UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, *et al.*,

Plaintiffs,

v.

DEUTSCHE TELEKOM AG, *et al.*,

Defendants.

Case No. 1:19-cv-02232-TJK

APPENDIX
PUBLIC COMMENTS RECEIVED

VOLUME I

Exhibit	Commenter
1	Advanced Communication Law & Policy Institute
2	American Antitrust Institute
3	Americans for Tax Reform
4	Asian Business Association
5	Attorneys General for the States of Utah and Arkansas
6	Bellemare, Daniel M.
7	CalAsian Chamber of Commerce
8	California Emerging Technology Fund
9	Center For Individual Freedom
10	Communications Workers of America
11	Competitive Enterprise Institute
12	Economics Professors (Nicholas Economides, John Kwoka, Thomas Philipon, Robert Seamans, Hal Singer, Marshall Steinbaum, and Lawrence J. White)
13	Enterprise Wireless Alliance
14	Greater Kansas Chamber of Commerce
15	Hasten, Edward S.
16	International Center for Law & Economics
17	National Diversity Coalition

18	National Hispanic Caucus of State Legislators
19	National Puerto Rican Chamber of Commerce

EXHIBIT 1
TO RESPONSE

THE ADVANCED COMMUNICATIONS LAW & POLICY INSTITUTE
at New York Law School

NEW YORK LAW SCHOOL

October 10, 2019

Mr. Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, DC 20530

Re: ***U.S. v. Deutsche Telekom AG et al.*, No. 1:19-cv-02232, Comments of the Advanced Communications Law & Policy Institute**

Dear Mr. Scheele,

The Advanced Communications Law & Policy Institute ("ACLP") at New York Law School studies how law, regulation, and public policy can promote greater access to and informed use of next-generation infrastructure in the advanced communications space and beyond. As part of that work, the ACLP closely examined the proposed merger of T-Mobile and Sprint and respectfully submits that the merged entity – New T-Mobile – will be well positioned to deliver numerous benefits to consumers across the United States.

Previously, the ACLP thoroughly evaluated the transaction in comments to the New York Public Service Commission and the Federal Communications Commission.[1] Those comments highlighted the significant public interest benefits associated with the merger of T-Mobile and Sprint as it was initially structured. Pursuant to 15 U.S.C. § 16, the ACLP respectfully submits the following comments in an effort to (1) summarize those myriad

[1] See *In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation For Consent to Transfer Control of Licenses and Authorizations*, Comments of the ACLP, WT Docket No. 18-197, FCC (submitted Sept. 17, 2018), https://ecfsapi.fcc.gov/file/10917026076059/ACLP%20-%20Comments%20-%20T-Mobile-Sprint%20(WT%20Docket%20No.%2018-197)%20-%20September%2017%202018.pdf ("*ACLP FCC Comments*"); *Case 18-C-0396 – Joint Petition of T-Mobile USA, Inc. and Sprint Communications Company L.P. Concerning an Indirect Transfer of Control*, Comments of the ACLP, N.Y. Public Service Commission (submitted Nov. 16, 2018), http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={304D64B4-2805-4431-8843-CDBABF10E7BB}.

benefits and (2) highlight the additional public interest benefits stemming from the Proposed Final Judgment (PFJ) in the above-referenced matter.[2]

1. THE PUBLIC INTEREST BENEFITS OF THE MERGER OF T-MOBILE & SPRINT

The merger of T-Mobile and Sprint is poised to generate numerous public interest benefits.

First, the proposed merger of T-Mobile and Sprint will bolster the ability of the newly combined entity to maximize investment in and streamline the deployment of next-generation mobile broadband infrastructure. Such a focus is profoundly pro-competitive and pro-consumer, as so-called 5G and related networks are expected to serve as the foundation for enormous economic growth, engines for job creation, catalysts for innovation, and mediums for empowering users with access to a universe of new applications.[3] Indeed, it is projected that the next-generation of wireless networks will create three million jobs, which in turn will "boost annual GDP by $500 billion."[4] These economic and employment gains will stem largely from the use of 5G as an enabler of a range of "smart" applications – *e.g.,* smart city services that streamline government offerings and bolster civic engagement; the delivery of real-time telemedicine; autonomous vehicles; and numerous other cutting-edge innovations that will reduce the costs of and enhance access to key services for all consumers.[5] New T-Mobile has committed to speedy deployment of a national 5G network, ensuring that these benefits will be widely available. This represents a major "win" for consumers across the country.

Second, the 5G network to be deployed by New T-Mobile will bolster broadband competition. New T-Mobile "intends to directly and aggressively compete against conventional in-home wired broadband products, providing consumers with an attractive high-speed broadband alternative to the wired incumbent."[6] This represents a rational

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[2] The views expressed herein are those of the undersigned only and do not necessarily represent those of New York Law School.

[3] *See, e.g., ACLP FCC Comments* at p. 25-33.

[4] *See Smart Cities: How 5G Can Help Municipalities Become Vibrant Cities*, Accenture Strategy (Jan. 2018), https://api.ctia.org/docs/default-source/default-document-library/how-5g-can-help-municipalities-become-vibrant-smart-cities-accenture.pdf.

[5] *See, e.g., ACLP FCC Comments* at p. 30-33. *See also* Roger Cheng, *The 5G Revolution is Upon Us. Here's Everything You Need to Know,* Nov. 13, 2018, CNET, https://www.cnet.com/news/the-5g-revolution-is-upon-us-heres-everything-you-need-to-know/.

[6] *See In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation For Consent to Transfer Control of Licenses and Authorizations*, Description of Transaction, Public Interest Statement, and Related Demonstrations, at p. 58, WT Docket No. 18-197, FCC (submitted June 18, 2018), https://ecfsapi.fcc.gov/file/10618281006240/Public%20Interest%20Statement%20and%20Appendices%20A-J%20(Public%20Redacted)%20.pdf.

response to ongoing efforts to alter the "conventional" way in which broadband has long been delivered into homes (*i.e.,* via a wire). For example, in promoting its 5G Home product, Verizon has said that "customers should expect typical network speeds around 300 Mbps and, depending on location, peak speeds of nearly 1 Gig, with no data caps," making it "*ideal for consumers looking to "cut the cord"* or upgrade from their current cable service."[7] Verizon is expected to deploy its Home product everywhere it offers mobile 5G.[8] AT&T, which is also experimenting with a fixed 5G offering capable of speeds similar to those offered by Verizon,[9] views these next-generation wireless offerings as a "viable fixed broadband replacement."[10] The competitive impact of these efforts on wireline broadband providers (*e.g.,* cable) is already evident: some see 5G "as [cable's] biggest existential threat."[11] The emergence of New T-Mobile will likely further disrupt the broadband market, accelerating consumer-focused innovation across every aspect of service.

Third, the benefits of having more choice for high-speed internet access post-merger will be felt in both urban and rural parts of the country, helping to close stubborn digital divides, drive economic growth, and spark innovation. In urban areas like New York City, 5G will serve as an important on-ramp in low-income and minority communities, where home broadband adoption rates have long lagged.[12] Members of these communities, however, have been in the vanguard of a societal shift toward mobile-only internet connectivity.[13] Rapid deployment of 5G, sparked by New T-Mobile's aggressive rollout plan, will assure that the benefits of next-generation wireless connectivity accrue most immediately to these users.

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[7] *See* Press Release, *5G is Here,* Sept. 11, 2018, Verizon, https://www.verizon.com/about/news/5g-here (emphasis added).

[8] *See, e.g.,* Jon Brodkin, *Verizon plans 5G Home Internet in every city where it deploys mobile 5G*, Sept. 13, 2019, Ars Technica, https://arstechnica.com/information-technology/2019/09/verizon-plans-5g-home-internet-in-every-city-where-it-deploys-mobile-5g/.

[9] *See, e.g.,* Corinne Reichert, *AT&T Trials Fixed-Wireless 5G in Indiana,* June 29, 2018, ZDNet, https://www.zdnet.com/article/at-t-trials-fixed-wireless-5g-in-indiana/.

[10] *See* Sean Kinney, *AT&T sees 5G as a viable fixed broadband replacement,* Jan. 30, 2019, RCR Wireless, https://www.rcrwireless.com/20190130/carriers/att-5g-fixed-broadband.

[11] *See* Daniel Frankel, *Comcast and Charter Brace for Fixed 5G AT&T-Verizon Showdown in Indy,* Aug. 31, 2018, Multichannel News, https://www.multichannel.com/news/comcast-and-charter-brace-for-fixed-5g-at-t-verizon-showdown-in-indy (quoting an analysis by Cowen).

[12] *See Internet/Broadband Fact Sheet*, June 12, 2019, Pew Research Center, http://www.pewinternet.org/fact-sheet/internet-broadband/ ("*Pew Fact Sheet*").

[13] *See Mobile Fact Sheet*, June 12, 2019, Pew Research Center, http://www.pewinternet.org/fact-sheet/mobile/ (finding that 17% of households rely on wireless broadband as their sole means of internet access).

A similar dynamic will be evident in rural areas, where broadband adoption rates have also historically lagged.[14] A desire to close the persistent rural/urban broadband divide has become a primary focus of policymakers at every level. Post-merger, New T-Mobile has promised to quickly deliver a new broadband on-ramp across rural America, creating competitive forces that will help to ensure that rural consumers benefit from the lower prices and innovative offerings that result from head-to-head competition in the broadband space.

Fourth, that T-Mobile is the entity spearheading this transaction augurs well for the successful deployment of its promised 5G network and the delivery of continued consumer welfare gains. A close examination of the parties involved in the proposed transaction makes clear that the resulting combination will position New T-Mobile for long-term success as a strong competitor and disruptive innovator in the digital ecosystem.[15] T-Mobile has been able to keep pace with much larger competitors in the wireless market and beyond because of its long history of innovation and focus on upending the mobile space. Its "maverick" spirit and "Un-Carrier" approach have driven unceasing business model experimentation, which in turn has delivered to consumers a consistent series of innovative new service plans, payment options, streaming services, pricing models, and other popular options. Sprint, on the other hand, has struggled mightily despite possessing valuable spectrum assets and demonstrating, on occasion, an ability to be disruptive. But for the merger, Sprint would in all likelihood fail to keep pace with the growing array of competitors in the rapidly converging broadband space.[16] As such, the two companies are stronger together rather than apart – and the public will be better off with New T-Mobile as a more robust competitor in broadband market.

2. THE ADDITIONAL PUBLIC INTEREST BENEFITS STEMMING FROM THE PFJ

The public interest benefits detailed above are substantial. The PFJ, if accepted by the court, will deliver additional benefits to consumers. In particular, the PFJ will ensure that valuable spectrum resources will finally be put to productive use by Dish Network, an entity that has long lingered on the periphery of the U.S. wireless space. Once the transaction is finalized, Dish will join the growing array of entities – established carriers and new entrants alike – seeking to disrupt the U.S. wireless space as part of the race to deploy 5G networks.

[14] *Pew Fact Sheet*.

[15] For an extended examination of both T-Mobile and Sprint, *see ACLP FCC Comments* at p. 21-25.

[16] *See, e.g.,* Lily Lieberman, *Sprint Tells FCC: Bad Situation "is Only Getting Worse,"* April 17, 2019, Kansas City Business Journal, https://www.bizjournals.com/kansascity/news/2019/04/17/sprint-fcc-filing-t-mobile-merger.html.

The U.S. market for mobile broadband services is already in flux as new competitors seek to lure away subscribers by offering innovative service plans. The following offers a snapshot of current and emerging market dynamics – essential context for evaluating the PFJ's likely public interest impacts:

- ***AT&T and Verizon Remain Formidable Competitors***. Post-merger, New T-Mobile will remain the third-largest national wireless carrier in the U.S.; Verizon will still be the largest, followed by AT&T.[17] Both Verizon and AT&T have aggressively touted their plans for 5G deployment since the proposed merger was announced, with each trying to one-up the other in announcing the markets where its next-generation services are being made available. The introduction of New T-Mobile will only hasten and expand these developments across the board.

- ***MVNOs Remain an Important Source of Competition***. Although MVNOs rely on the spectrum and wireless networks of other carriers, these entities represent an increasingly important source of competition in the mobile market, as they provide consumers with a range of additional choices for quality mobile service. Indeed, according to a recent survey conducted by the American Customer Satisfaction Index (ACSI), "[c]ustomer satisfaction with full-service [MVNOs] is…significantly higher than the rating for mobile network operators."[18] To that end, the ACSI found that Consumer Cellular, which focuses primarily on consumers over the age of 50, had the highest customer satisfaction rating of all service providers.[19] T-Mobile had the top customer satisfaction score among the national carriers; Sprint had the lowest.[20]

- ***Cable is Emerging as a Major Competitor***. Among the most significant developments in the wireless market in recent years is the offering of mobile services by cable companies. In 2017 and 2018, Comcast and Charter, the two largest cable companies in the country, launched mobile broadband offerings by leveraging their expansive Wi-Fi hot-spot networks and a reseller agreement with Verizon.[21] In September 2019, Altice launched a similar offering in partnership with

[17] *See, e.g.*, Klint Finley, *The $26.5B T-Mobile/Sprint Merger Moves a Big Step Forward,* July 26, 2019, Wired, https://www.wired.com/story/dollar265b-tmobilesprint-merger-moves-step-forward/.

[18] *See ACSI Wireless Service and Cellular Telephone Report 2018-2019,* at p. 5, ACSI (June 2019), https://www.theacsi.org/news-and-resources/customer-satisfaction-reports/reports-2019/acsi-wireless-service-and-cellular-telephone-report-2018-2019/acsi-wireless-service-and-cellular-telephone-report-2018-2019-download ("*ACSI Report*").

[19] *Id.* at p. 7.

[20] *Id.* at p. 2.

[21] *See, e.g.*, Jeff Baumgartner, *Comcast, Charter Form Mobile Platform Partnership,* April 20, 2018, Multichannel News, https://www.multichannel.com/news/comcast-charter-form-mobile-platform-partnership.

Sprint.[22] The impact of cable's entrance into the mobile market is already evident: ACSI has noted that "competition from new alternatives like Comcast's Xfinity Mobile and Charter's Spectrum Mobile is putting pressure on traditional carriers to improve service."[23]

- ***Alternative Wireless Models are Increasingly Popular and Compete Fiercely on Price***. The Wi-Fi/MVNO model used by Altice, Charter, and Comcast was pioneered by firms like Republic Wireless and Google's Project Fi, both of which remain popular low-cost alternatives for consumers. Each offers unlimited talk and text (Fi for $20/month,[24] Republic for $15/month[25]), and each sells mobile broadband by the gig.

Via the PFJ, Dish will be well positioned to become a viable player in this thriving market. Dish already holds substantial spectrum assets – a veritable "treasure trove" of licenses.[26] As part of the PFJ, Dish will be able to leverage numerous resources either divested by or leased from the merging parties to support deployment of a standalone mobile service.[27] This development – *i.e.,* Dish finally leveraging its stockpile of spectrum licenses – is a major win for consumers and the public interest writ large. Spectrum is a finite – and therefore scarce – resource. For many years, Dish was accused by some of hoarding spectrum in the hopes of precipitating a buyout.[28] Once finalized, the PFJ will ensure that Dish finally puts those resources to welfare-enhancing uses – a huge public interest win.

Consumers will also benefit because Dish will have to compete aggressively with the range of firms mentioned above if it hopes to acquire enough subscribers to remain afloat. This means that consumers will likely see additional price and service offerings over the next few years as Dish rolls out its service and seeks to respond to and one-up its competitors. Early reports indicate that Dish might pursue innovative models for building

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[22] *See* Bevin Fletcher, *Altice Mobile Launches its Wireless Service at $20/month,* Sept. 5, 2019, Fierce Wireless, https://www.fiercewireless.com/operators/altice-mobile-launches-wireless-service-at-20-month.

[23] *ACSI Report* at p. 5.

[24] *See* Google, Project Fi – About, https://fi.google.com/about/plan/.

[25] *See* Republic Wireless, Plan, https://republicwireless.com/cell-phone-plans/.

[26] *See* Kendra Chamberlain, *Dish 'Undervalued' Spectrum Assets Worth $30.2B,* March 27, 2018, Fierce Wireless, https://www.fiercewireless.com/wireless/dish-s-undervalued-spectrum-assets-worth-30-2b-analyst.

[27] *See, e.g.,* Monica Alleven, *In Wake of DOJ Deal, Where is Dish's Spectrum, and How Much Does it Have?*, Aug. 7, 2019, Fierce Wireless, https://www.fiercewireless.com/wireless/wake-doj-deal-where-dish-s-spectrum-and-how-much-does-it-have.

[28] *See, e.g.,* Drew FitzGerald, *A TV Maverick is Going All-In on a New Wireless Bet,* July 27, 2019, Wall St. Journal, https://www.wsj.com/articles/a-tv-maverick-is-going-all-in-on-a-new-wireless-bet-11564200000.

out its 5G network and offering service to end-users, approaches that could very well yield novel offerings for consumers.[29]

3. <u>CONCLUSION</u>

Once combined, New T-Mobile will be able to deploy a more robust and widespread 5G network than either of the merging parties standing alone would be able to construct. Guided by T-Mobile's "Un-Carrier" ethos and its commitment to serving as the sector's wily disrupter, New T-Mobile will be well positioned to deliver public interest benefits that far outweigh any harms that might arise. These benefits will only be bolstered by the terms of the PFJ, which will facilitate the emergence of Dish as a new competitor in the wireless marketplace.

Respectfully submitted,

<u>/s/ Michael J. Santorelli</u>
Michael J. Santorelli, Director
ACLP at New York Law School

[29] *See, e.g., id. See also* Mike Dano, *This is Dish's 6-Step Plan for 5G,* July 31, 2019, Light Reading, https://www.lightreading.com/mobile/5g/this-is-dishs-6-step-plan-for-5g/a/d-id/753124.

EXHIBIT 2
TO RESPONSE

October 11, 2019

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division
U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530

Re: *United States v. Deutsche Telekom AG*, No. 1:19-cv-02232, Tunney Act Comments of the American Antitrust Institute

Dear Mr. Scheele:

The American Antitrust Institute (AAI) submits these comments pursuant to the Antitrust Procedures and Penalties Act ("APPA" or "Tunney Act"), 15 U.S.C. § 16 (1974). AAI makes two independent requests of the Antitrust Division of the Department of Justice (DOJ). First, AAI requests that the DOJ exercise its right to withdraw its consent to the Proposed Final Judgment (PFJ) prior to the Court's entry of the Final Judgment.[1] For the reasons explained in Parts I and II below, the PFJ is not in the public interest.

Second, AAI requests that the DOJ encourage the Court to defer its public interest determination and keep the public comment period open until after the conclusion of *New York v. Deutsche Telekom AG*, No. 1:19-cv-05434 (S.D.N.Y. filed June 11, 2019) [hereinafter the "States' case"], in which 17 states and the District of Columbia have sued to permanently enjoin the proposed transaction. For the reasons explained in Part III, the goals of the Tunney Act, including a meaningful public comment period and well-informed public interest determination, require the reviewing Court to consider the evidence adduced at trial and the verdict issued in the States' case.

I. THE SPRINT-T-MOBILE MERGER THREATENS SUBSTANTIAL HARM TO THE NATIONAL MARKET FOR RETAIL MOBILE WIRELESS SERVICE

A. Introduction

A well functioning, competitive telecommunications sector is fundamental to the workings of an open and democratic society, the public well-being, economic productivity, and citizen engagement. Vigorous competition between rivals results in products and services that enhance

[1] Competitive Impact Statement 18, *New York v. Deutsche Telekom AG*, No. 1:19-cv-05434 (S.D.N.Y. filed July 30, 2019) [hereinafter "Competitive Impact Statement"].

consumer welfare and promote innovation and market entry. This vision of the U.S. wireless industry has quickly receded. Consolidation, especially between 2002 and 2009, reduced the number of rivals from seven to four.[2] Now comes the merger of Sprint-T-Mobile, which further reduces the field from 4 to 3 and stokes even higher concentration, eliminates vital head-to-head competition, and creates an oligopoly that promotes anticompetitive coordination. This significant and illegal diminution of competition will undoubtedly result in higher prices, less choice, lower quality, and slower innovation—to the detriment of U.S. wireless subscribers.

B. The Sprint-T-Mobile Merger is Presumptively Illegal

The antitrust laws protect competition and consumers. Certain types of mergers are presumptively illegal under Section 7 of the Clayton Act because they threaten to stifle competition, raise prices, lower quality, and slow innovation.[3] The bedrock concept underlying U.S. merger law—that deals that "may substantially lessen competition" should be stopped in their incipiency—confirms the illegality of mergers such as Sprint-T-Mobile.

The Sprint-T-Mobile merger combines the third and fourth national facilities-based wireless carriers in the U.S. market for retail mobile wireless service. A combined Sprint-T-Mobile would have a market share of about 32%, followed by AT&T with a share of about 32%, and Verizon with a share of about 35%.[4] These three carriers would make up about 99% of the market, with smaller mobile virtual network operators (MVNOs) accounting for the remaining one percent.[5]

The merger would boost concentration by almost 500 HHI points, to about 3,250 HHI in the post-merger market. The U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines explain that "Mergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power."[6] A Sprint-T-Mobile merger results in concentration that exceeds the Guidelines threshold by an order of magnitude. The merger is presumptively illegal under Section 7 of the Clayton Act. It would increase concentration in an already highly concentrated national market for retail mobile wireless service, increasing the risk of higher prices, lower quality, less choice, and slower innovation.

Sprint-T-Mobile is much like the abandoned AT&T-T-Mobile proposal in 2011. That merger would have eliminated T-Mobile as a smaller, efficient, and innovative player. AT&T's argument that the merger was essential for expanding to the then-impending 4G LTE network technology did not pass muster with the DOJ. And as the DOJ predicted, the agency's rejection of

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[2] *Wireless Company Mergers Since 2002*, WASH. POST (Mar. 21, 2011), https://www.washingtonpost.com/business/economy/wireless-company-mergers-since-2002/2011/03/21/AByLkf9_graphic.html.

[3] Clayton Act § 7, 15 U.S.C. § 18 (1996).

[4] Shares based on number of subscribers. Sprint has a national market share of 14%, while T-Mobile's is 17%. Mike Dano, *How Verizon, AT&T, T-Mobile, Sprint and More Stacked Up in Q1 2017: The Top 7 Carriers*, FIERCEWIRELESS (May 8, 2017), https://www.fiercewireless.com/wireless/how-verizon-at-t-mobile-sprint-and-more-stacked-up-q1-2017-top-7-carriers.

[5] These carriers include TracPhone, Republic Wireless, and Jolt Mobile, Boost Mobile, and Cricket Wireless, which purchase access to wireless infrastructure such as cell towers and spectrum at wholesale from the large players and resell at retail to wireless subscribers.

[6] U.S. DEPT. OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 5.3 (2010) ("HORIZONTAL MERGER GUIDELINES").

the deal led to significant gains for consumers.[7]

The government's complaint in Sprint-T-Mobile acknowledges that competition in the national market for retail mobile wireless service has brought benefits to consumers:

> Competition has kept mobile wireless service prices down and served as a catalyst for innovation. . . . American consumers . . . have benefitted from the competition T-Mobile and Sprint have brought to the mobile wireless industry. For instance, it was not until after T-Mobile and Sprint introduced unlimited data plans to retail customers in 2016 that Verizon and AT&T followed with their own standalone unlimited data offerings to retail customers in 2017.[8]

Nothing is different now. As the DOJ did in the AT&T-T-Mobile merger in 2011, the current DOJ should have moved to prohibit the Sprint-T-Mobile merger from proceeding under *any* conditions.

C. The Proposed Merger's Adverse Competitive Effects are Significant Enough to be Unremediable

1. The Merger Eliminates Vital Head-to-Head Competition Between Sprint and T-Mobile

Sprint and T-Mobile have demonstrated strong incentives to be aggressive competitors as standalone rivals. As the third and fourth largest carriers in the market, both Sprint and T-Mobile have differentiated themselves from Verizon and AT&T through aggressive price and non-price competition. They compete head-to-head for consumers that may not be able to afford more expensive Verizon and AT&T plans or who do not need the more extensive variety of plans offered by the two largest carriers. The government's complaint highlights this vital competitive dynamic:

> T-Mobile and Sprint have been particularly intense competitors for the roughly 30% of retail subscribers who purchase prepaid mobile wireless service............After the elimination of Sprint, the industry's low-price leader, New T-Mobile would have the incentive and the ability to raise prices. In a post-merger world, the other remaining national facilities-based mobile wireless carriers, Verizon and AT&T, also would have the incentive and the ability to raise prices.[9]

Preserving the positive competitive dynamics that disruptive rivalry creates was the major reason why the DOJ opposed the merger of AT&T and T-Mobile in 2011. As the DOJ's complaint noted, "AT&T's elimination of T-Mobile as an independent, low-priced rival would remove a significant competitive force from the market."[10] The loss of disruptive rivalry that would follow a merger of Sprint and T-Mobile is as important here as it was in the merger of AT&T-T-Mobile. That the DOJ in 2011 moved to block the merger reveals the severity of this anticompetitive effect and attendant harms to consumers.

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[7] *See, e.g.*, Patrick DeGraba & Gregory L. Rosston, *The Proposed Merger of AT&T and T-Mobile: Rethinking the Possible*, Case 1 in THE ANTITRUST REVOLUTION (John E. Kwoka & Lawrence J. White eds., 6th ed. 2014).
[8] Complaint 2, 6, *United States v. Deutsche Telekom Ag*, No. 1:19-cv-02232 (D.D.C. filed Jul. 26, 2019) ("Complaint").
[9] *Id.* at 7, 8.
[10] Complaint ¶ 3, United States v. AT&T, No.1:11-cv-01560 (D.D.C. filed Aug. 31, 2011).

