VIDEO PROGRAMMING COSTS AND CABLE TV PRICES: A REPLY TO CRA

JEFFREY A. EISENACH AND KEVIN W. CAVES†

JUNE 2010

† Jeffrey A. Eisenach is Managing Director and Principal, Navigant Economics LLC, and Adjunct Professor, George Mason University Law School. Kevin W. Caves is Associate Director at Navigant Economics LLC. We are grateful to Andrew Card and Srikant Narasimhan for assistance on this project. Support was provided by The Walt Disney Company. The opinions expressed are our own.

Contents

<u>EXECUTIVE SUMMARY</u>

Time Warner Cable (TWC) has filed two reports by Charles River Associates (CRA) with the Federal Communications Commission. Both reports (the *June 1 Report* and the *June 3 Report*) try to demonstrate that programming costs in general, and/or retransmission consent fees in particular, are responsible for rising cable prices. Both reports fail in this objective.

<u>CRA fails to directly assert or demonstrate that retransmission consent fees in particular, or programming costs in general, are in any meaningful economic sense "too high."</u>

- The "basic economic framework" used by CRA in the *June 3 Report* to analyze bargaining between cable operators and broadcasters is – by CRA's own admission – limited to analyzing how revenues are divided between broadcasters and cable operators. It does not analyze consumer welfare effects, and cannot be used to demonstrate consumer harm.

- CRA's effort to show that broadcasters have the "upper hand" in retransmission consent negotiations fails completely. As Morgan Stanley recently concluded (in a report cited repeatedly by CRA) "<u>broadcasters are currently underpaid for their audience delivery</u>."

<u>CRA completely ignores the impact of increasing quality (e.g., number of channels) in its analysis of programming costs.</u>

- According to Nielsen, the number of channels received by the average household rose from 61.4 channels in 2000 to 96.4 channels in 2005, 104.2 channels in 2006, and over 118 channels in 2007.

- The National Cable Television Association has filed comments with the FCC pointing to "a huge increase in output in terms of the number of channels, the quality and quantity of programming, etc."

<u>CRA's effort to "control" for changes in the mix of services provided by cable operators is simply wrong from the perspective of economic theory and business reality.</u>

- CRA assumes that demand for video services is completely unrelated to demand for data and video services. Its client, TWC, explicitly rejects this assumption, reporting in its most recent 10-K that "bundled offerings increase its customers' satisfaction with TWC, increase customer retention and encourage subscription to additional features."

- Similarly, CRA assumes there are no economies of scope or scale in the provision of "triple-play" services – i.e., that it would cost no more to provide these services separately than for them to be provided by a single firm. These unrealistic assumptions doom its effort to show that programming costs account for a rising share of cable operators' costs and revenues.

The CRA Reports fail to contradict our earlier findings that the market for video programming is functioning efficiently and that government intervention would ultimately harm consumer welfare.

I. INTRODUCTION

1. Earlier this year, Navigant Economics prepared a report addressing the relationship between video programming costs and cable TV prices (the *Initial Report*),[1] which was submitted to the Federal Communications Commission (FCC or Commission) by The Walt Disney Company.[2] That report concluded,

> [P]rogramming costs are actually falling when compared with cable revenues, cable profits, and other elements of cable costs. Moreover, the competitive nature of the programming business suggests that programmers are not capable of charging higher-than-competitive license fees. Finally, while cable operators' total expenditures on programming have risen in recent years, they are the first to agree that they – and their customers – are getting their money's worth, in the form of more choices and higher program quality.[3]

2. On June 1, 2010, Time Warner Cable (TWC) submitted to the FCC a report prepared by the consulting firm of Charles River Associates (CRA), and authored by Steven C. Salop, Tasneem Chipty, Martino DeStefano, Serge X. Moresi, and John R. Woodbury (*June 1 Report*).[4] The *June 1 Report* challenges some of the conclusions of the *Initial Report*, claiming that its analysis is "fundamentally flawed for a number of reasons."[5] Two days later, TWC submitted yet another report by CRA, written by the same authors (*June 3 Report;* together, the *CRA Reports*),[6] which challenges some of the findings in the *Initial Report* as well as in our prior reports on these issues.[7]

---

[1] Jeffrey A. Eisenach, *Video Programming Costs and Cable TV Prices* (April 2010) (hereafter *Initial Report*).

[2] See Letter from Susan L. Fox to Marlene Dortch, *Ex Parte Presentation in MB Docket No.1 0-71, GN Docket 09-191, WC Docket 07-52* (April 23, 2010).

[3] *Initial Report* at 29.

[4] Steven C. Salop, Tasneem Chipty, Martino DeStefano, Serge X. Moresi, and John R. Woodbury, *Video Program Costs and Cable TV Prices: A Comment on the Analysis of Dr. Jeffrey Eisenach* (Charles River Associates, June 1, 2010).

[5] *CRA June 1 Report* at 1.

[6] See Steven C. Salop, Tasneem Chipty, Martino DeStefano, Serge X. Moresi, and John R. Woodbury, *Economic Analysis of Broadcasters' Brinkmanship and Bargaining Advantages in Retransmission Consent Negotiations* (Charles River Associates, June 3, 2010).

