# **ATTACHMENT C**

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#### **BYECFS**

Marlene Dortch Secretary Federal Communications Commission 445 12th Street, SW Washington, DC 20554

Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197

Dear Ms. Dortch:

DISH Network Corporation ("DISH") responds to a letter filed by the Applicants on March 19, 2019 regarding the price effects of four-to-three mergers in European markets. The Applicants mischaracterize studies demonstrating price increases following four-to-three mergers in Europe, and simultaneously attempt to buttress their argument that such consolidation does not lead to price increases by cherry-picking from methodologically flawed studies.

As an initial matter, the Applicants make a fundamental mistake: in support of their argument that prices in three-player markets have declined, they use a study that examined the prices of the three largest carriers in a market, even if that market has *more* than three carriers. In cases where the three largest carriers' prices went down in a four-carrier market, the Applicants mistakenly treat that as evidence that prices have gone down in a three-carrier market.

The Applicants also allege that four-to-three consolidations resulted in lower prices in Austria and the Netherlands based on changes to wireless consumer price indices for each country. But such indices say nothing about whether prices in three-carrier countries are lower than prices in four-carrier countries. Moreover, the Applicants' choice of time periods is so self-serving as to make the exercise meaningless. In the Netherlands, the Applicants zoom in on a consumer price index ("CPI") decline over a 9-month period (May 2018 through February 2019). But the four-to-three merger the Applicants purport to analyze was not consummated until January 2019. To hear the Applicants, this four-to-three merger started causing prices to fall before it even happened and finished the job one month after. For Austria, by contrast, the Applicants switch to a bird's eye view, pointing to a CPI decrease over a 6-year period, despite

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<sup>&</sup>lt;sup>1</sup> Letter from Trey Hanbury, Counsel to T-Mobile, to Marlene Dortch, FCC, WT Docket No. 18-197 (March 19, 2019) ("T-Mobile Europe Studies Letter"). T-Mobile filed a prior version of this letter on March 11, but all references in this response are to the March 19 letter.

the fact that several MVNOs entered the market in 2015, pursuant to a condition imposed on the four-to-three Hutchison/Orange merger. In fact, prices in Austria increased by, at least, 14% after the number of Austrian carriers fell from four to three following the Hutchison/Orange merger in late 2012. The Austrian Competition Authority found that prices for wireless service began to fall only after MVNOs entered the market under a condition of that merger. And in the Netherlands, prices increased following a four-to-three merger in 2007, and only began falling after the entry of a fourth MNO in 2015.

The Applicants also ignore market entry when claiming that prices decreased in the German three-player market: a "mini-MNO" had entered the German market and was in operation during most of the period on which they rely. In fact, consolidation resulted in higher prices in that country too, albeit to a lesser degree due to competition from that "mini-MNO."

In short, price studies conducted by European regulators or the EU are unanimous on one thing: prices are higher in three-carrier markets that have experienced four-to-three consolidations than in markets with more than three mobile carriers.

The Applicants misrepresent the number of MNOs in a country to make it appear that four-tothree consolidations in Europe did not result in price increases

The Applicants state that "[t]he real evidence from the EU demonstrates that 'four-to-three' mergers have not resulted in higher prices for consumers." But the study that the Applicants cite as their primary source for the proposition follows a methodology that the Applicants seem to have misunderstood, causing them to mislabel countries as having only three MNOs when in fact they have four. The report by Empirica Research, cited on of the first page of the Applicants' letter, examined mobile prices across Europe and then placed the countries into buckets such as "inexpensive" or "expensive." As explained by the study's "note on limitations," however, the study included "only the two or three largest Mobile Network Operators (MNO) in a country." Thus, the Empirica study includes countries in its "inexpensive" and "relatively inexpensive" buckets (the two buckets highlighted by the Applicants on the first page of their letter) that actually had *four* MNOs at the time the study was conducted in February 2018. The four (or even five) MNO countries (as of February 2018) in these two buckets include:

• Poland (Play, Orange, Plus, T-Mobile)

<sup>3</sup> T-Mobile Europe Studies Letter at 1.

