WG WILTSHIRE
& GRANNIS LLP

November 19, 2010

FILED/ACCEPTED

NOV 19 2010

Federal Communications Commission
Office of the Secretary

BY HAND DELIVERY

Marlene H. Dortch
445 12th Street, S.W.
Room TW-A325
Washington, DC 20554

Re: **REDACTED — FOR PUBLIC INSPECTION**

In the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc., for Consent to Assign Licenses or Transfer Control of Licensees, MB Docket No. 10-56

Dear Ms. Dortch:

The attached report by Professor Kevin Murphy rebuts two recent submissions from Drs. Mark Israel and Michael Katz on behalf of Comcast Corporation. Drs. Israel and Katz's submissions had attempted to address critiques of their prior work in this proceeding regarding (1) claimed double marginalization related benefits of the proposed transaction and (2) concerns raised by the Commission with respect to their previous econometric analyses.[1]

As Professor Murphy shows, the analysis of double marginalization suffers from both empirical and theoretical flaws, which are discussed briefly below. But even were this not the case, that analysis reveals an overarching conceptual failing: Israel and Katz ignore the fact that viewers who live outside of the areas served by Comcast cable systems would receive *none* of the hypothesized double marginalization related benefits, and would simply be left to bear the harm if national MVPDs are charged higher prices for NBCU programming.

In other words, even if Comcast were correct in all of its other assertions, the purported benefit it claims would be enjoyed *only* by those in the relatively urban areas served by Comcast. Most such subscribers, moreover, have a wider selection of MVPD alternatives competing for their business. By contrast, no such benefit would accrue to viewers in the more rural areas that Comcast does *not* serve, whose MVPD options are already less robust. The failure to recognize that this purported benefit would not extend to viewers in the majority of the country renders Israel and Katz's analysis woefully incomplete.

---

[1] Mark Israel and Michael L. Katz, *Response to Professor Rogerson's Comments on Double Marginalization* (Oct. 25, 2010); Mark Israel and Michael L. Katz, *Responses to Commission Econometric Questions* (Oct. 25, 2010).

No. of Copies rec'd 0
List ABCDE

Professor Murphy explains in his report that Israel and Katz's analysis of double marginalization also evidences a number of theoretical and empirical flaws. For example, they fail to quantify the relevant empirical issues, such as (a) the extent to which Comcast passes through reductions in its marginal cost of programming; (b) how consumers respond to price reductions on a particular tier; (c) the likelihood that viewers who currently do not pay for NBCU programming would be attracted to such programming in response to a price reduction; and (d) the degree to which increases in Comcast's subscribership on a tier come from tier-upgrading by existing Comcast subscribers. As DIRECTV pointed nearly six months ago, this is precisely the kind of evidence the Commission has said would be necessary to support a double marginalization analysis.[2] Israel and Katz nonetheless continue to rely on evidence that is not directly relevant to quantifying the claimed benefits in the manner required by the Commission and sound economic principles, and therefore do not provide a proper foundation for their conclusions. Comcast cannot meet its burden of proof by simply assuming away the evidentiary issues.

The double marginalization claims are further flawed by reliance upon an incomplete and inaccurate analysis of how Comcast's pricing incentives would change as a consequence of the proposed transaction. For example, Israel and Katz's analysis ignores a potentially important opportunity cost arising from the fact that attracting Comcast subscribers to upgrade from basic to expanded tiers would lead to a reduction in viewing (and therefore advertising revenues) from NBCU broadcast networks. Because subscribers to higher tiers have more non-NBCU programming options, Comcast's internalization of NBCU advertising revenues would give it the incentive to drive viewers to more basic tiers instead of expanded tiers. We do not know, and Comcast does provide the data to determine, the magnitude of this incentive. But Israel and Katz fail to account for it at all, which leads them to substantially overstate the resulting benefits related to double marginalization.

As for the previous econometric analyses, Professor Murphy had in a prior report challenged Israel and Katz's conclusion that the "diversion rate" of subscribers switching to Comcast from a rival MVPD due to the loss of programming would be "near zero." In their latest report, Israel and Katz now concede that the econometric evidence suggests an economically significant diversion rate, consistent with the evidence presented by Professor Murphy.

Attached are two redacted copies of Professor Murphy's report as required by the First and Second Protective Orders in this proceeding. As required by the Protective Orders, we are

---

2 *See* DIRECTV Comments at 60-61 (June 21, 2010) (citing *General Motors Corp., Hughes Electronics Corp. and The News Corporation Ltd.*, 19 FCC Rcd. 473, ¶ 155 (2004) (finding that the failure to present sufficient information concerning the marginal costs of producing various types of programming and the relevant demand elasticities for different types of programming made it impossible to develop a reliable estimate of the magnitude of an asserted benefit from double marginalization).

hand delivering one unredacted copy of this filing to the Secretary's Office and two copies to Vanessa Lemmé under separate cover.