[7] See, e.g., Jeffrey A. Eisenach and Kevin W. Caves, *Retransmission Consent and Economic Welfare: A Reply to Compass Lexecon* (April 2010); and, Jeffrey A. Eisenach, *The Economics of Retransmission Consent* (May 2009).

3. The Walt Disney Company has asked us to review and assess the *CRA Reports*, focusing primarily on the *June 1 Report*. This report presents the results of our review. To summarize, we conclude:

- CRA does not demonstrate – indeed, it does not even directly assert – that cable operators are in any meaningful economic sense paying "too much" for programming. While the *June 3 Report* dedicates many pages to analyses of "relative bargaining strength," CRA provides no support for its assertion that increases in programming costs are economically "unjustified."

- CRA ignores or feigns ignorance of widely understood industry trends and economic realities. Most notably, it implies there is no basis for believing the quality and quantity of video programming purchased by cable operators has increased in recent years, despite the fact that virtually every observer, including the National Cable Television Association (NCTA), agrees on this point.

- CRA repeatedly resorts to "straw man" criticisms of the *Initial Report*. Its claim that the *Initial Report* "ignores the changes in product mix and other demand and supply conditions" in the cable business is especially remarkable, as it suggests that the authors either completely missed (or chose to "ignore") the section of the report titled "The Changing Market for Video Programming," which specifically addresses the supposedly "ignored" issues.

- The *June 1 Report* is simply wrong on the economics of multiproduct firms, both in general – that is, in terms of basic economic theory – and with respect to the economics of the cable TV business in particular. In attempting to allocate programming costs exclusively to video revenues, CRA violates the universally accepted economic result that any such allocation is inherently arbitrary. Moreover, the underlying assumptions of CRA's analysis – e.g., that there is no interdependence in the demand for video, voice and data services – are so violently at odds with reality as to completely invalidate its results.

4. In the end, the primary finding of the *CRA Reports*, taken together, is that if you divide the programming expenses of Time Warner Cable by its reported video revenues rather than by its total revenues, the ratio of one to the other rises slightly over the last five years, rather than declining slightly. What they do not and cannot explain is why this result is either economically significant or in any way relevant to public policy. It is neither.

5. The remainder of this report is organized as follows. Section II discusses the *CRA Reports'* failure to demonstrate that programming expenses in general, or retransmission consent fees in particular, are in any meaningful economic sense "too high," and why the remainder of CRA's findings are, as a result, *prima facie* irrelevant. Section III explains the significance of CRA's failure to acknowledge the increase in the quantity and quality of programming purchased by cable operators over the past several years. Section IV explains in detail why CRA's analysis of programming costs in the *June 1 Report* is at odds with the basic economics of multiproduct firms and, indeed, why the theory of multiproduct firms supports the conclusions of the *Initial Report*. Section V concludes.

II. CRA FAILS TO ESTABLISH A BASIS FOR GOVERNMENT INTERVENTION

6. Taken together, the *CRA Reports* fail to establish (or even directly assert) that prices for video programming in general, or broadcast retransmission in particular, are in any economically meaningful sense "too high."[8] Apparently unable to so much as advance a plausible theory on this score, they resort instead to colorful quotations from Hollywood movies,[9] psycho-babbling expressions of concern over alleged "viewer anxiety,"[10] and unsupported speculation about "defensive behavior" by consumers.[11]

---

[8] As discussed further below, the *June 3 Report* does assert that "higher fees…also harm consumers." (*June 3 Report* at 2.) This phrasing appears to be cleverly chosen. The casual reader might mistakenly conclude that the authors are alleging consumers are harmed by the retransmission consent regime overall. In fact, CRA's wording is carefully limited to the effect of higher fees *in isolation*, and does not extend to the overall effects of retransmission consent, which include (for example) increases in the quantity and quality of programming.

[9] See *June 3 Report* at 28, proffering dialogue between Sam Spade (played by Humphrey Bogart) and Kasper Gutman (played by Sydney Greenstreet) in *The Maltese Falcon* as evidence of the nature of "brinksmanship." We, too, appreciate John Huston movies, but cannot resist pointing out that CRA offers no support for the qualifications of Mssrs. Spade and Gutman (nor of Mssrs. Bogart and Greenstreet) as experts on the topic of retransmission consent negotiations.

[10] See *June 3 Report* at 2 ("These disputes often involve 'must-have' programming and, as such, generate substantial viewer uncertainty, anxiety and anger.") CRA's economic experts do not advance any economic models for how to value such disruptions to consumers' emotional states..

[11] The *June 3 Report* claims also that "Dr. Eisenach understates the frequency" of bargaining impasses in retransmission consent disputes, but then fails to proffer any evidence to support its claim. See *June 3 Report* at n. 12.

7. The *June 1 Report* makes no effort whatsoever to argue or allege that programming costs are in any economically meaningful sense "too high," but rather refers obliquely to "unjustified"[12] increases in programming costs, without providing any basis for distinguishing between a "justified" and an "unjustified" increase.