<sup>&</sup>lt;sup>2</sup> See below at 6, n.18 & n.21.

<sup>&</sup>lt;sup>4</sup> Emperica and TÜV Rheinland, *Mobile Broadband Prices in Europe 2018* (Feb. 25, 2019), https://ec.europa.eu/newsroom/dae/document.cfm?doc\_id=57336.

<sup>&</sup>lt;sup>5</sup> *Id.* at 17 ("Although those MNOs combined have a market share of at least 70%, it remains possible that a smaller MNO or Mobile Virtual Network Operator (MVNO) has a less expensive offer for one or more OECD usage baskets.").

<sup>&</sup>lt;sup>6</sup> See id at 11.

- France (Orange, SFR, Bouygues Telecom, Free Mobile)
- United Kingdom (EE, O2, Vodafone, Three)
- Luxembourg (POST, Tango, Orange, LOL Mobile)
- Finland (Telia, Elisa, DNA, Alcom, Ukko Mobile)
- Slovenia (Telekom Slovenije, A1, Telemach, T-2)
- Latvia (LMT, Tele2, Bite, Triatel)
- Lithuania (Telia, Bite, Tele2, MEZON)
- Romania (Orange, Vodafone, Telekom, Digi.Mobil)
- Denmark (TDC, Telenor, Telia, 3 Denmark)
- Bulgaria (A1, Telenor, Vivacom, T.Com, Bulsatcom)
- Spain (Movistar, Orange, Vodafone, Yoigo)
- Sweden (Telenor, Tele2, Telia, 3 Sweden)

Thus, the Empirica study in fact suggests that the added competition from having four (or even five) MNOs in a country contributes to lower prices: out of the 11 countries listed as being in the "relatively expensive" or "expensive" buckets, only two (Netherlands and Slovakia) had four MNOs at the time the study was conducted.<sup>7</sup> The remaining nine countries in the "relatively expensive" or "expensive" buckets had three MNOs.<sup>8</sup>

The proper standard for evaluating four-to-three merger effects is whether prices in three carrier countries are higher than in four-carrier countries

The Applicants conflate general trends in the CPI for wireless services with studies focused specifically on the price effects of four-to-three transactions. While Europe has experienced a general trend of decreased prices for mobile broadband service, studies that specifically examine the effects of wireless mergers make clear that prices are higher in the

<sup>&</sup>lt;sup>7</sup> *Id*. (listing the countries in the buckets).

<sup>&</sup>lt;sup>8</sup> The Applicants also list Italy as a "three-MNO country." While Italy did have three MNOs at the time of the Empirica report, Iliad has since launched as a low-cost fourth MNO in Italy (because of merger conditions imposed by the European Commission) and has experienced success, driving down prices. *Iliad Reaches 1 Million Subscribers in Italy, Extends Low-Cost Offer*, Reuters (July 18, 2018), <a href="https://www.reuters.com/article/iliad-italy/iliad-reaches-1-million-subscribers-in-italy-extendslow-cost-offer-idUSI6N1TT01D">https://www.reuters.com/article/iliad-italy/iliad-reaches-1-million-subscribers-in-italy-extendslow-cost-offer-idUSI6N1TT01D.

countries that experienced a four-to-three consolidation than in countries that did not experience such mergers.9

Thus, while it is undoubtedly true that mobile prices have generally declined across Europe, CPI indices are not the proper metric by which to measure the price effects of a four-tothree merger. In a report on the effects of four-to-three mergers in Austria and the Netherlands, the European Commission and the Austrian and Dutch competition authorities account for this overall price decline as key to their methodology:

Simply assuming that the pre-merger price would have prevailed also post-merger is likely to bias our estimate if post-merger prices would have changed also absent the merger. This is likely the case in the mobile telecom industry, as we find evidence of a long-term path of price decrease shared by almost all countries considered in the report which are unaffected by mergers. Hence, the comparison of the prices 'before-and-after' the merger is not appropriate in this setting. 10

Similarly, a study the Applicants cite three times explains why a facile before-and-after comparison is not appropriate:

[S]imply calculating average prices in affected countries before and after the event would not provide a meaningful comparison as it would not take into consideration the underlying, unrelated to mergers, trends affecting both prices and investment. To accurately estimate the merger effect we would need to construct a case-specific control group for each country and take an appropriate time window around the event so that it is not affected by any other changes in market structure. 11

When examining *merger-specific* price effects, the European Commission, national competition authorities and the OECD, among others, have found that countries with four-to-three mergers in fact experienced price *increases* following the four-to-three merger. <sup>12</sup>

<sup>&</sup>lt;sup>9</sup> See below at n.12.