2. The Merger Would Facilitate Anticompetitive Coordination Among the Remaining Three Wireless Carriers

In eliminating head-to-head competition between Sprint and T-Mobile, the merger would leave three roughly equal-size firms in the U.S. market for retail mobile wireless service. Such highly concentrated markets are highly conducive to anticompetitive coordination. With a bigger piece of the national wireless pie, the merged entity would likely find that maintaining a competitive "peace" with Verizon and AT&T is more profitable than aggressively trying to gain market share from them. The government's complaint clearly articulates this threat posed by the Sprint-T-Mobile merger:

> [T]he merger would leave the market vulnerable to increased coordination among these three competitors. Increased coordination harms consumers through a combination of higher prices, reduced quality, reduced innovation, and fewer choices.[11]

Coordinated conduct in the oligopoly of remaining wireless carriers could arise in any number of ways. The remaining three carriers would have stronger incentives to fix prices or "follow" each other on pricing for wireless service plans and/or equipment. They could collectively discontinue certain types of plans or forbear from introducing new, cheaper and better plans; face stronger incentives to divide up geographic markets within the U.S.; or agree on "rules" that govern competition in the industry.[12] Potential anticompetitive coordinated conduct would not be limited to retail mobile wireless subscribers. It could extend to fixing wholesale prices for MVNOs, jointly developing rules governing MVNO access to infrastructure, or even a group boycott of MVNO resellers in gaining access to the resources necessary to compete at retail.[13]

Economic research buttresses the concern that highly concentrative mergers have produced post-merger price increases.[14] For example, analysis of multiple merger retrospectives shows that mergers resulting in post-merger HHIs and increases in HHI similar to the Sprint-T-Mobile merger produced price increases in between 88-93% of cases.[15] Moreover, empirical work shows that the agencies have a high rate of challenging highly concentrative mergers like Sprint-T-Mobile.[16]

The law on the risks of post-merger anticompetitive coordination is clear and settled. For example, the D.C. Circuit explained in 1986 that an acquisition may violate section 7 of the Clayton Act where "increased concentration raises a likelihood of 'interdependent anticompetitive conduct.'"[17] The court explained, "where rivals are few, firms will be able to coordinate their behavior, either by overt collusion or implicit understanding, in order to restrict output and achieve profits above competitive levels."[18] In 2001 the same court explained, "[t]he combination of a

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[11] Complaint at 8.
[12] *See* Robert H. Lande & Howard P. Marvel, *The Three Types of Collusion: Fixing Prices, Rivals, and Rules*, 2000 WIS. L. REV. 941, 950 (2000).
[13] *See* HORIZONTAL MERGER GUIDELINES § 5.
[14] John Kwoka, *The Structural Presumption and the Safe Harbor in Merger Review: False Positives or Unwarranted Concerns?* 81 ANTITRUST L.J. 837, 860-61 (2017).
[15] *Id.*
[16] *Id.* at 866.
[17] *FTC v. PPG Indus.*, 798 F.2d 1500, 1503 (D.C. Cir. 1986).
[18] *Id.*

concentrated market and barriers to entry is a recipe for price coordination."[19] The government's complaint in Sprint-T-Mobile acknowledges both high concentration and high barriers to entry.[20]

Several private antitrust cases also highlight the perils of anticompetitive coordination in the wireless industry. These concerns range from: alleged collusion between AT&T and Verizon to thwart eSIM technology[21]; to coordination of text message pricing as an "exemplar" of lawful tacit collusion;[22] alleged parallel conduct with respect to leasing of common short codes[23]; and alleged parallel tying.[24] Moreover, the DOJ recently opened an investigation into collusion by the two largest carriers, Verizon and AT&T, and an industry standards organization to inhibit consumer switching between wireless carriers.[25]

In AT&T-T-Mobile, *both* the DOJ and Federal Communications Commission (FCC) found that the wireless market was conducive to coordinated interaction. The government's complaint noted, "Certain aspects of mobile wireless telecommunications services markets, including transparent pricing, little buyer-side market power, and high barriers to entry and expansion, make them particularly conducive to coordination."[26] The complaint concluded that the "substantial increase in concentration that would result from this merger, and the reduction in the number of nationwide providers from four to three, likely will lead to lessened competition due to an enhanced risk of anticompetitive coordination."[27] The FCC explained similarly that "[c]oordinated effects are of particular concern here because the retail mobile wireless services market, being relatively concentrated and hard to enter, appears conducive to coordination."[28]

Moreover, other countries' experience with 4-3 mergers demonstrates the pervasiveness of the competitive concerns they raise. For example, three national wireless carriers dominate the Canadian market—Bell, Rogers, and Telus.[29] One commentator wrote in 2018 that the three Canadian carriers' proposals to address a lack of low-cost data-only plans were "embarrassing, and harrowing for anyone considering a future in the US with just three wireless carriers."[30] European competition enforcement provides additional perspective on 4-3 wireless mergers.[31] In 2016, the European Commission (EC) blocked the 4-3 merger of the United Kingdom's Three and O2 mobile

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[19] *FTC v. H.J. Heinz Co.,* 246 F.3d 708, 724 (D.C. Cir. 2001).
[20] Complaint at 16, 23.
[21] *See, e.g.,* Complaint, *Allen v. Verizon Communications, Inc.*, No. 3:18-cv-08918 (D.N.J., filed May 8, 2018).
[22] *In re Text Messaging Antitrust Litig.*, 782 F.3d 867, 874 (7th Cir. 2015).
[23] *In re A2P SMS Antitrust Litig.*, 972 F.Supp.2d 465 (S.D.N.Y. 2013).
[24] *In re Wireless Telephone Services Antitrust Litig.*, 385 F.Supp.2d 403 (S.D.N.Y. 2005).
[25] Cecilia Kang, *U.S. Investigating AT&T and Verizon Over Wireless Collusion Claim*, N.Y. TIMES (Apr. 20, 2018), https://www.nytimes.com/2018/04/20/technology/att-verizon-investigate-esim.html.
[26] Complaint ¶ 36, *United States v. AT&T*, No.1:11-cv-01560 (D.D.C., filed Aug. 31, 2011).
[27] *Id.*
[28] *Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Docket No. 11-65, Staff Analysis and Findings, 26 FCC Rcd 16184, 16200, ¶ 75 (2011).
[29] Can. Radio-television & Telecomm. Comm'n, Communications Monitoring Report, at 301 (2017), *available at* https://crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2017/cmr2017.pdf.
[30] The Canadian sector regulator is the Radio-television and Telecommunications Commission. Chris Mills, *Canada's Embarrassingly Bad Data Plans Are Another Reason to Hate the T-Mobile-Sprint Merger*, BGR (May 2, 2018), http://bgr.com/2018/05/02/t-mobile-sprint-merger-competition-regulation-canada-example.
[31] For example, Europe maintains a robust field of wireless rivals, with nine competitors with market shares above 10%, and an overall market concentration of about 1,100 HHI. *Leading telecommunication operators in Europe by Revenue in 2016 (in Billion Euros)*, STATISTA, https://www.statista.com/statistics/221386/revenue-of-top-20-european-telecommunication-operators.

operators.[32] The EC also forced the abandonment of the 4-3 merger of Danish wireless carriers Telenor and TeliaSonera by requiring conditions that were unpalatable to the companies.[33]

In sum, the Sprint-T-Mobile merger would create a post-merger national market for retail mobile wireless service that would dramatically reduce incentives for the remaining three carriers to compete and strengthen incentives for them to engage in anticompetitive coordination. Such mergers have long been recognized as particularly damaging to competition and consumers and should be blocked because a remedy is unlikely to be effective in restoring competition.

II. THERE IS NO REASONABLE BASIS TO CONCLUDE THAT THE PROPOSED FINAL JUDGMENT WILL PRESERVE COMPETITION IN THE NATIONAL MARKET FOR MOBILE WIRELESS SERVICE

A. The DOJ's Complaint Clearly Recognizes the Need for a Fourth Wireless Rival

In announcing settlement of its investigation into the proposed merger of Sprint and T-Mobile, the DOJ acknowledged the serious competitive concerns with the merger itself. The government's complaint explained the myriad ways in which the merger could harm competition and consumers:

> The merger would eliminate Sprint as an independent competitor, reducing the number of national facilities-based mobile carriers from four to three. The merger would cause the merged T-Mobile and Sprint ("New T-Mobile") to compete less aggressively. Additionally, the merger would likely make it easier for the three remaining national facilities-based mobile wireless carriers to coordinate their pricing, promotions, and service offerings. The result would be increased prices and less attractive service offerings for American consumers, who collectively would pay billions of dollars more each year form mobile wireless service.[34]

The DOJ's own assessment sets a high bar for approval of the merger since the government admits that competition requires a fourth firm. That very firm, however, would be eliminated by the merger. The DOJ's remedy fails to reconcile these two seemingly incompatible forces, namely, approving the merger of Sprint and T-Mobile while acknowledging the need for a fourth wireless carrier.

Given the nature of a highly concentrative, 4-3 merger of national facilities-based mobile wireless carriers, it is unclear where a new fourth carrier will come from. The proposed settlement attempts to create a new fourth firm by combining some assets of a firm entirely outside the wireless industry (Dish Network or "Dish") with certain assets divested by one of the merging parties (Sprint), plus transition services from the new merged firm (T-Mobile).[35]

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[32] David Meyer, *Here's Why the EU Just Blocked a Major Telecoms Merger*, FORTUNE (May 11, 2016), http://fortune.com/2016/05/11/o2-three-merger-blocked.

[33] *Id.; see also* Kalpana Tyagi, *Four-to-Three Telecoms Mergers: Substantial Issues in EU Merger Control in the Mobile Telecommunications Sector,* 49 INT'L REV. OF INTELLECTUAL PROP. & COMPETITION L. 185 (February 2018).

[34] Complaint at 3.

[35] Proposed Final Judgment, *United States v. Deutsche Telekom Ag*, No. 1:19-cv-02232 (D.D.C. Jul. 26, 2019) [hereinafter "PFJ"].

Dish is currently a satellite-based multichannel video program distributor, with no wireless operation or experience, but now a party to this agreement. The consent decree assures consumers that this cobbling together of assets will result in an entirely new national facilities-based mobile wireless carrier that will, eventually, bring strong and effective and even "disruptive" competition to AT&T and Verizon.

In an acknowledgment of the long gestation period for this new carrier to appear, as well as the direct overlap of the merging parties' prepaid wireless businesses, the DOJ settlement also provides for the immediate divestiture of Sprint's prepaid wireless operations, also to Dish. The result would be that Dish would initially offer only prepaid wireless service as a reseller as it acquires and builds out its own facilities and, according to the settlement, becomes a full-fledged national network carrier.

B. The Proposed Remedy Involves Significant Complexity, Moving Parts, Optional Components, and Requirements to Deal with Rivals, Making it Vulnerable to Failure

1. Dish Will Provide Pre-Paid Services Acquired from Sprint, Propped Up with Transition Services Requirements and Complex Personnel Transfer Procedures

Dish will initially be providing only one wireless service—prepaid service—and that will simply be Sprint's divested Boost and other brands. Prepaid services are a modest fraction of all services, less profitable and less stable than postpaid (subscription) service. Moreover, and crucially, Dish will provide those prepaid services only as a reseller, namely by buying them from a facilities-based carrier and then marketing them. The divestiture process involves Dish acquiring Sprint's prepaid retail locations, personnel, licenses, data, and other associated assets.

The settlement includes a process by which Sprint will identify all employees of its existing prepaid operations so that Dish can vet, interview, and negotiate with those employees for continued employment with Dish's follow-on service. Further, the settlement requires T-Mobile and Sprint to provide certain "transition services" to Dish for a period up to three years. These transition services include billing, customer care, SIM card procurement, device positioning, and "all other services [previously] used by the Prepaid Assets."

2. Dish Must Quickly Begin Providing Post-Paid Wireless Service, Dependent on a Rival Providing Access to Critical Infrastructure

Within one year, Dish is required to begin providing nationwide retail postpaid wireless service. The settlement stipulates that Dish must do so using cell sites and retail stores as they are "decommissioned" (i.e., shut down), as they are determined to be redundant by the merged firm. This stipulation is intended to ensure that Dish becomes a facilities-based provider, rather than continuing to provide services simply by resale. The merged company's decommissioning of cell sites is to take place gradually over a period of up to five years, eventually totaling at least 20,000 sites.

The actual timing appears to be governed by language simply requiring Sprint and T-Mobile to "decommission unnecessary cell sites promptly" and "as soon as reasonably possible after the site is no longer in use." In the interim, the merged company is required to provide Dish with "robust access" to its own cell sites to ensure nationwide coverage for Dish's postpaid service. If Dish's own network does not serve 70% of the country by 2023, it will face penalties up to $2.2 billion. A similar five-year horizon applies to the transfer of decommissioned retail locations held by the merged company. A total of at least 400 such locations are to be subject to transfer.

3. Because Dish's Purchase of Spectrum Necessary to Build Out a 5G Network is Optional, It May Remain a Reseller for a Lengthy Period of Time

The merged Sprint-T-Mobile is also required to offer to divest to Dish, at Dish's option, all of Sprint's 800 MHz spectrum. This is intended to expand Dish's own 800 MHz spectrum holdings and thereby permit it to build out an entirely new 5G network that would allow for super-high-speed wireless transmission. The settlement penalizes Dish for failing to acquire Sprint's spectrum, unless it demonstrates that it can provide such service strictly with its own, currently unused 800 MHz spectrum. Dish has touted this new network as its primary purpose in entering the market and the primary benefit that it will provide.

Recognizing that the process by which Dish obtains or builds the infrastructure required to provide services on its own facilities might be lengthy, the settlement provides a backstop in the form of a requirement that Sprint and T-Mobile enter into a full resale agreement with Dish for at least seven years. As a result, Dish may remain a reseller of whatever services it does not itself provide for a potentially lengthy period of time. The settlement states that those resale services are to be supplied to Dish by the merged company on "commercially reasonable terms."

C. The Proposed Remedy Does Not Meet the Requirements of DOJ's Own Remedies Guidelines

The standard of viability and effectiveness of a merger remedy is contained in the DOJ's own Policy Guide to Merger Remedies. The Guide states that a remedy must "effectively preserv[e] the competition that would have been lost through the merger."[36] Evaluated against this standard, the proposed settlement will not plausibly and predictably succeed in this objective for a number of reasons. As noted above, the settlement has numerous moving parts, significant complexity, optional components, and requirements to deal with rivals. It carves a single path to its intended end result, but numerous points on which it is vulnerable to failure.

Dish will be strictly a reseller at the outset, largely a reseller in the first few years, and probably a partial reseller for seven years or more. But resale services are competitively much less significant than those produced by a seller, since a reseller is entirely dependent on one of its facilities-based rivals for the service itself. The reseller's ability to compete by lowering price or devising bundling and marketing options is limited by the potentially narrow margin between the retail price and the price charged by its supplier. In fact, that supplier can alter the margin so as to handicap its competitive impact in a classic strategy generally known as "raising rivals' costs."

[36] U.S. DEP'T OF JUSTICE, ANTITRUST DIVISION POLICY GUIDE TO MERGER REMEDIES (June 2011), http://www.justice.gov/atr/public/guidelines/272350.pdf.

For this reason alone, the settlement fails the DOJ's own test of preserving competition in the nationwide market for retail mobile wireless service over the next few years. And that is not the worst-case scenario. There is no guarantee that current personnel operating Sprint's prepaid business or, for that matter, its customers, will seamlessly transfer over to Dish's operation.

D. The Proposed Settlement Depends on Provisions That Have Elsewhere and Often Proved Problematic and Ineffective

The effectiveness of the proposed settlement is dependent on numerous provisions that elsewhere and often have proven problematic or outright ineffective. These include the already cited dependence of Dish on a major rival for its crucial input, but also the likelihood that the customer base of divested prepaid services will be difficult to sustain. There is also the risk that personnel affiliated with Sprint's prepaid operation do not choose to transfer to Dish's unproven operation. The merged firm will also have adverse incentives with respect to providing transition services to Dish.

Additional concerns include the hazard that the merged firm will not decommission cell sites as quickly as necessary and the likelihood that the decommissioned sites and stores will be the weaker ones. There is also the difficulty of defining and ensuring "robust access" to the merged firm's cell sites. Finally, the merged firm will have control over price and other terms of the MVNO agreement that represent crucial features for Dish's viability.

Past experience with close linkages between a merged firm and divested or new operations are not encouraging. The merged firm has advantages in terms of information, control of assets, and pretextual excuses for what may appear to be non-compliance. It also has strong incentives not to aid its direct rival and make it into a more effective constraint on its own market position. These have proven to be problematic at best, and very often ineffective.[37]

E. The Settlement Has All the Hallmarks of a Regulatory and Interventionist Remedy That Will Spark Conflicts and Require Active Agency Oversight

Attempts to cast the settlement more favorably as "structural" in nature should be rejected outright. In its structural components, the remedy strays far from the classic model of divestiture, which involves identifying an overlapping operation or product of two merging companies, requiring divestiture of one of them, and then—if done well—counting on competition to produce roughly the same market outcome as before. In such cases, no further oversight, monitoring, or intervention is necessary.

The present settlement presents a different and more complex reality. The term divestiture might be said to apply to prepaid services but competition in the broader "national facilities-based mobile wireless market" will not arise simply from divestiture. Rather, because of the range of assets required to create a brand-new wireless carrier and because of the timeline, other assets have to be divested and combined, and crucial supply, transition and support services need to be provided.

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[37] Diana Moss & John Kwoka, *Behavioral Merger Remedies: Evaluation and Implications for Antitrust Enforcement*, ANTITRUST BULLETIN (2012).

The cobbling together of various necessary assets envisioned by the settlement is a task that would challenge a Wall Street M&A firm or a turn-around specialist. It is well outside the expertise of any antitrust agency and the courts to enforce. Indeed, more modest efforts to create competitors and thereby resolve mergers have recently resulted in notable failures.[38] The conglomeration of provisions included in the settlement make clear that it is by no means simply structural. Rather, it has crucial elements of a conduct or behavioral remedy.

A conduct remedy is one that does not fully separate the merged firm and the outside firm, but rather locks them into some kind of business relationship, inevitably with incompatible incentives—and disputes—between the parties. Here that relationship arises because Dish will be completely or partially dependent on the merged firm for prepaid services, transition services, asset decommissioning, and the long term MVNO agreement. All of these create abundant opportunities for the merged firm to engage in strategic pricing, slowdown of provision, alteration of terms or quality of the assets and services, and so forth. Not until Dish is completely independent of its rival or rivals—something that will not plausibly happen for seven or more years—will it be a fully competitive entity.

The settlement therefore has all the hallmarks of a detailed, regulatory, and interventionist remedy, one that will spark conflicts between the parties and require active oversight by the agency. Approval of this conduct-laden settlement has been fashioned and defended by the Antitrust Division notwithstanding that the Assistant Attorney General, upon assuming his position in 2017, announced a skeptical view toward conduct remedies. He did so because of past experience as well as economic arguments and evidence of their ineffectiveness. He specifically criticized their regulatory nature for requiring ongoing monitoring of the relationship between the parties.[39] Those concerns and criticism apply with equal force in this instance.

F. The DOJ Appears to Have Accepted the Parties' Erroneous Claim that They Need the Merger to Roll Out 5G

The DOJ appears to fully accept the need for the merger in order to achieve benefits claimed by the parties. Those claimed benefits are centered on faster deployment of much faster 5G wireless technology that remains, for all carriers, an expensive and longer-term strategy. The parties to this case argued that Sprint in particular would not have the resources to undertake the necessary investment and so, in that longer term, would not be a viable player anyway. Despite evidence that both Sprint and T-Mobile were separately rolling out 5G technology prior to the merger proposal,[40] the DOJ appears to accept that claim uncritically. If it did not, the merger would be automatically rejected for its acknowledged anticompetitive effects.

This is not the first instance in which DOJ has confronted the argument that a merger between major wireless companies is required for network expansion. As discussed above, DOJ and the FCC firmly rejected AT&T's attempt to acquire T-Mobile in 2011, concluding there would be

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[38] John Kwoka, *Merger Remedies: An Incentives/Constraints Framework*, ANTITRUST BULLETIN (2017).
[39] *See* Makan Delrahim, Asst. Att'y Gen., Antitrust Div., Dep't of Justice, Modernizing the Merger Review Process, Remarks at the 2018 Global Antitrust Enforcement Symposium (Sept. 25, 2018) (citing Moss & Kwoka, *supra* note 41, in support of rejecting a conduct approach).
[40] Roger Chen, *Sprint: We're in a Unique Position to Deliver Broader 5G*, CNET (Feb. 28, 2018); T-Mobile Newsroom, *T-Mobile Building Out 5G in 30 Cities This Year… and That's Just the Start*, T-MOBILE.COM (Feb. 26, 2018).

substantial competitive harms and, upon careful examination, few if any attributable benefits.[41] The rejection of that merger has been widely credited with preserving—indeed, enhancing—competition in the wireless business, triggered largely by the very companies that now seek to merge.[42] In the present case and without much disclosure of its reasons, the DOJ has taken a different view, even though the benefits claimed here—a new 5G network build-out—are at least as speculative as those in the prior case.

G. Conclusion

The settlement permitting the merger of Sprint and T-Mobile fails the test of plausibly and predictably preserving competition in the U.S. market for retail mobile wireless services. It is anything but certain that Dish can successfully make itself into the fourth carrier that otherwise will disappear. Even if it does, it will be years before that happens, during which time the effect of approving the merger will be precisely as predicted in the paragraph cited from the complaint: significant harm to consumers and competition in a three-firm national wireless market.

More broadly, the settlement represents a worrisome new development in merger control, which has demonstrably weakened over time, resulting in documented competitive harms.[43] Permitting a 4-3 merger based on a remedy that accepts competitive harms in the short and medium term for an exceedingly optimistic view of possible benefits in the longer term does not represent good policy. Rather, this remedy suggests heroic efforts to devise a basis for approval of a merger that is anticompetitive on its face. If the substantial and acknowledged competitive problems with this four-to-three merger are fixable by this strategy of re-arranging some assets, negotiating some contracts, and then hoping for the best some years down the road, it is unclear what merger is not fixable.

III. A PUBLIC INTEREST DETERMINATION SHOULD BE DEFERRED, AND THE PUBLIC COMMENT PERIOD SHOULD REMAIN OPEN, PENDING A FINAL, APPEALABLE JUDGMENT IN *NEW YORK V. DEUTSCHE TELEKOM AG*

Even if the DOJ is undeterred and continues to maintain that the merger and settlement are in the public interest, it should support AAI's request that the Tunney Act Court defer a public interest determination and keep the public comment period open pending a final judgment in the States' challenge to the proposed transaction. The Tunney Act is silent on the timing of reviewing courts' public interest determinations, leaving discretion to federal judges. The Act specifically contemplates that the 60-day period for accepting public comments may be extended.[44]

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[41] Patrick DeGraba & Gregory L. Rosston, The Proposed Merger of AT&T and T-Mobile: Rethinking the Possible, Case 1, *in* THE ANTITRUST REVOLUTION (John E. Kwoka & Lawrence J. White eds., 6th ed. 2014).

[42] The then AAG for Antitrust noted the "much more favorable competitive conditions" that emerged after rejecting the AT&T/T-Mobile proposal and, looking ahead, opined that, "It's going to be hard for someone to make a persuasive case that reducing four firms to three is actually going to improve competition for the benefit of American consumers." *See* Edward Wyatt, *Wireless Mergers Will Draw Scrutiny, Antitrust Chief Says*, NY TIMES (Jan. 30, 2014), https://dealbook.nytimes.com/2014/01/30/wireless-mergers-will-draw-scrutiny-antitrust-chief-says/.

[43] JOHN E. KWOKA, MERGERS, MERGER CONTROL AND REMEDIES (2015).

[44] *See* APPA, 15 U.S.C. § 16(d) (United States shall receive and consider public comments during 60-day statutory period and "such additional time as the United States may request and the court may grant").

Deferring the public interest determination and keeping the public comment period open will impose no hardship on the merging parties, because they stipulated in the States' case that they will not consummate the merger until no sooner than "12:01 A.M. PT on the sixth day following the entry of a final and appealable judgment, and only if the Court enters judgment in favor of Defendants or otherwise permits consummation of the challenged transaction."[45] Defendants thus would not be required to accept a delay beyond what they have already agreed to accept in the States' case. At the same time, deferring the public interest determination and keeping the public comment period open is necessary and appropriate to effectively accomplish the goals of the Tunney Act, to make efficient use of judicial resources, and to avoid the risk of inconsistent judgments.

By supporting deferral of the public interest determination and further public comment, the DOJ would enhance public confidence in the consent decree process by demonstrating that it has the courage of its convictions, and that it is willing to submit its analyses and conclusions to robust and meaningful public and judicial scrutiny.

A. Deferring the Public Interest Determination and Extending the 60-Day Period Will Ensure the Public Has a Meaningful Opportunity to Comment on the Proposed Final Judgment

The fundamental goal of the Tunney Act is to "assure that the courtroom rather than the backroom becomes the final arbiter in antitrust enforcement."[46] It was designed "to bring the consent decree process into the full light of day" and "make our courts an independent force rather than a rubber stamp."[47] However, the Congress that enacted the law "stresse[d] that effective and meaningful public comment is also a goal."[48] For example, the Tunney Act extended the public notice period for consent decrees from 30 to 60 days to better "facilitate public study and comment."[49] The Tunney Act's requirement that the government issue a response to public comment also was conceived as a "mechanism which permits meaningful public comment."[50]

If the statutory comment period is closed prior to the conclusion of the States' case, then public comments will not be usefully informed or supplemented by probative information implicating the public's ability to critique the proposed consent decree. In addition to a fulsome discovery plan allowing for document requests, interrogatories, expert reports, and 140 hours of fact depositions, the States' Case Management Plan provides for the States "to present expert testimony regarding the settlement announced on July 26, 2019, between the Defendants, the United States Justice Department, and any subsequent related orders of the Federal Communications Commission."[51] Allowing the public to issue new or supplementary public comments in response to

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45 Civil Case Management Plan and Scheduling Order 1, *New York v. Deutsche Telekom AG*, No. 1:19-cv-05434 (S.D.N.Y. filed Aug. 20, 2019) [hereinafter "States' Scheduling Order"]

46 *S. 782, The Antitrust Procedures and Penalties Act, and S. 1088, The Antitrust Settlement Act of 1973: Hearings Before the S. Subcomm. on Antitrust and Monopoly* 1, 93RD CONG. 1 (1973) (Statement of Sen. Tunney) [hereinafter "Statement of Sen. Tunney"].