8. The *June 3 Report*, on the other hand, consists primarily of a lengthy treatise on bargaining and "brinksmanship," which tries unsuccessfully to demonstrate that broadcasters have the upper hand in negotiations over retransmission consent fees. The essential problem with this approach, however is that it fails to provide an economic basis for establishing consumer harm from the results of the negotiations. As the CRA authors explain, "In this paper, we describe some of the underlying economic factors that lead to the asymmetric harm *suffered by MVPDs*…."[13] Later, in explaining their "basic economic framework," they note (in a paragraph with which we, and the FCC, agree)[14] that bargaining theory demonstrates that both parties to retransmission consent negotiations have strong incentives to reach agreements,[15] and emphasize that bargaining models focus on "how *the fruits of the agreement would be divided up.*"[16] Thus, they explain,

> The [retransmission consent] fee then represents a mechanism for *transferring bargaining surplus* from the MVPD to the broadcaster. Thus, a higher RTC fee will *transfer* more of the surplus to the broadcaster.[17]

9. As these quotations suggest, and as we have explained at length previously,[18] bargaining models like those applied by CRA are about the *allocation* of the gains from trade

---

[12] See e.g., *June 1 Report* at 3.
[13] *June 3 Report* at 3.
[14] See, e.g., Eisenach (2009) at 22, citing Federal Communications Commission, *Retransmission Consent and Exclusivity Rules: Report to Congress Pursuant to Section 208 of the Satellite Home Viewer Extension and Reauthorization Act of 2004* (Sep. 8, 2005) at ¶44 ("[T]he retransmission consent process provides incentives for both parties to come to mutually beneficial arrangements") (internal quotation markets omitted).
[15] *June 3 Report* at 23, ¶42.
[16] *June 3 Report* at 24 (emphasis added).
[17] *June 3 Report* at 25-6 (emphasis added).

between the bargaining parties (broadcasters and MVPDs), not about the welfare consequences of the resulting prices. To be clear: *By its very nature, CRA's "basic economic framework" provides no basis for a finding of consumer harm from retransmission consent fees.*

10. CRA's efforts to paint MVPDs as victims in their negotiations with broadcasters are not only irrelevant to the question of consumer harm, they are also simply incorrect. As we have shown previously, broadcasters are in many ways at a disadvantage relative to MVPDs – a conclusion supported by, among other things, the fact that MVPDs were able to avoid paying cash compensation for roughly 20 years following Congress decision, in 1992, create retransmission consent.[19] Now that some broadcasters have been successful in negotiating some monetary compensation, MVPDs complain about having to pay, and analyst reports, such as a Morgan Stanley report cited repeatedly by CRA in the *June 3 Report*, note that "the addition of retransmission consent payments will accelerate cost growth in the near-term."[20]

11. The fact that retransmission consent fees are rising (from zero), however, does not mean they are in any sense too high.[21] In a previous report, we noted that the fees MVPDs pay for broadcast signals are quite small when compared with the viewership shares for which broadcast content is responsible.[22] The very same Morgan Stanley report upon which CRA stakes so much of its analysis reaches precisely the same conclusion:

---

[18] See Eisenach and Caves (2010) at 8-11.

[19] See, e.g., Eisenach 2009 at 11-22.

[20] *June 3 Report* at n. 34, citing Morgan Stanley, *Cable/Satellite Pricing, Programming, and Payout Keys to 2010* (January 26, 2010) (hereafter *Morgan Stanley Keys*).

[21] Indeed, a strong argument can be made that retransmission consent fees have been "too low" in the past as a result of the fact that MVPD's held a virtual monopoly on downstream distribution (and hence monopsony power in the market for broadcast programming), a monopoly which has only been broken in recent years by the entry of (first) Direct Broadcast Satellite (DBS) and, more recently, telephone companies. While it is easy to understand why cable companies' would bemoan the loss of their monopsony power, it is somewhat more difficult to sympathize with their complaints.

[22] See Eisenach and Caves (2010) at 13.

> As shown in Exhibit 15, *broadcasters are currently underpaid for their audience delivery* among ad Supported TV networks, earning on average 40-45% of the audience and 5% of TV subscription fees.[23]

12. Thus, while it is indisputably true that broadcasters have, in recent years, overcome cable operators' long-standing commitment not to make cash retransmission consent payments, this fact by itself does not establish that retransmission consent fees in particular, or programming costs in general, are in any economically meaningful sense "too high."[24]

III. CRA Ignores Significant Increases in the Quantity and Quality of Programming

13. CRA's contention that increasing expenditures by MVPDs on programming are harmful to consumers is belied by the fact that both the quantity and quality of programming is increasing.

14. Elementary economics teaches that a firm with market power can implement an anticompetitive price increase by restricting supply. Under this scenario, the market price increases, while the quantity sold decreases. But the market price of a good or service can also rise for reasons that have nothing to do with market power, such as an outward shift in demand. Under this scenario, elementary economics teaches that both the market price and the quantity sold increase. The same goes for product quality: An increase in the demand for high-quality output may cause both price and average quality to increase simultaneously. In neither case is there any basis for thinking the market has failed, that consumers have been harmed, or that government should intervene.

---

[23] See *Morgan Stanley Keys* at 11 (emphasis added).