<sup>&</sup>lt;sup>10</sup> European Commission, Authority for Consumers and Markets, & Austrian Regulatory Authority for Broadcasting and Telecommunications, Ex Post Analysis of Two Mobile Telecom Mergers: T-*Mobile/tele.ring in Austria and T-Mobile/Orange in the Netherlands*, at 8-9 (2015), http://ec.europa.eu/competition/publications/reports/kd0215836enn.pdf ("EC Austria/Netherlands Study").

<sup>&</sup>lt;sup>11</sup> Christos Genakos, Tommaso Valletti & Frank Verboven, Evaluating Market Consolidation in Mobile Communications, 33 (93) ECON. POL'Y 45, 73 (2018).

<sup>&</sup>lt;sup>12</sup> See e.g., Body of European Regulators for Electronic Communications, Report on Post-Merger Market Developments - Price Effects of Mobile Mergers in Austria, Ireland and Germany, at 2-3 (June 2018), https://berec.europa.eu/eng/document\_register/subject\_matter/berec/download/0/8168-berec-report-onpost-merger-market-devel\_0.pdf ("BEREC Study"); United Kingdom Office of Communications (Ofcom), A Cross-Country Econometric Analysis of the Effect of Disruptive Firms on Mobile Pricing, at 2 (March 15, 2016), https://www.ofcom.org.uk/ data/assets/pdf file/0019/74107/research document.pdf ("Ofcom Study"); Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR), Ex Post Analysis of the Merger Between H3G Austria and Orange Austria, at 5-6, 17 (2016),

# The Applicants rely on flawed economic studies

The Applicants rely on flawed economic studies to make their case regarding the impact of four-to-three consolidations.

The figure reproduced on page 2 of the Applicants' letter (figure 16 in the May 2015 GSMA study) purports to show that prices in the EU, as measured by average revenue per minute ("ARPM"), have generally declined from 2000 to 2014 and that there is little difference between 3 MNO and 4 MNO countries. But even assuming that ARPM is an appropriate proxy for price, it is unclear how GSMA accounted for four-to-three mergers that happened *during* the 15-year time period covered by the figure. The figure appears to group EU countries as having either three or four MNOs for the entire period of 2000-2014. But there were several MNO mergers during this period, including Hutchison/Orange in Austria, T-Mobile/Orange in Netherlands, and T-Mobile/Orange in the United Kingdom, among others. This is a critical flaw in the GSMA study.

Another study cited by the Applicants<sup>14</sup> was criticized as methodologically suspect by the Body of European Regulators ("BEREC") in a separate study cited by the Applicants.<sup>15</sup> Among other things, the BEREC criticized that study for not using pre-merger data in its analysis.

## The Applicants misstate the evidence about mergers in three countries

**Austria.** In Austria, the four-to-three merger of Hutchison/Orange in 2012 resulted in dramatic price increases. Prices began to decline only after the merger remedy requiring the facilitation of MVNO entry became effective.<sup>16</sup>

https://www.rtr.at/en/inf/Analysis\_merger\_H3G\_Orange/Ex\_post\_analysis\_merger\_H3G\_Orange\_RTR.pdf ("2016 RTR Study"); Austrian Competition Authority (BWB), The Austrian Market for Mobile Telecommunication Services to Private Customers: An Ex-post Evaluation of the Mergers H3G/Orange and TA/Yesss!, Sectoral Inquiry BWB/AW-393, at 6-7 (March 2016), https://www.bwb.gv.at/fileadmin/user\_upload/PDFs/BWB2016-re-Ex-post\_evaluation of the mobile\_telecommunications\_market.pdf ("BWB Study"); EC Austria/Netherlands Study at 76-77.