Respectfully submitted,

William M. Wiltshire

William Wiltshire

Enclosures

COMMENTS OF PROFESSOR KEVIN M. MURPHY ON SUPPLEMENTAL SUBMISSIONS BY DRS. MARK ISRAEL AND MICHAEL L. KATZ ON DOUBLE MARGINALIZATION AND ECONOMETRICS

November 19, 2010

Kevin M. Murphy*

* George J. Stigler Distinguished Service Professor of Economics, Department of Economics and Booth School of Business, University of Chicago, and Principal, Navigant Economics (formerly Chicago Partners)

Table of Contents

I. Introduction

1. On October 25, 2010, Drs. Mark Israel and Michael L. Katz ("Israel and Katz") submitted two reports to the Federal Communications Commission. In one submission,[1] they responded to a critique of their double marginalization claims offered by Professor William Rogerson in connection with this proceeding. In that critique, Professor Rogerson explained that Israel and Katz had wrongly ignored the "opportunity cost" of lost payments to NBCU when customers switch to Comcast from another MVPD from which they were receiving NBCU programming. Israel and Katz acknowledge that Professor Rogerson's insight is valid for such customers, but claim that, when other adjustments are made, the double marginalization related benefits are about the same, or even greater, than they estimated initially. In their other submission,[2] Israel and Katz provide robustness tests of their previous econometric analyses, including their analysis of the impact on Comcast's subscribership during the period in which Fisher Communications withheld broadcast programming from DISH Network.

2. Below, I comment on both of these October 25 submissions. Summarizing my main conclusions, I find that Israel and Katz provide an incomplete and inaccurate analysis of how Comcast's pricing incentives would change as a consequence of the transaction, which leads them to substantially overstate the resulting benefits related to the elimination of double marginalization. Specifically, they ignore opportunity costs to the merged firm when subscribers move from lower tiers to higher tiers (*e.g.*, that the availability of many more non-NBCU programming options in higher tiers might decrease overall viewing of NBCU programming, and thus depress NBCU's advertising revenues). They also ignore changes in Comcast's pricing incentives with respect to non-NBCU programming after the transaction (*e.g.*, that Comcast could seek to drive viewers to NBCU programming or away from non-NBCU programming by manipulating the prices and composition of tiers).

[1] Mark Israel and Michael L. Katz, *Response to Professor Rogerson's Comments on Double Marginalization*, October 25, 2010 ("Israel and Katz Response to Rogerson").
[2] Mark Israel and Michael L. Katz, *Responses to Commission Econometric Questions*, October 25, 2010 ("Israel and Katz Econometrics Response").

3. In addition to these two flaws in their economic theory, I find that Israel and Katz's new empirical calculations of double marginalization related benefits are flawed for the following reasons:

- Their evidence on switching rates within Comcast tiers relative to switching rates between MVPDs is uninformative;
- They provide no evidence that Comcast subscribers who do not receive NBCU cable networks are likely to upgrade;
- Their assumption on switching rates to Comcast by other MVPDs' customers is unsupported and at odds with economic logic;
- They fail to recognize that double marginalization related benefits are unlikely for many subscribers who they categorize as not receiving NBCU programming; and
- They undercount the number of subscribers that currently receives NBCU programming.

4. Israel and Katz's new welfare analysis is also, at best, a partial analysis. They ignore the fact that customers outside of the areas served by Comcast's cable systems would receive none of the hypothesized double marginalization related benefits but likely would be harmed if national MVPDs are charged higher prices for NBCU's cable networks. Moreover, their current welfare analysis suffers from the same problem that afflicted their original use of a weighted average of cost changes to measure welfare effects: it is not based on an economic model that incorporates the competitive factors in the marketplace under study, but abstracts from the way in which competition works, including from factors that they highlight as important.

5. Finally, their new empirical analysis of the Fisher dispute with DISH Network provides evidence on diversion rates that is consistent with my previous analysis.

II. Comments on Israel and Katz's Double Marginalization Submission

6. Israel and Katz acknowledge an important point made by Professor Rogerson: that they had ignored the opportunity cost to Comcast when a subscriber moves to Comcast from another MVPD where he or she already received NBCU programming.[3] In response, however, they argue that many of the new subscribers to Comcast tiers with NBCU programming would be subscribers who previously did not receive NBCU programming, and thus to whom this opportunity cost would not apply. They identify three sources of such incremental NBCU subscribership: (1) viewers who previously did not subscribe to any MVPD; (2) Comcast subscribers currently receiving tiers without some NBCU programming; and (3) other MVPDs' subscribers to tiers that do not include some NBCU programming. Israel and Katz claim that, when all relevant incentives are considered (including those associated with advertising revenues), the welfare-increasing effect from elimination of double marginalization exceeds the welfare-reducing effect of higher prices paid by other MVPDs for NBCU programming. However, their conclusion is unwarranted because their new analysis suffers from both theoretical and empirical flaws. In particular, their analysis of the effects of changes in advertising revenues is critically incomplete and likely gets the net impact of the effect of NBCU advertising revenues on Comcast's incentives backwards.

A. Israel and Katz Ignore Relevant Incentives

7. Israel and Katz hypothesize the following procompetitive incentive for Comcast after consummation of the proposed transaction. Because Comcast "no longer treat[s] the payments it makes to NBCU for NBCU programming as costs (because it internalizes the associated NBCU revenue),"[4] it lowers prices for programming tiers that contain NBCU programming and/or adds NBCU programming to tiers that did not previously contain such programming. Israel and Katz claim that Comcast's pricing and tier adjustments would attract additional subscribers to Comcast (some of whom did not receive the NBCU programming before) or would result in existing subscribers paying less to receive

[3] Israel and Katz state, "We agree with Professor Rogerson's theoretical framework for measuring double marginalization effects and, specifically, that the opportunity costs should be included." *See,* Israel and Katz Response to Rogerson, p. 3.

[4] Israel and Katz Response to Rogerson, p. 2.

NBCU programming. They argue both effects would increase consumer welfare. However, their analysis is critically flawed and incomplete.

