

I. INTRODUCTION

In their initial application, the parties to this transaction submitted an economic report prepared by Drs. Mark Israel and Michael L. Katz¹ ("*Israel Katz Report I*") meant to address the issue of competitive harms from the transaction that could occur through its impact on markets for MVPD services. Along with its initial comments, the American Cable Association submitted a paper written by myself² ("*Rogerson Report I*") describing and estimating the magnitude of two significant competitive harms that the transaction would create through its impact on MVPD markets that had not been considered in the *Israel Katz Report I* or in my other materials initially submitted by the applicants. In their reply comments, the applicants submitted an additional economic report by Drs. Israel and Katz³ ("*Israel-Katz Report II*") meant to refute the analysis in *Rogerson Report I*. In this follow-up report, I will present my own analysis of *Israel-Katz Report II*. In particular, I will explain why this report fails to successfully refute any of the arguments

¹See Mark Israel and Michael L. Katz, "Application of the Commission Staff Model of Vertical Foreclosure to the Proposed Comcast-NBCU Transaction," February 26, 2010, (*Israel Katz Report I*), submitted with *Application and Public Interest Statement. In the Matter of Applications for Consent to the Transfer of Control of Licenses, General Electric, Transferor, to Comcast Corporation, Transferee*, MB Docket No. 10-56, February 26, 2010.

²See William P. Rogerson, "Economic Analysis of the Competitive Harms of the Proposed Comcast-NBCU Transaction," June 21, 2010, ("*Rogerson Report I*"), submitted by the American Cable Association (ACA) along with its initial comments in the Commission's proceeding examining this transaction. See ACA, *Comments In the Matter of Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc., to Assign and Transfer Control of FCC Licenses*, MB Docket No. 10-56, June 21, 2010 ("*ACA Initial Comments*")

³See Mark Israel and Michael L. Katz, "Economic Analysis of the Proposed Comcast-NBCU-GE Transaction," July 20, 2010, submitted with *Opposition to Petitions to Deny and Response to Comments, In the Matter of Applications for Consent to the Transfer of Control of Licenses, General Electric, Transferor, to Comcast Corporation, Transferee*, MB Docket No. 10-56, July 21 2010.

that I advanced in my initial report.⁴ After this, I will describe a set of conditions proposed by the American Cable Association (that they developed with my advice) and explain why I believe that this set of conditions would substantially address the harms that I have identified, while still allowing the transaction to proceed.

II. VERTICAL HARM

1. INTRODUCTION

The theory of vertical harm that I outline in my initial report⁵ is that Comcast's ownership share of the joint venture combined with its ownership of its MVPD business will increase the joint venture's ability to bargain for higher programming fees from MVPDs that compete with Comcast, and that these fee increases will be substantially passed through to subscribers in the form of higher subscription fees. I will refer to this effect as the "raising rivals' costs" effect of the transaction. This effect occurs because the joint venture will take account of the fact that selling programming to MVPDs that compete with Comcast will reduce Comcast's profits. Essentially, this means that the transaction will create a new opportunity cost to the joint venture of selling NBCU programming to rivals of Comcast. I show that the magnitude of the opportunity cost created by the transaction is determined by the simple formula

$$C = \alpha d \pi \tag{II.1}$$

⁴In addition to the two reports by Drs. Israel and Katz referenced above, the applicants have submitted three additional economic reports (one additional report by Drs. Israel and Katz and two reports by Dr. Greg Rosston). However, these additional reports deal with other issues and I will not refer to them further in this report.

⁵See *Rogerson Report I*, Section 3.

where C denotes the increased opportunity cost per subscriber due to the transaction, d denotes the share of the customers that would leave the rival MVPD if it were unable to offer the NBCU programming, α denotes the share of these customers that would switch to Comcast, and π denotes the per subscriber profit margin of Comcast. Following the standard and well-accepted Nash bargaining model, I predict that half of this increase in opportunity cost will be passed through to MVPDs in the form of higher programming fees. This means that the formula for calculating the increase in programming fees that the merged entity will charge to MVPDs that compete with Comcast is given by

$$\Delta P = \alpha d \pi / 2 \tag{11.2}$$

Equation (11.2) provides a formula for estimating the cost increase (experienced by MVPDs that compete with Comcast) due to the raising rivals' costs effect of the transaction. To provide some information on the rough order of magnitude of this cost increase, I use publicly available data to determine plausible values for these parameters. I assume that π is equal to \$42.98.⁶ I assume that d is equal to .05 for the NBC local broadcast signal and is also equal to .05 for the block of NBCU national cable networks.⁷ In order to estimate α , I follow the perfectly reasonable procedure of assuming that customers that leave a given MVPD will switch to other MVPDs in proportion to the relative market shares of these other MVPDs. This is the procedure

⁶See Rogerson Report I at page 30.