47 *Id.*

48 APPA, H. Rep. No. 93-1463, at 7 (1974).

49 Statement of Sen. Tunney at 3.

50 *Id.*

51 Case Management plan at 2-6.

this testimony and other public discovery is necessary to facilitate the Tunney Act's goal of ensuring meaningful public comment.

B. Deferring the Public Interest Determination and Extending the 60-Day Period Is Necessary for the Court to Conduct an Efficient and Adequate Public Interest Review

1. The States' Case Will Assure the Court Has Access to Necessary Information Without Expending Any Scarce Judicial Resources

In conducting its public interest review, the Court must consider whether the government has established "a reasonable basis upon which to conclude that . . . the proposed final judgment will adequately remedy the competitive harms alleged in the government's complaint."[52] "A court must engage in an independent determination,"[53] and the factors "explicitly enumerated in the Tunney Act's text . . . must all be considered."[54]

Ordinarily, Tunney Act review requires courts "to accommodate a balancing of interests."[55] On the one hand, "with so much at stake, the congressionally mandated public interest inquiry must be thorough."[56] The Act thus provides that it is appropriate for the reviewing court, among other things, to take testimony, appoint a special master and outside consultants or expert witnesses, conduct hearings or other court proceedings, and allow appearances by amici curiae or intervenors.[57]

On the other hand, Congress chose merely to permit rather than "compel a hearing or trial on the public interest issue" because it "anticipated that the trial judge will adduce the necessary information through the least complicated and least time-consuming means possible."[58] Congress thus did not wish to automatically impose heavy burdens on the judiciary.

Here, deferring the public interest determination until after the conclusion of the States' case is both the most thorough means of gathering the necessary information *and* the least taxing on judicial resources. That another federal court will have completed a trial and adjudicated the legality of the proposed transaction may substantially reduce the demands on the Tunney Act Court to conduct additional hearings or discovery for purposes of its public interest review. At the same time, the Tunney Act Court can obtain this information without having to devote any of its own resources to the information gathering process. Indeed, if the States prevail at trial, the public interest review may prove altogether unnecessary.

2. The States' Case Bears Directly on Specific Issues the Court is Obligated to Consider as Part of Its Tunney Act Review

[52] United States v. RepublicServs., 723 F. Supp. 2d 157, 161 (D.D.C. 2010).
[53] *United States v. Verizon Communs., Inc.*, 2013 U.S. Dist. LEXIS 113705 (D.D.C. Aug. 9, 2013) (internal citation omitted).
[54] *United States v. SBC Communs., Inc.*, 489 F. Supp. 2d 1, 17 (D.D.C. 2007) (citing 15 U.S.C. § 16(e)(1)).
[55] APPA, H. Rep. No. 93-1463, at 8 (1974) (internal citation omitted).
[56] *United States v. CVS Health Corp.*, 2019 U.S. Dist. LEXIS 150645, *4 (Sept. 4, 2019).
[57] APPA, 15 U.S.C. § 16(f); *see CVS Health*, 2019 U.S. Dist. LEXIS 150645, at *11 (holding hearings and taking witness testimony "rather than risk an uninformed public interest determination").
[58] APPA, H. Rep. No. 93-1463, at 8 (1974) (internal citation omitted).

The States' case also promises to provide helpful evidence on issues the Court is obligated to consider during its Tunney Act review, much of which is not otherwise available. For example, Section 2(e)(1)(B) of the Tunney Act requires the Court to consider "the public benefit, if any, to be derived from a determination of the issues at trial."[59] Ordinarily, this entails consideration of a *hypothetical* trial, but here the Court can access direct information regarding the public benefit of trial, without prejudicing the parties.

The Tunney Act also mandates that the reviewing Court must consider the "anticipated effects of alternative remedies actually considered."[60] The DOJ's Competitive Impact Statement unequivocally shows that it actually considered blocking the merger—the same remedy the States seek.[61] By availing itself of information gleaned in the States' case, the Court can directly compare the anticipated effects of the proposed consent decree to those of the alternative remedy the DOJ actually considered.

3. Allowing the States' Case to Proceed Avoids the Risk of Inconsistent Judgments

Deferring the public interest determination and keeping the public comment period open also are consistent with the "compelling public interest in avoiding duplicative proceedings . . . and potentially inconsistent judgments."[62] Although Tunney Act proceedings are non-binding and inadmissible in other antitrust proceedings,[63] and the Tunney Act Court and the trial court in the States' case will apply different standards, the risk of inconsistent judgments nonetheless may be "compelling" when "there are some differences between the . . . claims" but "at the core the two matters involve identical issues of fact and law."[64]

C. Supporting Deferral of the Public Interest Determination and Keeping the Public Comment Period Open Best Serves the Interests of the DOJ

1. The DOJ Should Maximize the Enforcement Value of the States' Case

The States' case also may lead the DOJ, if it keeps an open mind, to exercise its right to withdraw from the PFJ for the benefit of the public. The Competitive Impact Statement does not state or imply that the DOJ necessarily believes the proposed consent decree is the best means of protecting market competition and consumers in the retail mobile wireless service market. Instead, it maintains only that "[t]he United States is satisfied . . . that the relief described in the proposed Final Judgment will provide a reasonably adequate remedy."[65] The Competitive Impact Statement shows that the DOJ settled for a reasonably adequate remedy because the consent decree would, it claims, afford "all or substantially all" of the necessary relief while allowing the DOJ to avoid "the

[59] APPA, 15 U.S.C. § 16(e)(1)(B); *see also* Statement of Sen. Tunney at 8 (court should consider whether "it is more in the public interest . . . that the case go to trial instead of being settled by agreement").
[60] APPA, 15 U.S.C. § 16(e)(1)(A).
[61] Competitive Impact Statement at 18 ("As an alternative to the proposed Final Judgment, the United States considered a full trial on the merits challenging the merger.")
[62] *Fed. Hous. Fin. Agency v. First Tenn. Bank Nat'l Ass'n*, 856 F. Supp. 2d 186, 193 (D.D.C. 2012).
[63] *See* APPA, 15 U.S.C. § 16(e)(1)(A).
[64] *FTC v. Cephalon, Inc.,* 551 F. Supp. 2d 21, 29 (D.D.C. 2008).
[65] Competitive Impact Statement at 18.

time, expense, and uncertainty of a full trial on the merits."[66] However, the States' case alters the DOJ's risk-benefit calculus.

In general, it is true that the DOJ can enter a consent decree which is not "the one that will best serve society" and yet still manage to avoid "breach[ing] its duty to the public."[67] But all else equal, the DOJ should obviously prefer the remedy that best serves the public interest, regardless of the Tunney Act's minimum requirements. In the overwhelming majority of cases, all else will not be equal because of the aforementioned trade-offs. But here, under very unique circumstances, the States have volunteered to incur all of the time, expense, and uncertainty of a full trial. Simply by stepping aside and encouraging the Court to appropriately sequence the Tunney Act proceedings to conclude after the States' case, the DOJ has a unique opportunity to benefit the public by facilitating an unimpeded, fully informed court decision as to whether blocking the merger best serves the public interest, at no cost to itself or the merging parties. It should embrace this valuable opportunity.

2. Supporting Deferral of the Public Interest Determination and Keeping the Public Comment Period Open Would Enhance Public Confidence in the Consent Decree Process

Supporting deferral of the public interest determination and keeping the public comment period open also would enhance public support for the consent decree process. As Assistant Attorney General Delrahim emphasized in his first public remarks following Senate confirmation, "we must be willing and able to open up our policies and decisions to review and challenge."[68] Former Deputy Assistant Attorney General Roger Alford has added that, "To retain the confidence of both the business community governed by our laws and the public we protect, we must be willing to expose our agencies' policies and practices to aggressive scrutiny and challenge."[69] Whether the States win or lose, the DOJ's willingness to defer the public interest determination and keep open the public comment period would significantly enhance public confidence in the legitimacy of the settlement and the DOJ's analysis.

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[66] *Id.*
[67] *United States v. Bechtel Corp.*, 648 F.2d 660, 666 (9th Cir. 1981).
[68] Makan Delrahim, Asst. Att'y Gen., Antitrust Div., U.S. Dept. of Justice, Remarks at New York University School of Law (Oct. 27, 2017), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-new-york-university-school-law.
[69] Roger Alford, Dep. Ass't Att'y Gen., Antitrust Div., Dep't of Justice, Remarks Delivered at China Competition Policy Forum (Aug. 30, 2017), https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-roger-alford-delivers-remarks-china-competition-policy.

IV. CONCLUSION

For the foregoing reasons, the Antitrust Division should exercise its right to withdraw from the PFJ. Regardless, it should encourage the Tunney Act Court defer a public interest determination and keep the public comment period open pending a final judgment in the States' case.

Respectfully submitted,

Diana Moss, President
Randy Stutz, Vice President, Legal Advocacy
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EXHIBIT 3
TO RESPONSE

AMERICANS
for TAX REFORM

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Grover G. Norquist
President

October 10, 2019

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street, N.W., Suite 700
Washington, D.C. 20530

Re: United States of America et al. v. Deutsche Telekom AG et al.; Case 1:19-cv-02232

Dear Mr. Scheele:

The T-Mobile–Sprint merger will facilitate healthy broadband competition, benefit Americans and help close the digital divide. Companies should be able to merge or split without government permission, and doom and gloom rhetoric should not stand in the way of innovation and job creation. **For these reasons, I urge the Department of Justice to approve the merger.**

By combining T-Mobile and Sprint into one company, the **New T-Mobile will serve as a stronger competitor to the leading wireless companies.** According to data from Strategy Analytics, the new company will have 126.2 million subscribers, allowing it to compete more fully with Verizon and AT&T, which each have approximately 150.5 and 141.6 million subscribers.[1]

Increased competition would incentivize these carriers to invest more in their networks, deploy 5G technology, develop new services and products, and offer competitive pricing.

The merger will lead to lower prices. T-Mobile and Sprint have a consistent historical record of providing innovative services at lower prices. The companies have made considerable voluntary commitments for their new network, including pledging to create a 5G network that covers 99 percent of Americans within six years[2] and to not raise prices for the next three years.[3]

Mergers are signs of healthy competition.[4] For example, within the airline industry, mergers have proven to be pro-competitive. Following recent airline mergers, ticket prices for

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[1] Rani Molla, "A merged T-Mobile and Sprint will still be smaller than AT&T or Verizon," *Vox*, April 30, 2018, https://www.vox.com/2018/4/30/17300652/tmobile-sprint-att-verizon-merger-wireless-subscriber-chart.
[2] "Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations; WT Docket No. 18-197," Federal Communications Commission, May 20, 2019, https://ecfsapi.fcc.gov/file/10520302189557/Redacted%20FCC%20Commitments%20Ex%20Parte%20(05 20 2019).pdf.
[3] John Legere, "New T-Mobile: Lower Prices and Better Service. Period." *NewTmobile.com*, March 20, 2019, https://www.t-mobile.com/news/new-t-mobile-lower-prices-better-service.
[4] Patrick Hedger, "Will T-Mobile/Sprint Merger Increase Prices?", Competitive Enterprise Institute, August 21, 2019, https://cei.org/blog/will-t-mobilesprint-merger-increase-prices.

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Americans have decreased overall.[5] The New T-Mobile will have the same impact on the wireless industry.

Americans – particularly those in rural areas – stand to benefit from the combination in myriad ways, including shrinking the digital divide, rapid 5G deployment, and job creation across the nation. Florida, Kansas, Louisiana, Nebraska, Ohio, Oklahoma and South Dakota have formally supported the consent decree. Leaders from Utah[6], Mississippi[7], the Navajo Nation[8], and other states have also shown their support.

T-Mobile and Sprint have committed to deploy a 5G network that will cover almost the entire country, with 97 percent of the United States population and 85 percent of rural America covered within three years.[9] These commitments will transform the lives of millions of Americans – many of whom reside in states that support the merger – who lack reliable internet access.

The T-Mobile–Sprint merger will also create jobs across the United States. The companies have pledged to create 12,400 jobs in small towns and rural America by 2021, create 7,500 customer care jobs by 2024, and open 600 new retail locations across the United States.[10]

This will bring life to many rural or underserved communities. As Navajo Nation President Jonathan Nez wrote in a letter to the Federal Communications Commission and Department of Justice, a post-merger T-Mobile will be "essential to [the Navajo Nation's] economic recovery."[11]

In short, **the T-Mobile–Sprint merger will lead to increased broadband competition, greater connectivity, and economic growth.**

I urge the Department of Justice to support free-market values and encourage you to approve the creation of the New T-Mobile. If you should have any questions or comments, please contact me or Katie McAuliffe by phone, 202-785-0266, or email, kmcauliffe@atr.org.

Onward,

[redacted]

Grover Norquist

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[5] Dennis Carlton et. al, "Are legacy airline mergers pro- or anti-competitive? Evidence from recent U.S. airline mergers," *International Journal of Industrial Organization* 63 (2019): 58-95.
[6] Utah Office of the Attorney General, "Utah Attorney General Reyes: The T-Mobile/Sprint Merger Will Benefit Rural Utah," *Utah Office of the Attorney General*, August 9, 2019, https://attorneygeneral.utah.gov/t-mobile-sprint-merger-proceeding/.
[7] Mississippi Office of the Attorney General, "AG HOOD SETTLES CONCERNS ON T-MOBILE-SPRINT MERGER, INCREASES SERVICES AVAILABLE FOR MISSISSIPPIANS," *Mississippi Office of the Attorney General*, October 9, 2019, https://www.ago.state.ms.us/releases/ag-hood-settles-concerns-on-t-mobile-sprint-merger-increases-services-available-for-mississippians/.
[8] Jonathan Nez to Federal Communications Commission and Department of Justice, August 28, 2019, https://ecfsapi.fcc.gov/file/10907790307322/Navajo%20Nation%20merger%20support.pdf.
[9] "Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations; WT Docket No. 18-197," May 20, 2019.
[10] T-Mobile and Sprint, "Creating Thousands of Jobs from Day One," NewTMobile.com, https://newtmobile.com/our-plan-to-create-jobs/.
[11] Jonathan Nez to Federal Communications Commission and Department of Justice, August 28, 2019.

EXHIBIT 4
TO RESPONSE

Founded 1976

ASIAN

BUSINESS ASSOCIATION

9 October 2019

Mr. Scott A. Scheele, Chief
Telecommunications & Broadband Section
Antitrust Division, US Department of Justice
450 Fifth Street, NW
Suite 7000
Washington DC 20530-0001

Dear Mr. Scheele:

The Asian Business Association (ABA) has been helping Asian American businesses gain access to opportunities since 1976. We are proud of our track record and proven ability to provide a united and strong voice for our members. Our capacity to address important issues and provide new opportunities has been made possible by our commitment to developing relationships and open lines of communication with officials at all levels of government.

As you know, Internet access is now a necessity when it comes to finding new opportunities or running a successful business. And as technology increasingly tethers all aspects of our lives, it is critical that our infrastructure be upgraded to not only increase access, but also have the capacity to handle all of the device traffic. The merger of T-Mobile and Sprint provides country with a path to the substantial upgrades that are needed, and as T-Mobile has stated on numerous occasions, deploying a 5G network is one of their top priorities.

A 5G network deployed across the state would be a boom to businesses, and would secure California's place as the national leader in technology. This also is a tool for advancing the development of minority owned businesses. This tech leadership and the benefits that would follow for the Asian American business community are the reasons that ABA is supportive of the merger.

It is our belief that this merger has the potential to greatly benefit everyone in America. New T-Mobile has committed to upgrading existing infrastructure, deploying a 5G network, and has announced its intent to build a new Customer Experience Center in the Central Valley, California which will employ approximately 1,000 residents. They have also committed to expanding access to areas that do not yet have high-speed broadband, closing a gap in the digital divide.

Improved access to the Internet at fiber-like speeds alone would make a difference to businesses across the country, including those that we represent. This merger holds so much promise for minority-owned businesses as it expands wireless access and increases competition.

It is our hope that this letter provides some insight into why ABA has supported this merger for the last several months. Thank you for your time and consideration.

Sincerely,

[redacted]

Dennis Huang
Executive Director

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EXHIBIT 5
TO RESPONSE

October 10, 2019
By Mail and Email

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division
U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530

> Re: Tunney Act Comments in Support of the T-Mobile / Sprint Merger Settlement in *United States v. Deutsche Telekom AG, T-Mobile US, Inc., Softbank Group Corp. and Sprint Corp.*, United States District Court for the District of Columbia, No. 1:19-cv-02232 ("Merger Lawsuit")

Dear Mr. Scheele:

The undersigned Attorneys General for the States of Utah and Arkansas have closely followed the proposed merger of T-Mobile and Sprint since it was announced. We write to express our support for the proposed Final Judgment in the T-Mobile / Sprint Merger Lawsuit. Our offices have reviewed many detailed public documents that have been presented by the Department of Justice (DOJ) and the merging parties in various forums, including the settlement documents filed in the Merger Lawsuit, along with various public documents filed by the merging parties with the Federal Communications Commission (FCC). In particular, we have studied – and agree with – the conclusions in the DOJ's Competitive Impact Statement.

It is natural for antitrust attorneys to be highly skeptical of what appears initially to be a "four to three" merger. However, we recognize that the story in this case is not that simple. The wireless service provider industry is clearly on the verge of a major transformation in network technology. The deployment of 5G technology is a game changer, which could be as significant as the transition from early flip cell phones to current smart cell phones. Any facilities-based competitor who cannot offer robust deployment of the new technology within a reasonable timeframe will be at a serious competitive disadvantage. The proposed merger seeks to provide a strong technological and financial basis upon which the New T-Mobile will be able to compete with the two dominant firms, Verizon and AT&T. Without the merger, there is a real possibility that Sprint would be unable to survive the transition to 5G, and that T-Mobile would be unable to meaningfully compete with Verizon and AT&T. But for the merger, there could be a duopoly of wireless service providers for many customers. This real possibility if the merger is rejected needs to be kept in mind when evaluating the proposed settlement.

Furthermore, the proposed settlement in the Merger Lawsuit contains a powerful divestiture component designed to enable the Dish Network to become a fourth competitor for wireless services. There are critics who have questioned whether this approach will work. Ultimately, there are no guarantees whenever a new competitor enters any market. However, in this instance there are very encouraging provisions that greatly increase the probability that Dish will become a successful and significant fourth competitor in the market. These include the multifaceted and detailed nature of the defined "Divestiture Assets" (including prepaid assets, spectrum assets, cell site assets, and retail assets), Dish's willingness to be bound as a party pursuant to the Stipulation and Order, and the various provisions allowing for DOJ and FCC verification, all backed by the potential of significant monetary penalties for non-compliance. We believe that giving Dish – an American company – a chance to become a strong fourth competitor in the wireless services industry is better than leaving a void that might be filled by a foreign competitor whose interests are not aligned with those of American consumers.

We believe that this merger, as currently constructed with the divestitures to Dish, offers the best likelihood for maintaining four viable competitors in the wireless services market over the long run. Another important consideration in favor of this merger is that it will significantly expand output by employing currently unused or underused spectrum to give consumers not only a choice of vendors, but a choice of 5G technology. Many consumers will be able to choose the spectrum that works best for their needs (e.g. mid-band versus mmWave) and will also have a choice of at least two vendors for that spectrum.

A critical component of this merger is that the New T-Mobile has made specific verifiable commitments to the DOJ and FCC to build out 5G services in rural areas of the nation. Many of those areas are unserved or underserved currently both in terms of cell phone service and in terms of highspeed internet service generally. New T-Mobile's planned development of mid-band 5G technology, coupled with the deployment of fixed wireless access (FWA) as described in the merging parties' FCC Application, should bring highspeed internet technology to our rural residents and can have a transformative effect on the economies and lifestyles of small towns across the nation.

For all of the foregoing reasons, we believe that the settlement embodied in the proposed Final Judgment is in the public interest, mitigates the potential harms that the merger could otherwise have created, and offers benefits to rural communities while maximizing output and consumer choice for all Americans. We urge the court to accept the terms of the merger and execute the proposed Final Judgment.

Signed,

Sean D. Reyes
Utah Attorney General

Leslie Rutledge
Arkansas Attorney General

EXHIBIT 6
TO RESPONSE

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA Plaintiff v. DEUTSCHE TELEKOM AG; T-MOBILE U.S., INC.; SOFTBANK GROUP CORP.; and SPRINT CORPORATION. Defendants	:	**No. 1:19-cv-02232- TJK**

WRITTEN COMMENTS SUBMITTED BY DANIEL MARTIN BELLEMARE IN OPPOSITION TO THE PROPOSED FINAL JUDGMENT FILED FOR ENTRY BY THE UNITED STATES IN THE ABOVE-CAPTIONED MATTER PURSUANT TO THE ANTITRUST PROCEDURES AND PENALTIES ACT 15 U.S.C. § 16 (b)-(h).

The United States published a notice in the Federal Register pursuant to the *Antitrust Procedures and Penalties Act*. 15 U.S.C. § 16 (b)-(h) ("Act") informing the public that a proposed Final Judgment, Stipulation, and Competitive Impact Statement ("materials") had been filed in the above-captioned matter. 84 Fed. Reg. 39862 (Aug. 12, 2019). On July 26, 2019 the United States and several states filed simultaneously a Complaint pursuant to Section 7 of the *Clayton Act* (15 U.S.C. § 18) seeking declaratory and injunctive relief to prevent completion of a merger between Sprint Corp. and T-Mobile US ("proposed merger").

The proposed Final Judgment is in settlement of the civil action filed against the proposed merger. The Court must determine whether entry of the proposed Final Judgement is in the public interest, the statutory standard set forth in 15 U.S.C. § 16 (e) (1). The Act contemplates a public interest determination following submission of written comments. 15 U.S.C. § 16 (c) (iii). Unfortunately, materials published in the Federal Register do not allow meaningful public comments.

The Complaint's conclusorystatements, the Competitive Impact Statement's brief antitrust analysis do not aid understanding the proposed Final Judgment's terms and conditions — adequacy; impact in the relevant market should the Court enter it. The United States filed a civil antitrust action pursuant to Section 7 of the *Clayton Act* (15 U.S.C. § 18) to prevent the consolidation of T-Mobile and Sprint. The Complaint states summarily that the proposed merger may lessen competition substantially while the Competitive Impact Statement discusses relief in the proposed Final Judgment hastily.

The Complaint and Competitive Impact Statement are silent on keyelements of the relevant market's structure — precise pre- and post-merger market shares of T-Mobile, Sprint and their competitors; pre- and post-merger levels of concentration; trend toward concentration. The above information appears routinely in antitrust complaints stating a claim under Section 7 of the *Clayton Act*; it is essential, as the Complaint filed in the Federal Register defines the scope of the public interest determination. *United States v. Microsoft Corp*., 56 F.3d 1448, 1459 (D.C. Cir. 1995) (Silberman C.J.).

Pre- and post-merger indexes of concentration, accurate pre- and post-merger market shares of market participants in the relevant market are central to judicial review of the proposed merger. *United States v. Antem, Inc*. 855 F.3d 345, 349-350 (D.C. Cir. 2018) (Kavanaugh C.J. dissenting). Complete statements of material facts in antitrust pleadings is of the essence in order to avoid dismissal *in limine*. *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (Souter J.); *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992); *Matsushita Electric Industrial Co. v. Zenith Radio Corp*., 475 U.S. 574 (1986).

Materials published in the Federal Register prevent full judicial oversight of the proposed merger, despite the Act's express purpose to foster accountability and openness in the Department of Justice's Antitrust Division. *A priori* the proposed merger — among two rivals operating within an oligopoly counting four market players — raises antitrust concerns under Section 7 of the *Clayton Act*. Therefore, materials published in the Federal Register should provide more detailed information on the proposed merger's antitrust implications in the relevant market.

The Competitive Impact Statement published in the Federal Register must meet statutory requirements set forth in 15 U.S.C. 16 (b) (3), *inter alia* explain "unusual circumstances giving rise" to the proposed Final Judgment. We take the Complaint as it stands, as "the Tunney Act cannot be interpreted as an authorization for a district judge to assume the role of Attorney General". *Microsoft* 56 F.3d at 1462. Conversely, the Executive Branch may not repeal by administrative action a statute enacted by Congress, especially one meant to subject Executive action's to judicial oversight.

I. THE COMPETITIVE IMPACT STATEMENT FAILS TO EXPLAIN UNUSUAL CIRCUMSTANCES WARRANTING ENTRY OF THE PROPOSED FINAL JUDGMENT.

The *Antitrust Procedures and Penalties Act* provides a statutory framework governing judicial oversight of settlements reached by the United States and antitrust defendants. The Act aims at maximizing public participation respecting judicial review of antitrust settlements. In the instant case, the United States must seek judicial approval as to entry of the proposed Final Judgment. The public must have an opportunity to submit written comments within sixty-days; during that period, the United States "*shall* receive and consider" written comments, and, upon review, file all materials before the Court. 15 U.S.C. § 16 (b) (emphasis added).

The Competitive Impact Statement filed bythe United States in the above-captioned matter must meet an important statutory requirement: "an explanation of the proposal for a consent judgment, including an explanation of any unusual circumstances giving rise to such a proposal or anyprovision contained therein". Also, it must explain relief sought in the proposed Final Judgment along with "anticipated effects on competition of such relief". 15 U.S.C. § 16 (b) (2), (3). The last requirement means that the Competitive Impact Statement must explain how the proposed Final Judgment would adequately remedy the anti-competitive effect of the proposed merger in the relevant market.