1. Israel and Katz Ignore the Opportunity Cost When Subscribers Move From a Lower to a Higher Comcast Tier

8. In Table 1 of their report, Israel and Katz indicate that a substantial percentage of Comcast subscribers currently does not subscribe to each of NBCU's networks. For example, their Table 1 reports that {{ }} of Comcast subscribers do not subscribe to USA and {{ }} do not subscribe to CNBC, while almost {{ }} of Comcast's subscribers do not subscribe to CNBC World and {{ }} do not subscribe to Oxygen Network. Israel and Katz claim that a consequence of the transaction would be to induce "tier switching" by Comcast subscribers; higher tiers would become more attractively priced (from elimination of the double marginalization), so Comcast subscribers would move from lower to higher tiers and thereby become subscribers to more NBCU programming. They claim that this, in turn, would increase viewing of NBCU programming and contribute importantly to the total double marginalization related benefits that they claim would result from the transaction.

9. However, Israel and Katz ignore the "opportunity cost" to Comcast from inducing such switching. When determining the price and composition of its programming tiers, Comcast would consider the impact of its choices on viewing of *all* NBCU programming. One impact Comcast would consider is whether lowering the price or increasing the quality of higher tiers would reduce viewing of NBCU programming that is available on lower tiers (and the advertising revenues NBCU receives based on that viewing).

10. For example, Comcast's incentive to lower the price or increase the programming available on "expanded basic" tiers would be diminished if such adjustments reduced the ratings of NBC broadcast stations or NBCU cable channels available on lower tiers. The effect of tier switching on viewership of the NBCU programming available on basic tiers is an opportunity cost. This opportunity cost parallels that identified by Professor Rogerson – in both cases, Comcast's incentive to lower prices or change the

programming composition of its tiers depends on whether an increase in one revenue stream is offset by decreases in other revenue streams.

11. There likely is a substantial reduction in total viewing of NBCU programming when viewers move up tiers because viewers that switch to higher tiers likely watch other programming available on higher tiers that was not available on lower tiers. NBCU programming tends to be a much more important component of Comcast's basic tiers (measured by viewing patterns) than it is of higher tiers.[5] As a result, it is quite possible that Comcast's incentive to move customers to higher tiers is reduced rather than increased by the transaction, contrary to Israel and Katz's hypothesized effect. I illustrate this in Exhibit 1, which shows that the national ratings share of NBCU networks is {{ }} of viewing of all networks that typically are available on Comcast's limited basic tier, but only {{ }} of viewing of the additional rated networks that typically are available on Comcast's expanded basic (but not its limited basic) tier.[6, 7] This difference reflects the larger selection and greater variety of programming options on the higher tier.[8]

[5] I discuss this effect here in the context of upgrading within Comcast; a similar analysis holds in the context of upgrading from a competitor's lower tier to Comcast's higher tier.

[6] I use Comcast's Atlanta tiering structure to map networks to tiers in this exhibit. *See,* 87-COM-00000001-2. The composition of Comcast's basic and expanded basic tiers in this market is representative of their composition in other regions.

[7] My estimate of NBCU's share among networks typically on Comcast's limited basic tier likely overstates slightly the relevant share among MVPD subscribers if the national ratings for WGN America – a national cable network that is on Comcast's limited basic tier in Atlanta – overstate its ratings among Comcast's Atlanta subscribers. If instead I assume that WGN America's ratings in Atlanta are equal to the national ratings of the fourth place network (ABC - which has almost three times the national rating of WGN America), my estimate declines slightly to {{ }}.

[8] The shares in Exhibit 1 are based on the tiers in the Atlanta rate card submitted to the FCC by Comcast as a representative rate card. *See,* 87-COM-00000001-2. The calculation also excludes networks for which I do not have data on national Nielsen ratings. This exclusion inflates my estimate of NBCU's rating share on the Comcast's limited basic tier to the extent that independent stations (such as WPCH in Atlanta) have significant ratings, but this is unlikely to affect my analysis qualitatively. For example, independent stations would have to collectively have about an 8 rating – more than ABC, CBS, and NBC combined – for NBCU's ratings share in the limited basic tier to decrease to {{ }} (NBCU's share of incremental networks in expanded basic). The actual shares for any particular market would differ somewhat from the ratings I use here, because Comcast's tiering and networks' ratings vary across markets, and because the actual shares would incorporate viewership on non-rated networks (which is likely to be small). However, the imprecision of my quantification does not affect my main point: that Israel and Katz ignore an opportunity cost associated with upgrading, which leads them to exaggerate the double marginalization effects from tier switching.

12. Increased viewing of "expanded basic" networks would increase advertising revenues of NBCU cable networks such as Bravo and MSNBC, but likely would result in reduced viewing of NBCU broadcast stations that would in turn diminish both national and local broadcast advertising revenues received by Comcast-NBCU. These broadcast advertising declines would offset, at least in part, any gains that Comcast obtains from subscribers who receive more NBCU networks when they upgrade to a higher Comcast tier. Indeed, given my estimate of the relative shares of NBCU networks on Comcast's limited basic and expanded basic tiers, lost advertising revenue (resulting from reduced viewing of NBCU broadcast stations) might more than offset any gains that Comcast otherwise would realize when a subscriber upgrades from a basic to an expanded basic tier.[9]

13. The importance of the opportunity cost of moving from a lower to a higher tier is ignored by Israel and Katz. The magnitude of this effect is an empirical issue, but Exhibit 1 suggests it could be substantial and potentially sufficient to eliminate and even reverse Israel and Katz's claimed incentive for Comcast to encourage their subscribers to upgrade.[10] At a minimum, Israel and Katz have exaggerated the double marginalization effects from tier switching.

