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REDACTED – FOR PUBLIC INSPECTION

March 18, 2015

By ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, DC 20554

Re: Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Authorizations, MB Docket No. 14-57

Dear Ms. Dortch:

Pursuant to the *Second Amended Modified Joint Protective Order*[1] ("*Modified Joint Protective Order*"), Netflix, Inc. ("Netflix") submits the attached redacted version of its Highly Confidential *ex parte* letter. Netflix has denoted with "{{ }}" symbols information that it has deemed Highly Confidential Information pursuant to the *Modified Joint Protective Order*. A Highly Confidential version of the letter has been filed with the Commission and will be made available pursuant to the terms of the *Modified Joint Protective Order*.

Please contact me with any questions.

Respectfully submitted,

Markham C. Erickson
Counsel for Netflix, Inc.

[1] Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Authorizations, MB Docket No. 14-57, *Second Amended Modified Joint Protective Order*, DA 14-1639 ¶ 14 (Nov. 12, 2014).

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Re: Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Authorizations, MB Docket No. 14-57

Dear Ms. Dortch,

Netflix, Inc. ("Netflix") submits this letter to express its continued opposition to the proposed transaction between Comcast Corporation ("Comcast") and Time Warner Cable, Inc. ("TWC"), and to respond to the assertion made by Comcast's economist, Dr. Dennis W. Carlton, that Comcast lacks an incentive to foreclose its own subscribers' access to online video distributors ("OVDs").

Specifically, Dr. Carlton has claimed that Comcast lacks an incentive to foreclose OVDs because it would gain nothing from doing so. Dr. Carlton's view is that if Comcast already had market power over its subscribers (which he contests) it "would not [as a result of the transaction] obtain access to any customers over whom it does not already have 'market power'" by foreclosing OVDs.[1] Dr. Carlton further posits that, even if OVDs and Comcast are competing for customers, Comcast has no incentive to foreclose OVDs because it can "reach a mutually beneficial vertical

[1] Declaration of Dennis W. Carlton, MB Docket No. 14-57, ¶ 11 (Sept. 23, 2014) (attached as Exhibit 3 to Comcast Corp. and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, MB Docket No. 14-57 (Sept. 23, 2014)) ("Carlton Declaration"); *see also* Transcript of Economic Analysis Workshop, Federal Communications Commission, Proposed Comcast-Time Warner Cable-Charter Transaction, MB Docket No. 14-57, at 170:8-172:21 (Jan. 30, 2015) ("Transcript of Economic Analysis Workshop").

arrangement" with those OVDs "in a way that makes both better off."[2] In essence, Dr. Carlton claims that rather than foreclose an OVD if the OVD is harming Comcast's video business, Comcast simply can charge the OVD and recoup revenue otherwise lost to cord cutting or cord shaving. Dr. David S. Evans explains in the attached economic report that Dr. Carlton is wrong on the economics and the facts.[3]

Foreclosure Prevents the Erosion of Comcast's Market Power. Dr. Carlton has posited a theory that Comcast would have no incentive to foreclose OVDs because it would obtain no new market power from the foreclosure. That theory implicitly relies on certain assumptions that simply do not hold today: (1) that Comcast does not fear its market power eroded by OVDs; and (2) that Comcast cannot engage in price discrimination that would be undercut by the reduced demand for MVPD services caused by the expansion of OVDs.

OVDs threaten Comcast's market power in two respects.

First, OVD substitution of traditional Comcast services is both real and recognized by Comcast itself as potentially undermining its position in the market. As Dr. Evans explains, "Comcast currently has very secure market power over providing broadband access to households in its local area."[4] But entry by OVDs may allow "broadband entrants to avoid both the effort of licensing bundles of programming and the cost disadvantage of doing so at small-scale, thereby enabling them to enter as broadband-only or broadband-almost-only suppliers."[5] As a consequence, "the success of OVD alternatives would cause Comcast to face the long-run risk that it would lose not only its MVPD monopoly, but its ISP monopoly as well."[6]

Second, Comcast routinely engages in "highly refined price discrimination by offering variable bundles of broadband and programming services," allowing Comcast to "extract more surplus from the households over which it holds monopoly power in access."[7] The potential substitutability of OVD services for Comcast's video services "take that price discrimination tool away from Comcast, and thereby limit its ability to extract monopoly profits from households

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[2] Carlton Decl. ¶ 12 (asserting "the [ISP] and the edge provider have an incentive to negotiate terms that split the surplus that their interaction generates in a way that makes both better off"); *see also* Transcript of Economic Analysis Workshop, at 168:2-169:1.