[24] Another data point, ignored altogether by CRA, lies in Time Warner Cable's decision to spin-off from parent Time Warner, Inc., despite Time Warner Inc's ownership of major programming networks. As we have noted previously, this decision is a strong indication that TWC does not believe programmers have the ability to raise prices above market rates. See Eisenach and Caves (2010) at 26. See also Tasneem Chipty, "Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry," *American Economic Review* 91;3 (June 2001) 428-453 (noting that one theoretical rationale for vertical integration in the cable TV business would be the presence of upstream market power, in which case vertical integration would eliminate "double marginalization").

15. As CRA correctly observes, "Marginal cost increases would lead to higher prices and harm to subscribers, *unless the cost increases are accompanied by sufficient increases in quality*."[25] However, CRA then complains – incorrectly – that "Dr. Eisenach …does not provide any evidence about quality increases."[26]

16. First, while it is true that the *Initial Report* does not itself present reams of data on programming quality, it <u>does</u> present evidence on this score, in the form of a reference to, and a quotation from, a lengthy filing by the National Cable and Telecommunications Association (of which, at last check, TWC was a member). In that filing, as the *Initial Report* noted, NCTA documents what it describes as "a huge increase in output in terms of the number of channels, the quality and quantity of programming, etc."[27] As NCTA explained,

> Basic and HD cable program networks, in competing among themselves for viewers and carriage, were projected to invest over $20 billion in programming in 2008 and are projected to spend nearly $22 billion in 2009…. *The programmers' investment has resulted in a wide variety of diverse, high quality programming from original series and entertainment programming to more extensive news and information programming – which cable operators and their competitors purchase and provide in order to compete effectively for customers.*[28]

17. With respect to *quality*, the best measure may be that consumers continue to increase their consumption of television programming, as television viewing continues to be the

---

[25] *June 1 Report* at 8, n. 22 (emphasis added).

[26] *CRA Report* at 8, n.22.

[27] *See*, e.g., *In the Matter of Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, MB Docket No. 07-269, *Comments of the National Cable and Telecommunications Association* (May 20, 2009) at 24 (available at http://www.ncta.com/PublicationType/RegulatoryFiling/NCTA-Comments-05-20-09.aspx) (hereafter NCTA Report). The full quotation is as follows: "[Higher prices for cable service] hardly reflect a lack of competition. To the contrary, they reflect expenditures made because of increased competition. When a monopolist raises its prices to exploit a lack of competition, consumers buy less of the product – although the seller makes greater profits by selling fewer products at a higher price. That is the vice of monopoly: Output is reduced and consumers consume less of a product at the monopoly price than they would prefer to buy at the lower competitive price.

As programming efforts and expenditures by operators and program networks have increased, precisely the opposite has occurred. Competition has led to a huge increase in output in terms of the number of channels, the quality and quantity of programming, etc."

[28] NCTA Report at 19-20 [emphasis added].

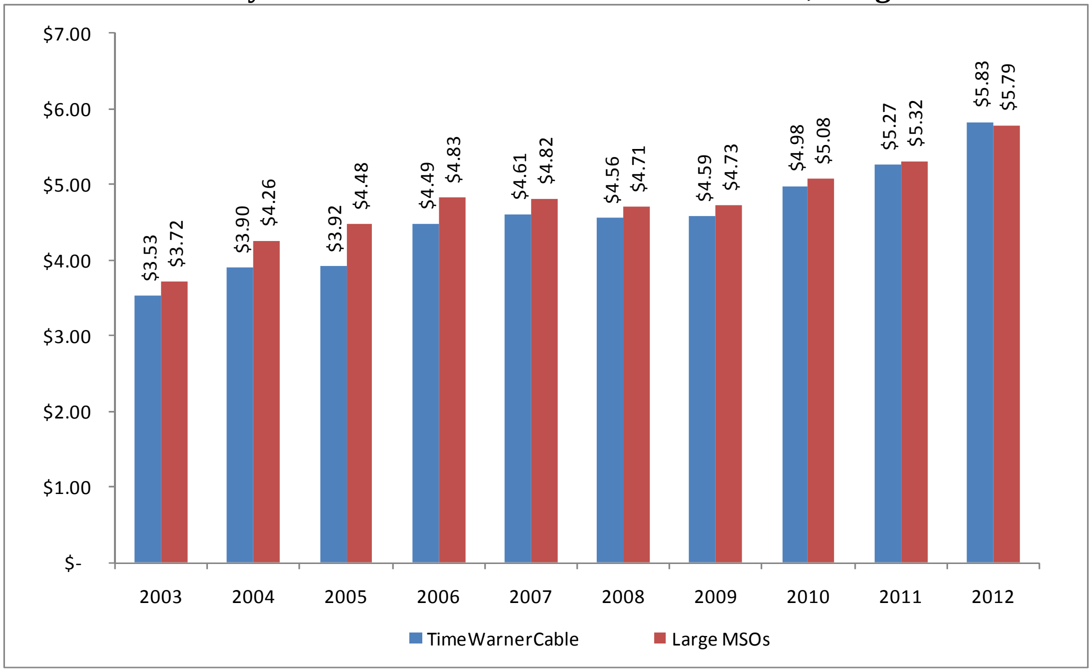
single most popular leisure activity in the United States. Despite the increasing popularity of the Internet and other alternative entertainment options, traditional television consumption continues to increase: According to Nielsen, Americans watched a record average of 151 hours of television per month in the first quarter of 2008,[29] and hit another record average of 158 hours and 25 minutes per month in the first quarter of 2010.[30]