2. Israel and Katz Ignore how Comcast's Incentives with Respect to Non-NBCU Programming Would Change with the Transaction

14. Changes in Comcast's incentives related to a reduction in double marginalization matter not only for its pricing and tiering decisions with respect to NBCU programming, but also for its decisions with respect to the other programming it chooses to offer. Comcast can expand its subscribers' viewing of NBCU programming in two ways: by

[9] There is an analogous effect – an increase in viewing of newly available programming and a reduction in viewing of programming available on lower tiers – when customers move from expanded basic to higher tiers.

[10] It should be noted that the same type of analysis applies to Comcast's incentives to recruit over-the-air customers to its cable systems (one of the groups they explicitly include in their estimates of benefits from the reduction in double marginalization). In particular, since broadcast networks such as NBC represent the vast majority of viewing for over-the-air customers, switching such customers to cable and in particular tiers such as expanded basic would likely reduce the total amount of viewing of NBCU programming by those customers and thereby reduce NBCU's advertising revenues. That effect would serve to reduce Comcast's incentive to move over-the-air customers to cable and could therefore lead to higher cable prices.

increasing the attractiveness of that programming directly (by lowering its price or placing it in a better position in the lineup/tier structure) or by reducing the attractiveness of alternative programming that subscribers otherwise would watch. In their welfare calculations, Israel and Katz ignore how Comcast's internalization of NBCU revenues affects its incentives with respect to the pricing and tiering of networks that compete with NBCU programming.

15. Comcast's incentive to worsen the placement and pricing of networks that it does not own could result in effects that offset a substantial share of the welfare benefits that Israel and Katz claim. Israel and Katz do not address the relevant empirical question of whether the welfare gain from Comcast's incentive to promote NBCU programming exceeds the welfare loss from Comcast's incentive to shift viewers toward NBCU programming by disadvantaging non-NBCU programming. While a firm typically can affect the attractiveness of alternative offerings through pricing, MVPDs such as Comcast are constrained in how they use price because programming is sold in tiers, or bundled. However, this constraint applies equally to Comcast's ability to favor NBCU programming after the transaction. Comcast has available the same competitive tools for promotion of NBCU programming as it does for disadvantaging substitute programming, including changes in tiering, placement, etc. Accordingly, if Comcast's claims are to be credited, these offsetting incentives must also be taken into account.

B. Israel and Katz's Empirical Analysis is Flawed

16. After explaining their theoretical framework, Israel and Katz provide empirical analysis that they claim shows that "when one appropriately accounts for the full set of pricing effects from the transaction, including double marginalization savings, one finds that the transaction *reduces* average prices paid for MVPD services and, thus, *increases* consumer welfare."[11] However, flaws in their empirical analysis make this conclusion invalid.

[11] Israel and Katz Response to Rogerson, p. 19.

1. Israel and Katz's Evidence on the Relative Switching Rates from Other MVPDs to Comcast Compared with Switching within Comcast Tiers is Uninformative

17. In Israel and Katz's notation, *s* is "the extent to which the switching rate from other MVPDs to Comcast is below the switching rate by subscribers within Comcast."[12] This parameter is important in their quantification of double marginalization effects. Much of their claimed double marginalization related benefits derives from the assumption that a large share of customers who would newly subscribe to a Comcast tier containing various NBCU cable networks in response to pricing and quality effects resulting from the transaction are Comcast customers who currently subscribe to a tier that does not contain those NBCU cable networks (*i.e.*, that *s* is small). They claim that this assumption is supported by two types of evidence.[13]

18. First, Israel and Katz report the responses of current Comcast subscribers and non-subscribers who were "mailed the same Comcast triple play offering" with "HD and digital preferred video service as well as high speed Internet service, voice service, and some premium networks" for an introductory price of [[ ]] per month.[14] Israel and Katz claim that existing Comcast subscribers' "take rate" for this offer was [[ ]] the "take rate" of subscribers to other MVPDs. They argue that this evidence supports an assumption that a Comcast subscriber that currently subscribes to a tier without NBCU cable networks (say, to the Comcast basic tier) is [[ ]] as likely to switch to a Comcast tier with NBCU cable networks (say, the Comcast expanded basic tier) as a non-Comcast subscriber who currently subscribes to a tier with NBCU cable networks (say, the other MVPD's expanded basic tier) is to switch to a Comcast tier with such networks (s = [[ ]]).[15]

19. Second, Israel and Katz claim that, over their lifetime, Comcast subscribers switch tiers within Comcast at a rate [[ ]]. They claim that this supports an alternative "conservative" switching

[12] Israel and Katz Response to Rogerson, p. 10.
[13] Israel and Katz Response to Rogerson, pp. 10-11.
[14] Israel and Katz Response to Rogerson, p. 11.
[15] Israel and Katz Response to Rogerson, p. 11.

assumption – that the probability that a Comcast subscriber who currently subscribes to a tier without NBCU cable networks switches to a Comcast tier with NBCU cable networks is [[ ]] the probability that a non-Comcast subscriber who currently subscribes to a tier with NBCU cable networks switches to a Comcast tier with such networks (s = [[ ]]).[16]

20. Neither of these empirical observations is informative about the relevant issue here, which is where new subscribers to Comcast's "expanded basic" tier (attracted because Comcast lowered the price of that tier) would come from. The evidence from acquisition of new subscribers to the Comcast triple play in response to promotional pricing of this high-end package of cable, voice and Internet services would not reflect willingness to switch in response to changes in price of Comcast cable programming tiers that include various NBCU networks. Rather, switching in response to promotion of the triple play would be influenced by the importance of those services to different groups of consumers, especially those interested in adding voice and Internet services. In fact, many of the new subscribers that Israel and Katz claim would come from within Comcast instead would be switching from other suppliers of voice and Internet services and therefore logically should be counted as switching firms. It is not clear why comparing the number of new "triple play" customers that already subscribed to Comcast's cable television service (and thus likely are switching only their provider of phone and/or Internet service) with the number of new "triple play" customers that come from another MVPD where they received video programming (and likely from other providers of phone and Internet service as well) would be informative about the number of existing Comcast basic cable subscribers that would upgrade to higher video tiers (but not switch providers) if Comcast cut its price for higher video tiers.

