 5 shows, while DSL has been in decline since 2008, this drop off rapidly accelerated at the end of 2010.

Figure 5:



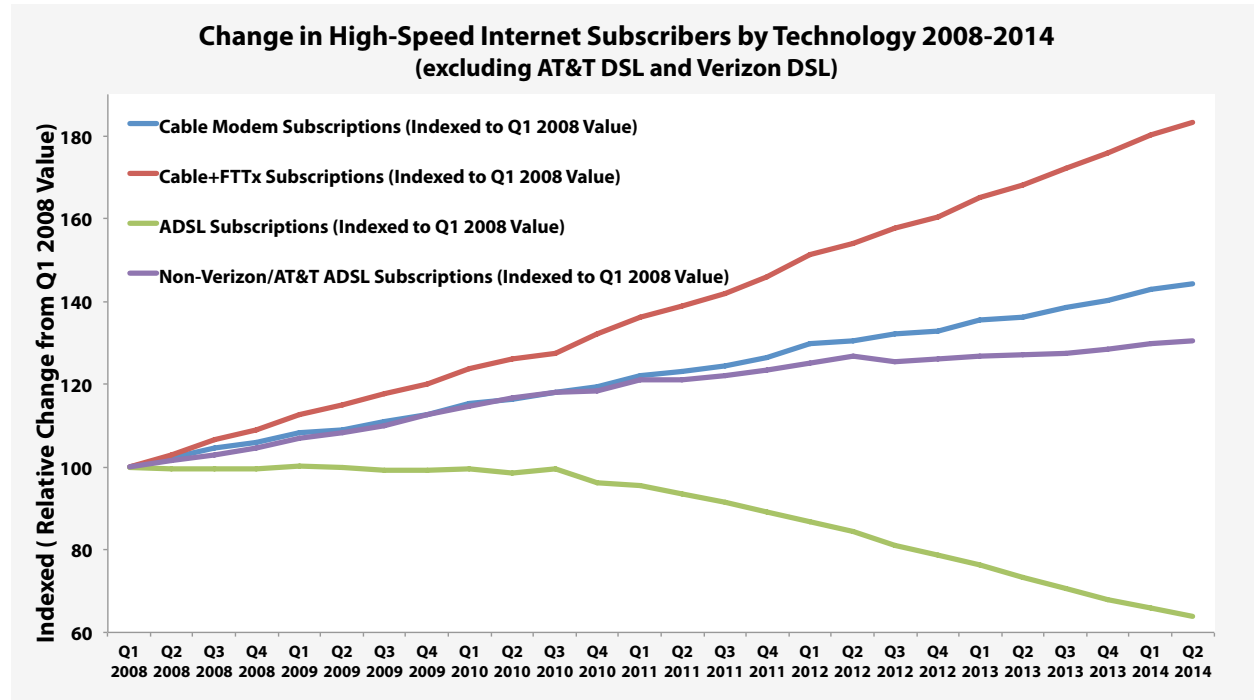
Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan. Includes residential and commercial connections.

Now, it is certainly the case that ADSL's decline is due not only to consumers' demand for cable modem's superior capabilities, but also due to the increasing availability of fiber-level services from ILECs such as Verizon and AT&T. As Figure 4 shows, Fiber-to-the-Node and Fiber-to-the-Home lines have kept cable from running away with the market. While consumers opting for faster FTTx-level services over ADSL services is additional evidence that ADSL is in a separate product market, it is possible that some customers are simply not able to purchase ADSL services from these two specific ILECs due to copper retirement. However, we can chart the same data presented in Figure 5 and add the growth trend line for non-Verizon and non-AT&T ADSL subscriptions. If ADSL and cable modem, with their notably different prices and price/quality ratios, were viewed by consumers as economic substitutes in markets where these are the only two available platforms, we should see both having the same growth curve.



But as Figure 6 shows, this is not the case. The cable modem and non-Verizon/AT&T ADSL subscriber growth lines are identical from the beginning of 2008 to the beginning of 2011. However, from this point on, the non-Verizon/AT&T ADSL growth line diverges, and the gap between it and cable modem's growth accelerates.

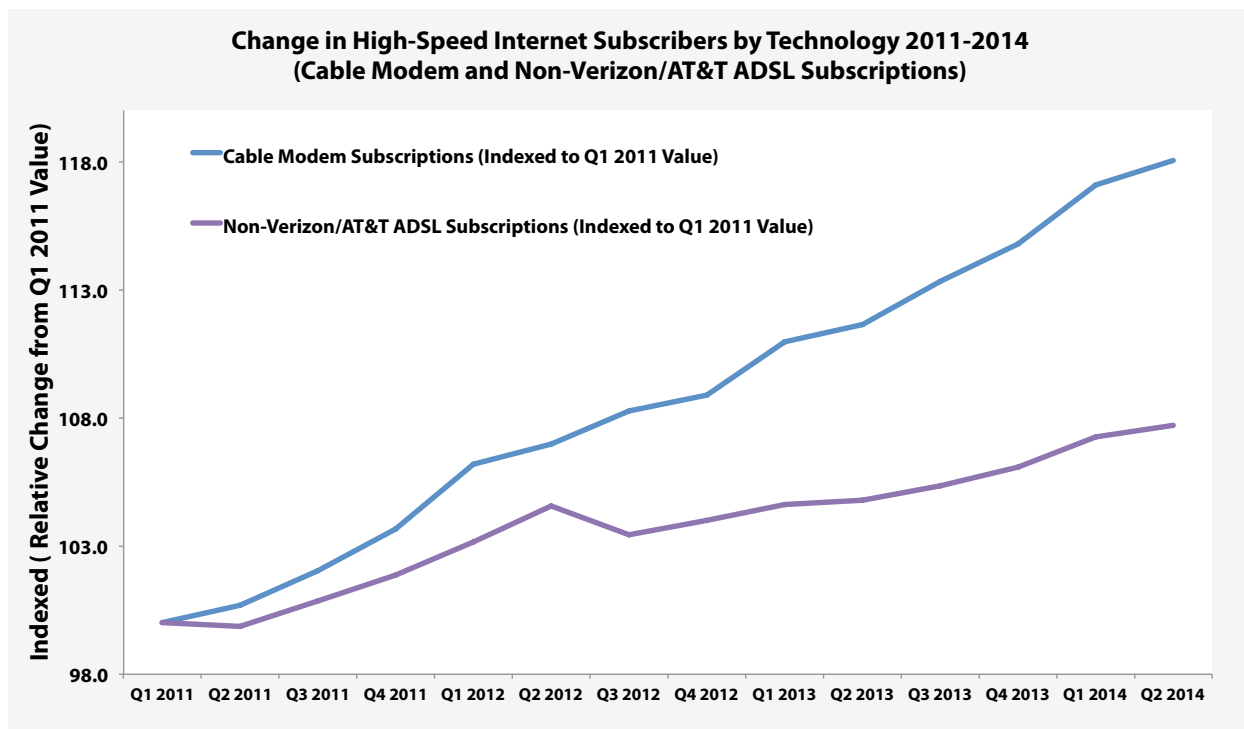
**Figure 6:**



Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan. Includes residential and commercial connections.

To see this divergence in greater detail, below in Figure 7 we plot the change in cable modem subscriptions and non-Verizon/AT&T ADSL subscriptions since the first quarter of 2011. This illustrates that the initial divergence that began in 2011 accelerated sharply after the middle of 2012. The number of non-Verizon/AT&T ADSL lines has increased by less than 700,000 since the first quarter of 2011, less than an 8 percent increase. During this time the number of cable modem lines increased by nearly 8 million, an 18 percent increase.

Figure 7:



Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan. Includes residential and commercial connections.

This analysis is important in dispelling the notion that ADSL’s decline is simply due to Verizon and AT&T’s efforts to market their more lucrative fiber services where they are available. But the broader point is that those fiber services and cable modem services combined, even with their substantially higher prices, are gaining substantial market share over ADSL.<sup>59</sup> This is just as it was in the early years of the high-speed Internet market, when dial-up’s lower price point proved not enticing enough to overcome consumers’ preferences for capacity.<sup>60</sup>

<sup>59</sup> For example, as of early 2014, Comcast charged up to \$67 for its 25 Mbps downstream “Performance” tier, while AT&T’s published rate for its highest-end ADSL offering of 6 Mbps downstream was \$35, and its 3 Mbps package was set at \$30. Time Warner Cable’s “Extreme” 30 Mbps package had a published rate of \$55. See “Multichannel High-Speed Data Pricing Report (Early-2014),” SNL Kagan, Apr. 1, 2014.

<sup>60</sup> Indeed, continued growth in ADSL subscriptions does not by itself indicate that ADSL is in the same product market as cable modem or FTTx services. The hypothetical monopolist test examines consumers’ likely responses to a price increase in one market, and how their choices

Below we discuss in detail the reasons for the rapid acceleration in ADSL's decline over the last three to four years. But the data is clear that the market has changed substantially, and ADSL customers are fleeing. This is a welcome trend in the boardrooms of cable companies, as the high-margin cable modem business helps offset the slow-but-steady declines in their pay-TV business.<sup>61</sup> Early on cable companies recognized the changing market, and were ecstatic that they not only had a speed advantage over ADSL but a substantial advantage over LEC competitors in terms of resource allocation, as the upgrade path for cable plant from DOCSIS 2 to DOCSIS 3 was substantially lower than LECs' costs for moving from ADSL to FTTx.<sup>62</sup>

Today, with demographic shifts in viewing habits becoming more apparent and

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for the product in the other market change in response to that price increase. DOJ, the FTC and the Commission have all found high-speed Internet to be in a separate product market from dial-up access, even during the late-1990s and early 2000s when the number of dial-up subscriptions continued to increase. In recent years, in an attempt to stem the loss of ADSL subscribers, a number of ILECs have dropped prices particularly on slower entry-level services. This has not impacted the accelerating trend away from ADSL to cable modem and FTTx services. *See, e.g.,* Sean Buckley, "AT&T lowers DSL prices to battle subscriber loss," *Fierce Telecom*, Aug. 3, 2010; Karl Bode, "Frontier Says Cable Hasn't Matched Their Lower Cost DSL Offer," *DSL Reports*, Nov. 7, 2013.

<sup>61</sup> Operating margins for cable high-speed data services for the major operators stood at 60 percent as of the middle of 2014 and have steadily increased in recent years. In contrast, video margins for the three cable companies involved in this transaction were down below 18 percent (weighted average for Comcast, Charter and Time Warner Cable), and in steady decline. Comcast's video margins have historically been higher than other MSOs, due to volume programming discounts, though this advantage is shrinking. *See* Tony Lenoir, "Q2 steady, but red flags in future outlook for video margins," *SNL Kagan*, Aug. 8, 2014.

<sup>62</sup> As this trend first started to materialize, TWC's Chief Operating Officer noted that "high speed data is one of our most powerful products today. Realistically, it has become the anchor product. Where video was a few years ago now high speed data is the anchor product. So we see tremendous growth if we do nothing else rather than compete as we do today against DSL, the majority of our footprint and we continue to take share and so we'll continue to gain subscribers in high speed data." He continued by noting that "DOCSIS 3.0 [ ] opens up a whole new avenue for us as well. . . . There is still a lot of pricing power in high speed data. Consumers like the product so much, they see such value there that we still have a lot of pricing flexibility or ability to increase pricing around high speed data. So great product, good growth." *See* Comments of Landel Hobbs, Time Warner Cable Inc. at Morgan Stanley Technology, Media & Telecom Conference (Mar. 1, 2010).

consumers generally more unwilling to stomach exponential pay-TV rate hikes, advanced broadband has become the *sole* driver of growth for traditional cable MSOs. For example, from the first quarter of 2013 to the first quarter of 2014, high-speed data revenues were up 10.6 percent for all major MSOs, while both video and voice revenues declined slightly.<sup>63</sup>

While cable modem's ascendancy is obvious from the data discussed above, the growth in the segment is taking place primarily in the higher speed (and higher priced) tiers. This growth not only includes new customers (meaning new broadband adopters as well as churn from ILECs), but from the cable companies upselling existing subscribers into higher speeds tiers – something that began in earnest in 2010<sup>64</sup> and that continues to this day.<sup>65</sup> This is incredibly important for consideration of the product market definition, as it demonstrates that even among existing cable subscribers there is a strong demand for the more expensive and faster services.

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<sup>63</sup> See Tony Lenoir, “HSD accounts for 100% of subscription revenue gains in Q1,” *SNL Kagan*, June 4, 2014.

<sup>64</sup> For example, in its 2010 earnings call Time Warner Cable noted that “almost 70 percent of [its] residential net adds” subscribe to the “premium tier products.” In its 2010 earnings call Comcast noted that it “continue[d] to add more than two and one-half times as many higher-tier customers than those on the economy level service.”

<sup>65</sup> In its second quarter 2014 earnings call, Time Warner Cable stated, “[t]he positive mix shift in HSD continued as connects to each of our three higher-speed tiers accelerated compared to last year’s second quarter. Tier upgrades among existing customers also were very strong and, together, our three higher-speed tiers now comprised 34 percent of our HSD customers, up from 26 percent a year ago as we continue to up-sell existing HSD customers. And close to 40 percent of our new HSD connects are to our Turbo and above tiers.” In its second quarter 2014 earnings release, Charter noted, “As of June 30, 2014, over 80 percent of Charter’s residential Internet customers subscribed to tiers that provided speeds of 30 Mbps or more.” In its second quarter 2014 earnings call, Comcast reported that “in high-speed data, we now have 47 percent of our base receiving a 50 megabits or greater product, which is up from 38 percent at the end of the first quarter.” In Mediacom’s second quarter 2014 10-Q SEC filing it noted that it expected “to continue to grow HSD revenues through residential customer growth and more customers taking higher HSD speed tiers.” See Tony Lenoir and Ian Olgeirson, “10-year cable projections highlight increasing influence of HSD and a case for video,” *SNL Kagan*, July 29, 2014 (“The upside, however, is significant. Operators are finding success in selling new and existing customers higher speed (and more expensive) tiers, and the broadband platform offers a launch pad for home control/monitoring services and mobile data.”).

There is no evidence to suggest that consumers are downgrading speeds in response to the broadband and bundle price hikes that many MSOs have implemented in recent years.<sup>66</sup> Comcast in particular has shown it is not afraid to utilize its pricing power. Though tracking prices is exceedingly difficult due to the convoluted manner in which many companies make these rates known, we analyzed a sampling of published rates for various MSOs in various markets between 2009 and 2014, as collected by SNL Kagan. Since 2009, the price of Comcast's entry-level tier has increased by 60 percent.<sup>67</sup> The price of Comcast's mid-level tier has increased 26 percent during the past five years, during a time when this tier became its most popular.<sup>68</sup> And while the price Comcast charges for its 50 Mbps service has declined from when first introduced (as Comcast's highest level tier at the time), Comcast earlier this year increased the price of this tier by nearly 6 percent from what it was just 6-months prior, while the price of the 25 Mbps tier increased 3 percent over the past half-year.