[3] Appendix 1, White Paper: Contrary to Professor Carlton's Theory, Comcast Has a Strong Incentive to Engage in Vertical Foreclosure ("Evans Vertical Paper").

[4] *Id.* at 4.

[5] *Id.*

[6] *Id.*

[7] *Id.*

through price discrimination" and threaten Comcast's appeal "to a whole generation of 'cord-cutting' consumers who are not signing up for cable at all but are instead consuming video content from OVDs and other edge providers."[8]

Comcast and OVDs Are Unlikely to Find Enough Profits to Split. Dr. Carlton also has theorized that Comcast lacks an incentive to foreclose OVDs because it could reach a mutually beneficial agreement to split the profits with them.[9] That theory is unsubstantiated and relies upon the fortuitous assumption that a given OVD makes more margin than does Comcast on its video services. Dr. Evans explains that "there is no obvious reason why that must be so, and Professor Carlton offers no evidence that it is so. If it is not, Comcast's best strategy is to foreclose, effectively, rather than accommodate . . . ."[10]

Comcast Itself Fears OVDs as a Threat to Its Underlying Business. In any event, Dr. Carlton's theory also cannot overcome the wealth of evidence from Comcast's own internal documents that show that it sees OVDs as a threat to its video business. As Dr. Evans explains, {{

}}[11]

That fear is reflected in numerous documents submitted by Comcast, in which executives repeatedly raise concerns regarding any potential accommodation of Netflix or other OVDs.[12] For example:

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[8] *Id.* at 4-5.

[9] *See* Transcript of Economic Analysis Workshop at 169:2-10 ("So what happens when you look at incentives to foreclose is [that] . . . [Comcast] ha[s] the economic incentive to [reach a deal with OVDs through a contract.]").

[10] Evans Vertical Paper at 9. Indeed, there may be reason to believe that Comcast itself doubts the facts assumed by Dr. Carlton. *See* Comcast Corp., Responses to the Commission's Information and Data Request, MB Docket No. 14-57 (Oct. 14, 2014) ("Comcast Supplemental Responses to Commission"), {{

}}.

[11] Evans Vertical Paper at 12-15, *citing* Comcast Supplemental Responses to Commission, {{

}}.

[12] *See* Evans Vertical Paper at 16-17 (providing more examples).

- {{ }}[13]
- {{ }}[14]
- {{ }}[15]

In the end, however, the fear is neatly summarized in an email from {{ }}[16]

Put simply, if Dr. Carlton's theory is correct, the merged entity would have a powerful incentive either to force OVDs to pay for access to customers or to foreclose them. Neither outcome in keeping with Comcast's overarching public claim that it has no incentive to harm OVDs, and neither is in the public interest. Either way, the merged entity would present a clear and present danger to the public interest.

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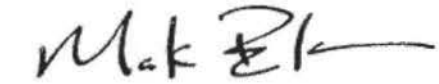
[13] Comcast Corp., Responses to the Commission's Information and Data Requests, MB Docket No. 14-57 (Sept. 16, 2014) ("Comcast Responses to Commission"), {{ }}.

[14] Comcast Supplemental Responses to Commission, {{ }}.

[15] Comcast Supplemental Responses to Commission, {{ }}; *see also id.*, {{ }}.

[16] *Id.*, {{ }}.

Sincerely,



Markham C. Erickson
Counsel for Netflix, Inc.

REDACTED—FOR PUBLIC INSPECTION

Contrary to Professor Carlton's Theory, Comcast Has a Strong Incentive to Engage in Vertical Foreclosure

By

David S. Evans*

March 18, 2015

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*Chairman, Global Economics Group; Lecturer, University of Chicago Law School; Executive Director, Jevons Institute for Competition Law and Economics, and Visiting Professor, University College London. This paper responds to a request made by the FCC at the FCC's Economic Analysis Workshop to provide comments on Professor Carlton's vertical foreclosure theory.

Professor Carlton says that economic theory demonstrates that Comcast would profit more by embracing OVDs as complements than by engaging in vertical foreclosure strategies. Meanwhile Comcast's documents are replete with statements by its senior management that OVDs are a serious threat to its business and with proposals for protecting its MVPD revenue streams. Comcast's actions also speak otherwise as the company has taken steps to limit competition by OVDs and treats them as competitors rather than complements. This paper explains why Professor Carlton is wrong, and Comcast is right, about the threat that OVDs pose.