21. The evidence from historic switching by Comcast subscribers between tiers compared with switching from Comcast to another MVPD also provides no basis for measuring the relevant switching rates. Average historical switching by Comcast subscribers over some past time period during which both Comcast's and other MVPDs'

[16] Israel and Katz Response to Rogerson, p. 11.

programming, pricing, promotions, marketing, capacity, technology and other features changed cannot predict how current and future Comcast subscribers would react if Comcast lowers the price of a tier (because it internalizes the revenue from NBCU programming) and/or adds additional NBCU programming to one or more of its tiers. The relevant issue in evaluating the double marginalization related benefits is the extent to which Comcast subscribers switch tiers at the margin in response to a change in a tier's price or quality, not on average over an undefined period of time in response to undefined events.

2. Israel and Katz Provide No Evidence that Customers Who Subscribe to Tiers Without NBCU Cable Networks Are Likely to Upgrade In Response to a Small Price Cut

22. Comcast tiers without any NBCU cable networks (including USA and CNBC) tend to be "basic" packages (composed primarily of local channels), "family" packages, or foreign language packages.[17] Evidence presented by Israel and Katz indicates that these tiers account for {{ }}.[18] Comcast subscribers to such basic tiers have demonstrated through their choice (*i.e.*, revealed preference) of such inexpensive packages that they place a relatively low value on the additional networks available on more expensive tiers (including additional NBCU networks), but instead are satisfied with the programming available on limited tiers. Israel and Katz's quantification of double marginalization related benefits assumes that many of these subscribers would upgrade in response to a (small) reduction in the price of higher tiers offering NBCU networks, but these subscribers' revealed preference for very limited programming suggests that this is unlikely.[19]

---

[17] For example, the vast majority of channel lineups submitted by Comcast in this proceeding show no NBCU cable networks on the lowest tier of service. *See*, 87-COM-00000001-117.

[18] In Table 1 of their Response to Rogerson, Israel and Katz report that only {{ }} do not receive USA and CNBC, respectively.

[19] Similar criticism applies to their assumptions regarding customers who do not currently subscribe to an MVPD, though they assume (in conservative scenarios) that none of these customers switch.

3. It Is Not Reasonable for Israel and Katz to Assume Equal Switching Rates for Customers of Other MVPDs Who Do and Do Not Currently Subscribe to NBCU Programming

23. According to Israel and Katz, "the rates at which households currently subscribing to rival MVPDs would switch to Comcast could vary depending on whether the households currently have access to the NBCU networks in question. However, we are unaware of any convincing argument that the variation should be in one direction or the other."[20] Based on this logic, Israel and Katz assume that the switching rate to a Comcast tier with NBCU programming (once Comcast internalizes the true cost of that programming and adjust prices and offerings accordingly) is the same for customers of other MVPDs that do and do not currently receive NBCU programming.[21] Thus, Israel and Katz assume that, if Comcast reduces price on an "expanded basic" tier with NBCU programming, a DIRECTV customer that currently subscribes to a tier with the same programming is no more likely to switch to Comcast than is a DIRECTV customer who currently subscribes to a tier without NBCU networks.

24. Economic logic implies that this assumption is unreasonable. Rather, consumers who currently pay to receive NBCU programming (and thus have revealed that they have a "taste" for this programming or equivalently a "taste" for an expanded basic offering) are more likely to shift to another MVPD that offers NBCU and/or expanded basic programming at a lower price than are consumers who have revealed by not paying to receive NBCU programming that they have less demand for that programming. As applied to grocery stores, Israel and Katz's assumption would imply that when a store offers a sale on tuna fish, other stores' customers who buy tuna fish are no more likely to be attracted by the sale than other stores' customers who buy chicken. This is implausible.

[20] Israel and Katz Response to Rogerson, p. 10.

[21] Israel and Katz Response to Rogerson, p. 10. In their notation, this assumption is that (g3/h3) = (g4/h4).

4. Double Marginalization Related Benefits Are Unlikely for Many DIRECTV Subscribers, and Possibly Other MVPDs' Subscribers, That Israel and Katz Claim Do Not Receive NBCU Programming

25. Israel and Katz's Table 1 implies that {{ }} DIRECTV subscribers do not currently receive USA Network and {{ }} DIRECTV subscribers do not receive other NBCU networks.[22] Israel and Katz base the shares in their Table 1 on NBCU {{ }}, and calculate the share of DIRECTV's subscribers who receive NBCU networks as the ratio of the number of subscribers to each of these networks according to these data and the total number of DIRECTV subscribers reported in DIRECTV's financials. The share that they conclude does not receive a particular network is therefore one minus this ratio.