⁷See Rogerson Report I at pages 30-31.

that the Commission itself has routinely used in its own calculations of this sort⁸ and is also the procedure that Drs. Israel and Katz used in their initial report.⁹ The value of α will vary from MVPD to MVPD and from programming type to programming type depending upon the extent to which Comcast has subscribers in the relevant region affected by the programming withdrawal.¹⁰ There are six major urban areas of the country that are served by an NBC O&O where Comcast is the dominant cable operator.¹¹ These are Philadelphia, Chicago, San Francisco-Oakland-San Jose, Miami-Ft. Lauderdale, Washington DC, and Hartford-New Haven. For withdrawal of retransmission consent for an NBC O&O from a national telco¹² or DBS provider in these areas, the value of α varies between .43 and .7 with an average value of .62.¹³ For withdrawal of NBCU cable networks from a national telco or DBS provider, the value of α is approximately equal to

⁸See, for example, *DirectTV-News Corp. Order*, Appendix D, para. 29.

⁹See *Israel Katz Report I* at para. 55, which states "we assume that, if the joint venture chose to foreclose any MVPD (after the contract had expired), then the diversion ratio to each of the remaining, non-foreclosed MVPDs in the DMA would be proportional to the MVPD's share of all MVPD subscribers in that DMA."

¹⁰See *Rogerson Report I* at pages 33-40 for a detailed explanation of the formula that determines α .

¹¹Although the NBC network does not currently negotiate retransmission consent fees on behalf of its affiliate stations, it is possible that the NBC network might begin doing this at some point. To the extent that the NBC network begins to negotiate retransmission consent fees on behalf of NBC affiliates, the transaction will cause retransmission consent fees for NBC affiliates to rise by the same amount that it will cause retransmission consent fees for NBC O&O's to rise. For purposes of simplifying the exposition of my report, I will only explicitly refer to the effect of the transaction on increasing retransmission consent fees for NBC O&Os. However, the reader should keep in mind that these effects will also occur for retransmission consent fees of all NBC affiliates if NBC ever begins negotiating retransmission consent fees on their behalf.

¹²In this report I will use the term "national telco" to refer to AT&T or Verizon, which are the two national telephone companies that are rolling out MVPD service in their service areas.

¹³See *Rogerson Report I*, Table 3, at page 56.

.26.¹⁴ Substitution of these values into formula (II.2) yields

$$\begin{aligned} \text{Retrans}\Delta P &= .62 \times .05 \times 42.98 / 2 = \$.67 \\ \text{Cablenet}\Delta P &= .26 \times .05 \times 42.98 / 2 = \$.28 \\ \text{Total}\Delta P &= = \$.95 \end{aligned} \quad (\text{II.3})$$

Thus, in the six major urban areas of the United States served by an NBC O&O where Comcast is the dominant cable operator we would expect total programming fees charged to national telcos and DBS providers to increase by \$.95 per subscriber per month. In the remainder of the country programming fees to these same MVPDs would increase by \$.28 per subscriber per month. For regional cable overbuilders, the value of α depends on the share of the MVPD's subscribers passed by Comcast. If 80% of a cable overbuilder's homes were passed by Comcast, the value of α is

.49.¹⁵ Substitution of this value into equation (II.2) yields

$$\begin{aligned} \text{Retrans}\Delta P &= .49 \times .05 \times 42.98 / 2 = \$.53 \\ \text{Cablenet}\Delta P &= .49 \times .05 \times 42.98 / 2 = \$.53 \\ \text{Total}\Delta P &= = \$ 1.06 \end{aligned} \quad (\text{II.4})$$

Thus, a regional cable overbuilder that competes primarily with Comcast will experience a fee increase of \$.53 per subscriber per month for NBCU national cable networks and an additional fee increase of \$.53 per subscriber per month for retransmission consent for the local NBC broadcast television signal if it is in a region served by an NBC O&O. Thus the magnitude of the likely fee

¹⁴See *Rogerson Report I* at page 38.

¹⁵See *Rogerson Report I* at pages 38-40.

increases experienced by regional cable overbuilders that compete primarily with Comcast will be comparable to the magnitude of the fee increases experienced by the two DBS providers and the two national telcos.

Drs. Israel and Katz essentially adopt three different lines of argument in attempting to refute my analysis and estimation. Their first line of argument is that, even if my raising rivals' costs theory is completely correct and programming fees charged to MVPDs that compete with Comcast will increase by the amount that I predict, there is a second additional effect on subscription prices that I am ignoring which will have the reverse impact on subscription fees and overwhelm the effect that I do identify. This second effect is that Comcast's own marginal cost of providing MVPD service will be reduced by the transaction and that a share of this cost reduction will be passed through to subscribers in the form of lower subscription prices. I will refer to this effect as the "reduced double marginalization" effect. Drs. Israel and Katz assert that the magnitude of the cost reduction experienced by Comcast due to the reduced double marginalization effect is equal to the full amount of the programming fees that Comcast currently pays NBCU (before the transaction). Based on this assertion, they argue that the cost reduction (experienced by Comcast) due to reduced double marginalization will likely exceed the cost increase (experienced by Comcast's rivals) due to the raising rivals costs effect and that the beneficial effects of the vertical transaction on Comcast's own pricing will therefore likely overwhelm the harmful effects of the vertical transaction on the pricing of rival MVPDs. Their second line of argument is to advance a number of different reasons why they believe that my raising rivals' costs theory predicting that Comcast will raise programming prices to its rivals is incorrect or why the estimate of this effect that I calculate overstates the likely effect. Their third

line of argument is that the programming fee increases experience by regional cable overbuilders can be ignored because regional cable overbuilders serve an insignificant share of the entire U.S. population.