I. SUMMARY OF PROFESSOR CARLTON'S "NO VERTICAL FORECLOSURE" THEORY

Professor Carlton has two related claims that are based on the Chicago single-monopoly profit theorem.[1]

First, he says that Comcast would have no incentive to engage in vertical foreclosure unless it "would acquire market power over consumers with whom it does not currently deal or have market power over." He says that, "even if Comcast were to destroy Netflix (and all other OVDs), Comcast would not benefit [because] it would not obtain access to any customers over whom it does not already have 'market power'… and, therefore, gain no additional power to harm consumers above what it already had absent the foreclosure."[2]

Second, he says that if OVDs and Comcast are competing for customers, Comcast "has an incentive to reach a mutually beneficial vertical arrangement."[3] He goes on to say, "Thus, the Internet service provider (ISP) and the edge provider have an incentive to negotiate terms to split the surplus that their interaction generates in a way that makes both better off. When ISPs and

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[1] Professor Carlton cites Rey and Tirole (2007) for a summary of the Chicago single-monopoly profit theorem. Declaration of Dennis W. Carlton, September 22, 2014 ("Carlton Declaration"), ¶ 12, citing Patrick Rey and Jean Tirole (2007), "A Primer on Foreclosure," in Mark Armstrong and Robert Porter (eds.), *Handbook of Industrial Organization*, Vol. 3, North Holland, pp. 2145-2220 ("Rey and Tirole (2007)"), at p. 2182. After summarizing the Chicago single-monopoly profit theorem Rey and Tirole go on to discuss the literature that shows specific situations in which a monopolist in one market would have incentives to engage in foreclosure strategies with regard to an entrant in another market. In particular they summarize the literature that shows that a monopolist may engage in foreclosure in an adjacent market to deter entry into its monopoly market. Rey and Tirole (2007), at pp. 2182-2194. *See also* Rey and Tirole (2007), at 2155-2182.

[2] Declaration of Dennis Carlton, September 22, 2-14 ("Carlton Declaration"), ¶ 11. *See also* Dennis Carlton, FCC Economic Analysis Workshop, January 30, 2015, Transcript ("Workshop Transcript"), pp. 168-172.

[3] Carlton Declaration, ¶ 11.

OVDs negotiate directly and flexibly, such flexibility removes any pricing-related constraints that might otherwise inhibit the ability to negotiate a mutually beneficial outcome."[4]

He gives an example of such an arrangement:

> Suppose a consumer who pays $5 to Comcast for video on demand (VOD) services considers switching to Netflix instead of consuming those VOD services (a form of 'cord-shaving'). In such an instance, Comcast could charge Netflix $5 for the switch if Comcast is the monopoly supplier to Netflix, as Commenters allege, and therefore has no incentive to destroy Netflix to prevent the switch.[5]

These theoretical assertions are all based on numerous assumptions about the products and markets in question. Professor Carlton does not identify, much less verify, that these assumptions hold in this particular matter. I discuss these assumptions further below and show it is unlikely that they are satisfied here, given the facts concerning Comcast's MVPD and ISP businesses and the development of the OVD industry. Then I document that the senior management of Comcast, after apparently considering the risks posed by OVDs carefully, disagrees with Professor Carlton's reasoning.

II. PROFESSOR CARLTON'S VIEW THAT "ACCESS TO CUSTOMERS OVER WHICH COMCAST DOES NOT HOLD MARKET POWER" IS A NECESSARY CONDITION FOR VERTICAL FORECLOSURE IS WRONG

Professor Carlton's claim that "access to customers over which Comcast does not hold market power" is a necessary condition for vertical foreclosure is based on the Chicago single-monopoly profit theorem. Briefly, this is the theorem. Suppose product A must be purchased in order to buy product B, suppose everyone who buys A also buys B, and suppose a company is the monopoly seller of product A to some set of customers. That company can extract all of the monopoly profit from them by charging the monopoly price for product A. It cannot do better than that by monopolizing product B, assuming it must charge a single price for A and not engage in price discrimination. It could do better under these assumptions only if it could figure out a way to extend that monopoly power over a new set of customers. This conclusion only holds, necessarily,

[4] Carlton Declaration, ¶ 11 n.21. *See also* Dennis Carlton, Workshop Transcript, pp. 168-169.