It is true that the majority of Comcast's high-speed data services are not sold as stand-alone products, but purchased in bundles with pay-TV and/or voice service. But the company's bundle prices are on the rise as well. Over the past five years, the price of Comcast's most popular triple play package has increased by 20 percent. These data suggest that Comcast and other MSOs recognize that in most of their markets, they are the only game in town. However,

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<sup>66</sup> See, e.g., Cablevision Systems Corp., 2Q 2014 Form 10-Q (2014) ("The net revenue increases for the three and six months ended June 30, 2014 as compared to the same periods in the prior year were due primarily to rate increases: (i) for certain high-speed data services implemented during the first quarter of 2013 . . . .").

<sup>67</sup> In 2009 Comcast's entry-level high-speed data product was a 1 Mbps tier, priced at \$24.95 in all markets tracked by SNL Kagan. As of early 2014, Comcast's entry-level tier was a 3 Mbps tier, priced at \$39.95.

<sup>68</sup> In 2009 Comcast sold its 20 Mbps service for \$52.95. By early 2014, the price had increased to \$66.95 for the a tier delivering 25 Mbps downstream speed. Prior to 2012, Comcast had multiple tiers in this popular range (15 Mbps, 20 Mbps and 30 Mbps). Today its mid-level tiers are 25 Mbps and 50 Mbps.

the presence of a second option also does not hold back price hikes, because pricing power exists in this duopoly market. In markets where there is FTTx competition, both MSOs and ILECs have moved from market-share growth mode to profit-harvesting mode, primarily through rate increases.<sup>69</sup> Further illustrating that cable modem is not in the same market as ADSL, Comcast's profit margins for high-speed data increased even as Comcast raised its rates.<sup>70</sup>

The historical data suggests that ADSL gained market share during a time when the speeds it offered were reasonably comparable to those offered by cable MSOs, and a time when ADSL providers were willing to grow market share by competing on price. Cable companies did not initially respond to the lower prices, opting to market superior speeds. Prior to the dawn of the "streaming video era" in 2010, during the Great Recession, some MSOs including Comcast did cut some prices in order to maintain market share versus ADSL. Since then, with consumer preferences changing dramatically in favor of higher speeds, Comcast, other MSOs and FTTx providers have been able to continue to grow market share even while increasing prices.

The simple fact is that ADSL is an end-of-life technology, with even AT&T's CEO characterizing it as "obsolete" more than three years ago already.<sup>71</sup> ADSL maxes out at about 7 Mbps downstream, unless fiber is pushed closer to the customer. Figure 8 below shows just how stark the difference is between cable and ADSL, and how cable drives the overall U.S. market.

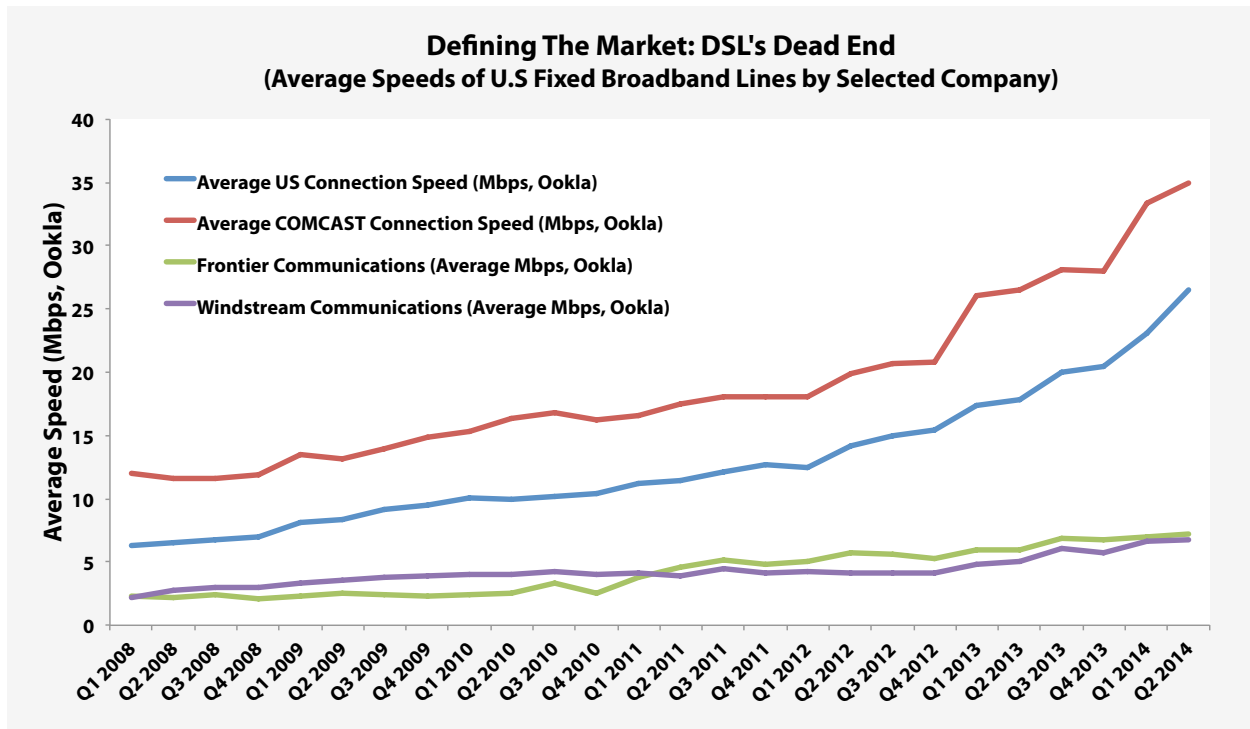
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<sup>69</sup> See, e.g., Ian Olgeirson, "Mid-2013 pricing and packaging sample shows HSD speed, price increases," *SNL Kagan*, Sept. 25, 2013 (Showing price hikes by Comcast in some markets between 2009 and 2013 of as much as 52 percent, and hikes by Verizon for FiOS Internet services in the 40 percent range).

<sup>70</sup> According to analysis by SNL Kagan, Comcast's operating margin for high-speed data was 54.6 percent in the first quarter of 2008, but now stands at 60 percent. See "Cable MSO Margin Analysis by Product," *SNL Kagan*, Mar. 26, 2013; see also Lenoir, *supra* note 61.

<sup>71</sup> Stacey Higginbotham, "Oh no he didn't: AT&T's CEO calls DSL obsolete," *GigaOm*, July 19, 2011.

Figure 8:



Source: Ookla Net Index

Cable’s upgrade path from DOCSIS 1.0 to DOCSIS 3.x was incredibly inexpensive, something one cable executive described as requiring only “the kind of money we can find in the sofa cushions.”<sup>72</sup> Cable has a strong advantage from its coax plant versus the ILECs’ copper. Coupling that with ILECs’ (and their Wall Street backers’) unwillingness to make the capital investments needed to keep up with cable, even as the market shifts to advanced broadband, this means consumers in more than half of the country will find themselves trapped in a monopoly.

In sum, cable modem exists in the advanced broadband services market. Consumer purchasing and provider pricing data demonstrates clearly that mobile and fixed wireless, satellite, and first-generation ADSL services all are not in the same product market. Consumers

<sup>72</sup> See Karl Bode, “DOCSIS 3.0 Can Be Funded By ‘Couch Change,’” *DSL Reports*, May 9, 2007 (quoting a Comcast executive as saying that “Cable can go deploy DOCSIS 3.0 for a couple billion dollars – It’s the kind of money we can find in the sofa cushions.”).

will not substitute these services for cable modem and FTTx services in the face of a “small but significant and non-transitory increase in price.” Such price increases are currently a reality, yet cable modem and FTTx market shares continue to increase as ADSL’s share plummets. Furthermore, compared even to other communications markets such as mobile voice or MVPD service, advanced broadband consumers have far less choice. They often have two options or fewer, heightening this transaction’s creation of unilateral and coordinated effects.

Having suggested an appropriate product market definition, we now turn to a discussion of how this transaction will harm competition and the public interest. We focus on how the merger will enhance Comcast’s gatekeeper market power, and the extensive harms this will cause now that the U.S. Internet market is in the midst of growth driven primarily by streaming video – a product that Comcast in particular views as an existential threat.

#### **IV. This Transaction Will Substantially Enhance Comcast’s Gatekeeper Market Power and its Incentives To Abuse This Power.**

##### **A. Streaming Video is the Primary Driver of Growth and Producer of Positive Externalities in the U.S. Broadband Market. This Transaction Will Exacerbate Comcast’s Incentives to Harm this Important Industry Sector.**

The data presented above in Figures 4 through 8 demonstrates that the U.S. market underwent a dramatic shift beginning in late 2010, continuing through today. ADSL’s market share plummeted, cable and FTTx’s share accelerated upward, and so too did the average speed of U.S. broadband connections. Prices did not decline, but during this time cable MSOs and Verizon FiOS finally began to unleash some of the bandwidth capabilities of their respective physical infrastructures. The 12 Mbps tiers became 25 Mbps tiers and then, for many earlier this year, those became 50 Mbps tiers. And we see average speeds for the inherently limited ADSL services getting closer to that technology’s theoretical maximum.



This shift in the U.S. broadband market towards substantially greater capacity is of course enabled in part by the increased capabilities of the DOCSIS 3.0 standard. The rollout of DOCSIS 3.0, combined with the completion of the digital migration by many MSOs, has enabled these companies to offer higher speed tiers. However, consumers are only willing to pay a premium for greater capabilities if they feel that they *need* those capabilities. That is, the increase in demand for greater speeds during this time had to be driven by an increase in demand for online content or services that may require such speeds.

The content that is driving these increased demands for bandwidth, and the MSOs' response of increased supply, is streaming video. It is the growth in streaming video, and Netflix's growth in particular, that serves as the primary factor for increased capabilities in the U.S. Internet access market.

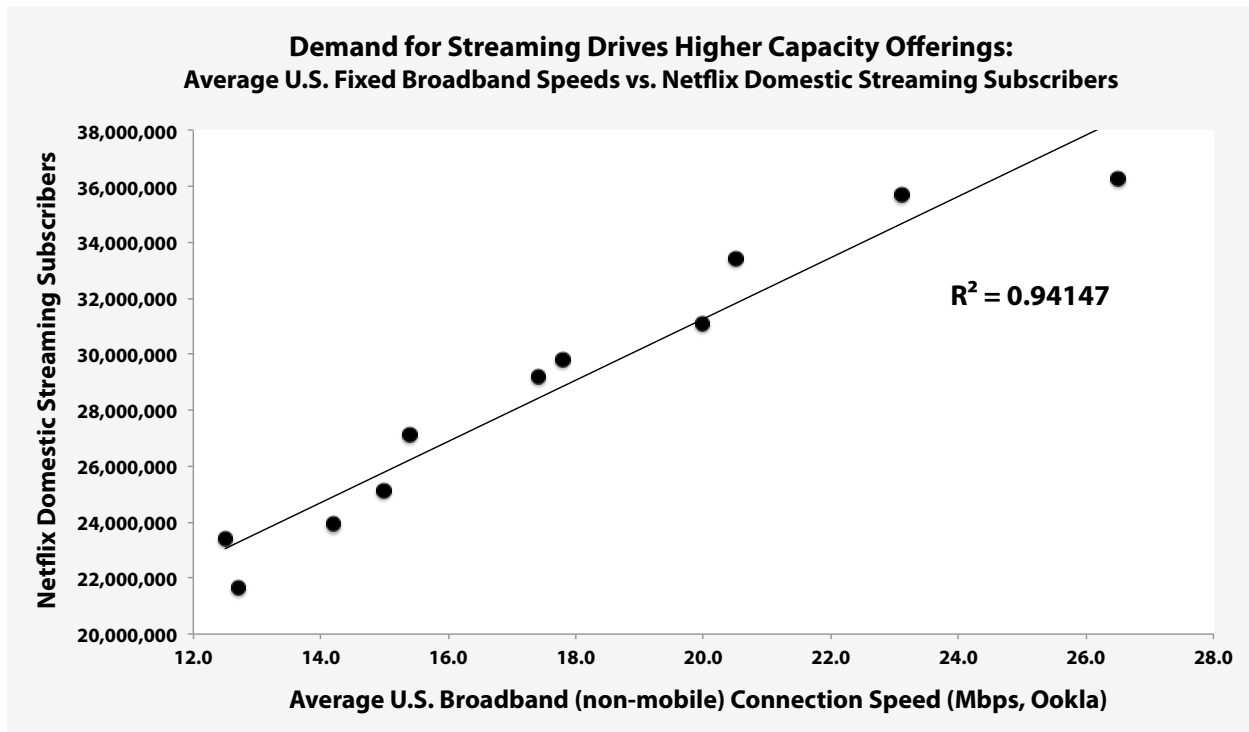
To illustrate this in Figure 9, we present a scatterplot of average U.S. non-mobile broadband speeds from the end of 2011 through the end of June 2014, comparing that against the number of Netflix domestic streaming subscribers (first reported by the company as of Q4 2011). As the fitted line for this data indicates, the growth in U.S. average broadband speeds is very highly correlated with the growth of Netflix's streaming business. The coefficient of determination ( $R^2$  value) for this correlation is 0.94, equating to a Pearson product-moment correlation coefficient of 0.97. This is an extremely high degree of correlation (in general, correlation coefficients above 0.8 indicate "strongly correlated" variables).<sup>73</sup>

Figure 10 then plots Comcast's average speeds against Netflix's domestic streaming subscribers for this same period, again showing an extremely high degree of correlation between the two values.

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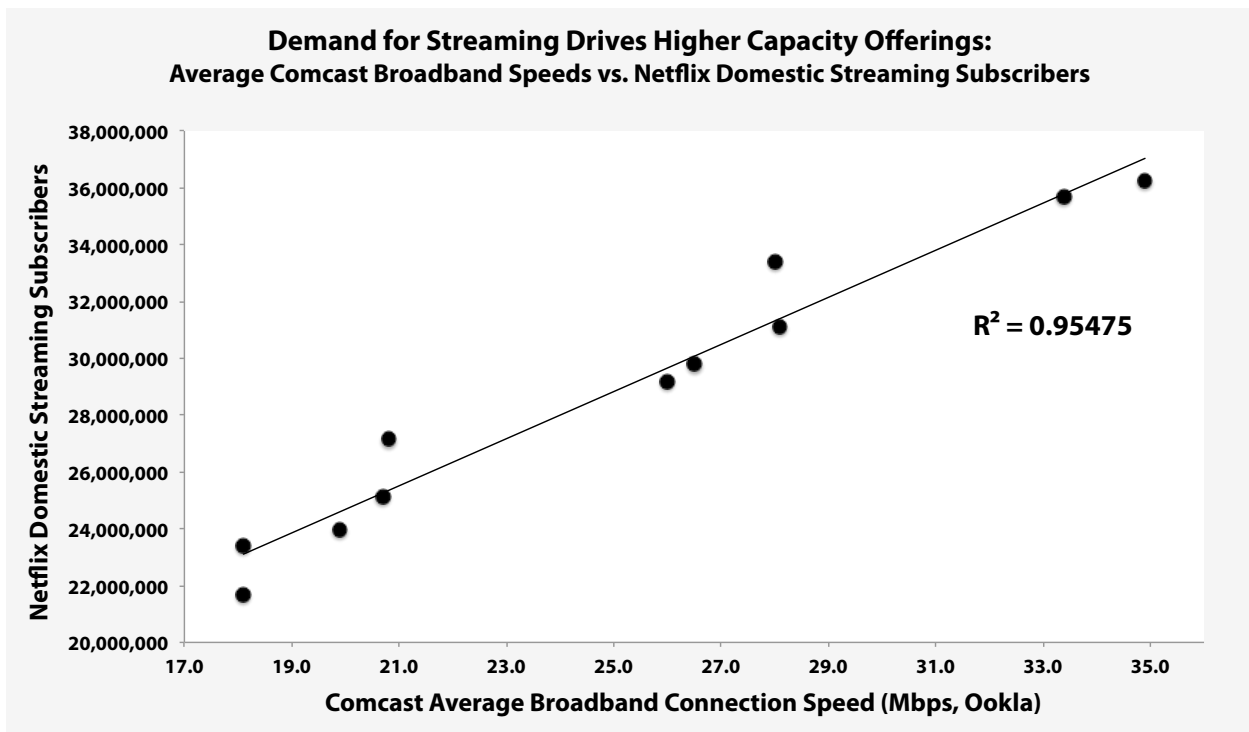
<sup>73</sup> See Thomas H. Wonnacott and Ronald J. Wonnacott, *Introductory Statistics for Business and Economics*, 426-430 (3rd ed. 1984).