<sup>&</sup>lt;sup>13</sup> See T-Mobile Europe Studies Letter at 2; GSMA, Assessing the Case for In-Country Mobile Consolidation, at 41 (May 2015), <a href="https://www.gsma.com/publicpolicy/wp-content/uploads/2015/05/Assessing">https://www.gsma.com/publicpolicy/wp-content/uploads/2015/05/Assessing</a> the case for in-country mobile consolidation.pdf.

<sup>&</sup>lt;sup>14</sup> GSMA, Assessing the Impact of Mobile Consolidation on Innovation and Quality: An Evaluation of Hutchison/Orange Merger in Austria (July 2017), <a href="https://www.gsma.com/publicpolicy/wp-content/uploads/2017/07/GSMA\_Assessing-the-impact-of-mobile-consolidation-on-innovation-and-quality\_36pp\_WEB.pdf">https://www.gsma.com/publicpolicy/wp-content/uploads/2017/07/GSMA\_Assessing-the-impact-of-mobile-consolidation-on-innovation-and-quality\_36pp\_WEB.pdf</a> (cited in footnote 19 of T-Mobile Europe Studies Letter).

<sup>&</sup>lt;sup>15</sup> See BEREC Study at 39 (cited in Attachment A to T-Mobile Europe Studies Letter, footnote 4) ("BEREC Study").

<sup>&</sup>lt;sup>16</sup> The MVNO merger commitment required the applicants to allow up to 17 MVNOs wholesale access to up to 30% of the merged company's network. *See* 2016 RTR Study at 7.

The Austrian telecom regulator RTR determined that the Hutchison/Orange merger resulted in price increases of as much as 90% compared to control countries before a new MVNO entered the market. The Austrian competition regulator BWB also concluded that prices increased as a result of the merger, finding that consumers suffered a 14% to 20% price increase on average (and 20% to 30% for prepaid plans). And BEREC also concluded that prices increased.

The Applicants cite to changes in the Austrian mobile CPI from 2012 and 2018 as evidence that the Hutchison/Orange merger did not result in price increases. As explained above, CPI is an inconclusive metric as it does not allow comparison of different markets. But just as important, the Applicants have examined the index over the wrong period, as several MVNOs entered the market about halfway between 2012 and 2018. The index would in fact confirm the increase if the correct period is used. The following figure, using the same Austria index used by the Applicants, shows that the index stood at 82.82 in December 2012 (the last month before the Hutchison/Orange merger was consummated). It rose to a high of 105.14 in November 2014, with high levels above 100 throughout early and mid-2015. The index only began to decline after the entry of several MVNOs during 2015.

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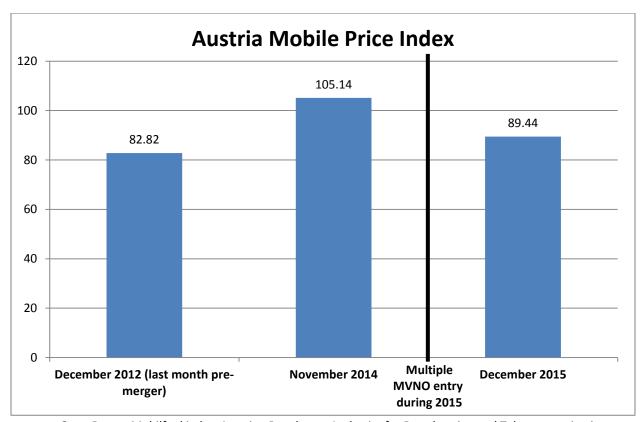
<sup>&</sup>lt;sup>17</sup> 2016 RTR Study at 5. ("We conclude that the merger had a significant and strong price increasing effect for smartphone users as well as for traditional users before the merger remedies (MVNO entries) became effective.")

<sup>&</sup>lt;sup>18</sup> BWB Study at 6.

<sup>&</sup>lt;sup>19</sup> BEREC Study at 2 ("[T]here is evidence that the merger led to significant price increases in 2014 and 2015" (the two years following the merger)).