I will deal with each of the lines of argument separately in the next three sections of the paper.

2. REDUCED DOUBLE MARGINALIZATION

As described above, Drs. Israel and Katz argue that an additional effect of the transaction will be that Comcast's own marginal cost of providing MVPD service will be reduced, and that a share of this cost reduction will be passed through to Comcast subscribers in the form of lower subscription fees. I will refer to this effect as the "reduced double marginalization" effect.

To develop a formula for measuring the magnitude of the cost decrease that Comcast will experience due to the reduced double marginalization effect, Drs. Israel and Katz begin by noting that, after the transaction, Comcast will view the true marginal cost of purchasing NBCU programming as zero, since any fee paid by one division of the firm to another division is a simple transfer payment that does not affect the total profit of the firm. They claim that this implies that Comcast's marginal cost will drop by an amount equal to the value of programming fees that Comcast pays NBCU before the transaction occurs. That is, if Comcast currently pays a fee of w dollars per subscriber per month for NBCU programming, Drs. Israel and Katz claim that an additional effect of the vertical transaction will be that, after the transaction, Comcast will view its costs of providing service to subscribers as being w dollars per subscriber per month lower than before the transaction. Thus the pricing effects created by the fact that MVPDs competing with

Comcast will have programming prices that are \$.95 per subscriber per month higher than before the transaction must be weighed against the pricing effects created by the fact that Comcast will view its own costs of providing service as being w dollars per subscriber per month lower than before the transaction. In particular, then, Drs. Israel and Katz argue that if w is somewhat larger than \$.95 per subscriber per month, then this should be interpreted as suggesting that the effect of reduced double marginalization will outweigh the effect of increased programming fees for MVPDs that compete with Comcast. Publicly available data suggests that a reasonably plausible value to use for w would be \$1.56.¹⁶ This obviously is somewhat larger than \$.95

I will now explain why the theory of Drs. Israel and Katz is completely incorrect because of a basic error in economic reasoning in their analysis. In particular, although their analysis starts with a grain of truth, they almost immediately make a grave error in economic reasoning that results in a completely false conclusion on their part.

The grain of truth they begin with is the observation that, after the vertical transaction, Comcast will view its true marginal cost of providing NBCU programming to its subscribers as being zero. The fatal error in their analysis is to ignore a new opportunity cost that Comcast will now take account of because of the transaction. For purposes of my explanation of this ignored new opportunity cost, I will use the figure I mention above of \$1.56 per subscriber per month as being the programming fee that NBCU charges all MPVDs for its programming. The new opportunity cost is created by the fact that the joint venture charges \$1.56 per subscriber per month not only to Comcast but also to all MVPDs that compete with Comcast. Furthermore, since the marginal cost to the joint venture of providing this programming to an additional viewer is

¹⁶ See *Rogerson Report I*, footnote 29, which cites Kagan data as reported in Peter Kafka, "Hate Paying for Cable? Here's Why," *All Things Digital*, <http://mediamemo.allthingsd.com/20100308/hate-paying-for-cable-heres-the-reason-why/>.

essentially zero, this entire fee of \$1.56 per subscriber per month represents profit to the joint venture. Now suppose that Comcast lowers its subscription price slightly in an attempt to attract more customers. The critical point to recognize (which is the point that Drs. Israel and Katz fail to recognize in their analysis) is that to the extent that these new customers are customers that switch from some other MVPD, this will cause the joint venture to lose \$1.56 per subscriber per month in programming profit. In particular, if 100% of the customers that Comcast would attract are customers that would switch from some other MVPD, then the opportunity cost of attracting new customers is exactly equal to \$1.56 per subscriber per month. This is because, when Comcast attracts a new customer, it loses a profit of \$1.56 on sales of NBCU programming to the MVPD that the customer switches from.

More generally, we can define the "switcher share" of Comcast as follows. Suppose that Comcast slightly lowers its subscription price to attract new subscribers. It will attract two different types of subscribers - people who previously subscribed to a different MVPD and people who previously subscribed to no MVPD. Define the "switcher share" of Comcast to be the share of new subscribers that are switchers from some other MVPD. I will let the parameter θ denote Comcast's switcher share. Although I am not aware of any publicly available data that provides information on the precise magnitude of θ for a typical MVPD, it is completely clear that θ is a very large number and will likely be close to 1. That is, when Comcast lowers its price in an attempt to attract new customers, most of the customers that it attracts will be customers that switch from some other MVPD. To put this another way, Comcast is essentially competing with other MVPDs for most of its business. There are very few customers that view themselves as choosing between the two options of subscribing to Comcast versus not subscribing to any MVPD

at all.