18. Another indicator of programming quality – and one of particular interest to cable operators – is the value of advertising cable operators sell to local advertisers during so called "avails" (empty advertising slots) made available by programmers. As shown in Figure 1 below, SNL Kagan projects that the large MSOs' average monthly net advertising revenue per subscriber will increase by 56 percent (from $3.72 to $5.79) between 2003 and 2012, while TWC's revenues per subscriber will increase even faster, by 65 percent (from $3.53 to $5.83). These increasing advertising revenues are a direct measure of the increasing value of programming to cable operators.

---

[29] Sarah Barry James, "TV consumption rises to record highs," *SNL Financial* (February 23, 2009).
[30] Sarah Barry James, "The enduring allure of traditional TV viewing," *SNL Financial* (June 11, 2010).

Figure 1:
Net Monthly Ad Revenue Per Subscriber Per Month, Large MSOs



Source: "SNL Kagan: Advertising Forecasts-U.S. Market Trends and Data for All Major Media, 2008 Edition." Net Revenue Per Average Sub/Month, calculated as Net Ad Revenue Per Average Sub/12. Large MSOs include Cablevision Systems, Charter Communications, Comcast, Mediacom and TWC

19. With respect to the *quantity* of programming, the increasing quantity and variety of programming available to consumers is well documented. For example, the FCC reports that the average number of channels carried on the expanded basic tier rose by nearly 50 percent during the past decade, from 50.3 in 1998 to 72.6 in 2008.[31] According to Nielsen, the number of channels received by the average household rose from 61.4 channels in 2000 to 96.4 channels in 2005, 104.2 channels in 2006, and over 118 channels in 2007.[32]

---

[31] *In the Matter of Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992*, MB Docket No. 92-266, *Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment* (Released February 4, 2005) at 20 (hereafter *2005 Cable Price Report*) and *In the Matter of Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992*, MB Docket No. 92-266, *Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment* (Released January 16, 2009) at 27.

[32] "Average U.S. Home Now Receives a Record 104.2 TV Channels, According to Nielsen," PR Newswire, March 19, 2007; and, David Rolsen, "Nielsen: Record number of channels for average US home," SNL Kagan (June 9, 2008).

20. CRA cannot, by feigning ignorance, escape the implications of the significant increases in programming quantity and quality that have taken place in recent years, and which are flatly inconsistent with CRA's claims of consumer harm. As the cable operators themselves have proclaimed, when it comes to video programming, the evidence shows that consumers are getting their money's worth.

IV. CRA IGNORES THE ECONOMIC FUNDAMENTALS OF THE MULTI-PRODUCT FIRM

21. The *Initial Report* compares, MSO's programming costs to total revenues and total costs, and demonstrates that programming costs have decreased relative to both revenues and costs.[33] CRA claims that this analysis is invalid, because the Initial Report "ignores the changes in product mix" of cable MSOs in recent years.[34] CRA's criticism is not only invalid, but precisely incorrect. The *Initial Report* addresses the changing product mix of cable operators directly, extensively, and – unlike CRA – correctly.

22. Unlike the original cable operators, which used analog infrastructures to deliver a single product – multi-channel video service – today's MSOs utilize digital infrastructures to deliver three different primary categories of products: (1) Video; (2) data (i.e., cable modem broadband services); and, (3) voice telephone service (primarily using Voice Over Internet Protocol or "VoIP" technology).[35] From the perspective of the economics of the firm, the three services are interrelated in terms of both cost of production and demand. First, on the cost side,

---

[33] *Initial Report*, Section II.

[34] *June 1 Report* at 4. The *June 1 Report* attempts to dress this criticism up by throwing in a little "technical jargon," stating that the *Initial Report* "does not satisfy the economists' *ceteris paribus* principle" – an allegation it regards as so effective that it repeats the phrase 16 times in the course of just 22 pages (not counting once in the table of contents). While it is true that the phrase "*ceteris paribus*," meaning "other things equal," is often used in economics, CRA's criticism is otherwise misguided, primarily because, in the markets for video programming and distribution, "*ceteris* is not *paribus*": The transition of cable MSOs from single-product firms to multi-product firms (offering voice and data as well as video) fundamentally changes the economics of the market. CRA's misapplication of the *ceteris paribus* principle would have us ignore the implications of this fundamental change.

[35] Within each category there are multiple sub-categories of service, such as (for example) enhanced basic and premium video services.

MSOs experience economies of scope: It is cheaper to produce video, data and voice services (or any combination of two of the three) in a single firm than in separate firms.[36] Second, on the demand side, the products are related by complementarities in demand: That is, consumers value the ability to purchase multiple services from the same provider, and are more likely to purchase (say) cable modem service from a company that also offers (say) video service.