Figure 9:



Source: Free Press Research, based on analysis of company reports, Ookla Net Index.

Figure 10:



Source: Free Press Research, based on analysis of company reports, Ookla Net Index.

Of course, correlation is not causation, nor are we making any causal interpretations based on these data alone. If we accept the Commission’s “virtuous cycle” hypothesis,<sup>74</sup> it is not necessary to play the “chicken or the egg” mental exercise; it is simply enough to see that this data embodies that hypothesis.

However, we can look at this data in context with an understanding of how consumer demand drives markets. Comcast first began deploying DOCSIS 3.0 in early 2008.<sup>75</sup> Its initial deployment was somewhat slow, but it reached 30 percent of Comcast’s footprint by the start of 2009.<sup>76</sup> One year later Comcast’s DOCSIS 3.0 availability more than doubled, reaching 75 percent of Comcast’s footprint.<sup>77</sup> By the start of 2012, the technology was available throughout Comcast’s service area.<sup>78</sup> But during this time, while Comcast’s average broadband speeds did steadily increase, there was not a large jump until the first quarter of 2013 (see Figure 8 and Figure 10). This is in part a reflection of the fact that prior to 2013, the prices for Comcast’s highest-level DOCSIS 3.0-enabled tiers remained very high.<sup>79</sup> But the main factor behind the post-2013 increase is simply explained by the fact that in early 2013, and again in early 2014, Comcast doubled the speeds for most of its existing customers.<sup>80</sup>

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<sup>74</sup> *Preserving the Open Internet*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905, ¶ 14 (2010) (*2010 Open Internet Order*), *aff’d in part, vacated and remanded in part sub nom. Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

<sup>75</sup> See Eric Bangeman, “Comcast launches 50Mbps broadband...for \$150 per month,” *Ars Technica*, Apr. 2, 2008.

<sup>76</sup> See Comcast 4Q 2008 Earnings Call Transcript (Feb. 18, 2009).

<sup>77</sup> See Comcast 4Q 2009 Earnings Call Transcript (Feb. 3, 2010).

<sup>78</sup> See Comcast 4Q 2011 Earnings Call Transcript (Feb. 15, 2012).

<sup>79</sup> In many markets the price for the 105 Mbps Extreme Tier was \$199.95, prior to being lowered to \$114.95 in early 2013.

<sup>80</sup> See, e.g., Karl Bode, “Insider Gives Us Comcast’s March Speed Upgrade Schedule,” *DSL Reports*, Mar. 5, 2013; Karl Bode, “Exclusive: Comcast to Double Tier Speeds. Again.,” *DSL Reports*, Jan. 21, 2014.

The growth in streaming video was and is the primary driver in consumer demand for these higher speed tiers, and importantly, the primary driver of the *higher valuations* consumers place on these faster services. According to data from Sandvine, real time video comprised 29.5 percent of North American Internet traffic (measured by downstream bytes transmitted) at the end of 2009. This increased to 49 percent in early 2011, and then rose sharply to its peak of 68 percent in early 2013.<sup>81</sup> During this time, Netflix’s share of North American downstream traffic rose sharply, from not even being measured by Sandvine in its 2009 report (it first was reported at 20.6 percent in the late 2010 report) to 34 percent as of earlier this year.

During this time however, the increased supply of bandwidth did not create higher capital or operating expenses for Comcast. Figure 11 is a scatterplot of Comcast’s average speeds versus investments in scalable infrastructure (*e.g.*, head-end electronics), line extensions, upgrades and rebuilds (*i.e.*, this amount excludes capital spent on customer equipment like set-top boxes, and for things like office buildings). The data spans March 2008 to the end of June 2014, and covers the entire period of Comcast’s deployment of DOCSIS 3.0. Figure 11 shows there is *absolutely no relationship* between the level of Comcast’s investments and the speed of its network.<sup>82</sup>

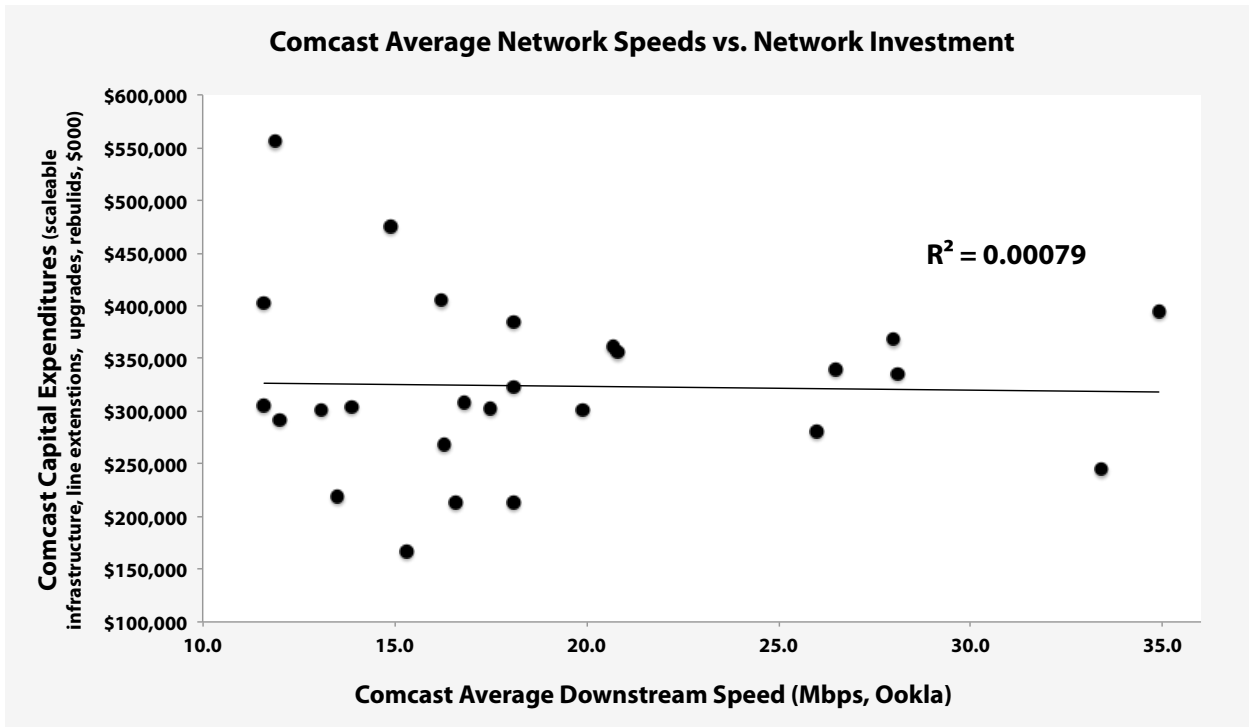
Indeed, as Figure 12 shows, Comcast’s investments have trended down consistently over the past decade. In fact, its network expenses *declined* throughout its deployment of DOCSIS 3.0 from 2008 to 2012, illustrating the relatively low-cost of this technology upgrade.

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<sup>81</sup> Real time video as of early 2014 accounts for 63.4 percent of downstream bytes, with Netflix responsible for 34 percent of all downstream bytes. *See* Sandvine, “2009 Global Broadband Phenomena” (2010); “Global Internet Phenomena Report: Spring 2011” (2011); “Global Internet Phenomena Report: 1H 2013” (2013); “Global Internet Phenomena Report: 1H 2014” (2014).

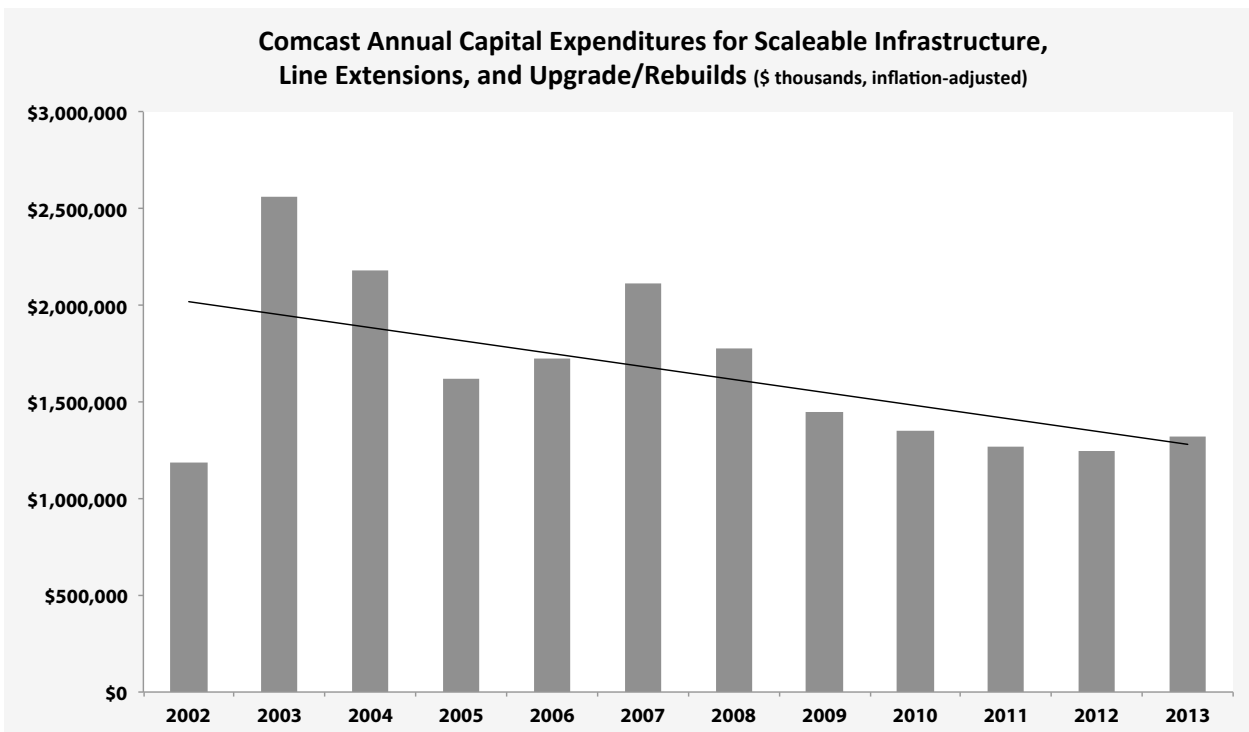
<sup>82</sup> To account for the time between investment and uptake, we also plotted this information with the speed data lagged by quarter, one-year and two-year periods. The results in each case showed no correlation.

Figure 11:



Source: Free Press Research, based on analysis of Comcast SEC filings, Ookla Net Index.

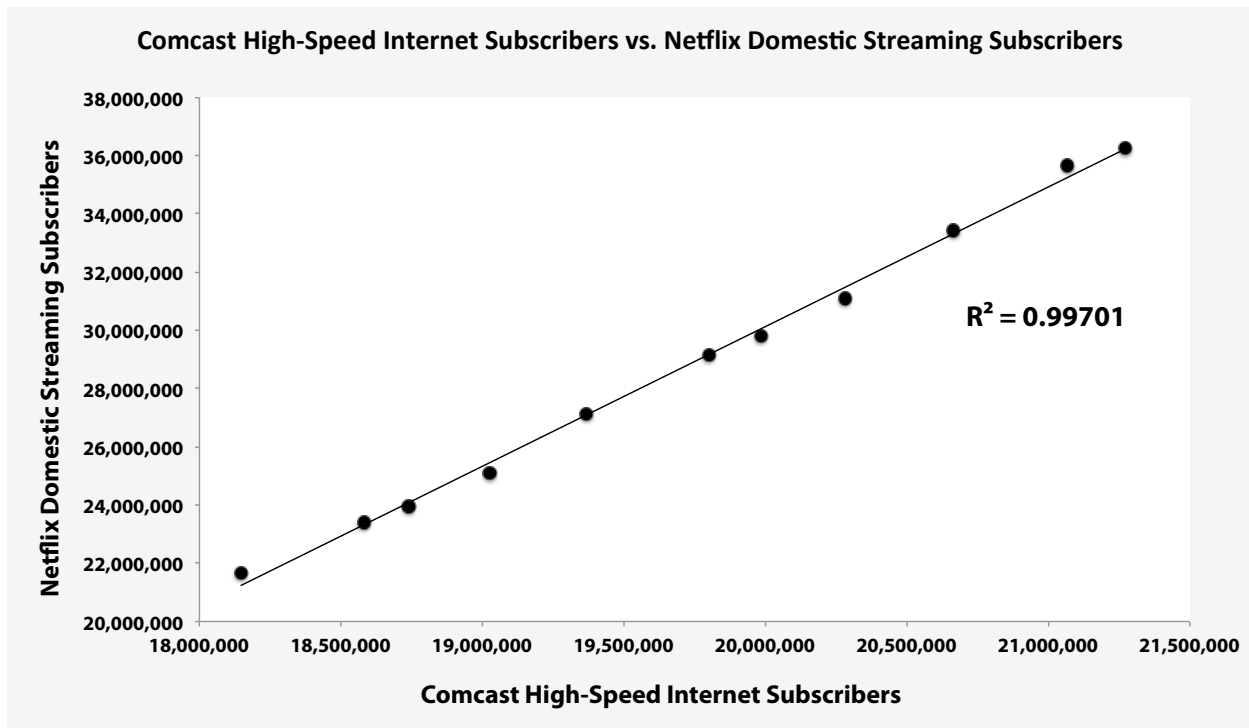
Figure 12:



Source: Free Press Research, based on analysis of Comcast SEC filings.

While the transition of the market into the streaming video era did not create additional costs for Comcast, it did coincide with gains for the company in subscribers, market share, revenues and profits for its high-speed data services. Figure 13 plots the number of Comcast high-speed Internet subscribers versus the number of Netflix domestic streaming subscribers for each quarter since the fourth quarter of 2011. These values are nearly perfectly correlated.