To return to the example above, if θ is the switcher share for Comcast, then this means that θ of the customers that it would attract by lowering its price slightly would be customers that switch from some other MVPD. This means that the opportunity cost of attracting a new customer is $\theta \times \$1.56$, because this is the amount of profit that the vertically integrated firm will lose when it attracts new customers. Therefore a complete accounting of the effects of vertical integration on the marginal cost to the combined entity of serving new MVPD customers is as follows. First, because the payment of Comcast to the joint venture of \$1.56 is now simple a transfer payment, the marginal cost goes down by \$1.56. However, second, because θ of the customers that Comcast attracts will be from other MVPDs, there is a new opportunity cost of $\theta \times \$1.56$ per subscriber per month. A decrease in cost of \$1.56 combined with an increase in cost of $\theta \times \$1.56$ yields a net decrease in cost of $(1-\theta) \times \$1.56$. In particular, if θ is close to 1, then the net decrease in cost due to the double marginalization effect is close to 0.

To summarize, Drs. Israel and Katz erroneously claim that the magnitude of the cost decrease due to the reduced double marginalization effect is \$1.56 per subscriber per month. In reality it is actually equal to only $(1-\theta) \times \$1.56$ per subscriber per month where θ is the switcher share of Comcast. It is completely clear that the value of θ is close to 1. Even if it were as low as .9, the magnitude of the cost reduction due to the reduced double marginalization effect would only be \$.16 per subscriber per month, which is completely swamped by the increase in other MVPDs' marginal costs of \$.95. I suspect that a more realistic estimate of the correct value θ is much larger than .9. If, for example, the correct value θ is .98, then the correct magnitude of the cost reduction due to the reduced double marginalization effect would be \$.03 per subscriber per

month. The important point to notice is that over any plausible range of values for the parameter θ , it is clear that the reduced double marginalization effect will be completely swamped by increases in programming fees of rival MPVDs if this latter effect is in the neighborhood of \$.95 as I have estimated.

Therefore, in summary, I agree with Drs. Israel and Katz that there are two separate effects that need to be taken into account. The first effect is the increase in programming fees that MPVDs competing with Comcast will experience. The second effect is the decrease in marginal cost that Comcast will experience. The critical mistake of Drs. Israel and Katz is that their estimate of the second effect is orders of magnitude higher than the true value. This is because they erroneously fail to take into account the fact that the vertically integrated firm will still experience a marginal cost of \$1.56 per subscriber per month when it attracts new subscribers so long as the subscribers that it attracts shift from some other MVPD that was also carrying the NBCU programming.

To put this another way, I believe that the issue of reduced double marginalization raised by Drs. Israel and Katz is essentially a red herring. Although this effect exists, its magnitude is almost certainly very small. The real issue is whether or not the vertically integrated firm will have an incentive to increase the programming fees that it charges to its rivals. If the increase in programming fees is anywhere in the neighborhood of the value of \$.95 per subscriber per month that I predict, this effect will completely overwhelm the reduced double marginalization effect.¹⁷

¹⁷As an aside, I would also like to raise the more minor point that even if the reduced double marginalization effect was of the same order of magnitude as the raising rivals' costs effect, this would still potentially create an issue of concern for the Commission. In the markets that Comcast serves, it is generally the dominant provider. Any transaction that had the effect of giving Comcast a significant cost advantage over its competitors might threaten to drive Comcast's competitors out of the market entirely or at least weaken them considerably, and thus damage competition. Thus, even if the effect of the transaction was to lower Comcast's own costs

I will now turn to the criticisms that Drs. Katz and Israel raise about my raising rivals' costs theory.

Also, note that a more formal version of the economic arguments that I have made in this section is presented in an Appendix to this report.

3. RAISING RIVALS' COSTS

In this section I will consider Drs. Israel and Katz's second line of argument that my raising rivals' costs theory is incorrect or that the estimated magnitude of this effect that I calculate overstates the effect. They offer four different reasons to support this line of argument and I will consider each separately.

Reason #1: Partial Ownership of the Joint Venture by GE

The raising rivals' costs theory requires that the joint venture have the incentive to take actions that maximize the joint profits of the joint venture and Comcast. This will be true if the joint venture and Comcast are able to closely coordinate their actions and redistribute profits between themselves so as to leave both parties better off from any action that maximizes their joint profits. I stated in my initial paper that it would be completely untenable for the applicants or their economists to attempt to argue that this type of close coordination would be impossible, because many of the claimed efficiencies for the transaction would require exactly the same type of close coordination and redistribution of profits between the joint venture and Comcast.¹⁸ I

and raise its rivals' costs by approximately the same amount, it is not at all clear that the net effect on subscribers would be minor. If the result of this was to drive Comcast's competitors from the market or at least considerably weaken them, the reduction in competition might ultimately make it profitable for Comcast to raise its own subscription prices.

¹⁸See *Rogerson Report I* at pages 19-20.

further noted that the Commission itself unequivocally made this same point itself in its analysis of the DirecTV-News Corp. transaction.¹⁹

Drs. Israel and Katz have responded to this by giving one small example of one particular type of efficiency that could be achieved without close coordination and redistribution of profits. This is the reduced double marginalization efficiency that I have already discussed above. Namely, they point out that if Comcast has a 51% ownership share in the joint venture, it would automatically create incentives for Comcast to internalize 51% of the joint venture's profits when it chose a downstream subscription price for its MVPD services, without the need for any additional consultation or coordination with the joint venture.