Congress further encouraged public participation by directing publication, in newspapers circulating in enumerated judicial districts, of summaries of the proposed Final Judgement, Competitive Impact Statement, and of a list of materials and documents "for purposes of meaningful public comment". 15 U.S.C. § 16 (c). Also, defendants are required to file with the Court "a description of any and all written or oral communications by or on behalf of such defendants ... with any officer or employee of the United States" regarding the proposed Final Judgment. 15 U.S.C. § 16 (g). Written comments, and response thereto, must be filed with the Court. 15 U.S.C. § 16 (d).

The Court may also take appropriate "action" when determining whether entry of the proposed Final Judgment would be in the public interest. For instance: appoint expert witnesses; "request and obtain the views, evaluations, or advice of any individual, group"; grant "interested persons" leave to intervene. 15 U.S.C. § 16 (f) (2), (3). To sum up, the Act enunciates strict nondiscretionary statutory requirements aimed at encouraging submission of meaningful written comments. Consistent with the Act's central purpose, the materials published in the Federal register should provide more information on the proposed merger to enable meaningful public comments.

The 13-page Complaint in the above-captioned matter claims that the proposed merger violates Section 7 of the *Clayton Act* (15 U.S.C. ¶ 18) in retail mobile wireless service in the United States, the relevant market. Complaint ("Compl.") ¶¶ 14, 15, 29.[1] Basically, the Complaint states that the proposed merger would lessen competition substantially in the relevant market. We reproduce *in extenso* the relevant paragraphs of the Complaint stating how the proposed merger affects competition in the relevant market:

4. As the nation's third and fourth largest mobile wireless carriers, T-Mobile and Sprint have positioned themselves as challengers to Verizon and AT&T, their larger and more expensive rivals, targeting retail customers who particularly value affordability. Some of these customers purchase mobile wireless service on a postpaid basis and are billed monthly after receiving service. Others, including those who may lack ready access to credit, purchase prepaid mobile wireless service and pay for service in advance of using it.

5. The merger would eliminate Sprint as an independent competitor, reducing the number of national facilities -based mobile wireless carriers from four to three. The merger would cause the merged T-Mobile and Sprint (''New Tmobile'') to compete less aggressively. Additionally, the merger likely would make it easier for the three remaining national facilities-based mobile wireless carriers to coordinate their pricing, promotions, and service offerings. The result would be increased prices and less attractive service offerings for American consumers, who collectively would pay billions of dollars more each year for mobile wireless service.

***

16. The proposed merger would substantially lessen competition and harm consumers in the relevant market. Post-merger, the combined share of T-Mobile and Sprint would account for roughly one-third of the national retail mobile wireless service market, leaving only two other national wireless carriers of roughly equal size (AT&T and Verizon).

17. American consumers, including those who are customers of Verizon and AT&T, have benefitted from the competition T-Mobile and Sprint have brought to the mobile wireless industry. For instance, it was not until after T-Mobile and Sprint introduced unlimited data plans to retail customers in 2016 that Verizon and AT&T followed with their own standalone unlimited data offerings to retail customers in 2017.

18. T-Mobile and Sprint have been particularly intense competitors for the roughly 30% of retail subscribers who purchase prepaid mobile wireless service. These customers tend to be even more value conscious, on average, than postpaid subscribers.

[1] We refer to the Complaint, Competitive Impact Statement, and proposed Final Judgment as published in the Federal Register, 84 F.R. 39862 (Aug. 12, 2019), pursuant to 15 U.S.C. § 16 (b).

19. The head-to-head competition between T-Mobile's Metro brand and Sprint's Boost Mobile brand has exerted significant downward pressure on prices. When Boost introduced a family plan of four lines for $100 in February 2017, Metro countered with an aggressive promotion that a Sprint executive described this way: ''We gave them a jab and they punched back with a left hook.'' In the fall of 2017, when Metro responded to a Boost four lines for $100 promotion with a three lines for $90 promotion of its own, Boost executives countered with a ''Metro attack plan.'' Boost's ''Combat Metro'' strategy upped the ante further by offering five lines for $100. Observing in March 2018 that Sprint postpaid and prepaid plans were priced 50% lower than the competition, the senior leadership at T-Mobile's Metro reduced prices to $40 per month and then to $30per month for entry level plans.

20. The competition between T-Mobile and Sprint also has led to improvements in the quality of devices and the plan features available to prepaid subscribers. As one Sprint senior executive observed in 2015, ''The prepaid space is experiencing a severe price war. We now have two competitors (Cricket and Metro) spending at postpaid-like advertising levels with strong, best in class nationwide networks. We need to find ways to differentiate our service beyond device and rate plan price.'' To ''one up Metro'' in May 2017, for example, Boost offered unlimited calling to Mexico and unlimited voice roaming to customers traveling in Mexico. That same year, Boost introduced its ''BoostUp!'' program, which allowed prepaid customers with a solid payment history to purchase a phone for $1 down and pay for it over 18 months with no interest. And in February 2018, Boost offered an iPhone 6 for $49 to customers who switched to Boost and kept their phone number.

21. If the merger were allowed to proceed, this competition would be lost. After the elimination of Sprint, the industry's low-price leader, New T-Mobile would have the incentive and the ability to raise prices. In a post-merger world, the other remaining national facilities-based mobile wireless carriers, Verizon and AT&T, also would have the incentive and the ability to raise prices. Additionally, the merger would leave the market vulnerable to increased coordination among these three competitors. Increased coordination harms consumers through a combination of higher prices, reduced quality, reduced innovation, and fewer choices.

22. Competition between Sprint and T-Mobile to sell mobile wireless service wholesale to MVNOs has benefited consumers by furthering innovation, including the introduction of MVNOs with some facilities-based infrastructure. The merger's elimination of this competition likely would reduce future innovation.

The Competitive Impact Statement (C.I.S.) describes the form of relief sought in the proposed Final Judgment; specifically, it "requires T-Mobile to divest to DISH Network Corporation ("DISH") certain retail wireless business and network assets ...". C.I.S. I. Divestiture is "designed to ensure the development of a new national facilities-based mobile wireless carrier competitor". C.I.S. III. For the most part, the Competitive Impact Statement summarizes the proposed Final Judgment's provisions regarding divestiture of assets to DISH.

Only two sections in the Competitive Impact Statement explain (summarily) how relief in the proposed Final Judgment would remedy the anti-competitive effect of the proposed merger. We reproduce *in extenso* sections III.A.5 and 7 in the Competitive Impact Statement:

> 5. Facilities-Based Entry and Expansion
>
> The proposed Final Judgment requires T-Mobile and Sprint to comply with all network build commitments made to the Federal Communications Commission (FCC) related to their merger or the divestiture to DISH as of the date of entry of the Final Judgment, subject to verification by the FCC.3 In turn, DISH is required to comply with the June 14, 2023 AWS-4, 700 MHz, H Block, and Nationwide 5G Broadband network build commitments made to the FCC on July 26, 2019, subject to verification by the FCC.4 Incorporating these obligations into the proposed Final Judgment is intended to increase the incentives for the merged firm to achieve the promised efficiencies from the merger and for DISH to build out its own national facilities-based mobile wireless network to replace the competition lost as a result of Sprint being acquired by T-Mobile. Increasing DISH's incentives to complete the buildout of a fourth nationwide wireless network also serves to decrease the likelihood of coordinated effects that arise out of the merger. (Footnote omitted)
>
> 7. T-Mobile's and DISH's eSIM Obligations
>
> The proposed Final Judgment requires T-Mobile and DISH to support eSIM technology and prohibits T-Mobile and DISH from discriminating against devices based on their use of remote SIM provisioning or use of eSIM technology. The more widespread use of eSIMs and remote SIM provisioning may help DISH attract consumers as it launches its mobile wireless business. These provisions are intended to increase the disruptiveness of DISH's entry by making it easier for consumers to switch between wireless carriers and to choose a provider that does not have a nearby physical retail location, thus lowering the cost of DISH's entry and expansion. These benefits also decrease the likelihood of coordinated effects by increasing DISH's ability to reach consumers with innovative offerings.

A complete analysis of the relevant market's structure appears neither in the Complaint nor in the Competitive Impact Statement — pre- and post-merger levels of concentration (Herfindahl-Hirschman Index) (HHI); increase in HHI numbers as a result of the merger; exact pre- and post- merger market shares of all entities in the relevant market; trend toward concentration (or recent acquisitions). Similarly, there is no substantial information either on regulatory or non-regulatory entry barriers in the relevant market, a determinant factor to assess the viability of a new entrant. Barriers to entry is critical to horizontal merger analysis under Section 7 of the *Clayton Act*. *United States v. Baker Hughes*, 908 F.2d 981, 982, 984 (D.C. Cir. 1990).

The foregoing is the information the United States has made public in the materials filed in the Federal Register about the proposed merger's anti-competitive effect. The Court must make a public interest determination based upon that information; it is also the information which the public has access to for making written comments. This is surprising, given the proposed merger takes place in a highly concentrated oligopoly, and involves entities offering a service which is "an integral part of modern American life.". Compl. § 1.

II. THE COMPLAINT PROVIDES AN INCOMPLETE STATEMENT AS TO THE ANTI-COMPETITIVE EFFECT OF THE PROPOSED MERGER IN THE RELEVANT MARKET.

The proposed Final Judgment incorporates a jurisdictional statement to the effect that the Complaint states a claim upon which relief can be granted, under Section 7 of the *Clayton Act*. 84 Fed. Reg. 39866. Under *Federal Rules of Civil Procedure* 8, a complaint must contain "a short and plain statement of the claim"; the statement must show that plaintiff "is entitled to relief". Rule 8 requires "[f]actual allegations ... enough to raise a right to relief above the speculative level" (reference omitted) *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (Souter J.) (holding antitrust complaint alleging conscious parallel conduct must state material facts sufficient to infer an agreement among defendants).

Likewise, under Rule 56, the moving party must meet a two-prong standard to obtain summary judgment: 1. Absence of "any genuine dispute as to any material fact"; and 2 entitlement to judgment "as a matter of law". An antitrust complaint is subject to a "reasonable trier of fact" standard under Rule 56. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 462 (1992) (Blackmun J.). See also *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 475 U.S.

574, 597 (1986) (Powell J.).

Indices of concentration, market shares, are two structural factors central to horizontal merger analysis under Section 7 of the *Clayton Act*. The Federal Trade Commission and the United States Department of Justice classify as highly concentrated a market exhibiting an index of concentration (Herfindhal-Hirschman Index) (HHI) above 2,500. A merger in a concentrated market increasing the index of concentration (HHI) by more than 200 points is "presumed to be likely to increase market power". HORIZONTAL MERGER GUIDELINES (U.S. Department of Justice and Federal Trade Commission) (Aug. 19, 2010) § 5.3. The presumption of illegality enunciated in the Guidelines incorporates the antitrust legal standard set forth in *United States v. Philadelphia National Bank*, 374 U.S. 321, 363 (1963) (Brennan J).

In litigation under Section 7 of the *Clayton Act*, once plaintiff introduces evidence showing that a proposed merger would produce an undue level of concentration in a pre-defined market, the transaction is presumed illegal. Defendants must then rebut the presumption. If defendants are unable to rebut the presumption, a finding of illegality ensues; otherwise, the burden of persuasion reverts back to plaintiff. But, plaintiff has the burden to prove by a preponderance of evidence that a proposed merger would limit competition substantially. *United States v. Anthem Inc.*, 855 F.3d 345, 349-350 (D.C. Cir. 2017) (Rogers C.J.).

A complaint based on a *Clayton Act's* Section 7 claim, without detailed statements on pre- and post -merger level of market concentration, or entry barriers, is incomplete. The Complaint does not specify the level of concentration, or increase thereof, in the relevant market resulting from the proposed merger. Thus, the Complaint makes difficult any meaningful assessment of the proposed Final Judgment's adequacy — namely, how relief would remedy the anti-competitive effect in the relevant market stemming from the proposed merger. Any assessment can only be speculative.

The approach taken by the United States in the Complaint and the Competitive Impact Statement is inconsistent with the Act's purpose. The Complaint fails to support the *Clayton Act's* Section 7 claim with clear market concentration data while the Competitive Impact Statement contain vague explanations as to the proposed Final Judgment's relief. In short, the Complaint and Competitive Impact Statement provide an incomplete picture of the likely anti-competitive effect of the proposed merger in the relevant market.

By contrast, the complaint and competitive impact statement filed in the Federal Register by the United States in a recent merger transaction provided a more complete analysis of the relevant market's structure. 83 Fed. Reg. 27652 (June 13, 2018) (Department of Justice - Antitrust Division; *United States v. Bayer AG and Monsanto Company*; Proposed Final Judgment and Competitive Impact Statement).

III. MEANINGFUL PUBLIC COMMENTS IS INTEGRAL TO THE PUBLIC INTEREST DETERMINATION THE COURTMUST MAKE UNDER THE ACT.

The Court must determine whether entry of the proposed Final Judgment is in the public interest. 15 U.S.C. § 16 (e). While making a public interest determination, the Court must consider two elements. Firstly, the proposed Final Judgment's adequacy in terms of terminating the antitrust violation stated in the Complaint. Secondly, how entry of the proposed Final Judgment would impact competition in the relevant market. 15 U.S.C. § 16 (e) (A), (B). The Act delegates to the Court a limited , but important, jurisdiction. As the Court noted: "A decree, even entered as a pretrial settlement, is a judicial act, and therefore the district judge is not obliged to accept one that, on its face and even after government explanation, appears to make a mockery of judicial power.".

Microsoft 56 F.3d at 1462.

"Giving due respect to the Justice Department's perception of the market structure and its view of the nature of its case", *Microsoft* 56 F.3d at 1461, the proposed merger has antitrust implications readily discernable even from the Complaint's conclusory statements. A merger between two rivals in a four-firm oligopoly raises immediate antitrust concerns. Nevertheless, a complete assessment of the antitrust implications of the proposed merger demands information beyond that outlined in the Complaint and Competitive Impact Statement.

The United States seeks relief that "requires T-Mobile and Sprint to divest to DISH Corporation certain retail wireless businesses and network assets and to provide to DISH certain transition and network services", to enable DISH "building and operating of its own nationwide mobile wireless network". 84 Fed. Reg. at 39863. In sum, to remedy the anti-competitive effect of the proposed merger in the relevant market, the proposed Final Judgment puts forth the creation of a fourth competitor built with divested assets.

The proposed Final Judgment's relief restructures an oligopoly composed of two dominant firms (Verizon and AT&T) and two fringe firms (T-Mobile and Sprint). The proposed relief creates a third dominant firm, New T-Mobile; as a result, three dominant firms emerge — Verizon, AT&T and New T-Mobile — holding each 33% of the relevant market. Compl. ¶ 16. Notably, the restructuring removes two "particularly intense competitors" in the relevant market — T-Mobile and Sprint. These two entities were involved in aggressive price competition, which at one point triggered a "severe price war". ¶¶ 18-20. In addition, regulatory and non-regulatory barriers to entry (which we do not know the exact scope) entrench the oligopoly's dominant firms. Compl. § 13.

The Competitive Impact Statement discusses summarily how the proposed Final Judgment's relief remedies the proposed merger's anti-competitive effect in the relevant market. C.I.S. III.A.5. and 7. The proposed merger's anti-competitive effect stems from the fact that Verizon, AT&T, and New T-Mobile would have the ability and incentive to impose higher prices in the relevant market through tacit coordination, a situation attributable to further market concentration within the oligopoly. Compl. ¶ 21.

The Horizontal Merger Guidelines defines "coordinated interaction" as "conduct by multiple firms that is profitable for each of them only as a result of the accommodating reactions to the others". H.M.G. § 7. Coordinated interaction or "conscious parallelism" is not *per se* illegal under Sherman Act §§ 1-2. *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp*., 509 U.S. 209, 227 (1993) (Kennedy J.). However see *American Tobacco Co. v. United States*, 328 U.S. 781, 809-810) (1946) ("The essential combination or conspiracy in violation of the Sherman Act may be found in a course of dealing or other circumstances as well as in the exchange of words.").

A merger may trigger enforcement action if three conditions are met: 1. The transaction would "significantly increase concentration", thereby transforming the structure of a relevant market into a "moderately or highly" concentrated one; 2. the relevant market's "vulnerability" to conscious parallelism ("coordinated conduct"); and 3. credible evidence showing that the level of concentration, and increase thereof, in the relevant market may ease coordinated conduct among remaining market players. H.M.G. § 7.1. *Arguendo* the United States concluded that the proposed merger meets all three requirements, and filed a complaint claiming a violation of Section 7 of the *Clayton Act*.

A group of firms sharing a monopoly ("collective market power") in a relevant market can more easily elect to adopt a market strategy designed to avoid price competition, a scheme which may be disrupted "by the presence of other market participants with small market shares and little stake in the outcome resulting from the coordinated conduct, if these firms can rapidly expand their sales in the relevant market." H.M.G.. § 7.2. The key words here are "market *participants*", and "can *rapidly* expand their sales in the relevant market" (emphasis added). Therefore, the central issue that should have been addressed and explained in the Competitive Impact Statement is whether DISH would countenance the big three's market power in the relevant market.

An explanation as to whether the creation of a new entrant is preferable to T-Mobile and Sprint remaining in the relevant market, as two separate entities, is absent from the Competitive Impact Statement. Sprint is a maverick — "a firm that plays a disruptive role in the market to the benefit of customers". H.M.G. § 2.1.5. Should the Court enter the proposed Final Judgment, the relevant market's structure would supply a friendlier environment for tacit collusion than the existing one — very high level of concentration; homogeneity of products; entry barriers. H.M.G. § 7.2.

Tentatively, pre-merger, the index of concentration in the relevant market reached 2,756 (Verizon 33^2; AT&T 33^2; T-Mobile 17^2; Sprint 17^2); post-merger the index of concentration would jump to 3,267 (Verizon 33^2; AT&T 33^2; New T-Mobile 33^2), an increase of 511 points. The merger takes place in a highly concentrated market (more than 2,500 points), and produces a concentration increase of more than 200 points in the relevant market. H.M.G. § 5.3. Anti-competitive performance may occur in such a market setting "if *a substantial part of the market* is subject to [coordinated conduct]" (emphasis added). H.M.G. § 7.2.

Whether DISH would become a maverick in a more concentrated oligopoly is by no means assured. T-Mobile and Sprint contain actual market power of Verizon and AT&T, to a certain extent. However, the Competitive Impact Statement does not explain how DISH, a new entrant built with divested assets, will be able to tame the market power of three (not two) well-entrenched shared-monopolists; neither does it explain why the market structure that would emerge following entry of the proposed Final Judgment is preferable to the *status quo*.

In that regard, the proposed merger is "an all-stock transaction valued at approximately $26 billion". C.I.S. I. Such staggering amount of capital could be invested by Sprint and T-Mobile to improve their respective (as opposed to collective) competitiveness in the relevant market. The Competitive Impact Statement makes no mention that T-Mobile and Sprint are unable to improve their market position on their own, through internal growth — in other words, that they lack the minimum scale of efficiency to compete in the relevant market. In fact, the record shows that they are effective competitors. Compl. ¶¶ 17-20.

Lastly, the Complaint states that no efficiencies would likely offset the anti-competitive effect of the proposed merger. Compl. ¶ 24. Yet, the Competitive Impact Statement mentions "that the proposed Final Judgment is intended to increase the incentives for the merged firms to achieve the promised efficiencies". C.I.S. III.A.5. The Competitive Impact Statement explains neither which efficiencies would be achieved through the proposed merger nor how theywould be achieved should the Court enter the proposed Final Judgment. As already mentioned, barriers to entry are critical to horizontal merger analysis under *Clayton Act* Section 7.

For the foregoing reasons, we respectfullysubmit that the materials published in the Federal Register do not allow submission of meaningful written comments.

This 25 September 2019.

Daniel Martin Bellemare

DANIEL MARTIN BELLEMARE
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TO: Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, Department of Justice
450 Fifth Street NW, Suite 7000
Washington D.C. 20530

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EXHIBIT 7
TO RESPONSE

access education opportunity

CALASIAN
chamber of commerce

October 10, 2019

Mr. Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530

Dear Chief Scheele:

The CalAsian Chamber of Commerce represents more than 600,000 Asian Pacific Islander (API) businesses in California, making us the state's largest ethnic Chamber of Commerce. We work to advance policies and proposals that help our members build and grow their businesses.

We have been outspoken in our support for the merger of T-Mobile with Sprint, attending all three of the California Public Utility Commission (CPUC) hearings and participating in the CPUC technical workshop, while it was a matter of contention in California. Increased high-speed broadband access will benefit all Californians and it is something T-Mobile is committed to providing. In this regard, there are two things that our membership hopes to see happen.

The first is the positive impact the merger will have on the business climate here in California, which will benefit our members. Companies large and small now depend on the Internet to accomplish routine, daily tasks from ordering materials to payroll and banking. Mobile commerce grows in importance each year and having a high-speed 5G network would benefit businesses, regardless of size. New T-Mobile has also committed to building a new call center in the Central Valley, providing approximately 1,000 new jobs and an economic boost to a region that is often times ignored by large employers.

The second aspect of interest to members is the potential personal impact that high-speed broadband could have on their daily lives, particularly telehealth services. Asian Pacific Islanders are at increased risk for, and endure a number of chronic health conditions, such as diabetes, heart disease, and hypertension. Many are also small business owners, who find it difficult to get away for frequent doctor's appointments. High-speed Internet in the home would allow for improved access to telehealth services, eliminating the need for travel, increasing access for low-income or elderly patients, and lowering the cost of treatment.

When we talk about living in an increasingly digital world, these are the types of examples that come to mind. This merger presents California with the opportunity to quickly see the benefits of a 5G deployment—which is important to our state's future growth and success. Thank you for your time and consideration.

Sincerely,

[redacted]

Pat Fong Kushida
President/CEO

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EXHIBIT 8
TO RESPONSE

CALIFORNIA EMERGING TECHNOLOGY FUND

CALIFORNIA EMERGING TECHNOLOGY FUND
www.cetfund.org

414 13th Street, Suite 200 B
Oakland, California 94612
415-744-CETF (2383)

714 West Olympic Boulevard, Suite 924
Los Angeles, California 90015-4133
213-443-9952

October 8, 2019

Mr. Scott Scheele scott.scheele@usdoj.gov
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530

Re: T-Mobile USA, Inc. Acquisition of Sprint Communications Company L.P.

Dear Mr. Scott:

The California Emerging Technology Fund (CETF) strongly supports the acquisition by T-Mobile USA, Inc. of Sprint Communications Company L.P. pursuant to the agreements with the U.S. Department of Justice (DOJ) because it will increase competition and expand consumer choice. The transaction is clearly in the public interest and deserves immediate approval.

CETF is a statewide non-profit organization directed to be established by the California Public Utilities Commission (CPUC) as a public benefit from the SBC-AT&T and Verizon-MCI mergers in 2005. The CPUC-assigned mission to CETF is to close the Digital Divide in California. CETF has studied every aspect of the Digital Divide and pursued successful strategies to accelerate both deployment and adoption of broadband (a generic term used by CETF to refer to high-speed Internet access and home service). CETF has the data and experience to support all our recommendations and actions. CETF is relied upon by policymakers and regulators as a credible voice with integrity for what is needed to address the needs of digitally-disadvantaged residents in rural unconnected communities and urban low-income neighborhoods.

In pursuit of our mission to close the Digital Divide, CETF closely followed the proposed T-Mobile-Sprint transaction because of the implications for impacts on low-income and vulnerable consumers. We concluded that there was an opportunity to significantly benefit consumers and enhance competition if the transaction was properly structured. Thus, CETF became a legal party in the California proceedings and negotiated a Memorandum of Understanding (MOU) that provides unprecedented public benefits for California consumers, especially the digitally-disadvantaged. The CETF-T-Mobile MOU recognizes the convergence of conventional telephony and cable technologies to provide high-speed Internet access as the future reality for consumers and relevant regulatory framework. And, it is access to the Internet at home that is most problematic for low-income consumers and rural communities. New T-Mobile will ensure that these consumers have increased choices instead of being forced to live with the limited offerings from "Big Telecom" and "Big Cable".

The plans and obligations by New T-Mobile will accelerate the deployment of advanced networks and 5G technology through tangible and substantive enhanced marketplace dynamics. Further, the subsequent commitments secured by DOJ ensure that there is increased competition and additional choices for all U.S. consumers. In fact, the T-Mobile-Sprint transaction as it now is structured with all the specific regulatory obligations and conditions is historic in adding more true competitors to the evolving industry.

For all of these reasons, the California Emerging Technology Fund, therefore, urges approval of the T-Mobile acquisition of Sprint.

Sincerely,

[redacted]

Sunne Wright McPeak
President and CEO

EXHIBIT 9
TO RESPONSE

CENTER FOR INDIVIDUAL FREEDOM

1727 King Street
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Alexandria, VA 22314
703-535-5836
www.cfif.org

September 30, 2019

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division
U.S. Department of Justice
450 Fifth Street, N.W.
Suite 7000
Washington, DC 20530

Dear Chief Scheele:

Pursuant to the Tunney Act, and your office's solicitation of written public comments concerning the proposed settlement and divestiture requirement between the Department of Justice and Attorneys General for five states with T-Mobile U.S., Inc. (hereinafter "T-Mobile") and Sprint Corporation (hereinafter "Sprint") in their proposed merger, the Center for Individual Freedom (hereinafter "CFIF") hereby submits its Comment in support of the proposed settlement.[1]

CFIF is a non-profit, non-partisan organization with over 300,000 grassroots supporters and activists across the United States. CFIF was established in 1998 for the purpose of safeguarding and advancing constitutional rights, as well as ensuring continued American innovation, prosperity, leadership, entrepreneurship and worldwide technological preeminence. As a central part of that mission, CFIF advocates for public policies that advance internet, technological and broadband development most freely, effectively and efficiently. On that basis, CFIF respectfully urges swift approval of the proposed merger between T-Mobile and Sprint.