**Figure 13:**



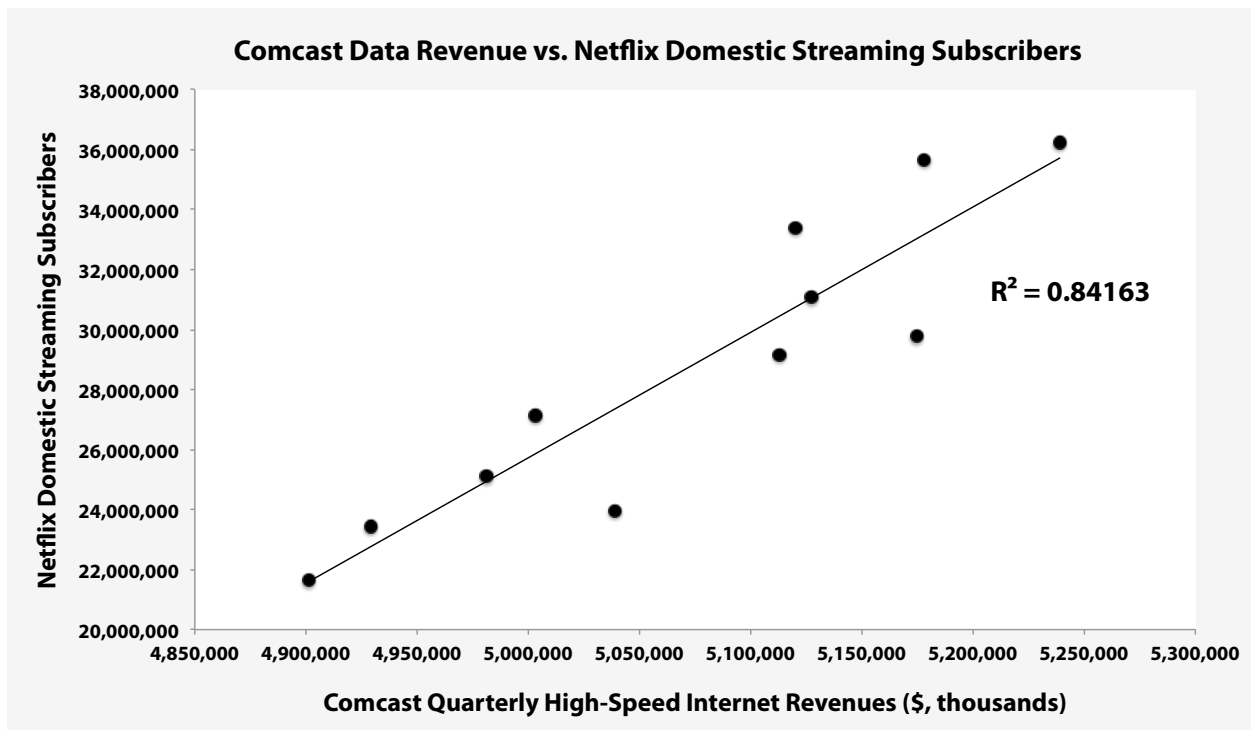
*Source: Free Press Research, based on analysis of company reports.*

Figure 14 illustrates the high degree of correlation between growth in Comcast’s high-speed data revenues and Netflix’s streaming subscriber base. Figure 15 presents this information for the average data revenues per high-speed Internet customer, showing the same strong correlation. Figure 16 shows Comcast’s average data revenue per user from 2008 to mid-2014.<sup>83</sup>

<sup>83</sup> We calculated these values by dividing Comcast’s quarterly revenues by the ending number of subscribers then dividing by three to obtain a monthly average. The source information is Comcast’s updated and restated results, not results reported in real-time.

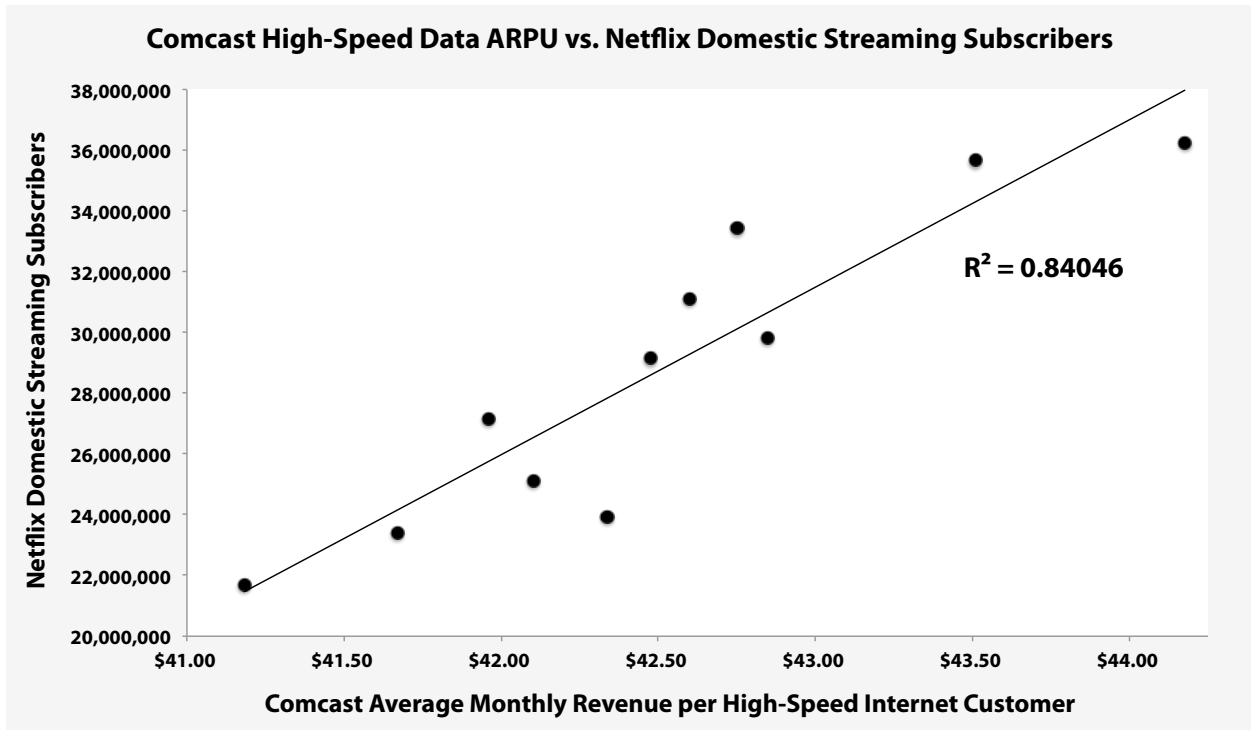
There was little change as the company began its rollout of DOCSIS 3.0. However, once the use of streaming video accelerated, so too did Comcast's average data revenues per user – reflecting both the company's ability to charge higher prices and the movement of customers into faster and more expensive packages.

Figure 14:



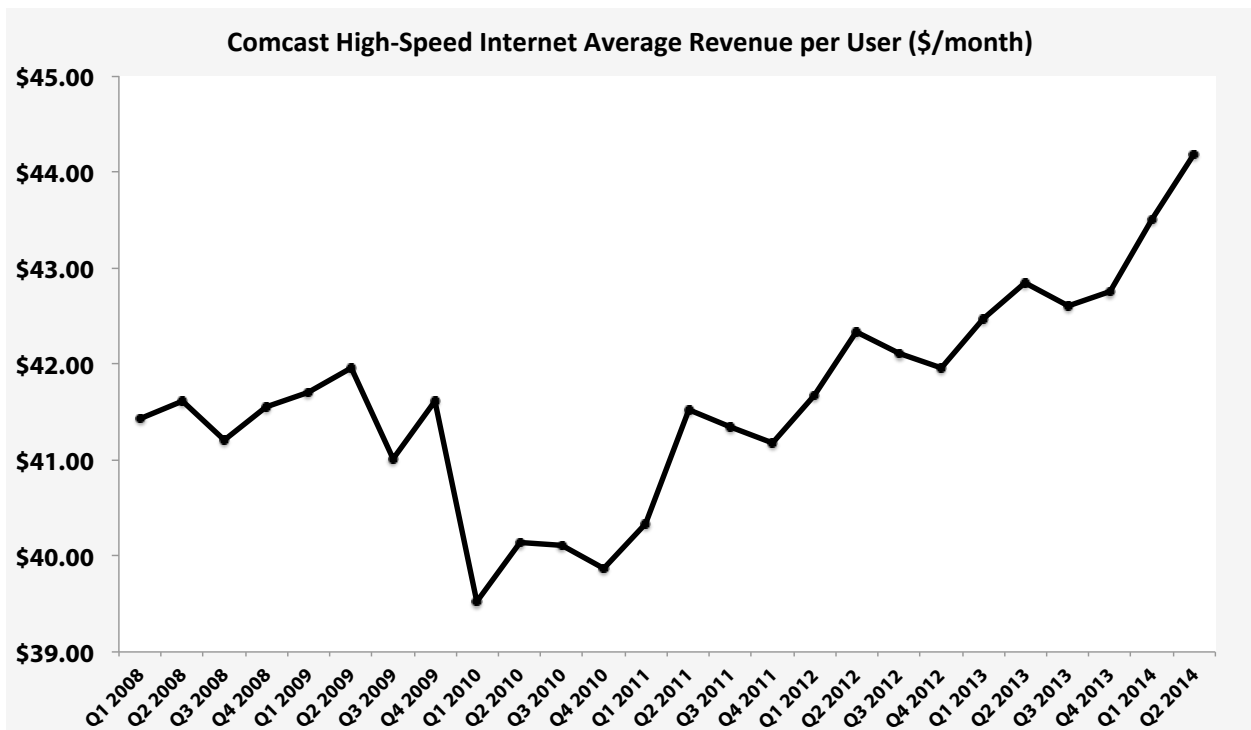
Source: Free Press Research, based on analysis of company reports.

Figure 15:



Source: Free Press Research, based on analysis of company reports.

Figure 16:

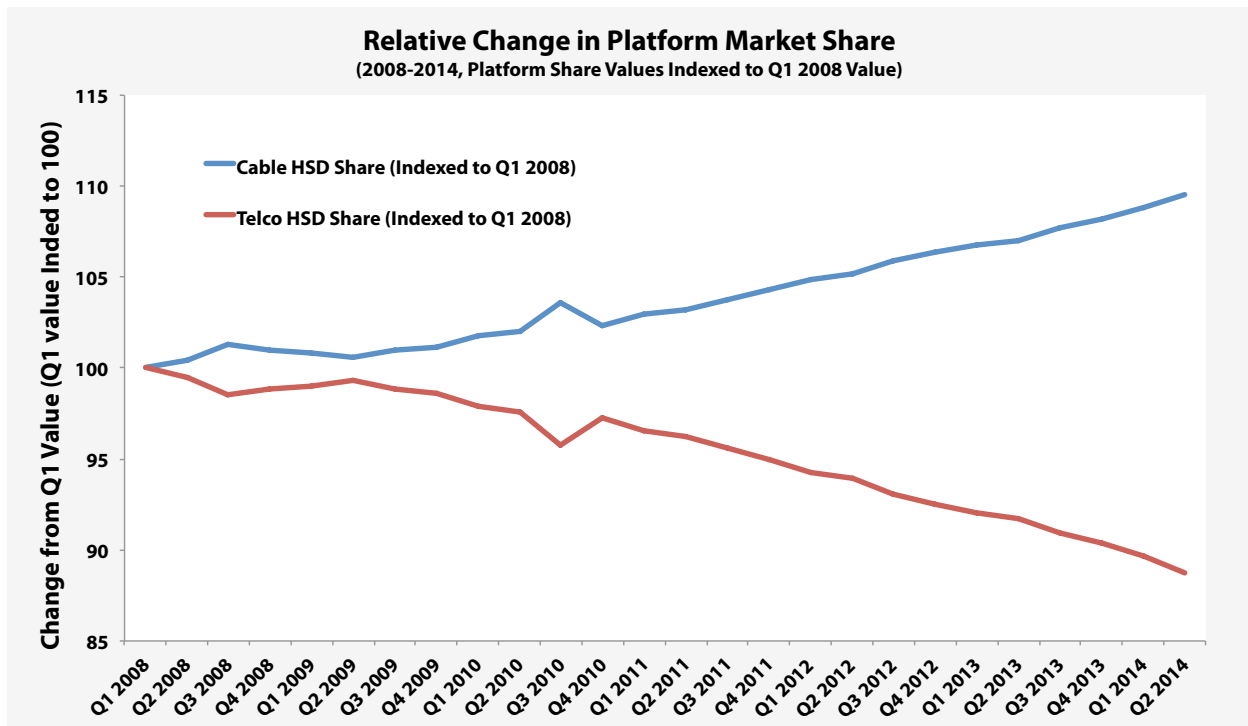


Source: Free Press Research, based on analysis of company reports.



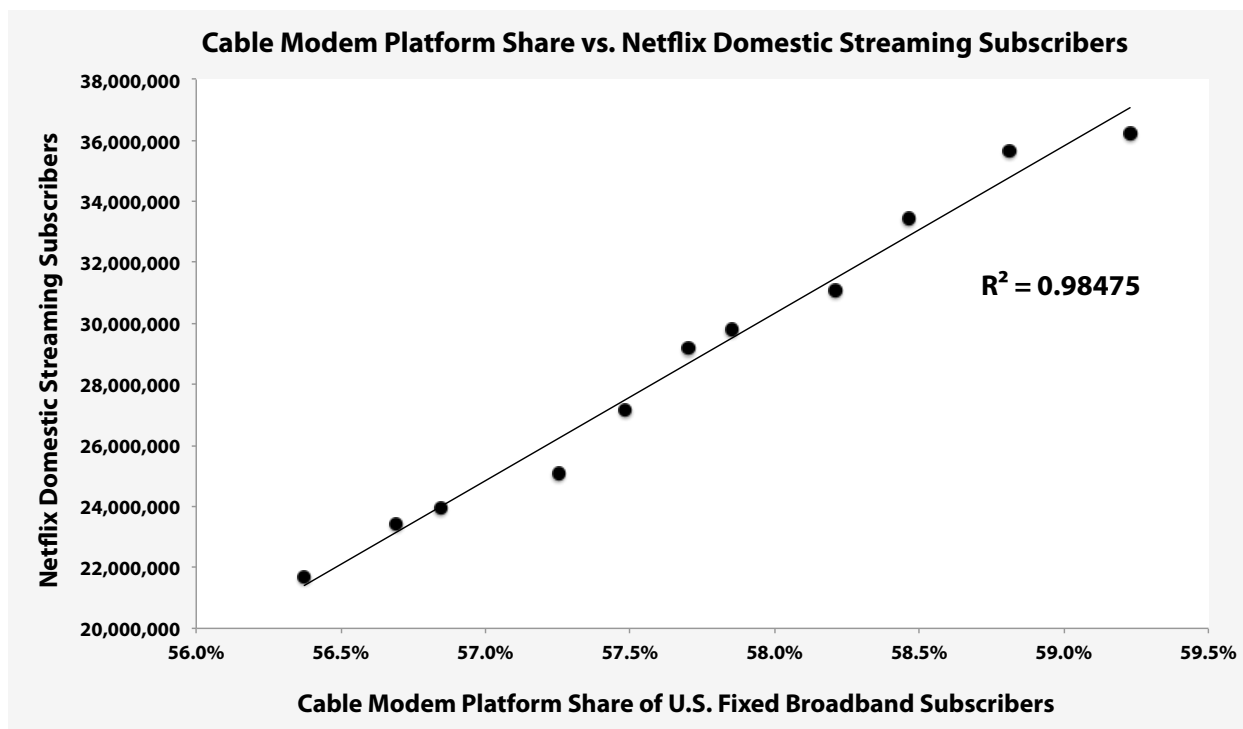
The era of streaming video also coincides with the relative growth in the share of lines for the cable platform versus telco platform, as shown above in Figure 4, and recast below in Figure 17 as the relative change in platform share between the two from 2008 through mid-2014. As the data shows, Cable’s share hovered around 54 to 56 percent until early 2011, when it began a steady climb to the near 60 percent share it enjoys now. And as Figure 18 shows, this growth in the cable platform’s share is nearly *perfectly* correlated with the increase in Netflix’s number of domestic streaming subscribers.