I have two observations to offer about this argument. First, as I have already demonstrated in the previous section, Drs. Israel and Katz are largely mistaken when they claim that there is a significant efficiency associated with the reduced double marginalization effect. As I showed in the previous section, even if Comcast fully internalized 100% of the upstream profits, this alone would not cause it to make significantly different pricing decisions at the downstream level. Second, even if it is possible to find an occasional example of an efficiency that could be achieved without close coordination and profit redistribution, it is completely clear that achievement of many important classes of efficiencies will require close coordination and profit redistribution.

¹⁹The DirecTV-News Corp. transaction involved News Corp. purchasing a 34% interest in DirecTV which could be increased to 50%. One of the scenarios which the Commission considered in evaluating foreclosure incentives was the scenario where News Corp. made decisions to maximize the combined profits of both firms. It described one of the rationales for this decision as follows. "The proposed joint endeavors between News Corp. and DirecTV that are a basis for many of the Applicants' claimed benefits provide ample opportunities to compensate News Corp. for the losses in programming revenue associated with foreclosure and make the strategy profitable to both firms and their stockholders." See *Appendix D, Staff Analysis of the Likelihood of Foreclosure in the Broadcast Television Programming Market*, See *DirecTV-News Corp. Order*, at para. 7 as cited in *Rogerson Report I* at page 20.

Reason #2: Bargaining Models are Too Stylized For Analyzing Competitive Effects

Dr. Israel and Katz suggest the bargaining model that the vertical theory of harm is based on is “far too stylized”²⁰ to be used for purposes of analyzing the competitive effects of this transaction even though they admit that this same framework “commonly is used in academic settings to derive basic insights about various types of negotiations.”²¹ It is difficult to know what to make of this critique, especially in light of the fact that Professor Katz himself has recently used precisely this same type of model to provide extensive policy guidance to the Commission on the issue of retransmission consent.²² Almost all economic models are highly stylized, including most of the game theoretic models that provide the foundation for modern industrial organization theory and that play a key role in providing guidance for antitrust policy. Bargaining models are a completely well-accepted and standard type of model used in the industrial organization literature to derive basic insights useful for policy analysis. Furthermore, as I noted in my previous paper, the Commission itself used precisely this sort of model to analyze the Adelphia-Time Warner-Comcast transaction which is the most recent significant transaction with vertical competitive harms that the Commission has evaluated.²³

²⁰See *Israel Katz Report II* at para. 43.

²¹See *Israel Katz Report II* at para. 43.

²²See Michael L. Katz, Jonathan Orszag, and Theresa Sullivan, “An Economic Analysis of Consumer Harm From the Current Retransmission Consent Regime,” November 12, 2009, (“Katz, Orszag, and Sullivan (2009)”), submitted by NCTA as part of its comments, *In the Matter of A National Broadband Plan for Our Future*, NBP Public Notice #26, GN docket Nos. 09-47, 09-51, 09-137 and *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 07-269, December 16, 2009.

²³See *Adelphia-Time Warner-Comcast Order*, Appendix D, as cited in *Rogerson Report I* at page 22, including footnote 33.

Reason #3: Parameter Values

As I explained in Section II.1 of this paper, the formula for calculating the fee increase that an MVPD competing with Comcast will face due to the transaction is given by

$$\Delta P = \alpha d \pi / 2 \tag{II.5}$$

where ΔP denotes the per subscriber fee increase due to the transaction, d denotes the share of the customers that would leave the rival MVPD if it were unable to offer the NBCU programming, u denotes the share of these customers that would switch to Comcast, and π denotes the per subscriber profit margin of Comcast. In order to provide some information on the rough order of magnitude of this cost increase, I substituted plausible parameter values into equation (II.4) to yield a predicted fee increase of \$.95 per subscriber per month.²⁴ The only significant disagreement on parameter values that Drs. Israel and Katz have with me regards the parameter α , which is the share of customers leaving a rival MVPD that would switch to Comcast as opposed to some other MVPD. In fact, they recommend using slightly higher values for π and d than I use, which would result in a larger estimate of harm. To determine plausible values of α , I make the completely reasonable assumption that Drs. Israel and Katz used themselves in their initial report²⁵ and that the Commission routinely uses itself,²⁶ that customers leaving any particular MVPD will

²⁴See equation (II.3), above, for details.

²⁵See *Israel Katz Report I* at par. 55, which states “we assume that, if the joint venture chose to foreclose any MVPD (after the contract had expired), then the diversion ratio to each of the remaining, non-foreclosed MVPDs in the DMA would be proportional to the MVPD’s share of all MVPD subscribers in that DMA.”

distribute themselves among other MVPDs according to the relative market shares of the other MVPDs. I will refer to this as the "relative market shares" method of calculating α . In their follow-up report Drs. Israel and Katz report that, although they believe that this is still the correct procedure to use for cable overbuilders and national telcos, they now believe that it would be appropriate for the case of DBS providers, to use a value of α equal to one third of the value produced by the relative market shares method.²⁷