As an initial matter, it is vital to frame the appropriate levels of scrutiny and burdens of proof in analyzing the issues underlying the proposed merger. In a free society and market economy, mutual agreements between willing private parties merit respect from reviewing authorities. Indeed, federal law directs executive agencies to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[2]

Accordingly, where the petitioning parties demonstrate that their proposal would serve the "public interest, convenience, and necessity," authorities should refrain from needless and

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1 15 U.S.C. § 16.

2 See, e.g., 47 U.S.C. §706.

harmful disruption and interference.[3] Authorities' assessment should be measured and evidence-reliant.

In the instant matter, the parties' proposed merger promises a wealth of expected consumer benefits by enhancing the array of services to be made available relative to today's availability, as well as in the realm of jobs created and the benefit to the American economy more broadly.

The fifth generation ("5G") of wireless technology constitutes a central advance in the technology industry, not only because it offers faster wireless capability, but also because it opens the door to new applications of technology on the cutting edge of scientific advance.

As just one prominent example, consumers using 5G will be able to download full-length, high-definition films in a matter of seconds rather than drawn-out minutes. Through its lower latency - and therefore higher responsiveness - along with enhanced capacity, more devices will be able to connect to a single cell. As a result, the proliferation of household "smart" devices and appliances, and the "internet of things," will proceed exponentially.

Achieving 5G functionality will also require private infrastructure investment, which means billions of dollars of investment, and the countless new jobs required to build it.

All told, CTIA estimates that the 5G conversion will result in connection of one hundred times as many devices as currently, at speeds one hundred times faster, with a reduction to response times that are one-tenth of today's.[4]

Moreover, CTIA estimates that execution of the transition will mean $275 billion in new investment, and nearly double that amount - $500 billion - in additional economic growth. CTIA also estimates that the transition will support three million new jobs domestically, 800,000 of those in the critical construction sector.

The proposed T-Mobile/Sprint merger will accelerate and strengthen that transition. Rather than conceptualizing the merger as reducing the number of major market carriers from four to three, it is more accurate to recognize it as enlarging the number of major participants from two to three. Verizon, the largest carrier, counts approximately 151 million total subscribers, and AT&T, the second-largest, counts approximately 142 million. Those numbers dwarf T-Mobile's approximately 73 million subscribers and Sprint's approximately 54 million. By combining, the merged entities would compete more evenly with the two dominant market players.[5]

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[3] 47 U.S.C. §310(d).

[4] *CTIA*, April 2018, "The Global Race to 5G," ¶10.

[5] *FierceWireless*, May 30, 2017, "In 2017, How Much Low-, Mid- and High-Band Spectrum Do Verizon, AT&T, T-Mobile, Sprint and Dish Own, and Where?" https://www.fiercewireless.com/wireless/2017-how-much-low-mid-and-high-band-spectrum-do-verizon-at-t-t-mobile-sprint-and-dish-own.

Additionally, Verizon and AT&T currently claim substantially higher levels of low-band and mid-band spectrum than T-Mobile or Sprint, meaning that they possess a marked network quality advantage.[6]

Accordingly, a more appropriate examination of the current market reveals that the proposed merger is more accurately conceptualized as a two-to-three increase than as a four-to-three decrease. Thus, the completed merger will result in tighter market competition because the two largest wireless entities will be forced to contend with a new rival more equal to their respective sizes. The increase from two dominant competitors to three will benefit consumers through lower prices, better performance and more extensive private investment.

More specifically, economists estimate that the result from the additional competition by a third major market competitor will be a cost decrease of 55% per GB for consumers, and a 120% increase in cellular data availability.[7]

The merging companies' differing but complementary assets will create a symbiotic network with enhanced capacity, wider coverage and more effective wireless performance than currently exists. With T-Mobile's nationwide 600 MHz spectrum and Sprint's 2.5 GHz spectrum, the nation's highest-capacity network suddenly becomes possible. By 2024, it is expected that the new network will possess nearly double today's total capacity, as well as three times the total 5G capacity that T-Mobile and Sprint could achieve independently, and 5G speeds between four and six times what they could reach acting independently.[8]

In contrast, the absence of a T-Mobile/Sprint merger would thus mean slower deployment of a 5G nationwide network, as well as the absence of a larger-scale market competitor. Consumers would stand to suffer under that hypothetical circumstance.

The proposed merger would also inure to the benefit of the United States economy more generally.

To wit, T-Mobile expects to invest $40 billion over the next three years to integrate the merging companies and introduce 5G capabilities. In turn, that investment means tens of thousands of new jobs created. According to estimates by NERA Economic Consulting, the proposed merger will generate 24,960 new jobs between 2019 and 2023 alone, including high-paying engineering and construction positions.

T-Mobile expects to create 3,625 new full-time positions in 2019 alone, compared to the companies' current standalone expectations. It further expects to open some 600 retail centers and five new customer care centers in rural areas and smaller population towns, which will create 12,400 new jobs by 2021. Another 7,500 new customer care jobs will exist by 2024 compared to the number of employees needed in the absence of a merger.

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6 *Id.*

7 David S. Evans, Market Platform Dynamics, "Economic Analysis of the Impact of the Proposed Merger of T-Mobile and Sprint on the Deployment of 5G Cellular Technologies, the 5G App Ecosystem, and Consumers, Enterprises, and the Economy," Appx. G, Section V.C., ¶¶220-44.

8 T-Mobile US, Inc., June 18, 2018, "Description of Transaction, Public Interest Statement, and Related Demonstrations," https://www.sec.gov/Archives/edgar/data/101830/000119312518197185/d503704d425.htm.

Accordingly, the available evidence thus suggests that the proposed merger will not only benefit consumers through greater innovation, a more effective nationwide 5G network and increased infrastructure investment, it will also result in significant job creation and economic growth.

III. <u>Conclusion</u>

For the reasons set forth herein, CFIF and its 300,000 activists and supporters urge swift approval of the proposed merger between T-Mobile US, Inc., and Sprint Corporation.

Respectfully submitted,

Timothy H. Lee, Esq.
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September 30, 2019

EXHIBIT 10
TO RESPONSE

Communications Workers of America
AFL-CIO, CLC

501 Third Street, N.W.
Washington, D.C. 20001-2797
202/434-1100

October 10, 2019

Scott Scheele, Esq.
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, DC 20530

Re: United States v. Deutsche Telekom AG, et al., No. 1:19-cv-02232-TJK

TUNNEY ACT COMMENTS OF THE COMMUNICATIONS WORKERS OF AMERICA

Introduction.

The proposed Final Judgment ("PFJ") violates a number of clearly articulated Antitrust Division policies on merger remedies. These policies, incorporated in current policy guidance documents and in speeches by Division officials, are aimed at ensuring that antitrust remedies are *appropriate, effective and principled*. The remedy here satisfies none of these goals. The Division has not articulated any reasons, let alone principled reasons, why it has turned its back on its own merger remedy policies in this case, many of which are long-standing and represent sound antitrust enforcement.

The Division has recently and successfully asserted a number of its merger remedy policies in litigated cases as a basis for rejecting proposed fixes to anticompetitive mergers, including one in which the proposed divestiture package did not include the *network* necessary for the buyer successfully to compete. That has particular relevance here.

Judged from the standpoint of the competitive harm alleged in the Complaint, the divestiture assets do not restore the competition lost by the elimination of Sprint as an independent competitor *under the theories of harm alleged in the complaint and in the product market alleged in the complaint*. The divestitures create a Mobile Virtual Network Operator ("MVNO"), but the theories of harm and market definition treat competition from MVNOs as de minimis. There is a mismatch between the theory of harm and the divestitures.

Contrary to Division policy, the remedy also fails *promptly* to restore the competition lost due to the merger. The PFJ envisions a period of time measured not in months, but in years, during which the divestiture buyer would be entirely or largely reliant on the merged firm for network access and would be a customer and reseller, not a full-fledged competitor. For as long as three years, the merged firm is required to provide billing, customer care, SIM card procurement, device provisioning, and other services to the buyer as "transition" services. The exceptionally long "transition" period is necessitated because the divestitures are not of an existing business entity but rather are a collection of asset carve-outs. This scenario creates heightened execution risk and excessive entanglements, both of which are contrary to Division policy goals.

The core provisions of the remedy are not divestitures at all but rather the sharing of the "New T-Mobile" network with the divestiture buyer for a minimum of seven years under a mobile virtual network operator agreement. This is the portion of the remedy that is intended to give the buyer time to transition from a customer to a competitor – or, in the Division's words, "to facilitate DISH building its own mobile wireless network with which it will compete in the retail mobile wireless service market." Whether it will ever accomplish that goal is questionable. But what it will accomplish beyond any reasonable doubt is to cement a *multiyear business relationship between the buyer and the merged company that would require extensive government oversight* – exactly the sort of remedy Division leadership has strongly, and persuasively, argued is ineffective as a matter of enforcement policy and, moreover, one that inappropriately puts a law enforcement agency into a regulatory role it is ill-suited to perform.

In summary, based strictly on the allegations in the Complaint, the buyer, during the years it operates as an MVNO, would not put significant competitive pressure on the merged firm or any of the other remaining Mobile Network Operators ("MNOs"); *a fortiori*, it would not replace the competitive pressure the Division alleges Sprint currently exerts in the relevant market.

Leaving aside the remedy's significant deviations from Division policy, DISH as buyer fails the Division's standard test for a divestiture buyer. DISH lacks "managerial, operational, technical, and financial capability" to "compete effectively" in the relevant market. The buyer in this case fails on every score – it lacks financial resources of its own and has not secured third-party funding; it has management that has not built a wireless network despite the legal obligation to do so; and it has no experience or demonstrated technical ability to operate such a network, the challenges of which are extensive. (The operational and technical challenges are discussed in the accompanying Declaration of Andrew Afflerbach.) At the same time, DISH has shown a willingness to abuse a federal program to obtain over $3 billion in taxpayer-funded discounts, and thereby to make "a mockery of the small business program" in the words of then-Commissioner Ajit Pai.

T-Mobile itself highlighted DISH's lack of fitness as a buyer in an FCC filing in March, 2019, commenting that DISH has a track record of price increases for its services, speculative warehousing of spectrum, and failing to meet FCC-imposed deadlines. T-Mobile additionally commented that "*DISH stands out for its efforts to game the regulatory system*" and "*has little interest in actually delivering real 5G service*."

Even assuming for the sake of argument that a weak and otherwise unacceptable buyer could somehow transform into a strong competitor at some future date, the remedy provides insufficient incentives (positive or negative) for this transformation to take place.

From an engineering standpoint, there are numerous perils and pitfalls that the PFJ ignores which stand between the desire to create a new competitive retail wireless network and realization of that goal. These include activating infrastructure at tens of thousands of sites while relying on technologies that do not yet exist, creating and managing a large new team in a tight labor environment, getting permitting approvals and third-party consents, coordinating with T-Mobile (itself in the process of an ambitious build, drawing on a significant amount of expertise and network build capacity), handling procurement, and financing a project costing over ten billion dollars. Furthermore, because DISH is required to operate on a shared infrastructure with T-Mobile, it would need to rely on T-Mobile to make modifications to support new services (e.g., advanced streaming platforms, multimedia broadcast). In coordinating with T-Mobile, it may need to disclose sensitive intellectual property to a competitor to make the changes.

Moreover, the commitments DISH has made are far more limited than they appear at first blush. DISH is required to serve only 70 percent of the population by 2023 – and only at 35 Mbps. This speed is already exceeded in many 4G-served areas (including by Sprint) and represents a very low goal for 5G service. If 35 Mbps is the typical speed of the DISH network in 2023, while the other three facilities-based wireless carriers offer service in hundreds of Mbps – and if this limitation is a baked-in technological limit because of fewer sites or less capacity per site – the result will not be a bona fide fourth network, but a niche network closer to the limited internet of things (IoT) network proposed by DISH prior to the T-Mobile deal.

From a financial standpoint, DISH's incentives run counter to the Division's goal of creating a competitively significant new entrant. Several prominent analysts who have examined DISH's incentives have pointed to: (a) the enormous financial challenges of building a competitive 5G retail network; (b) the fact that DISH may be better served financially by remaining an MVNO customer of T-Mobile rather than building a competitive network; and (c) the incentives DISH has to provide services outside of the relevant market (e.g. wholesale services) even if it does build a network.

For example, a research analyst at Guggenheim Securities wrote: "We continue to see many possible outcomes for DISH that are unlikely to result in a multi-billion dollar network build to end up a sub-scale distant fourth provider with a handful of prepaid subscribers." A CFRA analyst noted: "[W]e remain skeptical on the potential financial, technical and regulatory hurdles" DISH faces in entering the market. And Deutsche Bank Research analysts wrote: "We don't believe that DISH's strategy has been focused in any meaningful way on consumer wireless, at least not for the past few years. Instead, the company has focused on a Neutral Host wholesale model, which would allow clients to own and manage their own slice of the network through virtualization and to fully control and provision their company's own applications and services." *The failure of the buyer to satisfy basic Division requirements for a divestiture buyer, and the lack of adequate incentives for the buyer to compete in the relevant market, violate long-standing Division policy*.

Finally, Division policy recognizes that complex remedies carrying a high risk of failure are antithetical to Congress's determination that risks to the public should be small. The "MVNO-to-iMVNO-to-MNO" model may be facially attractive, but as the accompanying Declaration of Dr. Afflerbach explains, and recent experience in Europe demonstrates, the reality is that this model is extraordinarily complex, full of risks, and may not be a profitable strategy. There is evidence both in the Complaint and in the FCC record of the substantial harm the public would bear in the event that the remedy fails to create a viable fourth competitor – harm estimated by the Division to be in the *billions* of dollars annually.

Under any reasonable definition of the "public interest," a remedy that carries a high risk of failure and exposes the public to substantial economic harm if it fails cannot be said to be in the "public interest." The Division should exercise its power under Paragraph IV(A) of the Stipulation and Order to withdraw its consent to the entry of the PFJ.

1. Antitrust Division policy requires merger remedies to be "appropriate, effective, and principled" – the PFJ violates all of these basic tenets.

The PFJ violates a number of clearly articulated Antitrust Division policies on merger remedies.[1]

On the most fundamental level, Division policy mandates that any merger remedy must adhere to three basic tenets. As stated in the 2004 Merger Remedies Guide: "Remedial provisions in Division decrees must be *appropriate, effective, and principled*."[2] The use of the word "must" shows that these characteristics are not optional. The remedy here violates all of these basic tenets.

In order to be "appropriate," a remedy must address the competitive harm alleged in the complaint. The government is obligated to insure that "the remedy fits the violation and flows from the theory of competitive harm."[3] Stated otherwise, "[t]here must be a significant

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[1] Sources of Antitrust Division merger remedy policies include: (a) U.S. DEP'T OF JUSTICE, ANTITRUST DIVISION POLICY GUIDE TO MERGER REMEDIES (2004) ("2004 Merger Remedies Guide"), https://www.justice.gov/atr/page/file/1175136/download; (b) speeches, testimony and other public statements of Division officials, *see* ANTITRUST DIVISION MANUAL (Fifth Edition) at III-21 ("Other sources of Division policy include the public statements of Division officials"), https://www.justice.gov/atr/file/761166/download; and (c) court filings by the United States that include statements about Division policy.

[2] 2004 Merger Remedies Guide at 2.

[3] *Id*. at 3-4.

nexus between the proposed transaction, the nature of the competitive harm, and the proposed remedial provisions."[4]

In this case, the Amended Complaint contains a summary of the Division's theory of harm. The merger would "eliminate Sprint as an independent competitor" in the national market for retail mobile wireless service, thereby "reducing the number of national facilities-based mobile wireless carriers from four to three."[5] The elimination of Sprint as an independent competitor would cause the merged firm to "compete less aggressively" and "likely would make it easier for the three remaining national facilities-based mobile wireless carriers to coordinate their pricing, promotions, and service offerings."[6] The result would be "increased prices and less attractive service offerings for American consumers, who collectively would pay billions of dollars more each year for mobile wireless service."[7]

Sprint is characterized as an "independent competitor" and one of four "national facilities-based mobile wireless carriers." There is no suggestion anywhere in the Amended Complaint that carriers without their own networks (Mobile Virtual Network Operators or MVNOs) are competitively significant market participants in the relevant market alleged in the Amended Complaint. Indeed, paragraph 16 suggests the opposite: "Post-merger, the combined share of T-Mobile and Sprint would account for roughly one-third of the national retail mobile wireless service market, leaving only two other national wireless carriers of roughly equal size (AT&T and Verizon)." In other words, the four facilities-based competitors are the only competitively significant firms in the market as alleged. There is no suggestion anywhere in the Amended Complaint that MVNOs would or could constrain the post-merger price increases the Division has predicted or that they would or could disrupt the coordinated effects the Division has alleged.

A complaint that alleges competitive harm in one relevant market is not appropriately remedied by divestitures that enable a buyer to participate in a different market, as a competitively insignificant force in the relevant market alleged in the complaint, and unable to constrain the asserted competitive harm.

In order to be "effective," a remedy must restore the competition lost through the merger.[8] That is the only acceptable goal of a merger remedy.[9] The 2004 Merger Remedies

[4] *Id*. at 2.
[5] Complaint ¶¶ 5, 14, 15.
[6] Complaint ¶ 5.
[7] Complaint ¶ 5.
[8] Sprint has $33.6 billion in annual revenue, $12.8 billion in annual EBITDA, $84.6 billion in assets, $21.2 billion property, plant, and equipment, 28,500 employees, 300 million POPs, 46,000 towers, 30,000 small cells, 1,500 massive MIMO radios, 14 MHz in 800 MHz band, 40 MHz in the 1.9 GHz band, and 150 MHz in the 2.5 GHz band (varies by location), 54.5 million subscribers, including 28.4 million postpaid, 8.8 million prepaid, and 12.9 million wholesale. In contrast, DISH has $13.4 billion in annual revenue, $2.8 billion in annual EBITDA, $31.7 billion in assets, $2.6 billion in property, plant, and equipment, 16,000 employees, 10-40 MHz in the 600 MHz band, 6 MHz

Guide uses the word "effective" dozens of times, including in a quotation from the Supreme Court: "The relief in an antitrust case must be 'effective to redress the violations' and 'to restore competition.' . . ."[10]

There are two dimensions of remedial effectiveness we focus on here: First, a divestiture remedy "must include all assets necessary for the purchaser to be an effective, long-term competitor."[11] Second, the remedy must allow the purchaser "to compete effectively in a timely fashion."[12] The first of these requirements takes a long term view, the second looks at the near term. The remedy fails on both scores.

The assets to be divested do not include a fully operational standalone network with a core and spectrum, which is the critical asset that differentiates an independent, competitively significant mobile network operator (MNO) from a dependent, competitively insignificant MVNO.[13]

In *United States v. Aetna and Humana*, the Division alleged that the lack of a network (in that case, a provider network) was a key reason for rejecting the partial asset divestiture proposed by the parties as a remedy. The Division also highlighted the difference between an "independent competitor" and one dependent on the merged entity. As the Division alleged in its complaint:

> 60. The buyer would not be an independent competitor as Humana is today. The proposed remedy would leave the buyer dependent on Aetna—potentially for years—for providing basic services. Since the buyer would not have a healthcare provider network in place or be acquiring an intact business unit that would enable it to operate on its own, it would have to rely on Aetna's healthcare provider network and receive administrative services from Aetna for a lengthy period. Because the buyer would receive only limited assets, the buyer would be highly unlikely to timely replicate Aetna's and Humana's existing provider networks and competitive strengths in the relevant markets.[14]

This case illustrates the problem with a divestiture that lacks a key asset that cannot be readily obtained or duplicated by the buyer. Without that asset, the buyer cannot compete in the relevant market. The absence of a critical asset in this case is even more significant than in the

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in 700 MHz band, 70 MHz in the AWS band, and no wireless subscribers. Sprint's leverage ratio is 2.6x compared to DISH at 6x (Source: CapitalIQ for LTM 12 months ending in March 31, 2019; DISH leverage ratio: Bank of America).

[9] 2004 Merger Remedies Guide at 4 ("restoring competition is the only appropriate goal with respect to crafting merger remedies").

[10] 2004 Merger Remedies Guide at 9 n.13 (quoting Ford Motor Co. v. United States, 405 U.S. 562, 573 (1972)).

[11] 2004 Merger Remedies Guide at 9.

[12] *Id*.

[13] *See* 2004 Merger Remedies Guide at 15 n.21 ("A critical asset is one that is necessary for the purchaser to compete effectively in the market in question.").

[14] Complaint, United States et al. v. Aetna Inc. and Humana Inc., Case 1:16-cv-01494 (July 21, 2016), available at https://www.justice.gov/atr/file/878196/download.

Aetna case: If anything, it is far more difficult and challenging for a divestiture purchaser to create a nationwide wireless network than a healthcare provider network. The remedy here significantly departs from Division policy that a divestiture must include all of the assets necessary for the purchaser to be an effective, long-term competitor. (We discuss several other reasons to doubt that the purchaser would ever become an effective long-term competitor in the relevant market later in these comments.)

The timeliness of a remedy is also critical. Per Division policy, the remedy must "restore[ ] premerger competition to the marketplace as soon as possible."[15] Deputy Assistant Attorney General Barry Nigro emphasized this point in a speech in 2018: "[T]he goal of a divestiture is not to simply remove the offending combination; rather, it is to promote and protect competition by preserving the status quo competitive dynamic in the market from day one."[16] The Division has explained the rationale behind this policy as follows:

> A quick divestiture has two clear benefits. First, it restores premerger competition to the marketplace as soon as possible. Second, it mitigates the potential dissipation of asset value associated with a lengthy divestiture process.[17]

The PFJ dramatically departs from the long-standing Division policy that an effective remedy must *quickly* restore the lost competition in the relevant market alleged in the complaint. Here, the remedy envisions a multiyear process whereby the divestiture buyer may, someday, transform from an MVNO into an "Infrastructure MVNO" (iMVNO) and then into an MNO. At that point, assuming it ever arrives, the remedy would "restore premerger competition to the marketplace" and "protect competition by preserving the competitive dynamic in the market." But it is indisputable that this result, assuming it occurs at all, will take years. The remedy will not restore competition "quickly," let alone on "day one." In the interim, subscribers to the buyer's prepaid wireless service may go elsewhere, eliminating one of the asserted benefits of transferring these customers. Further, while Sprint currently has postpaid as well as prepaid customers, the remedy does nothing to enable the divestiture buyer quickly to enter the postpaid segment of the market, which is the more profitable segment.

Finally, the remedy in this case includes non-contract (prepaid) customers, limited intellectual property rights, and assets that are not freely transferable but require decommissioning and third-party consents.

In sum, the remedy in this case lacks the fundamental characteristics the Division requires, as a matter of policy, in an "effective" remedy.

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[15] 2004 Merger Remedies Guide at 29.

[16] Deputy Assistant Attorney General Barry Nigro Delivers Remarks at the Annual Antitrust Law Leaders Forum in Miami, Florida (February 2, 2018), available at https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-barry-nigro-delivers-remarks-annual-antitrust-law.

[17] 2004 Merger Remedies Guide at 29.

The remedy is not "principled." One of the guiding principles of merger remedies is that "[t]he remedy should promote competition, not competitors."[18] As the 2004 Merger Remedies Guide states: "Because the goal is reestablishing competition — rather than determining outcomes or picking winners and losers — decree provisions should promote competition generally rather than protect or favor particular competitors."[19]

Senator Mike Lee has raised questions about the Division's adherence to this guiding principle. As Senator Lee has stated, "I have concerns whenever government joins hands with industry to cobble together a would-be competitor, particularly one who so stridently opposed the merger earlier this year."[20] Doing so "will no doubt invite similar gamesmanship in future antitrust reviews."[21] The remedy attempts to cobble together an entirely new wireless competitor. The selection of DISH as that would-be new competitor raises questions about whether the Division is carrying out its law enforcement mandate or is stepping outside of its role.

DISH has been a persistent and vocal opponent of the proposed merger from the beginning. It has submitted detailed economic evidence rebutting the parties' claims that the transaction would be procompetitive. As recently as March, T-Mobile asserted that "DISH has little interest in actually delivering real 5G service and its private pecuniary interest is to delay or block those who would actually do so."[22] In the same month, T-Mobile accused DISH's economists of fabricating data.[23] Now the parties have reached an accommodation with each other. The deal joins the two companies at the hip for up to seven years, ridding T-Mobile of a thorn in its side. The deal also would delay yet again FCC network deployment deadlines that DISH must meet, ridding DISH of the prospect of spectrum forfeiture.

The issue is not whether the Division has the authority to approve a proposed purchaser. Of course it does. Division policies relevant to the review and approval of a purchaser are discussed later in these comments, and particularly the "fitness" test for the buyer and the requirement that "the Division must be certain that the purchaser has the incentive to use the divestiture assets to compete in the relevant market." However, Division policy recognizes that there are times when remedies are not appropriate or feasible. One of those times is when an effective divestiture would essentially mean divesting one of the firms

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[18] 2004 Merger Remedies Guide at 5.
[19] 2004 Merger Remedies Guide at 5.
[20] "Sen. Lee Comments on DOJ's T-Mobile/Sprint Decision," July 26, 2019, available at https://www.lee.senate.gov/public/index.cfm/press-releases?ID=E4D78A0C-2096-4830-889F-825516016647.
[21] *Id.*
[22] *See* Ex Parte Letter from Nancy J. Victory, counsel for T-Mobile, to Marlene H. Dortch, Secretary, Federal Communications Commission (March 11, 2019), at 1 n.3, available at https://ecfsapi.fcc.gov/file/1031124977749/March%2011%202019%20Pricing%20ex%20parte.pdf.
[23] *See* Letter from Regina M. Keeney, Nancy J. Victory and additional signatories to Marlene H. Dortch, Secretary, Federal Communications Commission (March 14, 2019) at 1-2, available at https://ecfsapi.fcc.gov/file/10314256344084/March%2014%202019%20Public%20Ex%20Parte%20(Response%20to%20Brattle).pdf.

involved in the merger in order to restore competition. When "the entity that needs to be divested may actually be the firm itself," then "blocking the entire transaction rather than accepting a divestiture may be the only effective solution."[24]

In sum, the Division has not articulated any reasons, let alone principled reasons, why it has turned its back on its own merger remedy policies in this case, many of which are long-standing and represent sound antitrust enforcement.