**Figure 17:**



Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan. Includes residential and commercial connections.

Figure 18:

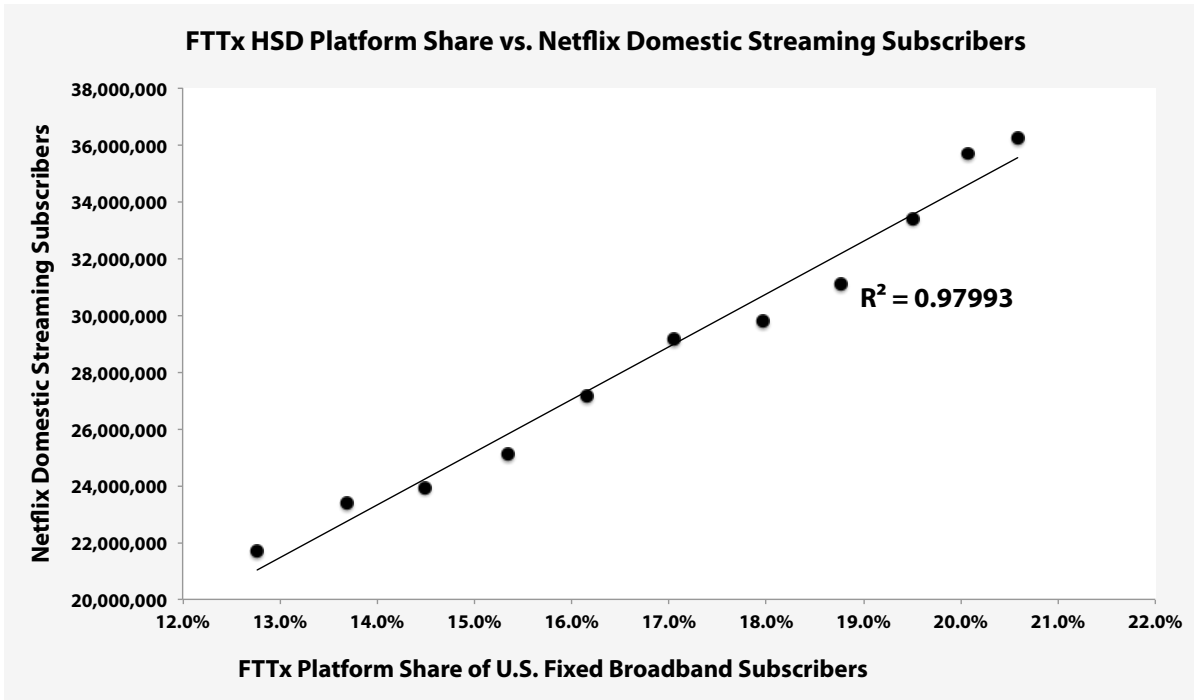


Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan.

Not surprisingly, the rise of streaming video’s popularity benefitted not only the cable MSOs’ Internet access business, it also boosted the fortunes of the ILECs that had made investments in higher-capacity networks. Figure 19 shows that the rise in FTTx platforms’ share is nearly perfectly correlated with the growth in Netflix’s streaming business too.

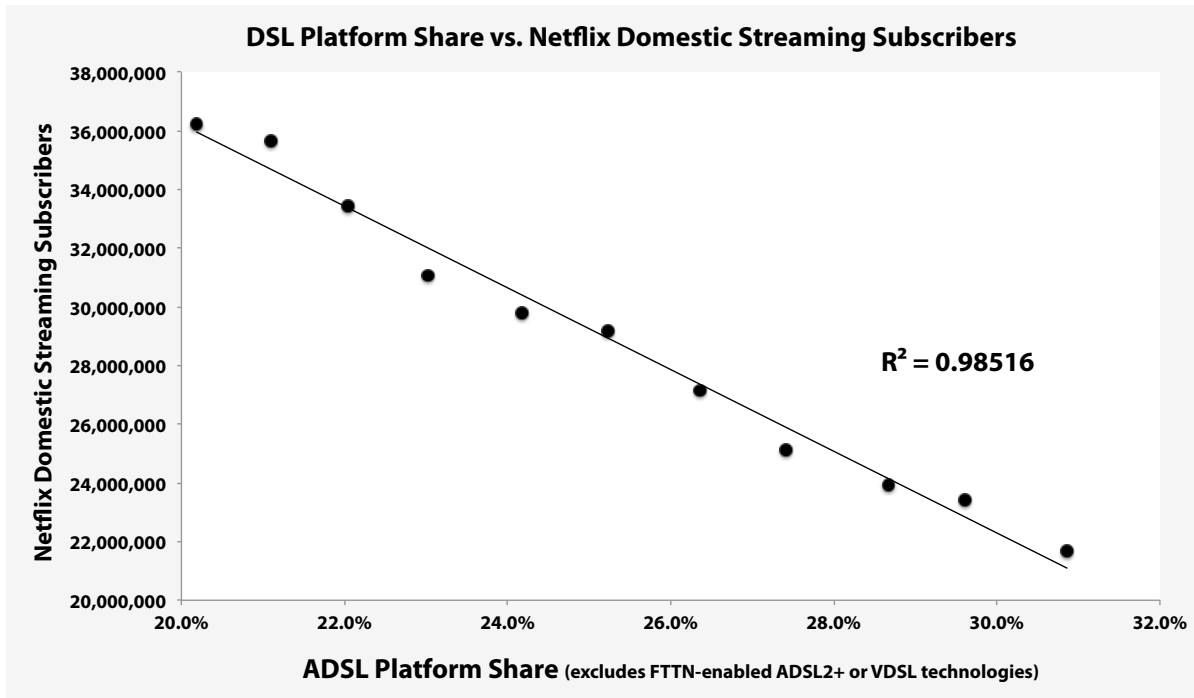
Yet Figure 20 provides further evidence that, primarily because of the change in the market brought about by streaming video, ADSL is in a separate product market. The decline of the ADSL platform’s share is almost perfectly correlated with the growth in Netflix’s domestic streaming subscriber base.

Figure 19:



Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan.

Figure 20:



Source: Free Press Research, based on analysis of company reports, FCC High Speed Internet reports, and data collected by SNL Kagan.

Thus we see that the rise in streaming video has helped Comcast grow its high-speed subscriber base; helped it grow revenues; helped it earn a return on its DOCSIS investments; helped it gain market share vs. ILECs; and helped cement cable as the winner in the platform battle, making Comcast's future quite bright as data becomes the anchor product for both cable and ILEC companies.

What's more, these developments highlight how the growth of Netflix and streaming video in general produces substantial positive externalities. Cable companies that would have otherwise had no incentives to offer greater speeds are doing so, and these speeds are not just benefiting Netflix but many other businesses<sup>84</sup> that now make use of the additional capacity.<sup>85</sup>

From this it would seem that Comcast has every reason to encourage and facilitate the growth of the streaming video industry. But the opposite is in fact the case. Comcast has, on multiple occasions, taken steps to thwart the growth in over-the-top video. Its early efforts consisted of the discriminatory application of data caps,<sup>86</sup> and punitive actions such as not supporting its customers' ability to stream content they had paid for on devices of their choice (the latter a strong indication of Comcast's incentives to push its own X1 device platform, incentives that this transaction will exacerbate).<sup>87</sup> The company's more recent efforts involve the

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<sup>84</sup> Streaming video has also stimulated increased consumer demand for new consumer electronic equipment. *See* Kif Leswing, "Online video is driving the trend towards larger-screened smartphones, survey says," *GigaOM*, Aug. 14, 2014 ("According to a new survey conducted by Jana Research, the demand for big phones is driven by smartphone consumers who want a device that's better for video consumption.").

<sup>85</sup> These externalities also benefit non-commercial activities, such as the citizen journalism on display during the aftermath of the shooting of an unarmed teenager in Ferguson, Missouri.

<sup>86</sup> *See, e.g.*, Matt Wood, "Comcast has some Xplaining to do," *CNET*, Apr. 5, 2012.

<sup>87</sup> *See, e.g.*, Karl Bode, "Comcast Still Blocking HBO Go On Roku (And Now Playstation 3), Incapable Of Explaining Why," *Techdirt*, Mar. 7, 2014.

outright refusal to provision additional network terminating capacity unless Netflix first agrees to pay terminating access fees.<sup>88</sup>

For months on end, potentially millions of Comcast customers experienced poor performance from their broadband connections. During this time, they had no one – neither Comcast nor the Commission – giving them an honest answer about the source of the problem. Indeed, it appears that customers who called Comcast to complain about the poor streaming performance may have been given a strong sales pitch by customer service representatives to upgrade to more expensive, higher-speed packages supposedly in order to solve the issue.<sup>89</sup>

This is clearly a classic example of abuse of terminating access monopoly power. It is especially egregious considering that not only did Comcast’s customers request this traffic (which was the key driver behind the higher valuations customers placed on Comcast service), but that the cost of provisioning additional terminating ports was miniscule<sup>90</sup> and the providers delivering the traffic to Comcast offered to pay for these one-time expenditures.<sup>91</sup>

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<sup>88</sup> See, e.g., Jon Brodtkin, “After Netflix pays Comcast, speeds improve 65%,” *Ars Technica*, Apr. 14, 2014.

<sup>89</sup> See Adrienne Jeffries, “Employee metrics show how Comcast pushes customer service reps to make sales,” *The Verge*, Aug. 19, 2014.

<sup>90</sup> See Mark Taylor, “Verizon’s Accidental Mea Culpa,” *Beyond Bandwidth: Level 3 Communications Blog* (July 17, 2014):

So in fact, we could fix this congestion in about five minutes simply by connecting up more 10Gbps ports on those routers. Simple. Something we’ve been asking Verizon to do for many, many months, and something other providers regularly do in similar circumstances. But Verizon has refused. So Verizon, not Level 3 or Netflix, causes the congestion. Why is that? Maybe they can’t afford a new port card because they’ve run out – even though these cards are very cheap, just a few thousand dollars for each 10 Gbps card which could support 5,000 streams or more. If that’s the case, we’ll buy one for them. Maybe they can’t afford the small piece of cable between our two ports. If that’s the case, we’ll provide it. Heck, we’ll even install it.

<sup>91</sup> See Cogent Press Release, “Cogent Offers to Pay Capital Costs Incurred by Major Telephone and Cable Companies Necessary to Ensure Adequate Capacity,” (Mar. 21, 2014).

So then why is Comcast going to such lengths to frustrate the efficient delivery of the data its customers request – especially when that data is the primary driver of growth in its high-speed Internet business? The answer is simply that Comcast is still primarily a vertically integrated pay-TV distributor and content owner. Last year, pay-TV and content comprised 72 percent of Comcast’s total revenues (\$20.5 and \$26.2 billion respectively out of a total of \$64.7 billion). Although high-speed data is Comcast’s highest-margin product, it brought in just half the amount of revenue (\$10.3 billion) that pay-TV earned, and less than a quarter of the combined pay-TV and content revenues.

As a vertically integrated pay-TV and content provider, Comcast has *tremendous incentives* to relegate streaming video to a niche, complementary product market.<sup>92</sup> The existing pay-TV business model may be something the smallest MSOs are more than willing to abandon, but not Comcast. Streaming video caters to the growing preferences of consumers to watch content outside of the standard 100-plus channel bundles, bringing them a degree of choice that Comcast is not willing to offer. It needs to preserve the revenues of its cable networks through the continued practice of forced bundling and the tying of unpopular networks to the ones that consumers actually watch. And as the owner of regional sports channels (with a substantial addition to this portfolio from this transaction), Comcast needs the current pay-TV model to thrive to grow revenues and justify the exorbitant amounts paid for sportscasting rights.

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<sup>92</sup> The troubling incentives created by vertical integration between content ownership and Internet access are something the Commission has noted previously. *See, e.g., AOL-Time Warner Order*, 16 FCC Rcd 6547, ¶ 78 (“In acquiring Time Warner, AOL would obtain not only a vast network of cable systems, but also an enormous library of multimedia content. Time Warner and its content affiliates comprise the largest traditional media company in the world.”). The Commission noted that Time Warner then owned “four of the top fifteen video programming services (CNN, TNT, TBS, Cartoon Network) and the largest premium TV network (HBO). Time Warner also operates a broadcast network (The WB) and one of the largest movie and television studios (Warner Bros.)” while “AOL own[ed] many leading Internet brands and applications . . . .” *Id.* ¶¶ 78-79 (internal citations omitted).

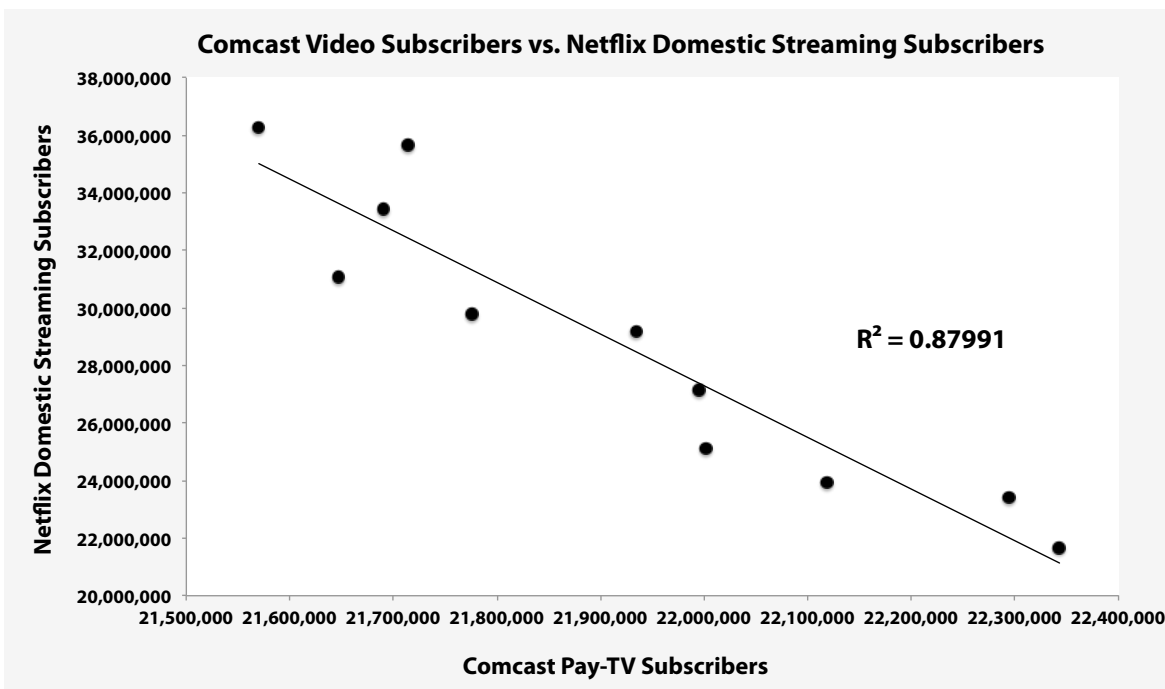
Comcast's local broadcast properties are poised to continue their exponential growth in retransmission consent revenues, something that will not happen if the current pay-TV model is not preserved fully. As the owner of a Big 4 network (NBC) and a major Spanish-language network (Telemundo), Comcast is also eyeing the other side of the growth in retransmission revenues – the “reverse” retransmission revenues its local affiliates pay to the network. These revenues too depend on the preservation of the current pay-TV model.