26. As I now discuss, double marginalization related benefits are unlikely for many of the customers who, according to Israel and Katz, do not receive NBCU cable networks because many such customers likely have highly inelastic demand for NBCU networks and are unlikely to respond to a reduction in the price of NBCU programming by switching. Some of these subscribe to DIRECTV's "Family Choice" package, which includes only local channels and networks with programming considered suitable for all ages, and does not include the NBCU networks that Israel and Katz highlight. A Comcast price cut for tiers with NBCU programming is unlikely to attract these customers (or subscribers to other MVPDs' "Family" packages), because Family packages are attractive to customers who have revealed that they do not want access to NBCU networks such as USA, Bravo, or Syfy.

27. Another portion of the {{ }} DIRECTV customers who do not receive USA Network is accounted for by "base package" subscribers to DIRECTV's international and Spanish language packages that contain little, if any, English language

[22] Israel and Katz's NBCU {{ }} indicate {{ }} DIRECTV subscribers for USA Network and the DIRECTV 10-Q lists 18.7 million DIRECTV subscribers. Therefore, using Israel and Katz's method, the data underlying their Table 1 implies (18.7 – {{ }} subscribers do not receive USA Network, *See,* {{ }} and DirecTV Holdings LLC, Form 10-Q for the quarter ended March 31, 2010, p. 35.

cable programming.[23] They too likely have relatively inelastic demand for the NBCU networks they do not receive, and are unlikely to switch to Comcast if Comcast cut its price for USA, Bravo, and the other NBCU cable networks that are the focus of Israel and Katz's analysis.

28. If the number of subscribers reported by other MVPDs in their financial filings (the denominator for calculations in Israel and Katz's Table 1) include customers in these or other categories for which double marginalization related benefits are unlikely, then Israel and Katz's analysis overstates these benefits as well.

5. Israel and Katz's Analysis Undercounts the Number of DIRECTV Customers, and Possibly Other MVPDs' Customers, Who Currently Receive NBCU Programming

29. Israel and Katz rely on NBCU {{ }} to calculate the number of subscribers that receive NBCU networks. Their figures for DIRECTV correspond closely to totals that {{ }}. For example, DIRECTV's report from February 2010 indicates that {{ }} DIRECTV subscribers receive CNBC World. These subscribers do not appear in the {{ }} relied upon by Israel and Katz, probably because {{ }}.[24] Similarly, DIRECTV's report from February 2010 {{ }}, but these do not appear to be counted in Israel and Katz's analysis.[25]

[23] No NBCU cable programming is included in DIRECTV's lowest-level Spanish package. Bravo, USA, and MSNBC are available on all other Spanish packages. Other NBCU networks are only included on higher-level packages. Subscribers to DIRECTV's international packages must subscribe to a package including other channels as well; one option is to choose a "Basic Choice" package that does not contain any NBCU cable programming. *See*, www.directv.com/DTVAPP/new_customer/base_packages.jsp?

[24] {{ }}

[25] {{

6. There Likely is More Meaningful Evidence on Switching Behavior that Could Inform Israel and Katz's Quantification of Double Marginalization Effects

30. The type of evidence most relevant to quantifying the double marginalization savings from this transaction would reflect consumers' responses to changes in the programming offered on particular Comcast tiers, or changes in the relative prices of different tiers. Relevant evidence also could be obtained by examining Comcast's pricing and customer switching activity when the price Comcast pays to license programming changes relative to license fees paid by its MVPD competitors. Such "natural experiments" would help quantify the relevant empirical issues, including (a) the extent to which Comcast passes through reductions in its marginal cost of programming, (b) how consumers respond to price reductions on a particular tier, and (c) the degree to which increases in Comcast's subscribership on a particular tier come from tier-upgrading by existing Comcast subscribers. Israel and Katz instead rely on evidence that is not directly relevant to quantifying the claimed benefits from the proposed transaction.

7. Israel and Katz's Welfare Analysis Ignores Welfare Effects Outside of the Regions Where Comcast Has a Cable System

31. Israel and Katz measure the estimated benefits from double marginalization and the potential higher costs to competing MVPDs for NBCU programming in the seven DMAs where NBCU has O&Os and Comcast also has cable systems. However, they ignore the impact of the transaction in areas that Comcast does not serve, and where the cost to license NBCU programming would increase for national MVPD competitors and their customers (according to Israel and Katz's own assumptions). In these areas (not served by Comcast), there could be no offsetting double marginalization related benefits from Comcast's pricing even if such benefits exist in other areas.[26]

---

[26] Comcast's national competitors have [[ ]] subscribers in DMAs outside of Comcast's footprint. *See*, "Multichannel Operator Comparison By Market." SNL Kagan. Q2-2010.

8. Israel and Katz's Welfare Analysis Continues to Abstract From How Competition Works In this Marketplace

32. In my August 19, 2010 report, I commented on Israel and Katz's general approach to evaluating the consumer welfare effect of the transaction, which they did by calculating a subscriber-weighted average of (1) the estimated transaction-related reduction in Comcast's costs to obtain NBCU programming and (2) increases in license fees for that programming paid by Comcast's competitors. I explained that this approach did not elucidate the transaction's impact on consumer welfare, in part because it ignores how competition works in this marketplace.[27]

33. Israel and Katz now provide a simulation exercise that attempts to measure how much the subscriber-weighted average of prices to consumers would change as a result of the transaction. While this approach focuses on changes in the prices that consumers face, rather than the change in the weighted average of MVPDs' costs, it continues to abstract from the way in which competition works in this market (an important requirement of welfare analysis, as Israel and Katz acknowledged in their earlier report[28]). Their simulation exercise suffers from well-known problems, such as specifications of demand that imply strong and restrictive assumptions on the extent to which MVPDs "pass through" wholesale cost changes to retail customers.[29] It also assumes a specific type of competitive conduct ("Bertrand-Nash" pricing) that is uninformed by evidence on how MVPDs compete or on economic outcomes more generally. The Bertrand-Nash assumption can result in simulations that predict large double marginalization effects, even when such effects are nonexistent or even opposite in sign.