[5] Carlton Declaration, footnote 21.

in a static market and in which the two products at issue are sold in fixed proportions or in which other specific assumptions are true.[6]

Professor Carlton's theoretical claim is not necessarily correct, however, in a dynamic market in which competition threatens to erode a company's monopoly power. In that situation, the monopoly could have an incentive to use its monopoly power to prevent that competition from reducing its monopoly power over some or all of its customers. As Rey and Tirole note,

> [E]ven when the two goods are complements, entry in the adjacent market B may facilitate entry in the monopolized market A. Then, the incumbent monopolist M may be tempted to deter entry in the adjacent market in order to help prevent entry in its core market.[7]

That is the situation Comcast is in. Comcast currently has very secure market power over providing broadband access to households in its local area and its documents discussed below show that it shares that view. The development of OVD alternatives, however, and the resulting widespread availability of video programming on the Internet, may in the long run enable potential broadband entrants to avoid both the effort of licensing bundles of programming and the cost disadvantage of doing so at small-scale, thereby enabling them to enter as broadband-only or broadband-almost-only suppliers.[8] Therefore, the success of OVD alternatives would cause Comcast to face the long-run risk that it would lose not only its MVPD monopoly, but its ISP monopoly as well.

Professor Carlton's theoretical claim is also not necessarily true in static markets when the two goods are consumed in variable rather than fixed proportions, or the company engages in price discrimination, which is the case here. In fact, Comcast engages in highly refined price discrimination by offering variable bundles of broadband and programming services. It uses programming services to extract more surplus from the households over which it holds monopoly power in access.[9] The threat is that OVDs would displace linear programming, take that price

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[6] Alden F. Abbott and Joshua D. Wright (2010), "Antitrust Analysis of Tying Arrangements and Exclusive Dealing," in Keith N. Hylton (ed.), *Antitrust Law and Economics*, Edward Elgar, pp. 183-212, at pp. 187-188, 195; Rey and Tirole (2007), at pp. 2155-2158; Michael H. Riordan (2008), "Competitive Effects of Vertical Integration," in Paolo Buccirossi (ed.) *Handbook of Antitrust Economics*, MIT Press, pp. 145-182, at pp. 148-151.

[7] Rey and Tirole (2007), at p. 2183.

[8] Declaration of David S. Evans, December 23, 2014 ("Evans Declaration II"), ¶¶ 193-197.

[9] Evans Declaration II, ¶ 177.

discrimination tool away from Comcast, and thereby limit its ability to extract monopoly profits from households through price discrimination.[10]

OVDs also threaten to prevent Comcast from extending its market power to a whole generation of "cord-cutting" consumers who are not signing up for cable at all but are instead consuming video content from OVDs and other edge providers.[11] That decline in demand over time would reduce the ability of Comcast to use its linear programming and video-on-demand service bundles to engage in price discrimination. Comcast could conclude that foreclosure is a superior strategy to accommodation even if there were a low probability that the development of OVDs would reduce its significant market power in broadband. If giving OVDs access did reduce Comcast's broadband market power, there would not even be the single monopoly profit assumed by the theorem.

Finally, Professor Carlton's theoretical claim is based on the assumption that the monopolist could, in practice, continue to extract its full monopoly profit following entry into the provision of the complementary product. To the extent that OVDs reduce demand for MVPD services, Comcast could respond in two basic ways neither of which would likely enable Comcast to recoup its lost profits.

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[10] Of course, Comcast could try to recover these lost profits from the OVD, but that is not plausible either as I address in the next section.

[11] Evans Declaration II, ¶¶ 162, 171. In the last few months, a number of firms have announced new plans to launch stand-alone OTT video services, which will make cord-cutting and cord-shaving even more attractive. These new offerings include HBO Go (announced October 15, 2014), CBS All Access (announced October 16, 2014), PlayStation Vue (announced November 13, 2014), and Sling TV (announced January 5, 2015). Time Warner, "HBO Chairman and CEO Richard Plepler Announces HBO to Offer a Stand-Alone HBO Streaming Service in 2015," October 15, 2014, available at http://www.timewarner.com/newsroom/press-releases/2014/10/15/hbo-chairman-and-ceo-richard-plepler-announces-hbo-to-offer-a; Cynthia Littleton, "HBO to Launch Standalone Over-the-Top Service in U.S. Next Year," Variety, October 15, 2014, available at http://variety.com/2014/tv/news/hbo-to-launch-over-the-top-service-in-u-s-next-year-1201330592/; CBS Corporation, "CBS Bring Programming Direct to Consumers with New Multi-Platform Digital Subscription Service," October 16, 2014, available at http://www.cbscorporation.com/news-article.php?id=1096; Sony, "Sony Network Entertainment International LLC (SNEI) and Sony Computer Entertainment Inc. (SCE) Today Unveiled Playstation Vue, a Pioneering New Cloud-Based TV Service that Reinvents the Television Experience," November 13, 2014, available at http://www.sony.com/SCA/company-news/press-releases/sony-corporation-of-america/2014/sony-network-entertainment-international-and-sony-.shtml; GigaOm, "A Sneak Peak at Sony's Playstation Vue Internet TV Service," January 28, 2015, available at https://gigaom.com/2015/01/28/a-sneak-peek-at-sonys-playstation-vue-internet-tv-service/; DISH, "Sling TV to Launch Live, Over-the-Top Service for $20 Per Month," January 5, 2015, available at http://about.dish.com/press-release/products-and-services/sling-tv-launch-live-over-top-service-20-month-watch-tvs-tablets.