23. These two characteristics associated with the fact that MSOs are multiproduct firms – economies of scope and demand complementarities – are absolutely essential to the economics of the modern cable TV business. In particular, because changes in the product mix affect both costs and demand, the costs and revenues of video, data, and voice services must be analyzed jointly, taking into account their interdependence, rather than in isolation. Yet, both interdependencies are ignored – or assumed away – by CRA. The remainder of this section explains why CRA's failure to take these factors into account is economically incorrect and how, as a result, CRA's conclusions are both biased and indefensible.

A. CRA Ignores Demand Complementarities When "Controlling" for TWC's Shifting Revenue Mix

24. As explained in the *Initial Report*,

> MSOs have benefited from their ability to use video services to draw subscribers to other product offerings, such as wireline telephony and high-speed internet. MSOs are increasingly relying on bundles of services offered through their networks to increase average revenues per customer. By offering multiple services over the same network, cable operators can defray their fixed costs over a broader revenue base and boost profitability. Thus, bundling increases the value of video programming, because the potential for marketing wireline telephony and high-speed data increases the

[36] Note that economies of scope are in addition to, and conceptually separate from, economies of scale, which are also present in the production of these services. For an excellent discussion of economies of scope and scale, and the related concept of subadditivity, see W. Kip Viscusi, Joseph E. Harrington, Jr. and John M. Vernon, *Economics of Regulation and Antitrust* (MIT Press, 2005) at 404-8.

> expected profitability of attracting additional video subscribers to the network.[37]

25. This analysis is neither original nor controversial. Indeed, TWC's own public filings make it clear that bundled, multi-product offerings are key to its strategy for achieving profitability:

> TWC's marketing focuses both on acquiring new customers as well as retaining and selling additional services to existing customers. In both cases, offering attractive bundled services, particularly a triple play offering of video, high-speed data and voice services, is a key element of TWC's strategy. TWC offers bundled services to both its residential and commercial customers and, increasingly, these customers subscribe to two or three of TWC's primary services. *TWC believes that bundled offerings increase its customers' satisfaction with TWC, increase customer retention and encourage subscription to additional features*.[38]

26. In other words, data, voice, and video are economic complements services, such that bundled offerings "increase...customers' satisfaction" (as TWC observes), precisely because customers derive more value from complementary products when they are consumed together.

27. Despite this widely recognized fact, CRA specifically assumes that video, data and voice are "neither substitutes nor complements"[39] – an assumption which is essential to its effort to "control for" changes in TWC's product mix. Specifically, CRA computes what total revenues and total programming expenses would have been, assuming that the number of video, data, and voice customers was fixed at the 2007 level.[40] First, CRA computes TWC's per-subscriber revenues for video, voice, and data services in each of the years 2004 – 2009, as well

---

[37] *Initial Report* at 16.

[38] *Time Warner Cable Inc. Form 10-K, Annual Report, for the Period Ending 12/31/2009* at 5 [emphasis added].

[39] *June 1 Report* at 10 (note 29). This assumption is acknowledged in a footnote in a portion of the report dedicated to providing an "illustrative example." It is maintained, however, throughout the paper. Thus, even when CRA suggests it is analyzing "the real world," it is not.

[40] *June 1 Report* at 18. A hint as to the arbitrariness of this procedure is found in n. 41, where CRA explains that it uses 2007 "because it is the middle of the 2004-2009 period." Why the mid-point is superior to, say, the starting point, or the ending point, is not explained.

as video programming costs per subscriber, based on data from TWC's 10-Ks. Next, it computes "controlled" revenues in each year by multiplying the annual per-subscriber revenues for each product and each year by the actual number of subscribers in 2007.[41] Similarly, "controlled" programming costs are computed as the actual per-subscriber video programming costs in each year, multiplied by the actual number of subscribers in 2007.[42] Based on these figures, CRA computes the ratio of total "controlled" programming costs to total "controlled" revenues for the years 2004 – 2009. Whereas the ratio of actual programming costs to actual revenues fell over this five-year period, from 23.3 percent to 22.4 percent, CRA's constructed ratio of "controlled" programming costs to "controlled" revenues rises from 20.0 percent in 2004 to 24.3 percent in 2009.

28. CRA explains, correctly, that the essential difference between what happened in the real world and what happens in its "controlled" world is that, in the real world, "purchases of broadband and telephony services grew far more rapidly than purchases of video services."[43] What CRA does not explain, however, is that – because of complementarities in demand – the fact that the numbers of data and voice subscribers were growing <u>was and remains a direct function of the fact that cable operators were also providing quality video services</u>.

29. To be concrete, MSOs have incentives to pursue higher Average Revenues Per Unit (ARPUs) by selling data and voice services to their video customers. Because data and voice are such strong complements to video services, data and video subscribers typically also

[41] Thus, if per-subscriber revenues were equal to $30 for video, data, and voice services in the year 2004, and if there were 100 video subscribers, 50 data subscribers, and 25 voice subscribers in the year 2007, then CRA's "controlled" revenue estimate for 2004 would be equal to $30*100 + $30*50 + $30*25 = $5,250.

[42] *June 1 Report* at 18, note 42 ("We calculate total revenues in any year as the per-subscriber revenues for video (including advertising), broadband, and voice services times the number of subscribers to video, broadband, and voice in 2007, respectively. We calculate total programming expenses in any given year as the per-subscriber programming expense in that year times the number of video subscribers in 2007.")