34. Israel and Katz's simulation exercise abstracts from the very features of competition in this market that they have highlighted as important elsewhere in their filing: the fact that MVPDs offer multiple tiers of programming and that the composition

[27] *See*, Kevin M. Murphy, *Response of Professor Kevin M. Murphy to Reply Report of Mark Israel and Michael L. Katz*, August 19, 2010, ¶¶ 41-44.
[28] *See*, Mark Israel and Michael L. Katz, *Economic Analysis of the Proposed Comcast-NBCU-GE Transaction*, July 20, 2010, ¶75.
[29] For a discussion, see E. Glen Weyl and Michal Fabinger, "Pass Through as an Economic Tool," October 29, 2009. Available at SSRN: http://ssrn.com/abstract=1324426.

and pricing of these tiers are important strategic decisions.[30] Their simulation also abstracts from important issues that I highlight above, including that an integrated MVPD would consider how its pricing and tiering decisions would affect all of the integrated firm's revenue streams. The usefulness of the type of simulation exercise offered by Israel and Katz depends critically on whether the modeling assumptions credibly capture competitive dynamics in the market to which the model is being applied. Israel and Katz's model does not do so, as the following examples illustrate.

i. Israel and Katz Ignore the Fact that Programming is Sold in Bundles

35. An important feature of cable networks is that individual programming elements are sold in bundles (*i.e.*, tiers). As a result, incentives manifest themselves through tier composition and pricing. This induces important substitution and complementary relationships between products that otherwise would be separable in demand. For example, the incentive to raise prices on one element of a programming tier would lead to higher prices for that tier and less viewing of other programming on that tier. This would occur even if, in the underlying demand structure, other programming were a substitute for the programming in question. Thus, in my discussion of pricing of the expanded basic tier above, it was important to look at the composition of both that tier and other tiers to which consumers might switch. None of Israel and Katz's models captures such effects.

ii. Israel and Katz Ignore Important Asymmetries in How Pricing Incentives Change

36. Israel and Katz ignore asymmetric effects on pricing incentives. Consider a hypothetical exercise in which NBCU owned only a broadcast network. In the Bertrand model used by Israel and Katz, Comcast's ownership of the NBC broadcast network would generate double marginalization related benefits since the integrated firm would have an incentive to price NBCU programming more aggressively. But in the actual marketplace, Comcast can do little to expand the availability of NBC's broadcast network to consumers, since it is available on the lowest (basic) tier and over the air. The only

[30] Israel and Katz Response to Rogerson, p. 5.

way for Comcast to generate more viewing of NBC network programming is to move consumers down tiers or off of cable and to over-the-air, so that those customers have fewer programming options. As a result, after the transaction, Comcast would have less incentive to induce subscribers to switch from over-the-air viewing to basic cable since doing so would reduce those households' viewing of NBC network programming. Similarly, the only way to induce cable customers to increase NBC viewing would be by inducing them to move down programming tiers. This would give Comcast less incentive to price higher programming tiers (such as expanded basic) aggressively. Again, Israel and Katz's welfare analysis ignores these important asymmetries in the tier locations of NBCU and competing programming.

iii. Israel and Katz Ignore the Fact that the Mix of Price and Quantity Effects is Likely to Vary Substantially Across Programming

37. The fact that some programming is sold individually (such as premium channels) and other programming is sold in bundles implies that the response to changes in incentives could be very different for different program elements. Some programming might be moved across tiers, the pricing of some existing tiers might be changed, and changes in incentives also might affect the pricing of individual programming.[31] None of Israel and Katz's models take this into account.

38. Since Israel and Katz's analysis of the welfare effects of the proposed transaction leaves out these and other important features of the marketplace, their analysis does not offer useful insight into the welfare effects of the transaction.[32]

[31] A proper analysis can be done – at least in some cases. For example, in my earlier report, I calculated the impact on prices and quantities of the lack of access to local broadcast stations by seeing how MVPDs respond on those dimensions to exactly that change in the underlying environment.

[32] While the need to take into account the variety of different ways in which quantity, quality and price can adjust for cable programming offerings applies to all analyses of the impact of the proposed transaction (as I discussed in my original submission in connection with my analysis of how an MVPD would adjust price and quantity in response to foreclosure of programming), the need is especially acute in performing a welfare analysis that depends on the adjustment by many different MVPDs of their pricing, programming, tiering, positioning, bundling (with voice/Internet), etc. in response to a change in terms offered (or internalized) for particular programming.

III. Israel and Katz's New Analysis of the Fisher Event Supports Evidence I Previously Offered of Substantial Diversion

39. In their second submission on the robustness of their econometric analysis, Israel and Katz provide additional analysis of the Fisher dispute with DISH Network. They conclude that "there is little dispute about the appropriate diversion rate from DBS to Comcast."[33] As they now make clear, they find that "Comcast gained {{ }} subscribers for every subscriber lost by Dish," or that {{ }} of subscribers that DISH lost during the dispute moved to Comcast, and "the estimate of {{ }} implies diversion that is {{ }} of proportional, almost exactly in line with the other estimates in this case," including estimates that I offered previously.[34]

40. Thus, in this submission, Israel and Katz clarify that econometric evidence suggests an economically significant diversion rate, and not the "near zero" diversion that they previously suggested.[35] I agree with their conclusion.