2. The divestiture of less than a full business unit carries significant execution risk and the risk is particularly high in this case.

The divestiture of less than a full business unit creates a serious risk that the divestiture will fail to restore competition. This is why, as a matter of policy, the Division "favors the divestiture of an existing business entity that has already demonstrated its ability to compete in the relevant market."[25] As Deputy Assistant General Barry Nigro has stated, "asset carve outs are fraught with execution risk."[26]

The divestitures in the PFJ are far less than a full business unit. The divested assets in this case include prepaid brands with high churn rates, options on "decommissioned" cell sites and "decommissioned" retail stores (that may additionally require third-party consents), and an option to acquire Sprint 800 MHz licenses representing a small frequency band. If asset carve outs in general are "fraught with execution risk," the execution risk is even greater in this case.

The divestiture buyer will have no reliable track record for current and prospective customers to evaluate whether the business will continue to be a reliable provider of the relevant products.[27] Here, for example, the Boost and Virgin brands will be divested, but not the network on which the phones run, the vast majority of retail stores, or the call centers. This creates a potential one-two punch for customers who experience issues with their phones or network service and leads to the likelihood that customer churn will be even higher than it is now. Sprint's prepaid customer churn is already very high – more than 4% monthly, according to its SEC filings.[28] If Boost, Virgin and Sprint prepaid customers were to switch to other carriers, even at the current rate of churn, the divestiture buyer could easily lose *most* of its installed base of customers within two years – well before it could be expected to construct its own network even under the most optimistic of projections. This would wipe out the asserted benefits to the buyer of "acquiring an installed base of existing customers."[29]

[24] 2004 Merger Remedies Guide at 14-15.
[25] 2004 Merger Remedies Guide at 12.
[26] Deputy Assistant Attorney General Barry Nigro Delivers Remarks at the Annual Antitrust Law Leaders Forum in Miami, Florida (February 2, 2018), available at https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-barry-nigro-delivers-remarks-annual-antitrust-law.
[27] 2004 Merger Remedies Guide at 12-13.
[28] Sprint Communications, SEC Form 10Q, August 6, 2019, p. 47.
[29] Competitive Impact Statement at 9.

Second, Division policy highlights that the divestiture of less than a full business entity carries the risk that the seller will sell fewer assets than are required for the purchaser to compete effectively going forward while the buyer may be willing to purchase these assets, even if they are insufficient to restore competition, at a low enough price.[30] As the Division has aptly observed:

> A purchaser's interests are not necessarily identical to those of the public, and so long as the divested assets produce something of value to the purchaser (possibly providing it with the ability to earn profits in some other market or enabling it to produce weak competition in the relevant market), it may be willing to buy them at a fire-sale price regardless of whether they cure the competitive concerns.[31]

In this case, both of these concerns are front and center. The assets being sold are on their face insufficient to cure the competitive concerns, as they represent a tiny fraction of Sprint's existing business. And, although the terms of the commercial agreements are confidential, one may assume in the absence of evidence to the contrary that the buyer has negotiated favorable terms in exchange for withdrawing its opposition to the transaction.

Under these circumstances, neither the seller's nor the buyer's interest can be expected to match the interest of the public.

3. At its core, the remedy depends on behavioral conditions that will last for years, creating excessive entanglements between buyer and seller and requiring multiyear oversight.

Although the Division has characterized the remedy in this case as "structural," we respectfully submit that this is not an accurate characterization. Under Division policy, the term "structural" is generally reserved for divestiture remedies that do not involve ongoing entanglements between the divestiture buyer and seller, do not involve ongoing regulation of the buyer or seller's conduct, and do not require lengthy and extensive government monitoring and enforcement. The remedy in this case is more accurately characterized as a "conduct" remedy that includes certain limited divestitures. As such, it is contrary to long-standing DOJ policy which strongly favors structural remedies over behavioral decrees, particularly in horizontal mergers.[32]

The weaknesses inherent in behavioral decrees are spelled out in the 2004 Merger Remedies Guide:

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[30] 2004 Merger Remedies Guide at 13.

[31] *Id*.

[32] *See* 2004 Merger Remedies Guide at 9 ("structural merger remedies are strongly preferred to conduct remedies"). Indeed, the current Division leadership has reinforced the strong preference for structural relief by withdrawing the 2011 Merger Remedy Guides which lacked this explicit statement of Division preference. See Assistant Attorney General Makan Delrahim, "Remarks as Prepared for the 2018 Global Antitrust Enforcement Symposium" (September 25, 2018) at 11-12 (withdrawing 2011 Merger Remedies Guide and stating that 2004 Merger Remedies Guide will be in effect until Division releases an updated policy).

> Structural remedies are preferred to conduct remedies in merger cases because they are relatively clean and certain, and generally avoid costly government entanglement in the market.......A conduct remedy, on the other hand, typically is more difficult to craft, more cumbersome and costly to administer, and easier than a structural remedy to circumvent.[33]

Division leadership has elaborated on the problems with behavioral remedies in recent speeches. In a 2017 speech, Assistant Attorney General Delrahim explained that behavioral remedies are inherently regulatory, and therefore at odds with both free market principles and the dynamic realities of markets:

> Like any regulatory scheme, behavioral remedies require centralized decisions instead of a free market process. They also set static rules devoid of the dynamic realities of the market. With limited information, how can antitrust lawyers hope to write rules that distort competitive incentives just enough to undo the damage done by a merger, for years to come? I don't think I'm smart enough to do that.
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> Behavioral remedies often require companies to make daily decisions contrary to their profit-maximizing incentives, and they demand ongoing monitoring and enforcement to do that effectively. It is the wolf of regulation dressed in the sheep's clothing of a behavioral decree. And like most regulation, it can be overly intrusive and unduly burdensome for both businesses and government.[34]

Deputy Assistant Attorney General Barry Nigro expanded on these principles in a speech in 2018. He stressed that there is a growing consensus among antitrust economists and attorneys that *behavioral remedies "may simply be ineffective at remedying harm to competition."* Plus, he emphasized the costs of monitoring and enforcing such remedies, and in particular the fact that the Division too often finds itself in the business of investigating possible violations. This is not surprising, as behavioral decrees compel companies not to do things they ordinarily would do, and compel them to do other things they ordinarily would not do in an unregulated environment:

> The imposition of a behavioral remedy inverts the Division's role into something it is not — the hall monitor for private businesses operating in a free market economy. Even worse, a behavioral approach raises serious risks of false negatives and false positives. Antitrust economists and attorneys across the ideological spectrum have recognized that behavioral decrees may simply be ineffective at remedying harm to competition. As FTC Commissioner Terrell McSweeny explained last year, behavioral relief 'at best only delays the merged firm's exercise of market power.' In addition, trying to regulate corporate behavior creates

[33] 2004 Merger Remedies Guide at 7-8.

[34] U.S. Dep't of Justice, Assistant Attorney General Makan Delrahim Delivers Keynote Address at American Bar Association's Antitrust Fall Forum (November, 16, 2017), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-american-bar.

challenges monitoring and enforcing compliance. It should be no surprise that we find ourselves too often in the business of expending scarce taxpayer resources investigating possible violations of regulatory decrees, all aimed at ensuring that consumers do not suffer the harm the decree attempted to regulate away.[35]

The bulk of the remedial provisions in the PFJ consist of behavioral conditions. Some of these require the merged company to work against its profit-maximizing incentives, such as by providing numerous services to a would-be competitor for an extended period of time. Others purport to order the buyer to do things it would not ordinarily do, such as to offer a particular type of service. The net result is excessive entanglements between buyer and seller and the requirement of multiyear oversight.

Indeed, the Division has experience in the telecom space with a failed remedy involving excessive entanglements. In 1998, MCI/WorldCom agreed to divest MCI's Internet assets to Cable & Wireless as a merger remedy.[36] At the time, Sprint and other third parties expressed concern that Cable & Wireless' post-divestiture dependence on MCI WorldCom for transport, operations support, and other services would leave Cable & Wireless vulnerable and a weak competitor.[37]

Within two years, Cable & Wireless' Internet market share dropped from MCI's pre-divestiture 40 percent to less than 10 percent.[38] As it turned out, MCI failed to transfer all necessary personnel, contracts, contract documentation, database access, and billing services, despite obligations to do so.[39] The result was not replacement of lost competition but was, instead, litigation. Cable & Wireless eventually lodged a formal complaint with the European Commission and filed suit against MCI WorldCom in U.S. District Court, reaching an out of court $200 million settlement.[40]

The failed MCI divestiture to Cable & Wireless should stand as a stark warning to the Division about excessive entanglements and information asymmetries in a telecom remedy.

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[35] U.S. Dep't of Justice, Deputy Assistant Attorney General Barry Nigro Delivers Remarks at the Annual Antitrust Law Leaders Forum in Miami, Florida (February 2, 2018), https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-barry-nigro-delivers-remarks-annual-antitrust-law.

[36] *See* In the Matter of Application of Worldcom, Inc. & MCI Communications Corp. for Transfer of Control of MCI Communications Corp. to Worldcom, Inc., 13 F.C.C. Rcd. 18025 ¶151 (F.C.C. 1998).

[37] *Id.* at 154 and fn. 426 (citing, among other comments, Sprint June 11, 1998 Comments at 11, 16).

[38] CWA Comments, MCI/World Com Applications for Transfer of Control, CC Docket No. 99-333 at 37. Data from Applicants' Internet Submission Attachments 3 and 5 for C&W's 2000 market share and *Boardwatch* June 1997 for MCI's pre-divestiture market share.

[39] *See* Cable & Wireless FCC Comments, CC Docket No. 99-333, Feb. 18, 2000 at 36-41.

[40] Rebecca Blumenstein, *MCI WorldCom to Pay Cable & Wireless $200 Million to Settle Internet Dispute*, Wall Street Journal, March 2, 2000, available at https://www.wsj.com/articles/SB951922751787792103.

4. DISH fails to meet the Division's standard requirements for a divestiture buyer.

Given that the Complaint alleges that the loss of a fourth competitor in the retail wireless market is competitively harmful, the minimum requirement that any remedy must meet to protect the public interest is that it must recreate a competitively significant fourth competitor. If it fails to do so, the result has been predicted in the complaint. This makes the competitive attributes of DISH not only relevant to the Tunney Act, but critical to the public interest determination. If DISH is not a suitable or effective competitor, the remedy is likely to fail and the competitive harm alleged in the Complaint will not be remedied.

The Division requires divestiture buyers to demonstrate "managerial, operational, technical, and financial capability" to "compete effectively" in the relevant market alleged in the complaint.[41] The buyer in this case fails on every score – it lacks financial resources of its own and has not secured third-party funding; it has management that has not built a wireless network despite the legal obligation to do so; and it has no experience or technical ability to operate such a network, the challenges of which are extensive. At the same time, the buyer has demonstrated a willingness to abuse a federal program to obtain over $3 billion in taxpayer-funded discounts, and thereby to make "a mockery of the small business program" in the words of then-Commissioner Ajit Pai.[42]

a. Financial

Financially, DISH is not in good shape. It has been steadily losing customers.[43] It is highly and increasingly leveraged, with significant debt maturing soon.[44] Analysts predict that

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[41] 2004 Merger Remedies Guide at 32.

[42] Statement of Ajit Pai, Commissioner, Federal Communications Commission, Hearing before the Senate Appropriations Subcommittee on Financial Services and General Government (May 12, 2015) at 5, https://www.appropriations.senate.gov/imo/media/doc/hearings/051215%20Commissioner%20Pai%20Testimony%20-%20FSGG.pdf.

[43] *See* Tuna N. Amobi, CFRA Research Note, July 30, 2019 ("We project a decline of 7.8% in 2019 revenues, to $12.56 billion. In recent years, DISH has persistently shed a relatively sizable portion of its traditional pay-TV subscriber base (down 7% in H1 2019 on top of a 10% decline in 2018 on some notable carriage disputes and a 9% decline in 2017 in the aftermath of hurricane disruptions). With likely continued pricing pressures on a blended pay-TV average revenue per user (ARPU), we see another 4.5% decline in 2020 revenues…… ") (Accessed via Standard & Poor's Capital IQ research database, hereinafter "CIQ.")

[44] See "Ratings Action: Moody's places DISH Network's and DISH DBS's ratings on review for downgrade," July 29, 1019, https://www.moodys.com/research/Moodys-places-DISH-Networks-and-DISH-DBSs-ratings-on-review--PR_405815 (detailing the company's debt maturity obligations, the ratings agency noted "DISH DBS's leverage is high at about 4.2x (with Moody's standard adjustments) as of March 31, 2019, and it has steadily mounting maturities with $4.4 billion due through June 2021. We believe that the company can meet the DISH DBS September 2019 $1.3 billion maturity and the $1.4 billion purchase price for the prepaid wireless subscriber businesses being acquired with cash and securities on hand ($2.4 billion as of March 31, 2019) and free cash flow generated through the close of the acquisition. However, DISH DBS has another maturity totaling $1.1 billion in May 2020 and another totaling $2.0 billion in June 2021 which appear to be beyond current cash flow capacity. Therefore, it is highly likely in our view, that the company will raise new debt at DISH Network over the coming year…….If any or all of the capital needs are financed with new debt, a significant strain on DISH's consolidated balance sheet will likely occur.").

DISH will have difficulty meeting its debt obligations related to DBS in 2022 and that business may be forced into a restructuring.[45] Moody's states that DISH's June 2021 $2.0 billion maturity is "beyond cash flow capacity" and the company likely will need to take on new debt.[46]

According to its CEO, DISH presently has no financing in place to build a 5G retail network.[47] This should be a big red flag for the Division. At least one analyst has commented that DISH's estimate of the cost of building a network is so low as to be "just silly."[48] In short, while Sprint may have financial challenges, it is at least actively building a 5G network. DISH, on the other hand, faces similar if not greater financial challenges in its present business without factoring in the billions of dollars it would cost to construct a 5G retail network. Under the Division's standard policy, DISH has failed to show that it has the financial capability required of an acceptable buyer.

b. Managerial

Over the last year DISH has lost a significant number of senior executives.[49] Its management has no experience building a retail 5G network. There has been no showing that it has the management in place to oversee the construction of a 5G retail network. Moreover, DISH's CEO has earned a reputation as an unreliable partner with an appetite for litigation.[50] This hardly makes DISH management a "maverick" in the sense contemplated by the Horizontal Merger Guidelines.

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[45] Jeffrey Wlodarczak, Pivotal Research Group, "Story Morphs from Spectrum Sale to Building Wireless Business," July 30, 2019 ("Using our current forecasts, we believe that the core DBS business will have difficulty repaying its $2B '22 maturity, and beyond.......potential DBS could be forced into '22 restructuring")(Accessed via CIQ).

[46] See https://www.moodys.com/research/Moodys-places-DISH-Networks-and-DISH-DBSs-ratings-on-review–PR_405815.

[47] *See* Drew FitzGerald, Dish's Ergen Defends Company's Wireless Plans, Wall Street Journal (August 6, 2019) ("We know that we do need to strengthen our balance sheet, but we don't need it tomorrow........ We don't need $10 billion tomorrow. In fact, we don't need any money tomorrow,"), https://www.wsj.com/articles/dishs-ergen-defends-companys-wireless-plans-11565119655; Jeffrey Hill, The Dish on Ergen's 5G Masterstroke, Via Satellite (October 2019) ("We still plan to spend about $10 billion to build our network and we're still going to need help."), http://interactive.satellitetoday.com/via/october-2019/the-dish-on-ergens-5g-masterstroke/.

[48] *See* Daniel Frankel, Can Dish Really Build a 5G Network for $10B?, Multichannel News (August 5, 2019) ("Verizon spends $15 billion annually to maintain a network that they've already built," MoffettNathanson principal and senior analyst Craig Moffett wrote in a research note. "The idea that Dish might spend $10 billion (their own estimate on previous conference calls) and then somehow be finished is, well, just silly."), https://www.multichannel.com/news/can-dish-really-build-a-5g-network-for-10b.

[49] Jeffrey Wlodarczak, Pivotal Research Group, "Story Morphs from Spectrum Sale to Building Wireless Business," July 30, 2019 ("Over the last year DISH has lost a significant number of senior executives.")

[50] *See*, *e.g.*, Mike Dano, "What Does Dish's Charlie Ergen Want?" https://www.lightreading.com/mobile/5g/what-does-dishs-charlie-ergen-want-/d/d-id/752684; Dish Network's Charlie Ergen Is the Most Hated Man in Hollywood, https://www.hollywoodreporter.com/news/dish-networks-charlie-ergen-is-432288.

c. Technical and Operational

DISH faces enormous operational and technical obstacles in emerging as an independent competitor with its own 5G network and has not demonstrated that it has the necessary expertise to do so.

As Dr. Afflerbach notes in the attached Declaration, because T-Mobile will control the technical aspects of the network, T-Mobile will be able to limit the MVNO's potential service strategies—for example, by determining where networks will and will not be upgraded, and when and whether new services will be available. Dr. Afflerbach also observes that the proposed relationship between T-Mobile and DISH turns the typical MNO incentive on its head: "MNOs typically only seek ways to monetize their excess capacity where it exists—not to nurture the MVNOs." In addition, since the MVNO is essentially reselling the MNO's service, deficiencies in the service provided by the merged company become unsolvable deficiencies in the MVNO's service. Enforcement will be difficult, and remedies may not be commensurate with the harm inflicted on DISH. Simply by underperforming or delaying response to resolving technical problems, the merged company can badly harm the buyer.

As Dr. Afflerbach also notes, DISH's execution risks in constructing a network are substantial and real. Under the most optimistic timeline, DISH will require at least a year to build a robust internal team, seek and select contractors, and prepare detailed designs and engineering. DISH will need more than four years to deploy tens of thousands of sites with robust fiber backhaul to develop a reliable footprint that is not highly dependent on T-Mobile. That process will require extensive design, planning, procurement, site acquisition, and approvals—as well as an enormous capital investment.

On July 30 and July 31, 2019, DISH staff met with FCC Commissioners and staff to discuss the company's technical and business plans and to share an executive summary of the "RFI/P" DISH had earlier distributed to potential industry suppliers. Based on the executive summary of the RFI/P provided in the Ex Parte filing, we see that DISH is still in a fact-finding stage—identifying which suppliers may be candidates for different parts of the build process, and asking wide-ranging questions about their potential roles. This type of document usually precedes engineering and design decisions, the development of more focused procurement documents, and the selection of contractors to supply materials and build a network.

In addition, the 3GPP Rev 16 equipment that DISH Chairman Charlie Ergen has said would be central to building a highly virtualized network with low operation costs relies on standards that will not be available until 2020, with actual equipment possibly not available until late 2020 or 2021. Without that equipment, DISH would need to change its approach to a less virtualized network and, potentially, a different business model.

DISH's risk factors thus include activating infrastructure at tens of thousands of sites while relying on technologies that do not yet exist, creating and managing a large new team in a tight labor environment, getting permitting approvals, coordinating with T-Mobile (itself in the process of an ambitious buildout—which could limit T-Mobile's resources available for coordinating with DISH), handling procurement, and financing a project likely to cost more than $10 billion.

In this light, it is also worth considering other major communications infrastructure initiatives (e.g., Google Fiber) that failed to execute according to plan.

d. History of Regulatory Evasion

In addition to failing the Division's standard evaluation of a potential buyer, DISH has two attributes which make it uniquely unsuited as a divestiture buyer. First, it has a well-documented history of warehousing spectrum and avoiding its obligations to the FCC. Second, it has abused the FCC's small business program.

i. Warehousing spectrum

T-Mobile itself highlighted DISH's long history of speculative warehousing of spectrum and failure to meet FCC-imposed deadlines. As T-Mobile commented in a March 2019 letter to the FCC, "*DISH stands out for its efforts to game the regulatory system*" and "*has little interest in actually delivering real 5G service*."[51] As we detail below, in three separate instances dating back to 2009, DISH acquired spectrum licenses and each time missed the FCC mandated construction deadlines. In fact, DISH has failed to put any of its extensive spectrum holdings to use. Now, DISH seeks approval from the FCC for further extension of its construction deadlines to 2025 – a full 16 years after its initial spectrum acquisition. Based on this track record, the Division should view with enormous skepticism the DISH commitments to build a facilities-based wireless network.

700 MHz E Block. In 2008, DISH won in the Lower 700 MHz E Block 168 licenses in auction 73. The licenses were granted in February 2009. The FCC rules for this spectrum block require licensees to construct a wireless network reaching 35 percent of the geographic area of each licensed Basic Economic Area (BEA) by June 2013 and 70 percent of the geographic area of each BEA by 2019.[52] One day before the 2013 deadline, DISH asked the FCC for an extension and easing of build out requirements. The FCC complied, extending the first construction deadline to March 2017, and the second to March 2021, and easing the construction requirements to 40 percent and 70 percent of the population of each BEA. DISH missed the March 2017 deadline, triggering a requirement that DISH build to 70 percent of the population in each BEA by March 7, 2020.[53] With this deadline looming, DISH asked the FCC on July 26, 2019 to delay the construction deadline once again, with a requirement to build to 50 percent

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[51] *See* Ex Parte Letter from Nancy J. Victory, counsel for T-Mobile, to Marlene H. Dortch, Secretary, Federal Communications Commission (March 11, 2019), at 1 n.3, available at https://ecfsapi.fcc.gov/file/1031124977749/March%2011%202019%20Pricing%20ex%20parte.pdf.
[52] *See* 28 FCC Rcd 15122 ¶ 55, *See also* 47 CFR 27.14G
[53] *Id.*

of the U.S. population by 2023, and to 70 percent of the population in each BEA by 2025.[54] The 2025 deadline is a full 16 years after DISH acquired the spectrum licenses. To date, the FCC has not approved the construction extension request.[55]

AWS-4 Spectrum. In March 2012, DISH acquired the spectrum licenses in the bankruptcy of two satellite companies. In December 2012, the FCC approved DISH's request to use the spectrum for terrestrial wireless, creating the AWS-4 service. In the *AWS-4 Order*, the FCC required DISH to build out to 40 percent of the population in each BEA by March 2017 and to 70 percent of the population in each BEA by March 2020.[56] Missing the March 2017 deadline would push the 2020 deadline back to March 2019. DISH subsequently asked for, and the FCC granted, an extension of the 2020 deadline to March 2021, with a push back to March 2020 if the March 2017 deadline was missed.[57] DISH failed to meet the 2017 deadline, and therefore faces a looming March 2020 construction deadline for this spectrum.[58] DISH has asked the FCC to delay the construction deadline once again, with the same requirements noted above for the 700 MHz E block (e.g. 50 percent of US population by 2023, and 70 percent of the population in each BEA by 2025).[59] To date, the FCC has not approved the construction extension request.[60] The 2025 deadline is a full 13 years after DISH received FCC authority to use the AWS-4 spectrum for terrestrial wireless.

H Block. In 2014, DISH won all the licenses in the H block auction, with construction requirements to serve 40 percent of the population in each license area by April 2018 and 75 percent of the population in each license area by April 2024. Not meeting the first benchmark reduces the license term to April 2022.[61] DISH did not meet the 2018 deadline.[62] It has asked the FCC to delay the final construction deadline to 2023 and 2025, as noted above, which is 11

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[54] *See* Application for Extension of Time of American H Block Wireless L.L.C., ULS File No. 0008741236 (filed July 26, 2019); Application for Extension of Time of Gamma Acquisition L.L.C., ULS File No. 0008741603 (filed July 26, 2019); Application for Extension of Time of Manifest Wireless L.L.C., ULS File No. 0008741789 (filed July 26, 2019). *See* also Letter from Jeffrey H. Blum, DISH Senior Vice-President, Public Policy & Government Affairs to Donald Stockdale, Chief, Wireless Telecommunications Bureau, *re: DBSD Corporation, AWS-4, Lead Call Sign T070272001; Gamma Acquisition L.L.C., AWS-4, Lead Call Sign T060430001; Manifest Wireless L.L.C., Lower 700 MHz E Block, Lead Call Sign WQJY944; American H Block Wireless L.L.C., H Block, Lead Call Sign WQTX200; ParkerB.com Wireless L.L.C., 600 MHz, Lead Call Sign WQZM232* (filed July 26, 2019) ("DISH July 26, 2019 Letter").

[55] *See* Public Notice, *Wireless Telecommunications Bureau Consolidates Proceedings on DISH Applications for Extension of Time to Construct Facilities with Docket of T-Mobile/Sprint Transaction*, WT Docket No. 18-197, ULS File Nos. 0008741236, 0008741420, 0008741603, and 0008741789, DA 19-747, August 7, 2019.

[56] 28 FCC Rcd 16787 ¶¶ 187-188. *See also* 27 FCC Rcd 16102.

[57] 28 FCCR 16787 ¶¶ 8, 41-42.

[58] 28 FCCR 16787 ¶¶ 43; 47 CFR 27.14Q; see also License T0272001.

[59] DISH July 26, 2019 Letter.

[60] *See* Public Notice, *Wireless Telecommunications Bureau Consolidates Proceedings on DISH Applications for Extension of Time to Construct Facilities with Docket of T-Mobile/Sprint Transaction*, WT Docket No. 18-197, ULS File Nos. 0008741236, 0008741420, 0008741603, and 0008741789, DA 19-747, August 7, 2019.

[61] 28FCCR9483, ¶195, 47 CFR 27.14R.

[62] *Id*. License # WQTX200.

years after it acquired the H Block spectrum.[63] To date, the FCC has not approved the construction extension request.[64]

ii. Misuse of government auction

DISH has also misused a government program designed to incentivize wireless competition via new entrants and independent small businesses.