These incentives are very real. Streaming video, with the increased choice and potential for decreased prices that it brings, is a disruptive, pro-consumer, and pro-public interest force. But all of that threatens Comcast's lucrative advantages in the current pay-TV model, and the preservation of that model is a principle reason the company is attempting to acquire Time Warner Cable. While the phenomenon of so-called “cord-cutting” is not yet an immediate threat to the traditional pay-TV business model, there is ample evidence of at least some cord-cutting and “cord-shaving” (when consumers shave off some channels or opt for less expensive pay-TV tiers).<sup>93</sup> Indeed, consider the data in Figure 21, which plots the number of Comcast pay-TV subscribers versus the number of Netflix's domestic streaming subscribers from the fourth quarter of 2011 through the second quarter of 2014. As the data shows, there is a strong negative correlation: as Netflix's business has grown, Comcast's pay-TV subscriber base has shrunk.

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<sup>93</sup> For example, whereas five to ten years ago MSOs price-discriminated through escalating prices for digital tiers, now that ability has shifted to broadband. *See, e.g.*, Lenoir and Olgeirson, *supra* note 65 (“Digital tiers, originally designed to give customers access to more channels in an era that predated OTT content, are already losing momentum. Amplified by all-digital transitions, data suggests fewer customers are paying additional fees for the higher-end tiers. The result is an argument for cord shaving, supported by a significant decline in the category revenue in the long-term outlook.”).

Figure 21:



Source: Free Press Research, based on analysis of company reports.

This data perfectly encapsulates the delicate dance that Comcast must perform, and it is betting that will become substantially easier if it is allowed to acquire Time Warner Cable. Comcast desperately needs to preserve the legacy pay-TV model, a model for which streaming video represents an existential threat. But right now, pay-TV already *is* in decline. Comcast has to deliver its shareholders results that are “up and to the right,” and for now, the best, lowest-cost way it can do that is to respond to consumer demand for faster speeds. Yet it can’t simply open the pipes completely, lest it contribute to further acceleration in the decline of its pay-TV business. So it dribbles out capacity hikes. These speed increases cost Comcast nothing, and they help the company capture share from ADSL in markets where it faces no FTTx competition. In the 40 percent of its service area where it does face FTTx competition, the increases help Comcast maintain its superiority to FTTN and its equivalency to FTTH.



This key point is that Comcast has a large amount of potential bandwidth, but it historically has dribbled that capacity out quite slowly, seeking to maximize revenues and reap the benefits of price discrimination against early adopters. Restricting or reducing output in order to earn economic rents is *classic monopoly behavior*. This transaction will dramatically increase Comcast's market power and its incentives to continue these sorts of anticompetitive practices.

In sum, cable MSOs are stealing market share at a higher rate since the streaming era came into full swing. ILECs that have deployed FTTx have been able to maintain and grow local market share, but those who continue to offer only first generation ADSL have clearly lost to cable. This shift in consumer demand for higher speeds than ADSL can offer has forced the non-FTTx ILECs to respond. As this trend continues, ILECs will have to focus on fiber investments in order to remain relevant, though in some areas they will not be able to justify upgrades, even to FTTx, which is ultimately a temporary fix. In the face of cable's platform victory, these ILECs will also be forced to be more flexible in their current ADSL offerings, perhaps dropping anti-consumer restrictions like forced bundling of voice landlines (though this would be merely a short-term revenue preservation tactic, as ADSL clearly exists in a separate product market).

The merger of Comcast and Time Warner Cable would derail this market evolution, as Comcast in the absence of the merger would have to achieve organic growth. It would do this through several means, including higher-speed offerings, higher-quality offerings (*i.e.*, in the absence of the merger Comcast would have less incentive to interfere with online content delivery if it wanted to show growth), lower-priced offerings, new peripheral offerings (*e.g.*, enhanced WiFi, customer premises equipment discounts, and increased customer access to third-party CPE). And as we discuss below, in the absence of the merger Comcast would be more likely to grow through overbuilding outside its incumbent territory.

This is the lesson of the Commission's successful rejection of AT&T's takeover of T-Mobile: when incumbents can't *buy* growth, they *build* growth through investment and competition. This is the public interest objective that should guide the Commission's review. Commission rejection of these applications will over time lessen the need for the agency to regulate these markets. Approval of the applications instead would create an even greater need for Commission micro-management of Comcast and the market at large. If competition is the Commission's preferred regulatory tool, then it shouldn't bless further consolidation that by definition erodes competition.

**B. Online Content Providers Must Reach A National Audience. The Merger Will Reduce the Size of the Open Field Below the Critical Level, and the Lack of Broadband Competition Will Exacerbate this Problem Through Coordinated Effects.**

This transaction truly represents the prospect of replacing Ma Bell with Father Cable. This merger would confer on Comcast substantial additional gatekeeper power, to an extent not seen since the time of the nationwide Bell System monopoly. Comcast would control one of two conduits for the transmission of media and communications into the homes of six out of every ten Americans, and for three out of every 10 it would be the *only* option for advanced broadband.

Applicants would like the Commission to ignore the likely consequences of one company possessing this level of control over our nation's essential communications infrastructure. The Commission simply cannot do that. A central purpose of the Communications Act and the Commission itself, as affirmed by the highest court in the land, is the promotion of competition and diversity among media voices. This is not because competition is in and of itself a social good, but because "the widest possible dissemination of information from diverse and

antagonistic sources is essential to the welfare of the public.”<sup>94</sup> The Supreme Court has noted that it “is the purpose of the First Amendment to preserve an uninhibited marketplace of ideas in which truth will ultimately prevail, rather than to countenance monopolization of that market, whether it be by the Government itself or a private licensee.”<sup>95</sup>

The Supreme Court found that “promoting the widespread dissemination of information from a multiplicity of sources” is “an important governmental interest,” one with which the Commission is tasked.<sup>96</sup> As the agency responsible for oversight of the conduits for Americans’ exercise of our First Amendment rights, the Commission’s exercise of its proper role in merger reviews is perhaps one of the most important ways it can effectuate this important interest. Indeed, the Supreme Court has clearly recognized the role that communications infrastructure plays to preserve open communications pathways, noting that “[t]he potential for abuse of this private power over a central avenue of communication cannot be overlooked. The First Amendment’s command that government not impede the freedom of speech does not disable the government from taking steps to ensure that private interests not restrict, through physical control of a critical pathway of communication, the free flow of information and ideas.”<sup>97</sup>

Applicants’ suggestion that the transaction has no impact on competition is self-serving and simply untrue. The merger that the Applicants seek to consummate would dramatically concentrate control over the most critical pathway for this free flow of information and ideas. It would give Comcast, a company with a demonstrated interest in favoring its own vertically owned content, substantially increased ability to do precisely that.

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<sup>94</sup> *Turner v. FCC*, 512 U.S. at 663 (quoting *United States v. Midwest Video Corp.*, 406 U.S. 649, 668 n.27 (1972)).

<sup>95</sup> *Red Lion v. FCC*, 395 U.S. at 390.

<sup>96</sup> *Turner v. FCC*, 512 U.S. at 662-63.

<sup>97</sup> *Id.* at 657.

As we demonstrated above, the rise in streaming video services correlates strongly with the increase in average U.S. broadband speeds. This suggests that the streaming offerings are important in prying open the capacity of cable broadband services. It also suggests that growth in streaming is spurring cable MSOs to innovate and invest in their video services, primarily in the form of their own streaming offerings, TV Everywhere, and new set-top boxes with improved user interfaces that mimic the experiences that streaming consumers get from third-party equipment. In all regards, the public interest is served best when these bandwidth-intensive services thrive, unfettered by the conduit owner's interference.

Given its vertically integrated business model, and its history of taking actions to frustrate services that disrupt that model, Comcast clearly views these streaming video services as something other than complementary. Streaming services operate at the national level, in a national product market. In order to thrive, these services have to be available at high quality to all consumers. Because streaming video companies must reach a national audience, an ISP of the size that Applicants propose to reach here would have tremendous market power in the form of gatekeeper control over a large portion of the addressable market. Of course Comcast already has great market power, but this transaction would exacerbate it, particularly when it comes to the addressable market for high-definition (HD) and 4K streaming services.<sup>98</sup>

Congress of course recognized the problems of gatekeeper power by applying and maintaining basic common carriage obligations for two-way carrier services, and by adopting specific limitations and obligations for video distributors.<sup>99</sup> Though the Commission failed to

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<sup>98</sup> Consumer adoption of HD-quality video was quite rapid. The next evolution is a higher pixel density standard known as "4K," and will require approximately 15 Mbps of constant capacity per stream. See Daniel Frankel, "U.S. fails to make Akamai's top 4K-ready nations list," *FierceCable*, June 26, 2014.

<sup>99</sup> See, e.g., 47 U.S.C. §§ 521(4), 531-535, 548-549, 573.

justify its implementation of a horizontal limit on cable subscriber control, there is no disputing that the law itself calls for a limit. This is specific to “cable operators,” but Congress clearly considers access to visual content to be a public interest concern, and the Supreme Court frequently has displayed concerns about access to information generally.

With this transaction, Comcast’s resulting immediate control of more than 40 percent of the nation’s broadband lines capable of delivering streaming video would raise the same concerns as those embodied in Section 613 of the Cable Act.<sup>100</sup> Moreover, while in the MVPD context consumers have 3 to 4 options for pay-TV service, in broadband the choice is much more limited. This is important, as the lower number of available alternatives in the broadband market means that the likelihood of coordinated effects in shutting out a particular content source is far greater than it is in the MVPD market.

Comcast’s willingness to voluntarily reduce its pay-TV share below the now-vacated 30 percent threshold suggests that even the company recognizes there is some level at which its share of the addressable market does become a concern for regulators. The question then is what that level must be for the advanced broadband market, and at what thresholds does regulatory oversight simply fail to produce the optimal outcome for the public interest?

As shown above in Figure 1, Comcast has a greater than 40 percent share of the advanced broadband market’s subscribers. This is of course well above the 30 percent cable limitation, but given broadband’s roots in common carriage and the Commission’s various (albeit patchwork) efforts to preserve this legacy through merger conditions and repeatedly remanded rules, the platform remains (for now) relatively open compared to cable TV.

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<sup>100</sup> *See id.* § 533(f)(2)(A) (“[N]o cable operator or group of cable operators can unfairly impede, either because of the size of any individual operator or because of joint actions by a group of operators of sufficient size, the flow of video programming from the video programmer to the consumer.”).

The Commission previously drew a bright line for cable systems at 30 percent of the national market, first based on an analysis of the market in which it viewed coordinated effects as likely, and later based on an analysis of the market in which the availability of DBS lessened the likelihood of those effects (but one in which the Commission had better data on the carriage of independent content).<sup>101</sup> In its last attempt to justify the national cable cap, the Commission found that a cable network needed a minimum of 19 million subscribers to stand a reasonable chance of surviving. But in online streaming video, where a company needs to pay a premium to pry away content from the networks and studios that are locked in a cabal with the MVPDs, the minimum level of subscribership is certainly far higher than it is for a stand-alone cable channel.

Consider the case of Netflix, which first began full year reporting of its streaming video segment in 2012. That year it brought in \$2.2 billion in domestic streaming revenues, ending the year with 29 million total domestic streaming subscribers (including 27.6 million paying streaming subscribers). The company reported that the cost of revenues for its streaming segment in 2012 was \$1.6 billion with an additional \$0.3 billion in marketing cost. Netflix reported this as a “contribution margin” of 16 percent, but that included only the firm’s variable costs and not its substantial fixed costs.<sup>102</sup> So for 2012, even with the company’s higher-margin DVD rental services boosting its overall performance, Netflix’s year-end reported operating free cash flow margin was *negative*.

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<sup>101</sup> See implementation decisions cited *supra* note 29

<sup>102</sup> See Netflix 2012 Form 10-K (“In connection with obtaining streaming content, we typically enter into multi-year licenses with studios and other content providers, the payment terms of which are not tied to subscriber usage or the size of our subscriber base (“fixed cost”) but which may be tied to such factors as titles licensed and/or theatrical exhibition receipt. . . . Given the multiple-year duration and largely fixed cost nature of content licenses, if subscriber acquisition and retention do not meet our expectations, our margins may be adversely impacted.”).

For 2013, Netflix ended the year with 33.4 million domestic streaming subscribers (31.7 million paying subscribers), a 15 percent increase. It brought in \$2.7 billion in domestic streaming revenues (a 26 percent increase) on cost of revenues and marketing costs of \$2.1 billion. Its contribution margin thus increased to 23 percent; but because this doesn't reflect fixed costs, the company ended the year with an operating free cash flow margin of just 1 percent.

The long-term prospects for Netflix, even with its current 36 million subscribers, is entirely dependent upon further growth, particularly from overseas markets. The company's 36 million domestic streaming subscribers represents about 40 percent of all fixed U.S. broadband subscribers, which indicates room for growth, though only if it faces little competition in its sector. This indicates strongly that the "open field" for a streaming video company is far higher than the 19 million found by the Commission in the MVPD case; and likely far higher than the 36 million subscribers Netflix currently has. Indeed, the need for such a large open field and the realities of high content acquisition costs (which are likely inflated due to the maze of contractual relationships between content owners and MVPDs) are primary reasons why Netflix and Amazon are the only significant operators in this market segment, and why the promise of virtual-MVPD competition remains unrealized.<sup>103</sup>

Based on our analysis presented in Figure 1, we estimate there are a total of 66 million fixed high-speed Internet subscribers on service tiers above 10 Mbps; 51 million above 25 Mbps; and about 73 million on networks *capable* of delivering speeds above 10 Mbps (*i.e.*, approximately 7 million more subscribers are on DOCSIS 3.0 or FTTx networks, but not

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<sup>103</sup> Hulu is a far different case than Netflix, Amazon or even a la carte streaming vendors like Apple's iTunes. Hulu is essentially the major broadcast network's version of TV Everywhere, not an independent distributor that acquires programming from content owners. Even Amazon and Apple are special cases, as streaming video is not their primary line of business (and in Amazon's case is likely a loss-leader).

subscribing to a 10 Mbps or higher tier of service; these data all include commercial and residential subscribers, an imprecision we'd prefer not to have). With its acquisition of Time Warner Cable, Comcast would control 30 million high-speed Internet subscribers overall; 27 million of the greater than 10 Mbps subscribers; and 24 million of the greater than 25 Mbps subscribers. Before factoring in the SpinCo and Bright House Network subscribers (which, given the continued relationships between the merged entity and these MSOs, should be factored in), the *remaining* addressable market would range from 43 million (all remaining subscribers of MSOs or FTTx providers after subtracting the Applicants' 30 million from the 73 million advanced broadband-capable overall figure) down to just 27 million (all remaining subscribers on 25 Mbps and higher-level tiers).