Drs. Israel and Katz's explanation for their new approach is as follows. They note that in their initial report they conducted an empirical analysis of Comcast subscription data and determined that Comcast did not appear to gain any additional customers in regions where the DISH network was unable to carry certain broadcast signals for a 6 month period. They also note that in its comments the DISH network filed information indicating that a relatively substantial share of DISH subscribers left DISH during this same time period. Thus, based on these two pieces of evidence it appears that although a relatively significant number of subscribers left DISH, no additional subscribers went to Comcast. Drs. Israel and Katz suggest that this could be explained by the theory that customers of one DBS provider have such a strong preference for DBS over non-DBS MVPD service, that if they decide to leave one of the two DBS providers because programming is unavailable, they almost all choose to switch to the other DBS provider. If one literally accepted Drs. Israel and Katz's data and theory at face value, one would then conclude that α should literally be equal to zero. Instead of recommending that n be set equal to zero, Drs. Israel and Katz recommend that the value of α still be calculated using the relative market shares method but then that the resulting value be divided by 3.

²⁶See, for example, *DirectTV-News Corp. Order*, Appendix D, para. 29.

²⁷See *Israel Katz Report II* at para. 15, 16 and 67.

I have three major comments on this issue. First, I think that the Commission should be very cautious about basing a major policy decision entirely on one piece of evidence provided by a party with a major interest in the outcome based on that party's own reported analysis of its own private data. This should be especially true when the evidence seems to suggest a somewhat surprising conclusion. Drs. Israel and Katz correctly point out that theirs is the only data available on the particular issue of whether or not local cable operators' subscriptions increase when a DBS provider in the area they serve loses carriage of a piece of must-have programming.²⁸ However, the Commission should note that no-one other than a major cable operator would be in a position to have data of this sort, and Comcast is the only large cable operator taking any active interest in this proceeding. Furthermore, I expect that Comcast almost surely keeps data on the where their new customers come from, and what proportion of them switch from a DBS provider. This data would likely show that many of Comcast's new customers are, in fact, former DBS subscribers. If this is correct, this would suggest that many DBS subscribers do view cable service as a relevant substitute for DBS. Comcast has not chosen to share any data of this sort with the Commission.

Second, there is a reverse side to this same coin. Namely, if it is true that the two DBS providers are particularly close substitutes for one another, it seems equally plausible to hypothesize that non-DBS providers might also be particularly close substitutes for one another. For example, because of their particular geographic situation, some households are not able to obtain clear reception of DBS signals. As another example, many households apparently prefer to purchase a bundle of services including broadband and telephony from a single provider, which is not possible with a DBS provider. Finally, some households may either have zoning

²⁸The more commonly available type of data is the share of subscribers that leave a particular MVPD when programming is withheld from it rather than which particular MVPD the leaving customers switch to.

restrictions prohibiting the placement of a DBS satellite dish or simply view the satellite dish as being too unsightly. To the extent that non-DBS providers are particularly close substitutes, then when Comcast withheld programming from a national telco or cable overbuilder, it would be the case that Comcast would receive a larger share of switchers than the relative market share method would suggest.

Third, even if we divide my prediction of the likely fee increase by three, the predicted level of harm from the raising rivals' costs effect would still clearly swamp any possible projected benefits from the reduced double marginalization effect. Dividing the estimate of a \$.95 per subscriber per month increase in programming fees by three yields a projected increase in programming fees of \$.32 per subscriber per month. As I discussed above in Section II.2, if the switching rate for Comcast is 98%, the reduced double marginalization effect will reduce Comcast's own costs by only \$.03 per subscriber per month. Thus the harm from the raising rivals' costs effect would still be more than 10 times as large as the benefit from the reduced double marginalization effect.

Reason #4: Empirical Analysis of Price Effects of Past Vertical Transactions

Drs. Israel and Kutz conduct an empirical analysis to attempt to determine whether or not they can find any evidence that vertical integration of a network with an MPVD results in higher program fees and report that they fail to find any such effect. My own assessment of this study is that it suffers from so many defects and flaws both in design and data, that it is not useful for purposes of providing evidence on this issue. I believe that inherent limitations in data availability would make it very difficult and perhaps even impossible to conduct a study that

provided good information on this issue. Therefore, I do not fault Drs. Israel and Katz for being unable to conduct such a study. My only point is that the study they have presented does not provide useful evidence.

To explain the flaws in their study I will have to begin by describing the nature of the study. Drs. Israel and Katz consider four different instances of vertical integration or disintegration. The first instance occurred in 2002, when Cablevision sold its 85% interest in Bravo. The second instance occurred in 2007, when Cox purchased the Travel Channel. The third instance occurred in 2004 when News Corp. purchased a controlling interest in DirecTV. The fourth instance occurred in 2008 when News Corp. sold its controlling interest in DirecTV. For the third and fourth instances, the five networks owned by News Corp. that Drs. Israel and Katz have pricing data for are Fox News, Fox Sports en Espanol, FX, National Geographic, and Speed. For each instance Drs. Israel and Katz have pricing data for the annual fees charged by the networks in the years both before and after the transaction occurred. They attempt to assess the impact of the integration/disintegration events on network prices. Although they do not provide great detail, they report that they attempt to control to some extent for general trends in network pricing over the relevant time periods and some other factors.

I will now make four observations about this study.