<sup>&</sup>lt;sup>20</sup> T-Mobile Europe Studies Letter at 4-5.

<sup>&</sup>lt;sup>21</sup> See BWB Study at 11 ("In the course of 2015, several MVNOs entered the market with aggressive offers and prices are now decreasing again."); 2016 RTR Study at 7 ("Significant competitive pressure from MVNOs only developed after the market entry of further MVNOs in the course of 2015.").



Open Data – Mobilfunkindex, Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR), <a href="https://www.rtr.at/en/inf/odMFI">https://www.rtr.at/en/inf/odMFI</a>. All figures are for the "overall" mobile price index as calculated by RTR.

**Netherlands.** The European Commission and the Netherlands competition authority both concluded that prices in the Netherlands increased by 10% to 17% compared to control countries after the four-to-three merger of T-Mobile/Orange in 2007. These authorities found that after the five-to-four and four-to-three mergers that occurred in the Netherlands, control countries experienced a stronger price decline than prices in the Netherlands. <sup>23</sup>

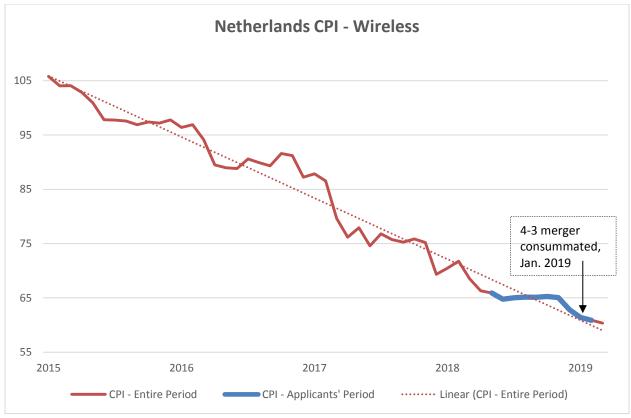
The Applicants also misuse the CPI in the Netherlands. They state that prices declined after the four-to-three merger of T-Mobile NL and Tele2 in November 2018, but the merger was not consummated until January 2019. And, the Applicants' Figure 4 shows the Netherlands price index for wireless services for a very short time period (May 2018 through February 2019). The suggestion that the merger started pushing prices down before it happened and completed that achievement within a month of its consummation is not credible.

<sup>&</sup>lt;sup>22</sup> EC Austria/Netherlands Study at 76.

<sup>&</sup>lt;sup>23</sup>*Id.* at 77.

<sup>&</sup>lt;sup>24</sup> Press Release, Tele2, *Merger completed between Tele2 and T-Mobile in the Netherlands* (Jan. 2, 2019) <a href="https://www.tele2.com/media/press-releases/2019/merger-completed-between-tele2-and-t-mobile-in-the-netherlands">https://www.tele2.com/media/press-releases/2019/merger-completed-between-tele2-and-t-mobile-in-the-netherlands</a>.

The Applicants cite two reports in support of the idea of declining prices in the Dutch three-player market. <sup>25</sup> But both of these reports actually cover the period when the Netherlands was a four MNO market. In recent years, the Netherlands has experienced price decreases because of the entry of a fourth MNO, Tele2, in 2015. <sup>26</sup> This means that, even if one were to ignore the problems with use of a CPI index, the results do not help the Applicants. The following CPI chart is based on the same data cited by the Applicants and shows the absurdity of the gerrymandering in which the Applicants have engaged. The red line represents the decline of prices between January 2015 and March 2019; the country had a four-carrier market during most of the period. The blue line represents the last part of that period—the nine months from May 2018 to February 2019 (used in the Applicants' Figure 4). The market comprised four carriers during most of that period, too. The four-to-three consolidation of T-Mobile/Tele2 was not consummated until January 2019, and its effects are unlikely to have been felt by February. Put simply, the Applicants have used the 9-month tail end of this four-year decline, which accompanied a four-player market, in order to parlay the decline into one associated with a three-player market.