[43] *June 1 Report* at 18. Indeed, this specific point was documented for both the industry as a whole and for TWC specifically in the Initial Report, which presented data on both points. See *Initial Report* 16-19, at Figures 8 and 9, and Table 1.

purchase video. Therefore, in order to increase demand for video (or, equivalently, to counteract potential declines in demand stemming from competitive video offerings), and *thereby also increase the demand for its high-speed data and voice offerings*, an MSO will rationally decide to make its video programming more attractive by increasing the quantity and quality of its programming relative to what it would be in the absence of such complementarities. This, of course, will tend to increase its programming costs. In this context, however, it makes no sense to analyze video in isolation from data and voice: The demand for video drives the demand for data and voice, and increased programming costs reflect the costs associated with boosting demand for *all three services*, relative to what they would be otherwise.

30. Conversely, and in the extreme, while it is true that cable operators could continue to provide data and telephone service without providing video, it is not true they would be *increasing* data and voice subscribership if they did so. (Indeed, telephone companies that do not offer video are seeing drop-offs in telephone subscribership and, in some cases, reductions in DSL subscribership as well.) Yet, under CRA's assumptions, if cable companies stopped offering video services tomorrow, they would continue to add data and voice customers at today's rates.[44]

B. CRA Ignores Economies of Scope When "Controlling" For TWC's Shifting Mix of Costs

31. CRA performs a similar analysis in which it claims to compute the "share of TWC's programming costs as a fraction of its overall costs,"[45] while controlling for the product

---

[44] Another problem with CRA's analysis lies in its use of accounting conventions for the allocation of revenues among products. As the Commission is well aware (e.g., in the context of calculating the proportion of cell phone revenues properly allocated to long distance services for universal service support purposes), bundled pricing confounds efforts to properly allocate revenues to specific services, resulting ultimately in arbitrary "rules of thumb." Such rules underlie the product-specific revenue figures that are the basis for CRA's calculations.

[45] *June 1 Report* at 19.

mix of TWC's costs over time.[46] Specifically, CRA computes what TWC's total costs and total programming expenses would have been, assuming that the number of video, data, and voice customers had remained fixed at their 2007 levels. First, CRA computes TWC's costs per subscriber for each of four categories for each of the years 2004 – 2009.[47] Next, it computes "controlled" overall costs in each year by multiplying reported per-subscriber costs in each of the four categories by the actual number of subscribers in 2007, and summing across the four categories.[48] Similarly, "controlled" programming costs are computed as the per-subscriber video programming costs in each year, multiplied by the actual number of subscribers in 2007.[49] CRA then computes TWC's "controlled" programming costs as a proportion of its "controlled" overall costs of revenue in each year. Whereas the ratio of actual programming costs to actual costs of revenues fell over this five-year period, from 49.5 percent to 46.7 percent, CRA's constructed ratio of "controlled" programming costs to "controlled" costs rises from 46.2 percent in 2004 to 48.6 percent in 2009.[50] Mathematically, CRA's "finding" of a (very modest) increase in the ratio of "controlled" video programming expenses to "controlled" overall costs is driven entirely by the fact that TWC's overall costs per customer decreased (marginally), relative to its video programming costs per subscriber.

32. At a more fundamental level, however, the flaws in CRA's "cost mix" analysis are similar to the flaws in the revenue mix analysis noted above. Video, data and voice services

---

[46] *June 1 Report* at 19-20, and at Figure 5.

[47] *June 1 Report* at 19-20. The four cost categories consist of video, broadband, voice, and "Other Costs." The "Other Cost" category consists of an aggregation of the following types of costs: employee, video franchise fees, and other direct operating costs.

[48] *June 1 Report* at 19 (note 46), and at Figure 5. For example, suppose there were 10 video subscribers, 5 broadband subscribers, and zero voice subscribers in 2007. In addition, suppose that all but one of the broadband subscribers also had video, which implies 11 customer relationships. If the cost per subscriber of video and data in 2009 were $10 each, and if "Other Costs" per customer relationship were $1 in 2009, then 2009 "controlled" overall costs would be: 10x$10 + 5x$10 +11x$1 = $161.

[49] *June 1 Report* at 20. Using the example above, "controlled" programming costs would be $10*10 = $100.

[50] *June 1 Report* at Figure 5.

experience economies of both scope and scale: This means that costs per customer vary with both (1) the scale of output; and (2) changes in the product mix. The greater the scale of operations, and the greater the scope of services the MSO provides, the more the MSO can defray the fixed costs of providing multiple services over the same network, all else equal. Because MSO cost structures are characterized by extremely high fixed costs and relatively low marginal costs, these efficiencies are very substantial. Moreover, the MSO can exploit additional cost efficiencies by selling multiple services to the same customer – i.e., bundled services – which implies that, all else equal, marginal costs will be lower when the proportion of customers purchasing bundles is higher.[51]