First, the instances involving Cablevision and Cox are completely inappropriate to use for this study. This is because the networks involved are national networks and Cablevision and Cox both have extremely small subscriber shares at the national level, and, in fact, do not compete at all with the major incumbent cable operators, Comcast and Time Warner. Therefore, the raising rivals' costs theory would suggest that vertical integration of a national cable network with Cox or

Cablevision would have absolutely no effect on the fees it would charge to the other major incumbent cable operators such as Comcast and Time Warner and would also have an extremely modest effect on the fees it would charge the two DBS providers. Although Drs. Israel and Katz do not report where their pricing data came from, commonly available fee data such as that published by Kagan is normally interpreted as being data on the average fee charged for various networks weighted by the number of subscribers for which each fee is being charged. Therefore, the theory itself predicts that fee changes associated with these two events would likely be too small to detect. This is because the vast bulk of subscribers that these networks were sold to were subscribers of the major cable operators and the theory predicts no change in these fees. Furthermore, the theory predicts a relatively modest change even in the fees charged to the two DBS providers. A modest change for a small number of subscribers averaged together with no change for most subscribers would likely produce an average effect too small to measure. Therefore, it is immediately clear that two of the four instances that Drs. Israel and Katz report results for are completely inappropriate to use for their study. This leaves Drs. Israel and Katz with two events to study, the integration of News Corp. with DirecTV in 2004 and the subsequent disintegration of News Corp. with DirecTV in 2008.

My second observation relates to the validity of using the disintegration of News Corp. with DirecTV in 2008. Although Drs. Israel and Katz do not explicitly state the source of their pricing data, they do explicitly state that the most recent year for which they have pricing data is 2009 and that their data is annual.²⁹ This means that they have one year of data for post-transaction pricing - 2009. Furthermore, it is typically the case that programmers and MVPDs sign multi-year contracts. Therefore it may well be the case that many of the prices paid

²⁹See *Israel Katz Report II* at para. 82 and 83.

in 2009 were determined by contracts signed prior to News Corp.'s spin off of DirecTV. This leaves Drs. Israel and Katz with only one event to study - the integration of News Corp. with DirecTV in 2004.

Third, even for the one event that in principle might be able to provide useful information, Drs. Israel and Katz are not clear how they deal with the issue of long term contracts that extend over the transaction date. Given that they must have interpreted 2009 data as being post transaction data to be able to include News Corp.'s 2008 sale of DirecTV in their study, it seems likely that they interpreted data in 2005 and later as being post transaction data for News Corp.'s 2004 purchase of DirecTV. Once again, to the extent that program fees were determined by longer term contracts that spanned the transaction date, we would not necessarily expect there to be much of an immediate impact.

Fourth, although I am confident that Drs. Israel and Katz were likely able to control effectively for any general trends in network prices over the period, I am much less confident that they were able to control properly for issues such as age of the network, quality changes to the network, entry or exit of networks that compete with the networks being studied, and how the networks were handled together. In a study with a large amount of data, this may not be as important, since one might hope that some of randomness associated with uncontrolled-for events may simply average out. However, given that Drs. Israel and Katz actually have only one data point that appears to be a reasonable candidate for them to study, their inability to properly control for other factors is an extremely serious issue.

4. REGIONAL CABLE OVERBUILDERS

As I described above in Section II.1, regional cable overbuilders that compete significantly

with Comcast will experience the same general magnitude of programming fee increases as will the two DBS providers and the two national telcos. When Drs. Israel and Katz calculate the dollar value of harm from the raising rivals' costs effect, they decide to only consider the programming fee increases experienced by the two DBS providers and the two national telcos. The reason they give for this decision is that, since regional cable overbuilders serve an insignificant number of subscribers on a national level, the harms that the transaction creates for regional cable overbuilders and their customers are insignificant on a national level.³⁰

I have three comments to offer on this. First, I think it is important for the Commission to recognize the factual issue that regional cable overbuilders and their customers will suffer the same magnitude of competitive harm per subscriber from this transaction as will the two DBS providers and the two national telcos and their subscribers. It is certainly part of the Commission's mandate to decide how to weight various harms to various different groups and regions, but I think that it would still be important for the Commission to determine the per subscriber magnitude of the harm for various groups of subscribers before determining whether or not to ignore any of these harms.

Second, to the extent that one of the goals of the Commission is to foster the future growth of competition, it may be that the Commission would determine that competitive harm to overbuilders might be more significant than their current market shares would suggest.

Third, the competitive harm to cable overbuilders that compete with Comcast will also spill over to affect customers of Comcast in the regions where it competes with these overbuilders to the extent the competition from these overbuilders creates pressure for Comcast to lower its own prices and improve the quality of its own services.

³⁰ See *Israel Katz Report II*, footnote 100, page 54.

III. HORIZONTAL HARM

1. INTRODUCTION

In my initial paper, I present an economic model that explains why a sufficient condition for combined ownership of two networks (or blocks of networks) to raise programming fees is that the two networks be partial substitutes for one another in the particular sense that the value of one network to an MVPD is lower conditional on already carrying the other network. I also argue that, since MVPD subscribers likely value increases in variety at a decreasing rate, this implies that any two "must have" networks will likely have such an effect on one another's marginal values and thus be partial substitutes for one another in the required sense. In particular, I argue that the NBC O&O's and Comcast RSNs are likely partial substitutes for one another in the particular sense defined above.³¹

Drs. Israel and Katz make five different arguments to attempt to rebut my horizontal theory of harm. In the next section I will begin by reviewing the underlying economic model that my theory of harm is based on. Then I will separately consider each of the five arguments raised by Drs. Israel and Katz.