(1) Since the OVDs are complementary to broadband, it could raise the prices to its broadband customers. As I have discussed previously, that strategy encounters three problems. One is that Comcast may not be able to make as much profit, given its loss of programming as a metering device for engaging in price discrimination. Another is that this response would result in a massive, nationwide increase in the prices for all of Comcast's broadband products and thus invite regulatory scrutiny.[12] And finally, a significant increase in broadband prices and the widespread availability of OVD video programming would increase the likelihood of broadband-only entry by competitors.

(2) Alternatively, Comcast could attempt to charge OVDs directly. That is the solution that Professor Carlton posits.[13] He says that Comcast will be able to enter into a mutually beneficial contract with the OVDs that would enable it to make at least as much profit as it made as an MVPD. I turn next to Professor Carlton's analysis of this alternative.

III. PROFESSOR CARLTON'S "CONTRACT BETWEEN COMCAST AND OVDS IS BETTER THAN FORECLOSURE" CLAIM

As noted above Professor Carlton's observed, by way of example, that "Comcast could charge Netflix $5" in order to recover its lost revenue of $5.[14] That could be true only under very particular conditions that are not present here.

A. Professor Carlton's No-Vertical Foreclosure Contract Works Only Under Certain Conditions That Are Not Likely to Hold Here

Let me start with a more fully developed example than the one Professor Carlton has provided to show a situation in which he could be exactly right. In my example there is a consumer, Jake, a Comcast linear programming channel called Channel 77, and an OVD that I will call Zebra. Obviously, this example, like Professor Carlton's, abstracts from a number of real-world details. Table 1 summarizes the financial details discussed below.

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[12] Evans Declaration II, ¶ 178.

[13] Professor Carlton must assume for his analysis that applicable laws and regulations do not prevent Comcast from entering into the sorts of contracts he envisions or that Comcast can identify other ways to charge OVDs that recover its profits but do not violate the letter of those laws or regulations. In the discussion below I assume this is the case as well.

[14] Carlton Declaration, footnote 21.

Table 1: Situation in Which Comcast Can Find a Deal under Which Accommodating OVD Entry is Superior to Foreclosure

	Consumer value and price charged	Demand by consumer (1 indicates yes, 0 no)	Cost	Access Fee Received (Paid)	Profit Margin From Consumer
Before Entry					
Comcast Channel 77	$10	1	$3	NA	$7
Entry with No Access Fee					
Comcast Channel 77	$10	0	$3	$0	$0
Zebra	$12	1	$3	$0	$9
Entry with Access Fee*					
Comcast Channel 77	$10	0	$3	$8	$8
Zebra	$12	1	$3	($8)	$1

*In this case Comcast receives $8 in access fee revenue and Zebra pays $8 in access fee revenue denoted by ($8) to reflect the fact that it is a negative contribution to its margin. Comcast receives only this access fee revenue, and incurs no cost, since Jake does not take Channel 77.

In the initial situation, with no OVD competition, Jake watches Comcast's Channel 77. Comcast charges Jake an extra $10 to obtain Channel 77. It costs Comcast $3 to supply Channel 77 to Jake. Comcast makes a margin of $7 off of Jake. This is shown in the "Before Entry" part of Table 1.

An OVD, Zebra, appears. Zebra has content that that Jake prefers over Channel 77, and he would watch Zebra rather than Channel 77 if both were available. If Zebra had access to Jake, it should be able to charge Jake more than $10, say $12, because Zebra is superior to Channel 77. Suppose Zebra also incurs a cost of $3 to supply its content. It would make a margin of $9 in the absence of any access charge by Comcast. This is shown in the "Entry with No Access Fee" part of Table 1.

If Comcast allowed Zebra to reach Jake and did not impose any access charge, Jake would sign up for Zebra at $12 and drop Channel 77 at $10. Comcast would lose margin of $7.

Alternatively, if Comcast did not allow Zebra to reach Jake, it would retain its margin of $7. In that case Comcast would have engaged in vertical foreclosure.

Professor Carlton says, however, that Comcast would not engage in vertical foreclosure because Comcast could make more money by entering into a contract with Zebra. Comcast, for example, could reach an agreement with Zebra under which Zebra pays an access charge of $8. In that case Zebra would make $1 ($12-$8-$3). This is shown in the "Entry with Access Fee" section of Table 1.