Northstar and SNR Wireless participated in the FCC's 2015 Spectrum Auction 97.[65] Northstar and SNR claimed gross revenues of less than $15 million over three years in order to qualify as a "very small business" under the FCC rules. The "very small business" status qualified them to receive bidding credits equal to $3.3 billion or 25 percent off the amount of their gross winning bids.[66] The FCC ruled that Northstar and SNR were not eligible for the credit as they did not include the average gross revenues of DISH which held an 85 percent equity interest in both companies.[67]

The United States Court of Appeals for the District of Columbia Circuit ruled that the FCC "reasonably interpreted and applied" its precedent "when it determined that DISH had de facto control over SNR and Northstar."[68] The D.C. Circuit remanded the case back to the FCC so that the Commission could provide the companies with an opportunity to modify and renegotiate their agreements with DISH.[69] In a hearing before the Senate Appropriations Subcommittee on Financial Services and General Government, then-FCC Commissioner Ajit Pai stated that DISH had made "a mockery of the small business program."[70]

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[63] DISH July 26, 2019 Letter.
[64] *See* Public Notice, *Wireless Telecommunications Bureau Consolidates Proceedings on DISH Applications for Extension of Time to Construct Facilities with Docket of T-Mobile/Sprint Transaction*, WT Docket No. 18-197, ULS File Nos. 0008741236, 0008741420, 0008741603, and 0008741789, DA 19-747, August 7, 2019.
[65] Memorandum and Opinion Order, In the Matter of Northstar Wireless, LLC (File No. 0006670613) and SNR Wireless LicenseCo, LLC (File No. 0006670667) Applications for New Licenses in the 1695-1710 MHz, and 1755-1780 MHz and 2155-2180 MHz Bands, FCC 15-104, at 2 (Released August 18, 2015), available at https://docs.fcc.gov/public/attachments/FCC-15-104A1.pdf.
[66] *Id.* at 2-3.
[67] *Id.* at 3.
[68] *SNR Wireless LicenseCo, LLC, et al. v. F.C.C.*, 868 F.3d 1021, 1030 (D.C. Cir. 2017).
[69] *Id.* at 1046.
[70] Statement of Ajit Pai, Commissioner, Federal Communications Commission, Hearing Before the Senate Appropriations Subcommittee On Financial Services And General Government, May 12, 2015 ("Allowing DISH, which has annual revenues of approximately $14 billion and a market capitalization of over $31 billion, to obtain over $3 billion in taxpayer-funded discounts makes a mockery of the small business program. Indeed, DISH has now disclosed that it made approximately $8.504 billion in loans and $1.274 billion in equity contributions to those two companies—hardly a sign that they were small businesses that lacked access to deep pockets. I am appalled that a corporate giant has attempted to use small business discounts to box out the very companies that Congress intended the program to benefit and to rip off American taxpayers to the tune of $3.3 billion. This is money that otherwise would have been deposited into the U.S. Treasury. This is money that could be used to fund 581,475 Pell Grants, pay for the school lunches of 6,317,512 children for an entire school year, or extend tax credits for the hiring of 138,827 veterans for the next 10 years. As appropriators, you know that this is real money.").

In summary, DISH fails the Division's standard "fitness" test of a prospective acquirer of divested assets.

5. The incentives for DISH to build in a timely framework its own retail wireless network in competition with AT&T, Verizon and T-Mobile are weak. By comparison, DISH has strong incentives to remain an MVNO under favorable terms and ultimately sell its spectrum, or, alternatively, to operate any network it builds outside of the relevant market.

Even assuming for the sake of argument that a weak and otherwise unacceptable buyer could somehow transform into a strong competitor at some future date, the remedy provides insufficient incentives for this transformation to take place.

Division policy is clearly articulated in the Policy Guide to Merger Remedies: "The goal of a divestiture is to ensure that the purchaser possesses both the means and the incentive to maintain the level of premerger competition in the market(s) of concern."[71] This point is repeated and emphasized later on:

> The package of assets to be divested must not only allow a purchaser quickly to replace the competition lost due to the merger, but also provide it with the *incentive* to do so. Unless the divested assets are sufficient for the purchaser to become an effective and efficient competitor, the purchaser may have a greater incentive to deploy them outside the relevant market.[72]

From an engineering standpoint, DISH has powerful incentives to create something less than a fully competitive 5G network. As discussed earlier in these comments and in Dr. Afflerbach's accompanying Declaration, the technical difficulties of creating a nationwide 5G network are enormous and likely to be underappreciated. At the same time, the commitments DISH has made are far more limited than they appear at first blush. DISH is required to serve only 70 percent of the population by 2023 – and only at 35 Mbps. This speed is already exceeded in many 4G-served areas (including by Sprint) and represents a very low goal for 5G service. If 35 Mbps is the typical speed of the DISH network in 2023, while the other three facilities-based wireless carriers offer service in hundreds of Mbps – and if this limitation is a baked-in technological limit because of fewer sites or less capacity per site – the result will not be a bona fide fourth network, but a niche network closer to the limited internet of things (IoT) network proposed by DISH prior to the T-Mobile deal.

From a financial standpoint, DISH's incentives run counter to the Division's goal of creating a competitively significant new entrant. Several prominent analysts who have examined DISH's incentives have pointed to: (a) the enormous financial challenges of building a competitive 5G retail network; (b) the fact that DISH may be better served financially by remaining an MVNO customer of T-Mobile rather than building a competitive network; and (c)

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[71] 2004 Merger Remedies Guide at 9.
[72] 2004 Merger Remedies Guide at 10-11 (emphasis in original).

the incentives DISH has to provide services outside of the relevant market (e.g. wholesale services) even if it does build a network.

For example, a research analyst at Guggenheim Securities wrote: "We continue to see many possible outcomes for DISH that are unlikely to result in a multi-billion dollar network build to end up a sub-scale distant fourth provider with a handful of prepaid subscribers."[73] A CFRA analyst noted: "[W]e remain skeptical on the potential financial, technical and regulatory hurdles" DISH faces in entering the market.[74] And Deutsche Bank Research analysts wrote: "We don't believe that DISH's strategy has been focused in any meaningful way on consumer wireless, at least not for the past few years. Instead, the company has focused on a Neutral Host wholesale model, which would allow clients to own and manage their own slice of the network through virtualization and to fully control and provision their company's own applications and services."[75]

Although the terms of the commercial agreements between DISH as buyer and T-Mobile as seller are confidential, we can assume in the absence of evidence to the contrary that the terms are highly favorable to DISH. This creates exactly the wrong incentives in the buyer. As one economist has observed:

> . . . Dish had blocking power to stop the settlement from happening. So it likely extracted the best resale arrangement in the history of resale. And if that's true, then why would Dish invest and become a facilities-based provider if the margins from resale are large and guaranteed for seven years?[76]

The PFJ includes the possibility of financial penalties in an effort to incentivize the buyer to honor its commitments. However, DISH's financial incentives to walk away from its commitments for the right price swamp the penalties in the PFJ. As one analyst has written:

> We also cannot discount that Dish pulls out at the last moment and sells its spectrum. Its spectrum is worth much more—with some estimates around $30 billion—than the $3.6 billion that it paid for the Sprint prepaid business and the fine to the government.[77]

The failure of the buyer to satisfy basic Division requirements for a buyer, and the lack of adequate incentives for the buyer to compete in the relevant market, violate long-standing Division policy.

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[73] Mike McCormack, Guggenheim Securities, DISH - Unlikely the Last Chapter (July 29, 2019) (Accessed via CIQ).
[74] Tuna N. Amobi, CFRA, CFRA Keeps Sell Opinion on Shares of Dish Network Corp. (July 30, 2019) (Accessed via CIQ).
[75] Bryan Kraft, Deutsche Bank Research, The Next Chapter (July 30, 2019) (Accessed via CIQ).
[76] The Capitol Forum, Transcript of T-Mobile/Sprint Conference Call with Hal Singer (August 5, 2019) at 1, available at https://thecapitolforum.com/wp-content/uploads/2019/08/T-Mobile-Sprint-2019.08.05.pdf.
[77] Roger Entner, Industry Voices—Entner: The skinny on the T-Mobile/Sprint/Dish deal, Fierce Wireless (August 2, 2019), https://www.fiercewireless.com/wireless/industry-voices-entner-sorting-out-good-and-bad-t-mobile-sprint-dish-deal.

6. Vague and ambiguous language in several of the PFJ's central regulatory provisions give the parties an escape route and render the PFJ difficult to administer or enforce.

In multiple instances, the PFJ uses open-ended, vague and ambiguous language with reference to defendants' obligations and/or the time within which certain actions must be taken. This is a recurring theme in the PFJ. Examples include "take all actions required," "reasonably necessary," "reasonably related," "promptly," "good faith," "not unreasonably," and "best efforts."

If this vague language were limited to unimportant parts of the PFJ, it would be of less concern. However, vague and non-specific language is used in connection with central behavioral conditions in the PFJ, including migration of divested customers to a new network ("take all actions required"), the ability of the buyer to demand additional divestiture assets beyond those specified in the PFJ ("reasonably necessary . . . for continued competitiveness"), the terms of the transition services agreement that would enable the buyer to serve its newly acquired customers ("reasonably related to market conditions"), the decommissioning of unnecessary cell cites ("promptly"), negotiations between merging parties and the divestiture buyer to lease the buyer's unused 600 MHz spectrum ("good faith"), nondiscrimination provisions involving conduct such as blocking, throttling, or otherwise deprioritizing service to the divestiture buyer and its customers ("shall not unreasonably discriminate"), and the merged company's obligation to provide operational support to those customers ("best efforts").

These open-ended, undefined terms provide a convenient escape route for a defendant wishing to avoid its obligations. Moreover, they make it virtually 100% certain that disputes will arise as to whether the defendants have fulfilled their commitments. What would constitute a failure to "take all actions required?" What additional assets would be "reasonably necessary for . . . continued competitiveness?" What does it mean to "not unreasonably discriminate?" The list could go on. The Monitoring Trustee, the Division, and ultimately the District Court are likely to see a parade of disputes over the next seven or more years.

In addition, Paragraph IV(E) starkly illustrates a problem with asset carve outs. The prior four subsections list the divestiture assets. But Paragraph IV(E) gives the divestiture buyer one year to determine if it needs additional assets beyond those included in the PFJ. The determination comes with a requirement that such additional assets are "reasonably necessary for the continued competitiveness of the Divestiture Assets." What constitutes "reasonably necessary for . . . continued competitiveness?" Is this supposed to catch a situation where the buyer did not know what it actually needed until the divestitures have occurred? If so, it suggests a profound weakness in permitting partial asset carve outs in this case.

It does not require much imagination to envision a situation in which the buyer claims that additional assets are "reasonably necessary" but the seller disagrees. The Division would then be required to side with either the buyer or seller. Although the language appears to give the Division sole discretion to make a determination, the reality is that such a dispute could easily arise and would not be put to rest merely because the Division makes a determination. (As an example, if the Division denies the buyer's request, the buyer can later blame the Division if and when the remedy fails.) This paragraph also suggests that neither the buyer nor the Division knows at this point what the buyer may need.

There are also likely to be disputes between the divestiture buyer and the Division that go to the heart of the remedy. Notably, Paragraph IV(F) requires the buyer to "offer retail mobile wireless services, including offering nationwide postpaid retail mobile wireless service within one (1) year of the closing of the sale of the Prepaid Assets." The inclusion of postpaid service shows, if nothing else, that the Division is aware that unless the buyer is able to attract and service postpaid customers, the remedy could not possibly restore the competition lost through the merger. But it takes little imagination to realize that "offering" a service could mean something much different and much less than marketing and promoting the service with millions of dollars of advertising, or hiring and training the personnel necessary fully to support the service.

Years ago, prior to their merger, the FCC ordered XM and Sirius to "design" an interoperable radio. The companies designed and built such a radio but never marketed or sold it. Yet they insisted that they had complied with the FCC's requirements.[78] The word "offer" has the same problems as the word "design." DISH can "offer" a service without publicizing it or supporting it or pricing it competitively. This is a fundamental problem in a regulatory decree that orders a party to do something that, as a purely business matter and in the absence of a regulatory obligation, it may well decline to do because there is no business case.[79]

Finally, we note that open-ended and non-specific language might well be appropriate in a contract between private parties entering into a long-term business relationship where all of the contractual terms cannot be spelled out in advance. Open-ended and deliberately flexible terms permit the contracting parties to adapt and adjust their relationship as circumstances require. But in a court order that obligates a major market participant to create and facilitate the entry of a new competitor, this sort of language is deeply problematic. It is an invitation to a great deal of mischief, including evasion and repeated disputes. It is likely to draw the Monitoring Trustee, the Division, and the Court into disputes over the contours and timing of obligations, making the remedy extremely difficult if not impossible to administer. Given that this problem is not isolated but runs throughout the PFJ, the Division is unlikely to be able effectively to enforce compliance through contempt proceedings under Section XVIII, regardless of the burden of proof.

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[78] *See*, *e.g.*, Matthew Lasar, "Sirius, XM blast C3SR, defend lack of radio interoperability," Ars Technica (June 10, 2008), https://arstechnica.com/uncategorized/2008/06/siriux-xm-blast-c3sr-defend-lack-of-radio-interoperability/.

[79] In connection with the FCC remedy in the Comcast/NBCU transaction, Bloomberg and Comcast got into a lengthy dispute over the meaning of the word "neighborhood." *See* https://www.multichannel.com/news/bloomberg-comcast-square-264872.

7. Under any reasonable definition of the "public interest," a remedy that carries a high risk of failure and exposes the public to substantial economic harm if it fails cannot be said to be in the "public interest."

By far the most likely outcome in this case is that the complex, highly regulatory remedy will fail or fall short. In either event, as the Division has alleged in the Amended Complaint, consumers will end up paying the price.

The risk of failure has significant consequences for the public interest determination. Division officials have clearly stated as a matter of law and policy that the Clayton Act directs antitrust enforcers and courts to employ a low risk tolerance. Risky, partial and complex remedies, however well-intentioned, do not warrant shifting some of the risk posed by an anticompetitive merger back onto consumers. In 2016, then Assistant Attorney General Bill Baer was explicit on this point:

> In enacting Section 7 over 100 years ago, Congress decided how antitrust risk should be allocated as between merging parties and the public. The Clayton Act directs antitrust enforcers and the courts to employ a low risk tolerance, and zealously protect the American economy and American consumers from mergers that may reduce competition and may lead to higher prices, reduced output, lower quality, or lessened innovation ...... Merger law is intended to protect consumers from the potential for diminished competition. Here is where Congress' risk-allocation determination matters a lot. Partial remedies do not cut it. They do not warrant shifting some portion of the risk posed by the merger back to consumers and competition.[80]

The following year, Assistant Attorney General Makan Delrahim reiterated the same point in even stronger language:

> Decrees should avoid taking pricing decisions away from the markets, and should be simple and administrable by the DOJ. We have a duty to American consumers to preserve economic liberty and protect the competitive process, and we will not accept remedies that risk failing to do so. I believe this is a bipartisan view. As my friend, former AAG for Antitrust Bill Baer said in Senate testimony last year, "consumers should not have to bear the risks that a complex settlement may not succeed."[81]

The price of a failure of the remedy has been quantified in this case. Not only has DOJ alleged that the merger, unremedied, would lead to consumers paying billions of dollars more each year, but on April 8, 2019 DISH itself submitted an analysis of the price increases in

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[80] U.S. Dep't of Justice, Acting Associate Attorney General Bill Baer Delivers Remarks at American Antitrust Institute's 17th Annual Conference (June 16, 2016), https://www.justice.gov/opa/speech/acting-associate-attorney-general-bill-baer-delivers-remarks-american-antitrust-institute.

[81] U.S. Dep't of Justice, Assistant Attorney General Makan Delrahim Delivers Keynote Address at American Bar Association's Antitrust Fall Forum (November 16, 2017), https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-american-bar.

countries that have gone from 4 to 3 MNOs. As further evidence, we cite 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." Another study cited by DISH found "a long run price-increasing effect of a four-to-three merger," of as high as 29% compared to countries with 4 MNOs.[82]

Conclusion.

For the reasons expressed in these comments and in the accompanying Declaration of Dr. Afflerbach, the proposed remedy flies in the face of numerous Division remedy policies and the odds are remote that the remedy will work as intended. The Division, following its own long-standing policies, rejected similar remedies in Aetna/Humana and Haliburton/Baker Hughes and filed suit to block those transactions.

We respectfully submit that under any reasonable definition of the "public interest," a complex remedy that carries a high risk of failure and exposes the public to substantial economic harm if it fails is not in the "public interest." The Division should exercise its power under Paragraph IV(A) of the Stipulation and Order to withdraw its consent to the entry of the PFJ.

Sincerely,

[redacted]

Debbie Goldman
Telecommunications Policy and Research Director
Communications Workers of America

Allen P. Grunes
Counsel for Communications Workers of America

[82] Letter from Pantelis Michalopoulos, Counsel to DISH Network Corporation, to Marlene Dortch, FCC, WT Docket No. 18-197 (April 8, 2019), https://ecfsapi.fcc.gov/file/104080252316854/DISH%204-8-19%20Ex%20Parte%20WT%2018-197%20Europe%20Studies.pdf.

DECLARATION OF ANDREW AFFLERBACH, PH.D., P.E.
Chief Executive Officer and Chief Technology Officer, CTC Technology & Energy

DECLARATION OF ANDREW AFFLERBACH, PH.D., P.E.

Relevant experience and qualifications of Andrew Afflerbach, Ph.D., P.E.

1. I have been the Chief Executive Officer and Chief Technology Officer of Columbia Telecommunications Corporation (d/b/a CTC Technology & Energy), a communications engineering consultancy, since 2000, and was Senior Scientist at CTC from 1996 until 2000. I specialize in the planning, design, and implementation of communications infrastructure and networks. My expertise includes fiber and wireless technologies and state-of-the-art networking applications. I have closely observed the development of wireless technology since the advent of the commercial internet in the 1990s. I submit this Declaration in connection with the Tunney Act Comments of the Communications Workers of America in United States v. Deutsche Telekom AG, et al., No. 1:19-cv-02232-TJK.

2. As CTO, I am responsible for all engineering work and technical analysis performed by CTC. I have planned and overseen the implementation of a wide variety of wired and wireless government and public safety networks. I have advised cities, counties, and states about emerging technologies, including successive generations of wireless networks across a range of licensed and unlicensed spectrum bands. I have developed broadband technology strategy for cities including San Francisco, Seattle, Atlanta, Washington, D.C., and New York; for states including Connecticut, Delaware, Kansas,

Kentucky, and New Mexico; and for the government of New Zealand's national broadband project.

3. I have designed wireless networks for large cities, counties, and regions. I lead the CTC team advising the State of Texas Department of Transportation and many local governments on wireless facilities standards and processes. I also lead the CTC technical teams conducting FirstNet planning for the District of Columbia and the State of Delaware.
4. I have prepared extensive technical analyses for submission to the U.S. Federal Communications Commission and U.S. policymakers on broadband expansion to underserved schools, libraries, and other anchor facilities; on due diligence for the IP transition of the U.S. telecommunications infrastructure; on options for open access on wireless broadband networks; and on the relative strengths and weaknesses of various wired and wireless technologies.
5. Under my direction, the technical team at CTC has advised hundreds of public and non-profit clients, primarily in the United States. My technical staff has been engaged on projects encompassing the evaluation or planning of hundreds of miles of fiber optics and hundreds of wireless nodes in rural, suburban, and urban areas across the country. My experience with rural broadband engineering encompasses the full range of geographic typologies in the United States, from the desert and mountains of the West to the plains in the Midwest to the mountain and coastal areas of the East.
6. I am a licensed Professional Engineer in the Commonwealth of Virginia and the states of Delaware, Georgia, Maryland, and Illinois. I received a Ph.D. in Astronomy in 1996 from

the University of Wisconsin–Madison and an undergraduate degree in Physics from Swarthmore College in 1991. My full CV is included in Attachment A.

From a technical and business standpoint, Dish would be highly dependent on T-Mobile as an MVNO under the terms of the Proposed Final Judgment (PFJ)

7. According to the PFJ, Dish would become a mobile operator initially by purchasing Boost, Virgin Mobile, and Sprint's prepaid services, which currently operate as Sprint brands. Dish would thus operate as a mobile virtual network operator (MVNO), reselling T-Mobile's service while it builds its own mobile network operator (MNO) network—a complex and expensive process that would take many years.

8. The terms of the proposed T-Mobile/Dish MVNO agreement (called the Full MVNO Agreement in the PFJ) have not been provided to the public, and there is no requirement to make them public. (This is not unusual in the telecommunications industry; MVNO agreements frequently are confidential.) But given that an MVNO resells an MNO's capacity under the MVNO's brand name, all MVNOs share a total dependence on their MNO host networks.

9. For example, from a technical standpoint, the MNO issues the Subscriber Identity Module (SIM) cards that identify the MVNO users' devices—so the MVNO users' devices connect to the MNO's network and cannot access another network unless the MNO allows roaming to that network.

10. In addition, the MNO manages how and whether the MVNO network connects to the MNO network; determines how much capacity (speed) is available to each MVNO user

device; determines whether there are limits to the total number of MVNO subscribers (either nationally or within individual areas of the network); determines the price it will charge the MVNO for access and bandwidth; determines whether a service area will have 2G, 3G, 4G or 5G service; chooses the duration of the MVNO agreement; and establishes such parameters as geographic limitations on the MVNO's subscribers, which spectrum blocks can be used, whether the MVNO's users have access to particular services (e.g., video, 5G), the degree to which the MVNO's users have priority (especially where there is heavy demand for the MNO's network), and what types of user equipment can be operated. MNOs provide no transparency to the MVNO—no view into the "back end" of the network; the MVNO simply pays the bill for its services without being able to know how they are delivered, or if there is any way to better optimize the services or the network for its needs.

11. This technical dependence illustrates the criticality of the MVNO agreement terms. Based on the PFJ and other public documents, we have no way of knowing the terms under which Dish's network performance would be determined.

12. Because of its control of the technical aspects of the network, the MNO could also effectively limit the MVNO's potential service strategies—for example, by determining where networks will and will not be upgraded to 5G, and when and whether new services will be available. Additionally, T-Mobile would determine where it will provide its own service and where it would rely on roaming to other MNOs. In roaming areas, T-Mobile and its MVNOs could find it difficult to maintain the quality of their customer experience and would need to pay substantial fees to use the other MNO.

13. Since Dish would essentially be reselling the T-Mobile's service, deficiencies in the service provided by the MNO would become unsolvable deficiencies in the MVNO's service. Enforcement would be difficult, and remedies may not be commensurate with the harm inflicted on the MVNO. Simply by underperforming or delaying response to resolving technical problems, the MNO could badly harm the MVNO. Any intentional or unintentional problems with the service could leave the MVNO damaged, with no alternative path to serve its customers.

14. From a business standpoint, the MVNO agreement would also effectively dictate the MVNO's pricing—because the price that the MVNO could charge would depend heavily on the fee (cost per gigabyte) the MNO charged the MVNO. Further, in their relationships with MVNOs, MNOs typically only seek ways to monetize their excess capacity where it exists—not to nurture the MVNOs. If, over the course of business, the MVNO were to require flexibility in the arrangement (e.g., new services, extensions, relief in costs, capacity changes, accommodations of changes in technical standards or equipment), the MNO would be unlikely to provide that relief.

15. Dish may thus struggle as an MVNO to provide differentiated services on T-Mobile's network if its differentiators were to require network-wide changes or custom operator support to implement (e.g., advanced streaming platforms, multimedia broadcast).

16. If Dish were able to reach an accommodation with T-Mobile on modifications to support new services, it would face the additional challenge of having to disclose sensitive intellectual property to a competitor in order to plan and implement the changes.

17. MVNOs often tolerate a highly dependent relationship with the MNO for reasons other than the profit they may make from the operation.[1] For example the MVNOs operated by the cable companies might not be financially sustainable on their own, but serve an important business purpose for the cable companies; for example, Comcast's MVNO relationship with Verizon enables Comcast to fill an urgent business gap (i.e., how to get wireless service to customers not near Comcast Wi-Fi and as an add-on to existing cable services for customer-retention purposes) but is not a central, money-making part of Comcast's business.

18. In some emerging MVNO models the MVNO would have more leverage with the MNO because it would offer a tangible asset to trade. For example, Altice has a partnership with Sprint in which Altice allows Sprint to install small cells on Altice's cable infrastructure in return for lower MVNO fees.[2] In contrast, in the first few years of its operations as an MVNO, Dish would have little or no leverage with T-Mobile to reduce its costs.

Dish's planned migration to an iMVNO model would potentially give it more control, but many risks will remain while Dish builds its network

[1] And for many MVNOs, the arrangement is not lucrative ("Comcast Lost $743 Million on Xfinity Mobile in 2018," Daniel Frankel, *Multichannel News*, January 23, 2019, https://www.multichannel.com/news/comcast-loses-over-1-billion-on-xfinity-mobile-in-1st-2-years, accessed September 23, 2019.)

[2] "Sprint: Altice deal lets us cut through red tape of small-cell deployments," Colin Gibbs, *Fierce Wireless*, December 8, 2017, https://www.fiercewireless.com/wireless/sprint-altice-deal-enables-us-to-cut-through-red-tape-small-cell-deployments, accessed September 9, 2019. See also: Altice Ex Parte, Federal Communications Commission, In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation, Consolidated Applications for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197, Jennifer Richter, Akin Gump, February 8, 2019, p. 14, https://ecfsapi.fcc.gov/file/1020806336649/(REDACTED)%20Altice%20USA%20Inc.%20-%20Ex%20Parte%20Re%202.6%20and%202.7%20Meetings.pdf, accessed September 25, 2019.