While this might initially seem like a reasonably sized open field, further analysis demonstrates that it is not. A hypothetical streaming video or virtual MVPD company would realistically need at least 30 million subscribers to be viable, and based on the experience of Netflix this is probably a large underestimate. After excluding the combined Comcast-Time Warner Cable, this would mean accessing nearly the entirety of the remaining addressable market, or perhaps having access to even *less* than this bare minimum required for viability. This hypothetical streaming video company would have to be *extremely* successful at converting those remaining advanced broadband subscribers to become its own subscribers.

More importantly, the field would only be of this size if no ISP other than Comcast interfered with or blocked its service. And even if Comcast was the only bad actor, having to sign up such a large portion of the addressable market would be very hard for any streaming provider to do if it faced competition. As the addressable market shrinks, it makes it unlikely that *any* streaming company could survive. In other words, the viability of the streaming video



industry as a whole – and the competition and consumer surplus that it creates in that market, as well as the positive competitive pressures that streaming video places on the MVPD market – all depend on a fully addressable market.

A key difference between this open field analysis and the one conducted by the Commission in 2008 (and a key similarity to the one conducted by the Commission in 1993) is the lack of available competitors for any given household. As we noted above, Applicants face an average of 2.4 MVPD competitors at any given location, compared a maximum of 0.4 other advanced broadband competitors. This lower level of competition and the greater market concentration nationally work to drastically increase the likelihood of coordination, collusion or simply independent action by another ISP against the streaming provider. Even if a single company could succeed with less than 30 million subscribers, the potential of interference by more than one ISP is high.

This last point is one we do not need to speculate about. Just consider the companies to whom Netflix reluctantly has agreed to pay terminating access fees: Comcast, Time Warner Cable, and their two chief advanced broadband competitors Verizon and AT&T – the nation’s top four ISPs.

We believe this open field analysis since is one type of investigation that the Commission should engage in as it reviews this transaction. However, we stress that threats to a sizable open field are by no means the only competitive or public interest concerns created by this merger. The simple approach above also does not account for other actions that Comcast alone could undertake to harm an online content provider’s market prospects. For example, Comcast could simply prioritize its own content; or Comcast could create a “specialized service” content channel that by design makes the third-party streaming content provider’s product inferior,

without outright refusing to carry its service.<sup>104</sup> Or Comcast could utilize draconian and uneconomically-justified data caps to harm the streaming provider's prospects. Thus, if the Commission does attempt to put Comcast's greater-than 40 percent advanced broadband market share into perspective, a simple open field analysis will not be enough to fully encapsulate the real world implications of such a high level of market control – particularly given the fact that broadband is an unregulated yet highly concentrated market.

If the national policy goal is to promote the availability of advanced communications capabilities so that consumers can originate and receive high-quality *video* content, as stated in Section 706, then the single most effective action the Commission can take to continue to achieve this goal is preservation of the open pathway. Approving this transaction would pose an unstoppable danger to that open pathway. The way for the Commission to achieve the true goals of Section 706 is through policies that reduce any single carrier's market power at the local and national levels, and ultimately through the restoration of basic common carriage to our nation's essential two-way communications infrastructure.

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<sup>104</sup> Just a few days prior to the filing of this petition, news broke of a Comcast service that may fit this description. See Shalini Ramachandran, "Comcast Takes the Netflix Fight to College Campuses," *Wall Street Journal*, Aug. 21, 2014. The new Comcast streaming service, slated to be free to students at various campuses, reportedly would reduce schools bandwidth costs because the "service travels over Comcast's 'managed' network in Internet protocol format – similar to cable video-on-demand or phone services. The traffic from those IP-based services travel on a special portion of Comcast's cable pipe that is separate from the more congested portion reserved for public Internet access." *Id.* The story fails to note that Comcast is the arbiter of how much bandwidth to "reserve" for Internet access. It suggests uncritically that with its "managed nature" Comcast's streaming video "would be unlikely to experience the sputters and stops that can affect Web video streaming over the public Internet" – an entirely non-coincidental benefit for Comcast. According to the article, "schools struggling with rising bandwidth needs from students streaming video services like Netflix and YouTube" could save money "if students opt for the Comcast service over Netflix." As the infrastructure provider and conduit owner, Comcast also can ensure that its own service "won't count toward a college's Internet bandwidth capacity." *Id.*

**V. The Merger Would Cause Substantial Competitive Harms, Including Additional Public Interest Harms Beyond Those Cognizable Under a Traditional Antitrust Inquiry. These Unilateral and Coordinated Harms of This Transaction Are Too Broad and Too Substantial To Be Remedied With Conditions.**

In his landmark 1982 judgment against AT&T, Judge Harold Greene wrote:

It would be difficult to formulate an order that would effectively deal with all of the different kinds of anticompetitive behavior that are claimed to have occurred over a considerable period of time, in various geographical areas, and with respect to many different subjects. There is evidence which suggests that AT&T's pattern during the last thirty years has been to shift from one anticompetitive activity to another, as various alternatives were foreclosed through the action of regulators or the courts or as a result of technological development. In view of this background, it is unlikely that, realistically, an injunction could be drafted that would be both sufficiently detailed to bar specific anticompetitive conduct yet sufficiently broad to prevent the various conceivable kinds of behavior that AT&T might employ in the future. An even more formidable obstacle is presented by the question of enforcement. Two former chiefs of the FCC's Common Carrier Bureau, the agency charged with regulating AT&T, testified that the Commission is not and never has been capable of effective enforcement of the laws governing AT&T's behavior. In their view, this inability was due to structural, budgetary, and financial deficiencies within the FCC as well as to the difficulty in obtaining information from AT&T. Whatever the true cause, it seems clear that the problems of supervision by a relatively poorly-financed, poorly-staffed government agency over a gigantic corporation with almost unlimited resources in funds and gifted personnel are no more likely to be overcome in the future than they were in the past.<sup>105</sup>

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<sup>105</sup> *United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131, 167-68 (D.D.C. 1982) (internal citations omitted); *see also id.* at 170:

There has long been a debate over the relative merits of regulation and competition. The evidence adduced during the AT&T trial indicates that the Bell System has been neither effectively regulated nor fully subjected to true competition. The FCC officials themselves acknowledge that their regulation has been woefully inadequate to cope with a company of AT&T's scope, wealth, and power. . . . The antitrust suit brought by the Department of Justice in 1949 ended in 1956 with a consent decree which imposed injunctive relief that was patently inadequate. It took from 1968 when the *Carterfone* decision was handed down by the FCC to 1978 when the United States Court of Appeals decided *Execunet II* to establish even the very principle of competition so that it was beyond dispute by AT&T. Future regulatory and injunctive remedies are unlikely to be more successful than were similar efforts in the past. In short, the choice is between a Bell System restrained by neither regulation nor true competition and a Bell System reorganized in such a way as to diminish greatly the possibility of future anticompetitive behavior.

There are many parallels between the proposed entity now before the Commission and the company that Judge Greene faced in 1982. Judge Greene was particularly concerned about gatekeeper power, in both the electronic publishing<sup>106</sup> and information service markets,<sup>107</sup> and he

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<sup>106</sup> *See id.* at 182, 223-24 (internal citations omitted):

It is also readily apparent that competitors in the electronic publishing industry – far more so than competitors in any other industry – could easily be crushed were AT&T to engage in the types of anticompetitive behavior described above. Unlike most products and services, information in general and news in particular are by definition especially sensitive to even small impediments or delays. Information is only valuable if it is timely; by and large it is virtually worthless if its dissemination is delayed. This quality is especially important in electronic publishing because up-to-date information and constant availability are the features likely to be sought by subscribers. . . . Any delays of that kind, were they to occur in the context of the transmission of electronic publishing information, would quickly cause subscribers to desert their unreliable publishers and thus cripple AT&T's competitors in that business. . . .

Traditionally, the Bell System has simply distributed information provided by others; it has not been involved in the business of generating its own information. The proposed decree would, for the first time, allow AT&T to do both, and it would do so at a time when the electronic publishing industry is still in a fragile state of experimentation and growth and when electronic information can still most efficiently and most economically be distributed over AT&T's long distance network. If, under these circumstances, AT&T were permitted to engage both in the transmission and the generation of information, there would be a substantial risk not only that it would stifle the efforts of other electronic publishers but that it would acquire a substantial monopoly over the generation of news in the more general sense. Such a development would strike at a principle which lies at the heart of the First Amendment: that the American people are entitled to a diversity of sources of information. In order to prevent this from occurring, the Court will require, as a condition of its approval of the proposed decree, that it be modified to preclude AT&T from entering the field of electronic publishing until the risk of its domination of that field has abated.

<sup>107</sup> *See id.* at 189 (internal citations omitted):

All information services are provided directly via the telecommunications network. The Operating Companies would therefore have the same incentives and the same ability to discriminate against competing information service providers that they would have with respect to competing interexchange carriers. Here, too, the Operating Companies could discriminate by providing more favorable access to the local network for their own information services than to the information services provided by competitors, and here, too, they would be able to subsidize the prices of their service with revenues from the local exchange monopoly.

*See also id.* at 190:

was concerned about how the monopoly Baby Bells as well as the post-divestiture, non-monopoly AT&T Corp. could use their gatekeeper power to *discriminate* and ultimately harm competition in these industries. As the excerpt above illustrates, Judge Greene recognized a truism that is still the case today: there is such a thing as a company or deal too big to condition.

In this transaction, the Commission *should be* just as concerned about Comcast's ability to utilize its gatekeeper power to stifle the free flow of information and services online, particularly streaming video services. And it should heed the lessons from Judge Greene's ruling about the efficacy of trying to manage an entity that would be as massive and politically connected as Comcast if this transaction were approved.<sup>108</sup>

There is however one major difference between the problems posed in *U.S. v. AT&T* and those posed by the instant transaction: Judge Greene was dealing with entities in the telecommunications services markets. They were subject to the obligations in Title II of the Communications Act, chief among them the bedrock consumer protection of basic common carriage. In the current case however, even though Comcast's level of control would dwarf that of any single Baby Bell or AT&T post 1982, the Commission's failure to properly interpret the statute's definitions mean that the merged entity's broadband business would exist in a virtually

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The restriction on the provision of information services by the Operating Companies has been attacked on the ground that it will remove their incentive to upgrade the local networks and will cause them to become technological backwaters. This claim underrates the role of the Operating Companies under the proposed decree. These companies will carry traffic between the information service providers and their subscribers; their networks will therefore have to be capable of carrying these technologically advanced services; and they will have a financial incentive to create this capability because they will earn access charges for providing this service.

<sup>108</sup> Indeed, while the topic of regulatory capture is well studied in academia, it surely is a sore subject for the Commission. History suggests that a combined Comcast-Time Warner Cable would likely be the single largest employer of former Commission staff. The potential size and influence of a company, and how that impacts the likelihood of regulatory capture, should be a consideration in the current review.

regulation-free environment. Because of this, we strongly believe the Commission's public interest standard should be heightened to a level of scrutiny *greater* in many respects than what Judge Greene applied to AT&T and the Bell Operating Companies.

A vigorous application of the public interest standard is warranted in part because this transaction has the potential to dramatically reshape the U.S. communications landscape for generations to come.<sup>109</sup> While Comcast would have the Commission consider the impact of the availability of dying technologies like ADSL, the public interest requires that the agency focus on where the ISP market is *headed* rather than where it has already been.<sup>110</sup>

**A. There is No Prospect of Competitive Entry That Could Mitigate the Unilateral Harms and Coordinated Effects Resulting from Comcast Acquiring TWC.**

The Commission has long recognized that *meaningful* competition rather than mere existence of more than one provider can keep market power in check, particularly for facilities with high-barriers to entry and a long history of incumbents operating unchallenged.<sup>111</sup> The market in which the Applicants operate displays these characteristics. But unlike the ILEC and

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<sup>109</sup> For example, given the relatively low level of competition in the broadband market versus that in the pay-TV market, and Comcast's increasing margins in broadband and decreasing margins in video, it is highly likely that this merger would enhance Comcast's ability to *cross-subsidize* its more competitive pay-TV service with economic rents from its near-monopoly broadband services. This would frustrate the public interest in both markets.

<sup>110</sup> See *AOL-Time Warner Order*, ¶ 24 ("Following passage of the 1996 Act, local telecommunications markets have been undergoing a transition to competitive markets. . . . When a transaction is likely to affect local communications markets, our statutory obligation requires us to assess future as well as current market conditions. In doing so, the Commission may rely on its specialized judgment and expertise to render informed predictions about future market conditions and the likelihood of success of individual market participants.") (internal citations omitted).

<sup>111</sup> *Id.* ¶ 92 ("[I]f unaffiliated ISPs were permitted to offer their services over AOL Time Warner's cable network on non-discriminatory terms and conditions, . . . [they] would have the opportunity to compete fairly on price and quality, and residential consumers in these areas would be able to choose a high-speed ISP based on the best combination of those characteristics. Market forces, not control of a bottleneck facility, would determine the firms that would succeed in the relevant market, thereby enhancing efficiency and consumer welfare.").

MVPD sectors in which the Commission has often reviewed mergers, the broadband market exists in a twilight zone of non-regulation.

There are few industries in America with barriers to entry as high as those present in last-mile wired communications. Though technology has changed how we communicate, nothing has changed about the natural monopoly economics of the last mile. There were two wires connected to most homes three decades ago, and those two wires are still there today. It turns out the coaxial cable had a far cheaper technological upgrade path than the copper wire. Perhaps a fifth to a quarter of the country will see the ILEC make the investment in fiber-to-the-home, but the rest will have to live with something less (FTTx) or substantially less (ADSL). ADSL will quickly fade away, leaving half the country in monopoly, the other half in duopoly. There is no third-party ISP competition. And there are no basic common carrier obligations, so consumers and content companies have no legal protections against unreasonable discrimination. Giving one company control over the wire into nearly three-fifths of U.S. homes is inviting abuse of market power, especially given the absence of baseline common carrier obligations.

The Commission once upon a time seemed to grasp the basic fact that because of the last mile's natural monopoly economics, the best hope for competition in Internet access would come not through facilities-based entry but from third-party ISPs gaining access to the existing facilities. So as broadband began to supplant dial-up in the early part of the 21st century, the Commission took steps to preserve this form of ISP competition.<sup>112</sup> In fact, in its review of the

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<sup>112</sup> *Id.* ¶ 56 (“We also find that the proposed merger would give AOL Time Warner both the ability and the incentive to discriminate against unaffiliated ISPs and alternative (non-cable) high-speed platforms within Time Warner cable territories, and to obtain exclusive or preferential carriage for its own Internet access services from other cable providers. As a result, the proposed merger would frustrate statutory goals and Commission policies designed to ensure that the American public has access to a diversity of information sources and to widely available advanced services.”); *see also id.* ¶ 87 (“We also find that AOL Time Warner would have the

AOL-Time Warner merger, the Commission even went as far as recognizing that the mere loss of an “open access” advocate like AOL was cause for concern.<sup>113</sup>

The Commission used to be *very concerned* about ISP competition. In merger after merger, and in all the information services classification proceedings, the industry not only promised that incumbents wouldn’t interfere with the third-party ISPs but also suggested that incumbents had incentives to grant these companies access to the last mile. History shows this not to have been the case. Thus, when the Commission hears Applicants offering the same types of promises about how they have no intent or incentive to interfere with online content, particularly online video content, it must react with skepticism.<sup>114</sup> Then as now, the fact remains

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ability to discriminate against unaffiliated ISPs. This is well-documented in the record. As earlier mentioned, the proposed transaction would give the merged company ownership of the nation’s second largest cable network. Such ownership would enable AOL Time Warner to deny unaffiliated ISPs carriage on this network at will. Due to the size of the network and its dominance in the geographic areas to which it extends, AOL Time Warner’s ownership rights would also empower the merged company to deal with unaffiliated ISPs requesting carriage by offering them ‘take it or leave it’ agreements based on terms that would render it difficult if not impossible for these ISPs to provide service over cable profitably. And of course, AOL Time Warner’s physical control over the network would allow it to limit the online features and functionalities of unaffiliated ISPs *or to degrade their quality of service, conceivably in ways that would escape easy detection.*”) (internal citations omitted, emphasis added).