Under this contract, Zebra earns $1 of margin, which is better than nothing, Comcast earns $8 of margin, which is $1 better than the $7 it had before, and Jake has a better programming package. Under this particular contract Comcast and Zebra are splitting the additional surplus of $2 ($12-$10) created by Zebra at that $12 price. That is the scenario that Professor Carlton envisions in which Comcast and an OVD enter into a mutually advantageous contract and split the surplus created by innovative entry. But as I discuss below, that scenario differs in critical ways from the facts of the current case.

B. The Conditions Under Which Professor Carlton's No Vertical Foreclosure Contract Works Are Quite Special and Foreclosure Is the More Likely Strategy

The result above that Comcast can do a deal under which it fully recovers its lost profits is quite fortuitous. In fact, contrary to Professor Carlton, Comcast is better off effectively denying Zebra access whenever Zebra's margin is less than Comcast's margin of $7.

Suppose, for instance, that Zebra was able to charge Jake $11 and Zebra's cost was $5. Then its margin would be $6. Even if Zebra handed over its entire margin, Comcast would be $1 short—it would lose $7 from Jake when he drops Channel 77 and gain only $6 from Zebra. To put it another way, the access fee that Comcast would need to charge to just recover its lost profits ($7) would leave Zebra with a negative margin of $1 as shown in the "No Entry with Access Fee" part of Table 2, below. Comcast cannot enter into a mutually advantageous deal with Zebra. Comcast concludes that it is better to foreclose Zebra. It could do that by charging an access fee of more than $6, which Zebra cannot afford to pay, deny access all together rather than entering into a fruitless contract negotiation, or, if complete denial is infeasible, do what it can to impede access to minimize its loss of MVPD profits.

Table 2: Situation in Which Comcast Finds Foreclosing OVD Entry Is Superior to Accommodation

	Consumer value and price charged	Demand by consumer (1 indicates yes, 0 no)	Cost	Access Fee Received (Paid)	Profit Margin From Consumer
Before Entry					
Comcast Channel 77	$10	1	$3	NA	$7
Entry with No Access Fee					
Comcast Channel 77	$10	0	$3	$0	$0
Zebra	$11	1	$5	$0	$6
Foreclosure Through Access Fee*					
Comcast Channel 77	$10	0	$3	$7	$7
Zebra	$11	1	$5	($7)	($1)

*In this case Comcast would receive $7 in access fee revenue to just recoup its lost profits; that fee would result in Zebra losing $1. Zebra would therefore be foreclosed from profitably serving the subscriber in this example. Any "access" fee over $6 would lead to this same result

While it is possible that OVDs make more margin than Comcast, and it is possible that Comcast and OVDs could strike deals in which Comcast is better off, there is no obvious reason why that must be so, and Professor Carlton offers no evidence that it is so. If it is not, Comcast's best strategy is to foreclose, effectively, rather than accommodate in this simple class of examples.

One response to this conclusion might be that foreclosure of Zebra is the right outcome, from a social welfare standpoint, if its costs are really higher than Comcast's. Zebra generates less social surplus ($6 which is the difference between Jake's value of $11 and Zebra's cost of $5) than Comcast ($7 which is the difference between Jake's value of $10 and Comcast's cost of $3).[15]

[15] Note that for simplicity I have constructed the examples so that the provider sets a price equal to consumer surplus. One of the benefits consumers might get from access is more consumer surplus as a result of more competition between Comcast's MVPD and the OVDs.

There are many reasons, however, why Comcast may not really be more efficient than Zebra despite these figures. The markets involved here are not the static, perfectly competitive markets of textbooks and journals. Comcast's cost advantage could result from monopsony power over programmers, for instance, rather than superior efficiency. Zebra could also be a growing OVD that has not achieved all the benefits of scale, so its costs are higher now than they would be if it were allowed to grow. In a dynamic industry, it would in fact be hard to sort out during the entry and growth phase which firm would be more efficient in long-run equilibrium. Since Comcast has no way to know what Zebra's costs might become or how Zebra might become even more dangerous, it has no incentive to allow Zebra to survive, let alone to grow.

The example in which Comcast and Zebra do strike a deal in this hypothetical example, however, raises further issues. Comcast always has the option of denying access. It therefore needs to get at least its lost margin to do a deal. That necessarily means that the only deal it will offer the OVD will be one in which the OVD gives up an amount that is equal to Comcast's lost profits. The OVD would have to make twice the margin of Comcast, in the absence of an access fee, to end up with a margin as good as Comcast after the access fee. The likely decimation of OVDs' margins under Professor Carlton's fortuitous contract would reduce investment and entry by OVDs. And while that may not result in full foreclosure, even this case could result in slowing and restricting the growth of the OVD industry.