Monthly data from Netherlands StatLine, using expenditure category 083020, Wireless telephone services, https://opendata.cbs.nl/statline/#/CBS/en/dataset/83131eng/table.

<sup>&</sup>lt;sup>25</sup> T-Mobile Europe Studies Letter at 6 n.22 & n.24.

<sup>&</sup>lt;sup>26</sup> Tele2 was awarded a license to operate as an MNO in 2012, but did not launch its 4G service until the fall of 2015. *See* Tele2 Press Release, *Tele2 Starts Data Revolution in Dutch Market* (Nov. 11, 2015) https://www.tele2.com/media/press-releases/2015/tele2-starts-data-revolution-in-dutch-market.

The Applicants' use of a report from the Dutch regulator ACM noting a price decrease trend from 2010 to 2016 is particularly misleading. ACM attributed much of this trend to the fourth carrier's entry and expressed concern that the trend would be undone by the removal of a competitor:

The ACM concludes that the mobile market has great dynamics, with providers responding to each other's propositions. This dynamic has increased since the entry of Tele2 in 2012. Also prices of mobile communication services have fallen in recent years, despite the very high mobile network quality [of] the Dutch mobile networks.

The ACM expects that the withdrawal of an MNO will have an adverse effect on competition, and with it the prices of mobile communication services. This expectation is based on the fact that the European Commission generally sees four-to-three mergers as problematic, the empirical literature that shows to a large extent that four-to-three concentrations are detrimental to mobile end users communications services, and to the higher degree of competition since Tele2 as the fourth MNO has entered the Dutch market.<sup>27</sup>

**Germany.** As with Austria and the Netherlands, European regulators found that prices increased after the four-to-three merger of Telefónica/KPN. This effect was lessened by a merger remedy that allowed MVNO Drillisch to acquire 30% of Telefónica's network capacity on a fixed basis, allowing Drillisch to "act in a similar way to an MNO." BEREC found "evidence of price increases for all three baskets in the basic specification for the German case." <sup>29</sup>

The Applicants' evidence of price decreases following the Telefonica/KPN merger does not adjust for the positive effect of Drillisch, which has been active since July 2015. Drillisch's merger with fixed-Internet provider United Internet created an even stronger mini MNO. 31

### The supposed literature review submitted by the Applicants is neither definitive nor neutral

With no introduction, the Applicants include a letter to the House Judiciary Committee from the International Center for Law and Economics ("ICLE"). 32 Writing to address the "crucial"

<sup>29</sup> *Id.* at 3. Further noting the unusually "broad range of MVNOs and service providers" compared to other European markets. *Id.* at 29.

<sup>&</sup>lt;sup>27</sup> Authority for Consumers & Markets (ACM), *Advies Multibandveiling 2019*, at 2-3 (Oct. 10, 2017), <a href="https://www.acm.nl/sites/default/files/documents/2017-10/conceptadvies-multibandveiling-2019-2017-10-10.pdf">https://www.acm.nl/sites/default/files/documents/2017-10/conceptadvies-multibandveiling-2019-2017-10-10.pdf</a> (translated with Google Translate) (emphasis added).

<sup>&</sup>lt;sup>28</sup> BEREC Report at 29

<sup>&</sup>lt;sup>30</sup> T-Mobile Europe Studies Letter at 2-4; BEREC Report at 29.

<sup>&</sup>lt;sup>31</sup> United Internet, *Creating a Strong #4 Player in the German Telco Market* (May 12, 2017), <a href="https://www.united-internet.de/fileadmin/user\_upload/pdf\_praesentationen/2017-05-12">https://www.united-internet.de/fileadmin/user\_upload/pdf\_praesentationen/2017-05-12</a> Deal Presentation UI DRI.pdf.

<sup>&</sup>lt;sup>32</sup> Letter from International Center for Law and Economics to Jerrold Nadler, et. al., *Re: The Proposed T-Mobile/Sprint Merger and the State of the Relevant Economic Literature* (Feb. 28, 2019) (Attachment A to T-Mobile Europe Studies Letter) ("ICLE Letter").

question" of the effects of four-to-three mergers, ICLE stated that "we are currently working on a comprehensive literature review of economic studies." ICLE characterized its review to-date as "preliminary" and "initial." Over a month has passed since ICLE's letter, and the Applicants have not submitted an updated literature review from ICLE.