<sup>113</sup> See *id.* ¶ 54. (“AOL is by far the largest narrowband ISP and has been the leading advocate and supporter of the ‘open access’ movement.”). This is important to the public interest analysis of the instant transaction too, as Time Warner Cable is a strong proponent of retransmission consent reform while Comcast-NBCU is a beneficiary of retransmission and reverse retransmission payments. Removing Time Warner Cable (a company that was willing to lose market share while fighting a retransmission dispute with CBS) will have a merger-specific negative impact upon the public interest beyond the classic antitrust concerns.

<sup>114</sup> See *id.* ¶ 61 (“These outcomes would also thwart the deployment of advanced telecommunications capability to all Americans by limiting choice in the realm of residential high-speed Internet access services and, potentially, by threatening the survival of ISPs unaffiliated with AOL Time Warner as consumers migrate from narrowband to high-speed services. These outcomes would likewise diminish the public’s ability to obtain information from diverse sources, as customers of the nation’s second largest cable operator (AOL Time Warner) would have little choice but to access the Internet through service providers affiliated with that entity. Furthermore, as we discuss below, discrimination by AOL Time Warner against unaffiliated ISPs in the market for residential high-speed Internet access services would facilitate



that if broadband facilities providers are not treated as common carriers, the Commission should expect gatekeeper abuses that frustrate the Act's goals.

With the third-party broadband ISP market relegated to a historical oddity (and the Commission totally unwilling to require or even encourage resale), the agency's analysis of this transaction must consider the prospect for any competitive entry that would mitigate the harms identified in this petition. That is, the Commission has to be realistic about the prospects for *significant* overbuilding (and must take care not to over-interpret the long-term and broader prospects for overbuilding based on Google's fiber experiments).

Consider the recent history. AT&T's re-entry into the last mile was not overbuilding its Baby Bells, but purchasing cable companies. The few overbuilding efforts that did occur were failures (*e.g.*, Americast and Tele-TV, the Baby Bells' initial efforts to enter the MVPD market); have struggled and stalled out (*e.g.*, RCN and its bankruptcy), or are confined to very small portions of the market with low likelihood of expansion (*e.g.*, Wide Open West, Google Fiber, and municipal broadband projects). In terms of the advanced broadband market, the ILECs are by far the best positioned to make the upgrade from ADSL to full FTTH. But this too is unlikely beyond what we've already seen. The Commission, in numerous actions such as the *Triennial Review Order* and the *Wireline Broadband Order*, has given ILECs every bit of deregulation they claimed they needed to fully deploy fiber; and Congress has created tax incentives to make fiber deployment more attractive. But as we've seen, the ILEC's investment decisions have always been based on market calculations, not regulatory ones. In the face of cable's substantial

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discrimination by that company in favor of its own broadband content, a result that could constrain consumers' access to the 'widest possible' array of information over high-speed technology. If, in contrast, AOL Time Warner were obligated to carry multiple, unaffiliated ISPs over its network on non-discriminatory terms, those ISPs could serve as an alternative outlet for non-AOL Time Warner content, making it more likely that AOL Time Warner's affiliated ISPs would feature such content themselves to remain competitive.") (internal citations omitted).

cost-advantages, and Wall Street's loathing of increased capital expenditures that have greater than a 5-year window for return on investment, the prospects are exceedingly low for further ILEC entry into the advanced broadband market beyond existing deployments.

**B. The Merger is Not in the Public Interest, as Comcast Could Achieve the Same Level of Growth For a Lower Cost by Expanding Its Existing Service Territory.**

The Commission's public interest merger standard goes beyond antitrust concerns alone because communications markets have two key features: 1) high barriers to entry, in 2) markets for essential infrastructures that carry our speech, transmit the discourse that informs our democracy, and transport the e-commerce that drives our 21st century economy. The Commission has such an important duty, extending beyond the DOJ's, precisely because of these barriers to entry and the essential nature of these facilities for those whose information is carried.

Lowering barriers to entry is in the public interest. It is a central theme of the Communications Act, as amended by the 1996 Telecom Act, and it is the purpose of Section 706 of that 1996 Act. The Commission should give careful consideration to how this transaction would impact entry barriers. In the face of the market realities that favor further deterioration in broadband competition, as the cable platform makes ADSL obsolete, what can the Commission do to spur competitive entry into this market?

It could start by properly reading the plain language of the Communications Act, and restoring common carriage by reclassifying broadband as the telecommunications service it is. That would change approach to the competitive and public interest analysis in mergers like this.

The Commission also could hope that its efforts to end unreasonable, state-imposed barriers to entry placed on local municipalities would lead to more competition. But while Free Press strongly condemns these anticompetitive restrictions on the rights of local communities to

self-provision essential infrastructure, the lack of widespread municipal entry in states where it is fully permitted suggests that barriers to entry remain high.

The Commission could cross its fingers and hope for the ILECs to deploy FTTH services fully (though the efficacy of local duopolies at disciplining gatekeeper abuses is no better than that of monopolies). But as mentioned above, even when government shuts down over the budget and the sequester, Congress has repeatedly agreed to grant and extend incentives to make capital investments with favorable bonus depreciation tax policies. Interest rates remain low too. Yet the ILECs still refuse to deploy FTTH in any comprehensive fashion. As this merger and others like it demonstrate, major ISPs have high credit ratings, substantial equity, and easy access to capital. And more than anything, they have a strong need to continue growing the bottom line. This is a capital environment that favors mergers and acquisitions.

So we must ask: what if Comcast could not grow in broadband through consolidation? It would have to look elsewhere for growth that could, and would, come in many forms. Comcast might accelerate its entry into the business markets, including deployment of Ethernet services that increase competition in special access. Comcast likely would investigate operating outside of its physical footprint as a virtual MVPD, increasing competition in the pay-TV market.<sup>115</sup> It also would have increased incentive to retain its existing customers and capture new market share by offering less expensive and more flexible pay-TV bundles. It might invest to expand its metro WiFi deployments, in turn expanding cellular data carrier ability to offload traffic, ultimately benefiting consumers and competition in the wireless market. And it would have increased incentives to offer faster, perhaps lower-priced broadband to retain and grow share.

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<sup>115</sup> Whatever its implications for possible discriminatory treatment of streaming video, Comcast's recent deployments of cable-over-WiFi to select colleges indicates that the company's entry into the virtual-MVPD market is not an impossibility. *See* Ramachandran, *supra* note 104.

The steps above are all likely public interest benefits that could arise if the Commission simply denied these applications. But perhaps most important to the discussion of market entry are the moves Comcast would make to grow in broadband if the Commission rejected this acquisition. If Comcast could not *buy* Time Warner cable in order to get bigger in broadband, it would get bigger by *building more broadband*. While the economics of overbuilding remain a substantial barrier to entry for a truly new entrant, an established incumbent like Comcast – with its existing size, cash flow, equity and access to capital – could easily replicate Google Fiber’s success outside of that incumbent’s existing cable footprint, and do so on a large scale.

As originally announced, Comcast’s takeover of Time Warner Cable came with a total price tag of nearly \$70 billion (\$45 billion in equity plus \$25 billion in debt). For that \$70 billion, Comcast could deploy gigabit fiber passing every single non-rural home in the U.S. and sign up far more customers than it would get from Time Warner Cable. The average cost to “pass” a home with gigabit fiber is about \$700. The subsequent cost to connect a subscriber is about \$800, and much less than that if the customer only signs up for Internet service. For example, Bernstein Research estimates that in Kansas City, Missouri, Google’s build cost \$500 per home passed, and in Kansas City, Kansas, \$674 per home passed. Bernstein estimated an additional \$794 per home connected (for homes taking TV and Internet) or an additional \$464 per home connected to just Internet access service.<sup>116</sup>

Based on this data, below in Figure 22 we model how far \$70 billion would get Comcast if it were to build gigabit fiber instead of buying Time Warner Cable. We show four scenarios: 1) Google Fiber’s cost in Kansas City, Mo.; 2) Google Fiber’s cost in Kansas City, Kan.; 3) Double Google Fiber’s average passing cost in the Kansas City metro area; and 4) Triple Google

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<sup>116</sup> See Ingrid Lunden, “Analyst: Google Will Spend \$84M Building Out KC’s Fiber Network To 149K Homes; \$11B If It Went Nationwide,” *TechCrunch*, Apr. 8, 2013.

Fiber’s average passing cost in the Kansas City metro area. For each scenario, we assume a 30 percent take rate (though Google’s take rate in Kansas City is reportedly far higher).<sup>117</sup>

**Figure 22:**

<b>Cost per Home Passed</b>	<b>Cost per Home Connected</b>	<b>Homes Passed</b>	<b>Homes Connected (Assume 30% of those Passed)</b>	<b>Total Cost</b>	<b>Notes</b>
\$500	\$800	94,000,000	28,200,000	\$69.6B	Google Fiber's Cost in Kansas City, MO
\$674	\$800	76,110,000	22,833,000	\$69.6B	Google Fiber's Cost in Kansas City, KS
\$1,128	\$800	50,860,000	15,258,000	\$69.4B	Double Google Fiber's Kansas City Metro Area Average Cost
\$1,692	\$800	36,010,000	10,803,000	\$69.7B	Triple Google Fiber's Kansas City Metro Area Average Cost

*Source: Free Press Research, based on estimates provided by Bernstein Research*

This analysis shows that even at triple the cost Google Fiber incurred in Kansas City, but for the same price that Comcast initially paid for Time Warner Cable, Comcast could cover more homes and sign up nearly as many broadband customers (more if the penetration were higher) as it would get from the merger.

Given this information, why then is Comcast choosing consolidation over investment? The answer is it’s easier. Wall Street’s short-term mindset has combined with lax antitrust enforcement to favor wasteful capital allocation. This trend of buying growth instead of building it is happening because there’s no meaningful competition in our communications markets. If the market’s invisible hand was doing its job, we’d see companies investing not in expensive buyouts but in better infrastructure to lure new customers.

This waste is a sign of market failure. It’s the exact kind of market failure that should set off alarm bells at the Commission. The purpose of the 1996 Telecom Act was to spur investment in robust, competitive and open networks that enable new industries and boost competition in

<sup>117</sup> See Phillip Dampier, “Uh Oh Time Warner Cable & AT&T: Google Fiber Winning 75% of Customers in Kansas City,” *Stop the Cap!*, May 6, 2014 (citing Bernstein Research analysis of Google’s performance in Kansas City).

existing ones. By now, we were supposed to see incumbents deploying outside of their home markets. But because the Commission and the DOJ let a decade of mega-mergers pass without much scrutiny, incumbents have no incentive to build out to compete against each other. Making matters worse we have also lost the competitive benefits of third-party ISP competition over those incumbent networks.

It's not too late to reverse these trends. The Commission can start by blocking Comcast's wasteful and anticompetitive merger with Time Warner Cable. Doing so would send the right message to it and the rest of the industry: If you want growth, you should build it, not buy it.

**C. Applicants' Claimed Public Interest Benefits Are Non-Merger Specific, Non-Cognizable, and Would Not Outweigh the Adverse Competitive Impact of This Transaction.**

Applicants essentially offer no merger specific benefits, other than the remote possibility that the resulting increase in scale will perhaps give the combined company greater negotiating clout with programmers, and *maybe* pay-TV rates won't continue to rise as quickly as they have. This is of course speculative at best. The market data suggests that continued rate increases are unsustainable, and so the rate of increase may decline even in the absence of the merger. Also, Comcast already enjoys the benefits of scale and volume discounts, yet there's no evidence its programming packages are priced significantly lower than other MSOs. In fact, these discounts appear to do nothing more than give Comcast higher margins on video than its peers. According to SNL Kagan, as of the end of 2012, Comcast's operating margin for its pay-TV service was 30.2 percent, compared to 20.8 percent for Time Warner Cable and 16 percent for Charter.<sup>118</sup> If Comcast is not currently passing along these savings, there's no reason to believe it would as it gains more scale and dominance in the bundled pay-TV/Internet market.

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<sup>118</sup> See "Cable MSO Margin Analysis by Product," *SNL Kagan*, Mar. 26, 2013.

This is the only possible merger-specific benefit, and it's obvious that it does not offset the harms from this merger.<sup>119</sup> Other supposed benefits such as expansion of Internet Essentials are non-merger specific, and non-cognizable. Time Warner Cable currently offers a \$14.99 entry-level Internet service, \$5 more than Internet Essentials and without all of the eligibility restrictions. In the absence of the merger, it is certainly possible that just as wireless companies eventually had to market products to lower income consumers as that market saturated, so too would Comcast as home broadband adoption becomes saturated. Comcast's willingness to abide by the *2010 Open Internet Order* is also an illusory benefit, since all of its ISP peers make the same sorts of claims about supporting openness. Furthermore, as evidenced by its imposition of access fees on Netflix and the Commission's slow response to the ongoing consumer harms from that situation, Comcast's ability to evade the spirit of the rules while consumers suffer makes this commitment totally meaningless.

Finally, there are no suggested benefits that speak to the issue of Comcast's poor customer service. And no amount of conditioning that could repair it, because it will only get worse as the company gets bigger. Indeed, Comcast's CEO last year indicated he believed his company's poor customer service reputation and performance is largely just a matter of the company's large size; the bigger it is, the more bad experiences people are going to have.<sup>120</sup> Thus, getting bigger isn't going to help. The chaos created by absorbing a company with 12 million customers, and the associated spin offs to SpinCo and swaps with Charter, are just going to create substantial customer service nightmares.

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<sup>119</sup> See *Horizontal Merger Guidelines*, § 10 ("The greater the potential adverse competitive effect of a merger, the greater must be the cognizable efficiencies, and the more they must be passed through to customers, for the Agencies to conclude that the merger will not have an anticompetitive effect in the relevant market.").

<sup>120</sup> See Tim Cushing, "Comcast CEO Thinks Its Customer Service Problem Is Mostly A Matter Of Scale," *Techdirt*, Dec. 5, 2013.

## **VI. Conclusion**

The merger would stifle competition and innovation. It would lead to significant consumer harms and would not serve the public interest. For the reasons described herein, Free Press respectfully submits that the Commission should deny the applications and grant all other relief as may be just and proper.

Respectfully submitted,

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S. Derek Turner  
Matthew F. Wood  
Free Press  
1025 Connecticut Avenue N.W., Suite 1110  
Washington, D.C. 20036  
202-265-1490

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