More importantly, these examples only consider Comcast's lost profits from its MVPD business. They do not account for the risk of losing profits from its ISP business and thus the entirety of its market power as a result of entry into broadband. Even a modest probability of this happening would make some degree of foreclosure of OVDs a more profitable strategy, in terms of expected value, than accommodation through the contracts Profession Carlton envisions. For example, if Comcast could charge an access fee that only recovered its lost MVPD profits, any probability that OVD entry would eliminate its broadband profits would push it from accommodation, through charging an access fee, to foreclosure.

C. Comcast's Incentives to Engage in Vertical Foreclosure in the Real World

In the real world, neither OVDs nor Comcast make business decisions based on simple margins. OVDs have to make fixed-cost investments and, for companies that follow Netflix's

model, these fixed costs constitute a large fraction of overall costs. The OVD industry is also a relatively new industry and the growth of the industry is likely to result from significant new entry. Entrants in any market, particularly dynamic, fast-changing ones, face significant risks, and many do not ultimately succeed. Terminating access fees at levels that would compensate Comcast just for its lost MVPD profits (not taking into account the potential for lost ISP profits) would nevertheless deter OVDs from entering the industry or force them to adopt different business models that deliver less value to consumers.

Therefore, there is no basis for assuming that OVDs would be able to operate viable businesses that deliver value to consumers if they had to pay Comcast terminating access fees that compensated Comcast for the profits it would lose if they were successful. As noted above, the OVDs would have to have business models that in effect start with Comcast's profit levels, so that it can turn this sum over to Comcast, and then try to make a margin on top of that.

Comcast also faces significant uncertainty in setting the terminating access fee. It has to assess the expected loss of MVPD profits that would follow from allowing an OVD access to its subscribers. That is likely to depend on the nature of the OVD's programming and how it evolves over time. Comcast would eventually learn enough about the OVD business to make this determination. But during the entry and growth phase of the OVD industry, it can only guess. If it sets the fees too low, it could risk significant loss of profits. It is also possible once people make the decision to watch OVDs it is difficult to get them to come back and watch MVPDs.

I would expect that Comcast would build a significant risk premium into these (hypothetical) terminating access fees in light of this uncertainty, since it would be less costly to err by setting the fee too high than by setting it too low. And it is conceivable that it decides that foreclosure is the best strategy if the terminating access fees that would recover its lost profits inclusive of the risk premium would need to be so high as to make it unlikely that OVDs would enter into contracts anyway. The risk to its ISP business from OVD programming increasing the likelihood of broadband entry significantly exacerbates these concerns and further reduces the likelihood that Comcast would reach an accommodation with OVDs rather than foreclose them.

IV. WHAT COMCAST SAYS

If Professor Carlton's theory were true, Comcast should embrace OVDs because they are complements to its broadband product. By making broadband more valuable, Comcast should be able to make more money from its customers. Moreover, to the extent that OVDs substitute for its MVPD programming, Comcast should be able to charge OVDs an access fee that more than covers the lost profits. Overall, Professor Carlton argues, Comcast should be able to make greater profits by accommodating OVDs than by foreclosing them.

However, Comcast's documents are inconsistent with Professor Carlton's conclusion. They show that {{

}}[16] {{

}}.

A. Comcast Senior Executives View OVDs as the Most Serious Risk to Its MVPD, ISP, and NBCU Businesses

Comcast recently found that OVDs were {{ }} threats to the company after taking into account the benefits and costs of OVDs to Comcast's MVPD and ISP businesses. That conclusion is based on the {{

}}.[17] {{

}}[18]

[16] Comcast's senior management has done, in effect, what is called the "vertical arithmetic" in antitrust economics to balance the benefits and costs of foreclosure.

[17] {{ }}

[18] {{ }}

Figure 1: {{

}}

Figure 1, which is taken from {{ }}, summarizes their assessment of top risks {{ }}. The most serious risks are {{ }}. The risks are broken down into {{ }}. The two most serious risks—the one with the highest vulnerability and impact—are {{ }}. Both result from competition with OVDs.

The most serious risk to its ISP and MVPD business, and the second most serious risk to Comcast overall, is {{ }}. That corresponds to {{ }}. Included in this category are:

{{

}}[19]

{{

}}[20]

The {{ }} highlights the importance of these and other issues faced by the company and, in particular, the critical role of {{ }}.