2. THE UNDERLYING ECONOMIC MODEL

³¹I also argue that NBCU's block of popular national cable networks can be reasonably categorized as "must have" programming and, to the extent this is true, then this block of programming and Comcast's RSNs are also likely partial substitutes for one another in the particular sense defined above. For purposes of describing the disagreements between Drs. Israel and Katz and myself most clearly and simply, I will focus only on the combination of the NBC O&Os with the Comcast RSNs. However, all of the arguments I make with respect to this combination also apply to the combination of the NBCU's block of national cable networks with the Comcast RSNs.

In my initial report, I presented only a numerical example. To fully discuss some of the arguments presented by Drs. Israel and Katz, it will be useful to generalize the example by substituting parameters for the numerical values.

Suppose that an MVPD can carry two networks. Suppose that it would earn a profit of v per subscriber if it carried only one of the networks and would earn an additional profit of $v - \delta$ per subscriber if it also carried the second network where

$$0 \leq \delta \leq v \quad (III.1)$$

I will refer to v as the marginal value of carrying the first network and $v - \delta$ as the marginal value of carrying the second network. The parameter δ is a measure of substitutability between the two networks, with higher values of δ corresponding to a higher degree of substitutability between the two networks. To the extent that subscribers value increases in variety at a decreasing rate, we would generally expect any two networks to be substitutes for one another to some extent. When $\delta = 0$, we would normally refer to the networks as being "independent" and when $\delta = v$ we would normally refer to the networks as being "perfect substitutes" for one another. When δ is between these two extreme values, we would normally refer to the networks as being "partial substitutes" for one another.

To keep the example as simple as possible, assume that the programmer's cost of providing the network to the MVPD is zero so the joint gain if the MVPD carries the network is simply equal to the MVPD's profit.³² Assume also that the MVPD and programmer have equal bargaining

³²It is easy to see that the example described below continues to yield the same conclusion if we assume that there is a cost of delivering the programming or if the programmer earns additional advertising revenue when the MVPD shows the programming.

strength in the sense that they choose a price to evenly split the joint profit.³³

First, suppose that two different programmers each own one of the two networks. Then, so long as the MVPD carries both networks in equilibrium, when the MVPD negotiates with either of the two programmers, the marginal profit of adding a network will be equal to $v - \delta$ per subscriber and the negotiated fee will therefore be equal to half this amount or $(v - \delta)/2$. Therefore the total fees paid for both networks will be double this amount or

$$v - \delta \tag{III.2}$$

Now suppose that the same programmer owns both networks. In this case the joint profit of adding both networks is equal to $2v - \delta$. Therefore, so long as the programmer sells both networks bundled together as a single item, the negotiated fee for the bundle will be half this amount or

$$v - \delta/2 \tag{III.3}$$

A comparison of (III.2) and (III.3) reveals that the programming fees rise by $\delta/2$ because of combined ownership. This shows that combined ownership will increase programming fees to the extent that the two networks are partial substitutes for one another and that the increase in programming fees will be larger to the extent that the degree of substitutability between the two networks grows larger.

Thus a single owner will be able to negotiate higher total fees than will two separate

³³It is easy to see that the example described below continues to yield the same conclusion if we assume that the programmer receives some share α of the total surplus where α is between 0 and 1.

owners to the extent that the two networks are partial substitutes. The basic economic reason is simply that, when negotiations for each network occur separately, each programmer is only able to extract some share of the joint profit from adding the last network. However, when negotiations occur for a bundle of networks, the programmer is able to extract a share of the joint surplus from adding the entire bundle. So long as networks within the bundle are partial substitutes, the joint surplus from adding a bundle of both networks will be greater than twice the surplus from adding the last network.

Recall that the particular example I considered in my first report is the case where $v = \$1.00$ and $\delta = \$.50$. That is, the marginal value of the first network is equal to \$1.00 but the marginal value of the second network is only equal to half this amount, or \$.50. In this case, total programming fees are \$.50 under separate ownership and \$.75 under combined ownership. Note in particular that the fee increase due to combined ownership in this case is extremely significant even though the two networks are far from being perfect substitutes for one another. Combined ownership causes programming fees to rise from \$.50 to \$.75 which is a 50% increase. This illustrates a very important point that I will return to below. Namely, if the parameter δ is large, combined ownership of two networks will result in large increases in programming fees even if the networks are far from being perfect substitutes. To put this another way, it is NOT necessary for two networks to be perfect substitutes or to even be close to being perfect substitutes in order for combined ownership of the networks to significantly increase programming fees. Combined ownership of two networks may result in significant increases in programming fees even if the two networks are only partial substitutes. Combined ownership will have a large dollar impact on programming fees to the extent that the carriage of one network has a large dollar impact on the