[33] Israel and Katz Econometrics Report, p. 6.
[34] *See*, Kevin M. Murphy, *Response of Professor Kevin M. Murphy to Reply Report of Mark Israel and Michael L. Katz*, August 19, 2010, ¶¶ 26, 38 and Exhibit 2.
[35] Israel and Katz state that "[a]lthough neither of these estimates is perfect, we know of no better measures, and thus we accept {{ }} percent as a plausible range for the departure effects from loss of a broadcast network and have used the average of this range {{ }} in our own analysis." *See*, Israel and Katz Econometrics Report, p. 5.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

Executed this 19th day of November, 2010.

Kevin M. Murphy

Kevin M. Murphy

Exhibit 1

NBCU Ratings Shares For Groups of Networks On Comcast's Limited Basic and Expanded Basic Tiers In Comcast' s Atlanta Sub-Region

		[1]	[2]	[3]	[4]	[5]	[6]
Comcast Tier	Incremental NBCU Networks Received	Total Ratings of All Networks Received	Incremental Ratings For Additional Networks	Total Ratings of All NBCU Networks	Incremental National Ratings of NBCU Networks	Total NBCU Ratings Share Among All Networks On Tier	NBCU Share of Incremental Ratings for All Additional Networks
{{							}}

Notes:

[1] = The sum of the available national ratings across all networks listed on each tier.[1]

[2] = The total ratings for all networks available on Expanded Basic but not on Limited Basic.

[3] = The sum of the available national ratings across all NBCU networks listed on each tier.

[4] = The total ratings for all NBCU networks available on Expanded Basic but not on Limited Basic.

[5] = ([3]/[1] - sx)/(1-s) for Limited Basic, and [3]/[1] for Expanded Basic.[2]

[6] = [4]/[2]

[1] I include only networks for which Nielsen ratings are available via SNL Kagan, and thus these figures do not include viewing of independent local broadcast channels or cable networks for which I do not have national ratings (e.g., shopping channels, RSNs, C-SPAN, Headline News). I use the daytime network rating for Nickelodeon rather than the alternate rating for Nick at Night.

[2] These are estimates of the ratings shares among viewers who receive programming from MVPDs rather than over-the-air. (An adjustment to the national ratings share across all viewers is necessary only for limited basic because subscribers only access expanded basic networks through MVPDs.) I calculate x using NBCU's national ratings share among broadcast networks available on Comcast's limited basic tier in Atlanta. Following Israel and Katz, we assume s (the share of over-the-air TV households) is equal to {{ }}.

Sources:

[A] - 87-COM-00000001-2.

[B] - Nielsen September 2010 24-hour broadcast and cable ratings from SNL Kagan.

[C] - Israel and Katz Response to Rogerson, Table 2.

REDACTED -- FOR PUBLIC INSPECTION

CERTIFICATE OF SERVICE

I hereby certify that, on this 19th day of November, 2010, a copy of the foregoing Letter of DIRECTV, Inc. was sent by overnight mail to:

Kathryn A. Zachem
Vice President, Regulatory and State Legislative Affairs
COMCAST CORPORATION
2001 Pennsylvania Ave, NW
Suite 500
Washington, DC 20006

Jordan Goldstein
COMCAST CORPORATION
2001 Pennsylvania Avenue, N.W.
Suite 500
Washington, DC 20006

Michael H. Hammer
James L. Casserly
Michael D. Hurwitz
Brien C. Bell
WILLKIE FARR & GALLAGHER LLP
1875 K Street, N.W.
Washington, DC 20006

A. Richard Metzger, Jr.
Regina M. Keeney
LAWLER, METZGER, KEENEY & LOGAN, LLC
2001 K Street, NW, Suite 802
Washington, DC 20006

Margaret L. Tobey
Vice President, Regulatory Affairs
NBC UNIVERSAL, INC.
1299 Pennsylvania Avenue, NW
9th Floor
Washington, DC 20004

Bryan N. Tramont
Kenneth E. Satten
David H. Solomon
Natalie G. Roisman
WILKINSON BARKER KNAUER, LLP
2300 N Street, NW, Suite 700
Washington, DC 20037

Brackett B. Denniston, III
Senior Vice President & General Counsel
GENERAL ELECTRIC COMPANY
3135 Easton Turnpike
Fairfield, CT 06828

Richard Cotton
Executive Vice President & General Counsel
NBC UNIVERSAL, INC.
30 Rockefeller Plaza
New York, NY 10112

Arthur J. Burke
Ronan P. Harty
Rajesh James
DAVIS POLK & WARDWELL LLP
450 Lexington Avenue
New York, NY 10017

and by e-mail to:

Best Copy and Printing, Inc.
Portals II
445 12th Street, S.W.
Room CY-B402
Washington, DC 20554
www.bcpiweb.com

Wayne McKee
Media Bureau
Room 4-C737
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
Wayne.McKee@fcc.gov

William Lake
Media Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
William.Lake@fcc.gov

Jim Bird
Office of the General Counsel
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
James.Bird@fcc.gov

Tracy Waldon
Media Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
Tracy.Waldon@fcc.gov

Jessica Almond
Media Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
Jessica.Almond@fcc.gov

Vanessa Lemmé
Media Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
Vanessa.Lemme@fcc.gov

Caitlin M. McDonnell

Caitlin M. McDonnell