{{

}}[21]

The risk assessment recognized that there could be mitigating factors. In particular Comcast noted that {{

}}[22] Comcast, however, {{

}}. In fact, the only mitigating factor it mentions concerning OVDs is {{

}}[23]

Comcast's {{ }} also viewed OVDs as posing the most significant risk to {{ }} and in fact the most serious risk to {{ }}. That risk is {{ }}. The {{ }} noted that, {{

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[19] {{ }}

[20] {{ }}

[21] {{ }}

[22] {{ }}

[23] {{ }}

}}[24] It gave {{ }} as examples. Comcast viewed this risk as significant because:

{{

}}[25]

B. Comcast Actions Show It Views OVDs as Threats Overall and Has Decided Not to Accommodate Them

Comcast has taken a number of actions that are consistent with its viewing OVDs as a threat and that it has chosen to compete with OVDs rather than accommodate them.

- It reduced the quality of service to its customers who wanted to watch Netflix between November 2013 and February 2014, as I have described previously. Smaller cable companies, which do not earn significant profits from their MVPD businesses, have not adopted similar strategies.
- It has refused to integrate Netflix's application onto its set top box, {{

  }}[26]

  Its documents reflect that this is a deliberate decision to dampen the competitive threat posed by Netflix: {{

[24] {{ }}

[25] {{ }}

[26] {{

}}

}}[27]

- It has started to impose data consumption caps on its subscribers, which includes metering of OVD traffic, while simultaneously not metering some of its own video services against data consumption limits.[28] Notably, by contrast, just two weeks before the merger was announced, {{

}}[29]

- Despite not offering an OTT video service outside of its footprint, {{

}} As one TWC document explained: {{

}}[30]

Comcast documents also contain various statements that indicate the executives view OVDs as {{ }}.

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[27] {{

}}

[28] *See* Timothy B. Lee, *Net Neutrality Concerns Raised About Comcast's Xbox On Demand Service*, Ars Technica, Mar. 26, 2012, http://arstechnica.com/tech-policy/2012/03/net-neutrality-concerns-raised-about-comcasts-xbox-on-demand-service/. {{

}}

[29] {{

}}

[30] {{

}}

- {{ }}[31]
- {{ }}[32] {{ }}
- {{ }}[33]
- {{ }}[34]
- {{ }}[35]

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[31] {{ }}

[32] {{ }}

[33] {{ }}

[34] {{ }}

[35] {{

V. PROFESSOR CARLTON'S CLAIM THAT COMCAST FACES SIGNIFICANT COMPETITION IN BROADBAND IS NOT VALID

Professor Carlton has argued that the {{ }} is consistent with Comcast lacking significant market power in broadband and therefore lacking the ability to engage in foreclosure strategies relying on its terminating access monopoly:

> Now, what's perfectly consistent with the board deck is that there's competition for broadband. They have no – very little market power in broadband. OVDS are going to come in and cable TV margins are going to disappear.... [T]hat's perfectly consistent with people in the company being worried about OVD if they're not a monopolist of broadband....[36]

Once again, the understanding of Comcast's senior management is not consistent with Professor Carlton's claims. In the {{ }} presentation, Comcast {{ }}. It concluded that there are {{ }}[37] {{ }}[38] {{ }}[39]

Comcast could not have concluded otherwise, given the evidence. Most consumers have only one alternative broadband provider; that provider is generally DSL, which consumers are moving away from; switching costs from Comcast are very high; and few people in fact drop Comcast.[40] The economic marketplace evidence does not leave much room for doubt that Comcast has significant market power—essentially a terminating access monopoly—over most of its

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}}

[36] Dennis Carlton, Workshop Transcript, pp. 188-189.

[37] {{ }}

[38] {{ }}

[39] {{ }}

[40] Evans Declaration I, ¶¶ 64-71; Evans Declaration II, at ¶¶ 85-88.

household subscribers, {{ }}. The merger will increase its market power over OVDs and increase both its incentive and ability to foreclose OVDs.[41]

* * *

Professor Carlton's theory that Comcast would enter into mutually beneficial contracts with OVDs is based on various unsupported assumptions that are inconsistent with the actual facts concerning Comcast and the competitive threat that OVDs pose to Comcast's MVPD and ISP profits, not to mention its NBCUniversal profits. Most importantly, Comcast has considered whether it makes sense to accommodate OVDs and has concluded that it is not in the company's interest to do so. It has taken a number of actions to make it harder for its subscribers to access OVDs and its executives have recommended against cooperation with OVDs.

[41] Evans Declaration II, ¶¶ 155-197.