33. As noted above, TWC, like other MSOs, experienced major changes in scale, scope, and bundling during the time period analyzed by CRA.[52] Yet CRA's analysis simply disregards scale economies, scope economies, and bundling, by assuming that costs per customer remain fixed, regardless of changes in the product mix. Stated differently, CRA's entire analysis hinges on the unsupportable assumption that the observed decline in TWC's overall costs per subscriber, relative to its video programming costs per subscriber, is *completely independent* of the dramatic shifts that have occurred in the number of data and voice subscribers, as well as the proportion of triple play subscribers.[53] Finally, CRA's method ignores the effects of economies

[51] For example, if a single customer purchases a triple-play bundle, a cable technician can install video, data and voice service a single trip; that same customer can be invoiced for all three services with a single bill. In contrast, if three separate customers purchase video, voice, and data on a stand-alone basis, marginal costs will be higher. Note also that CRA does not indicate to what extent it considers its measure of "overall costs" to be comprised of marginal costs. Typically, accounting conventions make it difficult to meaningfully distinguish marginal costs from fixed costs.

[52] Indeed, as the *Initial Report* showed, the proportion of TWC customers who subscribe to the "triple-play" services more than doubled between 2006 and 2009, from 10.5 percent to 21.3 percent. See *Initial Report* at 19, Table 1.

[53] The fact that TWC's overall costs per customer (as measured by CRA) have increased in absolute terms from 2004 – 2009 does not imply that scale and scope economies are absent. First, scale and scope economies are defined in terms of total cost per customer, which include the fixed costs of operating and maintaining TWC's network; it is likely that such costs are not fully reflected in CRA's measure of overall costs. Second, scale and scope economies

of scope and scale associated with TWC's growing data and voice customer base, and thus understates the value of video programming to the firm. Thus, CRA's "cost mix" analysis disregards the economic fundamentals of the multi-product firm, with respect to both cost *and* demand.

C. CRA Ignores the Fundamental Economic Principle that Any Allocation of Joint Costs to Individual Products in a Multiproduct Firm is Inherently Arbitrary

34. In addition to constructing abstract measures of "controlled" revenues and "controlled" costs, CRA falls prey to the temptation to simply "look at the accounting data" and divide what MSOs report in their 10-Ks as "programming costs" by what they report as "video revenues." For example, based on this simple-minded calculation, CRA finds that video programming costs as a share of video revenues increased from 30.2 percent in 2003 to 34.6 percent in 2008,[54] and thus alleges that the analysis in the *Initial Report* (which compares programming costs to combined video, voice and data revenues) "masks the importance of programming cost increases and so obscures the basic point that higher costs lead to higher prices."[55]

35. The flaws in CRA's approach should be self-evident based on the discussion above. In multi-product firms with economies of scale and scope, and with complementarities of demand between products, all costs are to some extent "common," and as a result, any allocation of costs to specific products is inherently arbitrary. Again, this result is neither original nor controversial. Indeed, it has been embraced by the FCC, in this very context. As the Commission explained in its *2005 Cable Price Report*:

---

lead to lower costs per customer, holding other factors constant. In reality, other factors are likely to change over time. For example, input prices are subject to change. Third, and perhaps most significant, the quality of services provided changes over time, e.g., the number of channels of video, or the speed of a broadband Internet connection.

[54] *CRA Report* at 14.

[55] *CRA Report* at 14.

> In this report we have not attempted to associate rate changes with specific cost changes. The nature of cable service has changed significantly in recent years with the emergence of digital cable, Internet access, and telephony as important new services so that these new services now represent significant sources of cable system revenues and costs. A substantial portion of these costs are incurred to support all system services jointly and, therefore, cannot be attributed directly to basic and expanded basic cable service. In the absence of a uniform system of accounts and cost allocation standards, there is no uniform way to allocate these joint costs to specific lines of business or service for purposes of statistical analysis. Moreover, to provide a complete picture, it would be necessary to take into account revenue changes that might offset increases in costs.[56]

36. CRA complains repeatedly that the *Initial Report* "masks" or "obscures" the impact of programming costs on cable prices, when in fact the opposite is true. To the contrary, accurately explaining the economic interrelationships between the costs and revenues streams of cable MSOs, the *Initial Report* illuminates the fact that the true relationships are more complex than CRA can or will admit. Simplistic comparisons of arbitrarily allocated costs to revenues cannot and do not prove causation.

V. CONCLUSIONS

37. For reasons we have explained previously, MSOs have incentives to blame increases in cable prices on programming costs.[57] For all their efforts, however, neither they nor their economic consultants have been successful in demonstrating that programming costs in general, or retransmission consent fees in particular, are – in any economically meaningful sense – "too high." Indeed, they have failed to demonstrate that programming costs are – in any economically meaningful sense – rising at all. What is clear is that MSOs are purchasing more programming every year, that viewers are spending more and more time watching it – and that when asked (outside the context of debates about retransmission consent) what is happening, MSOs report that consumers are benefiting from "a huge increase in output in terms of the

---

[56] 2005 Cable Price Report at ¶35. See also Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization* (Pearson, 2005) at 50-54.
[57] See, e.g., Eisenach 2009 at 2-3.

number of channels, the quality and quantity of programming, etc." On the basis of these facts, there simply is no basis for believing that government intervention in the market for video programming would do anything but harm consumer welfare.