While admittedly "preliminary," ICLE's review does not even include studies that other parties in this proceeding identified showing price increases following four-to-three mergers. ICLE makes these omissions despite citing a BEREC study setting forth a fuller and more balanced literature review, which ICLE partly ignores. And ICLE misrepresents the conclusions of the studies that it does cite. For example, ICLE cites the BEREC study as finding "the effect of mergers on relevant metrics, like price, are mixed, with several mergers resulting in price decreases." But ICLE's footnote points to the BEREC study's literature review, not to its own primary conclusions. BEREC examined three MNO mergers (in Austria, Ireland, and Germany) and found that prices *increased* because of these mergers in all three cases:

- For Austria: "there is evidence that the merger led to significant price increases in 2014 and 2015" (the two years following the merger). 38
- For Ireland: "the merger led to a statistically significant price increase in all three baskets (low, medium, and high usage)." <sup>39</sup>
- For Germany: "there is also evidence of price increases for all three baskets in the basic specification for the German case." <sup>340</sup>

And there is an abundance of additional studies by European regulators and others that show price increases as a result of four-to-three mergers:

- An econometric study from the UK's telecommunications regulator of 25 countries found that "removing a disruptive player from a four-player market could increase prices by between 17.2% and 20.5% on average." <sup>41</sup>
- A recent study using "the largest dataset employed to-date" and examining 33 countries found that the average four-to-three merger would lead to prices increases

<sup>&</sup>lt;sup>33</sup> *Id.* at 2.

<sup>&</sup>lt;sup>34</sup> *Id.* at 3.

 $<sup>^{35}</sup>$  See e.g., BWB Study; 2016 RTR Study; Ofcom Study (all cited by Petition to Deny of DISH Network Corp., WT Docket No. 18-197, at 8 (Aug. 27, 2018)).

<sup>&</sup>lt;sup>36</sup> See BEREC Study at 6-10 (noting that all of the studies indicating price increases after a four-to-three merger were sponsored by the mobile industry).

<sup>&</sup>lt;sup>37</sup> ICLE Letter at 4, n.4 & n.5.

<sup>&</sup>lt;sup>38</sup> BEREC Study at 2.

<sup>&</sup>lt;sup>39</sup> *Id*.

<sup>&</sup>lt;sup>40</sup> *Id*.at 3, 34-35.

<sup>&</sup>lt;sup>41</sup> Ofcom Study at 17.

> of 16.3%. 42 The Applicants cite this study as finding "significant efficiency improvements and increases in per-firm investment,"43 but the study actually finds that "it is not clear whether efficiencies from coordinating total industry investment among fewer firms only stem from fixed cost savings, or whether they also involve marginal cost savings and quality improvements that benefit consumers."44

Another study found "a long run price-increasing effect of a four-to-three merger," of as high as 29% compared to countries with 4 MNOs. 45

In sum, four-to-three mergers in Austria, Ireland, Germany, and the Netherlands have resulted in higher prices than in countries with four or more carriers. This historical precedent lends credence to the economic findings in this merger review that prices for consumers will rise precipitously if the merger is approved.

Respectfully submitted,

/s Pantelis Michalopoulos Counsel to DISH Network Corporation

<sup>&</sup>lt;sup>42</sup> Christos Genakos, Tommaso Valletti & Frank Verboven, Evaluating Market Consolidation in Mobile Communications, 33 (93) ECON. POL'Y 45, 85 (2018).

<sup>&</sup>lt;sup>43</sup> ICLE Letter at 6.

<sup>&</sup>lt;sup>44</sup> 33 (93) ECON. POL'Y at 49.

<sup>&</sup>lt;sup>45</sup> Gergely Csorba & Zoltán Pápai, Does One More or One Less Mobile Operator Affect Prices? A Comprehensive Ex-Post Evaluation of Entries and Mergers in European Mobile Telecommunication Markets (August 2015).