19. The agreements call for Dish's migration to an enhanced MVNO model, often called an iMVNO, in which Dish operates a 5G network core and is able to increase its control on the network and govern how its customers migrate to Dish's physical network, as it is built. Setting up the core network would be the first step toward Dish becoming independent, because it would enable Dish to activate sites—which would serve users with Dish bandwidth rather than over the T-Mobile network.

20. The core of a 5G network provides a wide range of functions that manage the network, determine the user experience, and manage users' ability to access different MNO radio access networks. Once it operates a core, Dish would be able to have its own SIM cards (or manage eSIM components in user devices) and manage authentication of individual user devices. It would determine what services are on its network. It would also be able to negotiate arrangements with other MNOs for capacity and coverage, if another MNO were willing to do so.

21. The agreements require Dish to "have deployed a core network" by June 14, 2022. More specificity is needed on the core network requirements (e.g., a demonstration of full operation of a core network) because, for example, activating core hardware and software is not the only challenge of activating a separate core network. Required verification of a fully operational core network should also include that a specified number of customers have migrated from the T-Mobile core to the Dish core, and that Dish, Boost, Sprint Prepaid, and Virgin mobile devices all are using the Dish core.

22. In addition, while the iMVNO model's functionality would give Dish more control, the degree of that control would depend critically on the degree to which Dish has built wireless sites and connected them.

23. Dish users would continue to use T-Mobile's radio access networks (e.g., cell sites, backhaul), but Dish could gradually migrate them away from T-Mobile. Since Dish is planning to build a 5G-only network, however, this migration is questionable and may come with a huge price sticker.

24. If Dish operates a 5G core as planned, that core would not support devices that are not 5G without a large-scale development of new, untried software and continued connectivity with the T-Mobile core. Thus, even after Dish begins to activate its own network, it would need to continue the MVNO arrangement with T-Mobile for all of its customers using 3G and 4G phones. And because some Dish customers—including current Boost MVNO customers—will be seeking to pay less for phones and services, many would not want to be forced to pay for a new phone, forcing Dish to extend the MVNO arrangement, or to push customers to upgrade phones (either incurring cost to subsidize the upgrade or losing customers who will not change).

25. Remaining on T-Mobile's network is not a solution for Dish, however. In a network where most of the antenna sites belong to T-Mobile or others, the available capacity and coverage and the terms of access to the network (whether Dish is an MVNO or an iMVNO) would still be under the control of the MNO.

26. Furthermore, other MNOs would not be under any obligation to make capacity available to Dish; MNOs other than Sprint have resisted the iMVNO model,[3] so the ability of an iMVNO to connect to multiple MNOs may only be a theoretical advantage.

27. With regard to enforcement of the MVNO agreement as Dish migrates to an iMVNO, the agreement between Dish and T-Mobile would remain the same—as would the complexity of enforcement.

Dish's access to capacity on T-Mobile's network (and its pricing) would be critical to Dish's ability to deliver competitive services

28. Under DOJ's proposed solution, T-Mobile will provide capacity on its network to Dish for seven years on "favorable terms"— but those terms are not disclosed.

29. Once Dish activates its network core, the PFJ stipulates network capacity sharing so that Dish devices using the Dish network core can access the T-Mobile network. For network sharing to provide adequate service levels, however, Dish needs access to sufficient capacity, including where T-Mobile capacity is scarce. Insufficient capacity (whether because of intentional or unintentional action by the MNO) could badly damage Dish.

30. It would also be critical that T-Mobile's pricing of its shared capacity be fair and consistent—and that it does not stifle Dish's deployment. The pricing framework could be extremely complex, given that the market value of capacity may vary widely in

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[3] Altice Ex Parte, Federal Communications Commission, In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation, Consolidated Applications for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197, January 28, 2019, Jennifer Richter, Akin Gump, Exhibit 1, p. 42, https://ecfsapi.fcc.gov/file/1012865940796/(REDACTED)%20Altice%20USA%20Inc.%20-%20Supplemental%20Response%20to%20Information%20Request%20(1.28.19).pdf, accessed September 25, 2019.

different geographic areas, and in areas with different levels of existing broadband capacity.

31. Capacity sharing on the scale contemplated here has not been attempted in the United States among wireless providers, and we are not aware of an existing model for this type of collaboration and coordination between competitors. In the PFJ, this requirement is folded into the MVNO commitments, with the details again hidden from public review in the Full MVNO agreement.

Dish's access to T-Mobile's decommissioned sites may not add much value to Dish's expansion

32. Dish has FCC spectrum licenses but has not activated a wireless broadband network infrastructure. As it builds its network, it has the option to acquire sites from Sprint and T-Mobile—specifically, at least 20,000 sites that T-Mobile would decommission over the five years after the merger closing. For each site, Dish could choose to have the site lease or the lease plus the equipment.

33. DOJ's solution assumes that granting Dish site options would enable Dish's network expansion—but the utility and 5G-readiness of these sites is not guaranteed. Those sites are T-Mobile and Sprint's discards—sites that are being deactivated, likely because they are in less desirable locations, may not have high-quality fiber backhaul or backup power, or might be otherwise suboptimal for 5G. In fact, the PFJ speaks to "microwave backhaul"

at the sites[4]—implying that many sites may require extensive investment to become 5G-ready with fiber.

34. These sites might thus accelerate Dish's deployment (e.g., by expediting the site selection and deployment processes) but might also re-create some of the deficiencies of Sprint's network on the Dish network.

35. Enforcement of the agreement would thus require confirmation that T-Mobile is providing sites and equipment as promised and is complying with commitments and schedule—but also verification of the transferability of the leases, as well as verification that T-Mobile is taking the steps it is obligated to take to transfer the sites.[5] Delays or changes in the turnover plans could create delays and drive up Dish's costs.

DOJ anticipates Dish becoming a fourth facilities-based competitor comparable to Sprint—but this would take many years and would be fraught with execution risks

36. Dish's execution risks are substantial. Under the most optimistic timeline, Dish would require at least a year to build a robust internal team, seek and select contractors, and prepare detailed designs and engineering. Dish would also need more than four years to deploy tens of thousands of sites with robust fiber backhaul to develop a reliable footprint that is not highly dependent on T-Mobile. That process would require extensive design, planning, procurement, site acquisition, and approvals—as well as an enormous capital investment.

[4] Proposed Final Judgment (PFJ), IV.C.5, https://www.justice.gov/opa/press-release/file/1187706/download, accessed September 25, 2019.
[5] PFJ, IV.C.

37. On July 30 and July 31, 2019, Dish staff met with FCC Commissioners and staff to discuss Dish's technical and business plans and to share an executive summary of the "RFI/P" Dish had earlier distributed to potential industry suppliers.[6] Based on the executive summary of the RFI/P provided in the Ex Parte filing, we see that Dish is clearly still in a fact-finding stage—identifying which suppliers may be candidates for different parts of the build process, and asking wide-ranging questions about their potential roles. This type of document usually precedes engineering and design decisions, the development of more focused procurement documents, and the selection of contractors to supply materials and build the network.

38. In addition, the 3GPP Rev 16 equipment that Dish has said would be central to building a highly virtualized network with low operation costs[7] relies on standards that will not be available until 2020, with actual equipment possibly not available until late 2020 or some point in 2021. Without that equipment, Dish would need to change its approach to a less virtualized network and, potentially, a different business model.

39. Dish's risk factors thus include activating infrastructure at tens of thousands of sites while relying on technologies that do not yet exist, scaling up from a relatively small mobile wireless staff to a large new team in a tight labor environment, getting permitting

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[6] "DISH 5G Network RFI/P Executive Summary," Dish Ex Parte, Federal Communications Commission, In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197, August 1, 2019, Jeffrey H. Blum, p. 4, https://ecfsapi.fcc.gov/file/10801235883258/2019-08-01%20DISH%20Ex%20Parte%20WT%20Docket%20No%2018-197%20(w%20summary).pdf, accessed September 25, 2019.

[7] Thomas A Cullen, EVP of Corporate Development, paragraph 9, in "Edited Transcript of Dish earnings conference call or presentation 29-Jul-19 8:30pm GMT," Thomson Reuters StreetEvents, July 30, 2019, https://finance.yahoo.com/news/edited-transcript-dish-earnings-conference-081650500.html, accessed September 25, 2019.

approvals, coordinating with T-Mobile (itself in the process of an ambitious buildout—which could limit T-Mobile's resources available for coordinating with Dish), handling procurement, and financing a project likely to cost more than $10 billion. In this light, it is worth considering other major communications infrastructure initiatives (e.g., Google Fiber) that failed to execute according to plan.

Dish's nationwide buildout would be a significant challenge even under the best circumstances

40. As an example of the scope of Dish's challenge, we note that T-Mobile operates approximately 64,000 macro sites and 21,000 distributed antenna and small cell sites as of December 31, 2018, and that this is therefore the approximate number of sites that a bona fide national MNO should have when fully operational.[8] Acquisition of a new site typically takes 12 to 24 months—including the process of searching for a site, conducting RF engineering, acquiring approval and permits for the siting, acquiring fiber backhaul, and completing construction of the site.

41. Placing wireless equipment at an existing site (if there is space) still requires negotiating terms, RF engineering, permitting, engineering, and installation, and requires six to 18 months.

42. Similarly, placing equipment at one of T-Mobile or Sprint's 20,000 discarded sites would require construction of fiber backhaul and upgrades and would still require local permitting and approvals and installation—which will take six to 18 months. And, as noted

[8] T-Mobile U.S., Inc., U.S. SEC Form 10-K, p.7, http://d18rn0p25nwr6d.cloudfront.net/CIK-0001283699/3bfba910-027f-4ec5-85a5-b8e91d073ba8.pdf, accessed September 25, 2019.

in the PFJ, there may be instances where the site cannot be transferred by T-Mobile, and T-Mobile would be required to "cooperate with [Dish] in its attempt to obtain the rights."[9] There is also a risk to Dish that the tower owner may not agree to transfer the existing lease and may charge Dish higher costs since Dish is not an established player and is a higher-risk customer compared to existing MNOs, with no track record or credit in the industry.

43. Obtaining capacity in metro areas would require densification and small cells—which usually are not shared and would likely only happen in a second phase of capacity densification after Dish's coverage requirement is met. Small cells have streamlined site acquisition and make-ready processes but would still require fiber construction—likely six to 12 months after macro sites are activated and designs are complete.

Dish faces technical and logistical challenges in deploying its planned network architecture

44. The equipment required to operate a network over the Dish spectrum is not currently mass-produced—Dish would to develop a set of requirements and work with companies like Nokia and Ericsson to start assembly of base station equipment.

45. Handset equipment (i.e., smartphones) is not currently manufactured for Dish's spectrum bands. Dish would have to work with suppliers like Apple and Samsung, which offer volume-based pricing. As a result, the new Dish device portfolio would be expensive in its initial rollout.

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[9] PFJ, IV.C.4.

46. Relying entirely on a virtualized 5G architecture that has not yet been deployed increases risk of execution, with less flexibility to back out and use a different technology. There is a scenario in which unacceptable delays in Rev 16 or other changes in the business plan (e.g., away from virtualization) would require a redesign or reboot of the build, which would cause a delay of months or years.

47. There is also a possibility that developers and deployers of 5G may adopt a "new cyber duty of care" and make changes in their development and supply chain strategies to enhance cyber security to address the new risks posed by 5G networking and applications.[10] Implementing changes in cyber security in hardware and software may add time to the development and production of equipment and software while cybersecurity risks are assessed and changes in design and architecture are made to address problems and increase preparedness. In this scenario, 5G early adopters introducing cutting-edge technologies might slow deployment while tried-and-true 4G operators would continue to operate broadband wireless networks. Dish might be contractually protected by the "unanticipated circumstances" described in Dish's letter to DOJ (Attachment A, VII, Verification Metrics (B)),[11] but a delay in 5G deployment would mean additional years of delay in the public having a broadband competitor—or even lead to Dish needing to radically change its model or cancel deployment.

[10] "Why 5G requires new approaches to cybersecurity: Racing to protect the most important network of the 21st century," Tom Wheeler and David Simpson, Brookings Institution, September 3, 2019, https://www.brookings.edu/research/why-5g-requires-new-approaches-to-cybersecurity/, accessed September 25, 2019.

[11] Dish letter to Federal Communications Commission, Jeffrey H. Blum, July 26, 2019, https://www.fcc.gov/sites/default/files/dish-letter-07262019.pdf

Dish's limited buildout and capacity requirements are too limited for a robust fourth competitor

48. As mentioned above, operating an independent Dish network would require deploying tens of thousands of sites with robust fiber connectivity. Even with a supply of decommissioned Sprint and T-Mobile sites, this would be an enormous challenge.

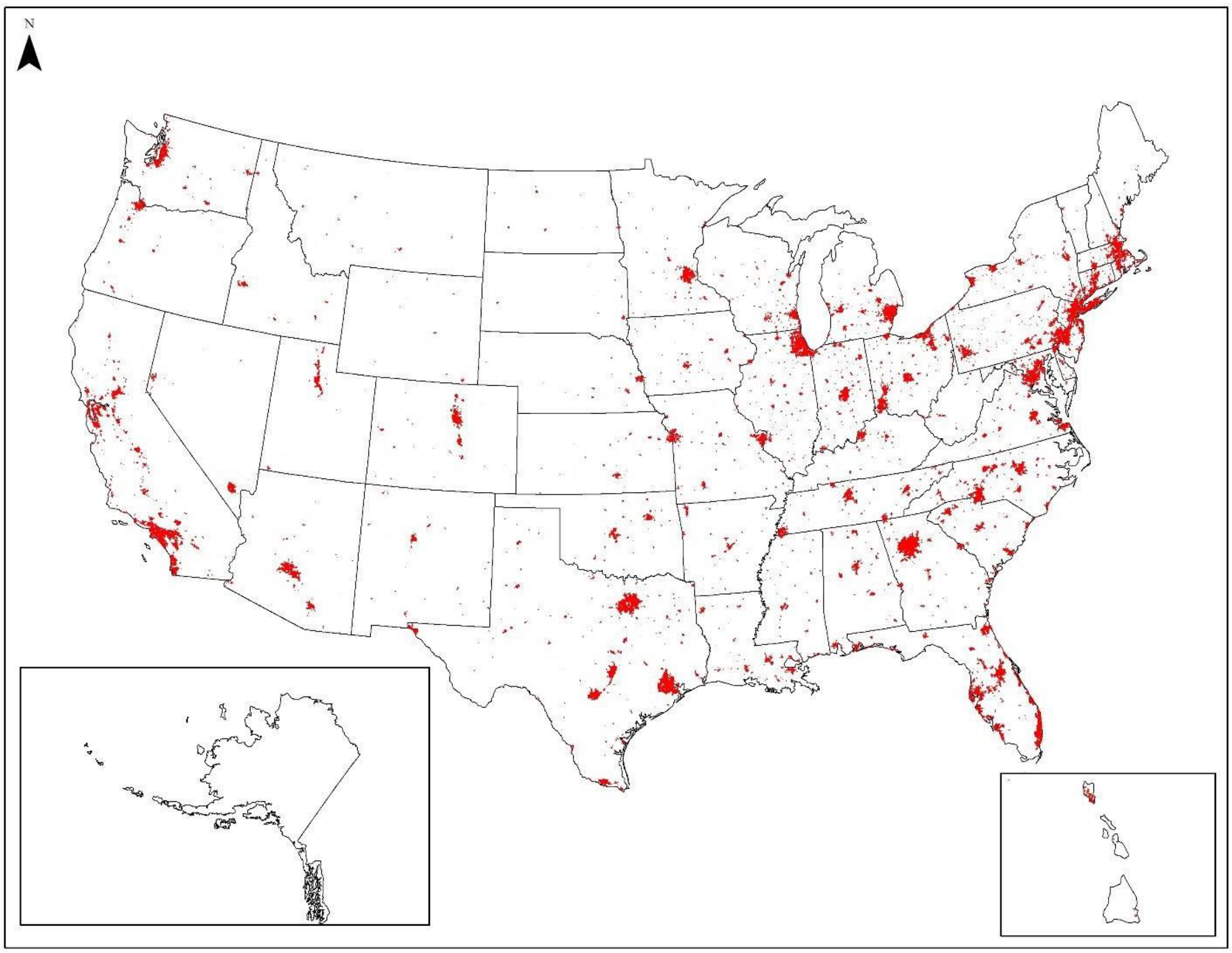
49. The benchmarks established in the Dish letter begin with a requirement that by June 14, 2022, Dish will cover 20 percent of the population with its own wireless facilities and activate its core network. The benchmark includes no number of towers, no speeds, and no detail on verification or test approaches—just an indication that Dish will use AWS and 700 MHz spectrum. The service is described as "5G Broadband Service," which is defined only as meaning "at least 3GPP Release 15 capable of providing Enhanced Mobile Broadband (eMBB) functionality"; the letter says nothing about speeds, how many customers the network will support, or other critical metrics. For example, it does not differentiate at all between a thin internet of things (IoT) network and a dense broadband network capable of serving as many people and providing comparable speeds to what the four major MNOs offer today.

50. The next significant performance benchmark is that by June 14, 2023, Dish will have activated 15,000 sites and will be providing 35 Mbps service to 70 percent of the U.S. population. The speed would be verified by drive test, using a methodology approved by the FCC and determined to reflect the actual user experience. Although the metrics for the 2023 requirements are better defined than the 2022 requirements, it is still not clear whether testing would be performed on a loaded network, whether tests would be

required at the cell edge, whether testing would be done at peak times, or how many locations would be tested.

51. It is critical to note that the 2023 benchmark stops well short of the scale of the networks operated by the four existing MNOs. For example, the most straightforward way to serve 70 percent of the population is to focus on urban areas. If Dish were to serve only the country's densest census blocks, a service map of 70 percent of the population would be only the red areas in Figure 1 below.

Figure 1: Illustration of 70 Percent Nationwide Coverage Based Solely on Urban Areas



52. We note, too, that 35 Mbps is substantially lower that the speeds provided by many mobile broadband providers today, and compares poorly to the hundreds of Mbps forecast for T-Mobile and Sprint during the same period in T-Mobile's public interest statement, which states that absent the merger, Sprint would provide average speeds of 55 Mbps and peak speeds of 300 Mbps, and in 2024, absent the merger, would deliver average speeds of 113 Mbps and peak speeds of 700 Mbps.[12]

53. Providing a low minimum required speed of 35 Mbps, instead of the speeds likely to be offered by the other MNOs, creates the risk of Dish building something other than a fully competitive broadband network—such as an IoT network that does not provide the capacity of a full broadband network (as had previously been considered publicly by Dish) or a specialized wholesale provider of capacity for other networks that focuses exclusively on high-density, high-value areas.

54. The last major performance milestones are the requirements to serve 70 percent of the population of each Partial Economic Area (PEA) (by June 14, 2023) and 75 percent of the population of each PEA (by June 14, 2025) with 5G using the 600 MHz band. While these requirements would require activation of service in a more widespread way than shown in Figure 1, they still could be met with a small incremental number of sites relative to the other service requirements—for example, by activating a few sites in each PEA at high power. Again, that type of deployment could serve an IoT network with devices

[12] Public Interest Statement, June 18, 2018, p. 44-45, https://ecfsapi.fcc.gov/file/10618281006240/Public%20Interest%20Statement%20and%20Appendices%20A-J%20(Public%20Redacted)%20.pdf, accessed September 25, 2019.

using low bandwidth over a large area. The benchmark does not define a speed or how many towers will be required, nor does it provide details on testing or enforcement—it only requires "5G broadband service" which, as noted above, is only defined as a protocol, not with any standard of performance.

The MVNO Agreement would require robust, long-term oversight

55. Finally, we note that, because the MVNO Agreement would cover a wide range of technical terms, it will require considerable effort for the government's overseeing entity—the Monitoring Trustee—to enforce.

56. Regarding the use of devices, for example, the PFJ states (V.B.4): "[T-Mobile] shall not unreasonably refuse to allow any device used by Acquiring Defendant's customers to access the Divesting Defendants' wireless networks, or otherwise unreasonably refuse to approve or support any such devices, and shall approve such devices for use upon request as soon as reasonably practicable, and shall use commercially reasonable efforts to provide technical support or other assistance to the Acquiring Defendant as requested to facilitate approval of any devices for use on Divesting Defendants' wireless networks[.]"

57. We note that "unreasonably," "as soon as reasonably practicable," and "commercially reasonable efforts" are not quantitatively defined and would require significant efforts by the Monitoring Trustee to interpret and mediate.

58. As a further indication of the need for robust monitoring, we note that the terms that govern T-Mobile and Dish's agreement would cover a wider range of topics compared to most existing roaming and peering agreements, including delivery of capacity nationally

(and in the right places at the right times), appropriate prioritization of capacity, managing a wide range of user devices and generations of wireless base station equipment, and accommodating an ongoing migration from T-Mobile sites to Dish sites, all while T-Mobile merges its network with Sprint's and performs its own 5G upgrade. Enforcement of the agreement would require the Monitoring Trustee to have full visibility into all the parties' networks and their configuration. And because poor network performance can have a major impact on Dish as a new entrant, the enforcement would need to be quick and decisive.

59. Finally, the PFJ also states (VI.B.6): "[T-Mobile] shall not otherwise unreasonably delay, impede, or frustrate Acquiring Defendant's ability to use any Full MVNO Agreement and the Divesting Defendants' networks to become a nationwide facilities-based retail mobile wireless services provider," a wide-ranging charge that may be interpreted very differently by the parties. It would be a strenuous task for the Monitoring Trustee to interpret and enforce this complex and ambitious framework over a period of years, all along making decisions and acting quickly enough to protect a party that is being damaged.

DATED: October 8, 2019

Andrew Afflerbach

Andrew Afflerbach, Ph.D., P.E.

Attachment A: CV

Andrew Afflerbach, Ph.D., P.E. | CEO and Chief Technology Officer
CTC Technology & Energy

Dr. Andrew Afflerbach specializes in the planning, designing, and implementation oversight of broadband communications networks, smart cities strategies, and public safety networks. His expertise includes state-of-the-art fiber and wireless technologies, the unique requirements of public safety networks, and the ways in which communications infrastructure enables smart and connected applications and programs for cities, states, and regions.

Andrew has planned and designed robust and resilient network strategies for dozens of clients, including state and local governments and public safety users. He has delivered strategic technical guidance on wired and wireless communications issues to cities, states, and national governments over more than 20 years. He has advised numerous cities and states, including New York City, San Francisco, Seattle, Atlanta, Washington, D.C., and Boston, and served as a senior adviser to Crown Fibre Holdings, the public entity directing New Zealand's national fiber-to-the-home project.

In addition to designing networks, Andrew testifies as an expert witness on broadband communications issues. And he is frequently consulted on critical communications policy issues through technical analyses submitted to the Federal Communications Commission (FCC) and policymakers. He has prepared white papers on:

- Estimating the cost to expand fiber to underserved schools and libraries nationwide
- Conducting due diligence for the IP transition of the country's telecommunications infrastructure
- Developing technical frameworks for wireless network neutrality
- Streamlining deployment of small cell infrastructure by improving wireless facilities siting policies
- Limiting interference from LTE-U networks in unlicensed spectrum

As CTC's Chief Technology Officer, Andrew oversees all technical analysis and engineering work performed by the firm. He has a Ph.D. and is a licensed Professional Engineer.

__Fiber Network Planning and Engineering__

Andrew has architected and designed middle- and last-mile fiber broadband networks for the District of Columbia (Washington, D.C.); the city of San Francisco; the Delaware Department of Transportation; the Maryland Transportation Authority; and many large counties.

He oversaw the development of system-level broadband designs and construction cost estimates for the cities of Atlanta, Boston, Boulder, Palo Alto, Madison, and Seattle; the states of Connecticut and Kentucky; and many municipal electric providers and rural communities. He is overseeing the detailed design of the city-built fiber-to-the-premises (FTTP) networks in

Westminster, Maryland; Alford, Massachusetts; and Holly Springs and Wake Forest, North Carolina.

In Boston, Andrew led the CTC team that developed a detailed RFP, evaluated responses, and participated in negotiations to acquire an Indefeasible Right of Use (IRU) agreement with a fiber vendor to connect schools, libraries, public housing, and public safety throughout the City. This approach was designed to allow the City to oversee and control access and content among these facilities.

Wireless Network Planning and Engineering

Applying the current state of the art—and considering the attributes of anticipated future technological advancements such as "5G"—Andrew has developed candidate wireless network designs to meet the requirements of clients including the cities of Atlanta, San Francisco, and Seattle. In a major American city, Andrew led the team that evaluated wireless broadband solutions, including a wireless spectrum roadmap, to complement potential wired solutions.

In rural, mountainous Garrett County, Maryland, Andrew designed and oversaw the deployment of an innovative wireless broadband network that used TV white space spectrum to reach previously unserved residents. To enhance public internet connectivity, Andrew provides technical oversight on CTC's Wi-Fi-related projects, including the design and deployment of Wi-Fi networks in several parks in Montgomery County, Maryland.

Andrew also advises local and state government agencies on issues related to wireless attachments in the public rights-of-way; he leads the CTC team that supports the Texas Department of Transportation (TxDOT) and many large counties on wireless attachment policies and procedures.

Public Safety Networking

Andrew leads the CTC team providing strategic and tactical guidance on FirstNet (including agency adoption and other critical decision-making) for the State of Delaware and Onondaga County, New York. In the District of Columbia, he and his team evaluated the financial, technical, and operational impact of building the District's own public safety broadband network, including the design of an LTE system that provided public-safety-level coverage and capacity citywide. This due diligence allowed the District to make an informed decision regarding opting in or out of the National Public Safety Broadband Network.

Andrew currently is working with the State of Delaware to evaluate LTE coverage gaps throughout the state to assist agencies in their choice of public safety broadband networks. On the state's behalf, he and his team are also conducting outreach to AT&T and other carriers to evaluate their public safety offerings. He is performing similar work as part of CTC's engagement with El Paso County, Colorado.

Earlier, Andrew led the CTC team that identified communications gaps and evaluated potential technical solutions for the Baltimore Urban Area Security Initiative (UASI), a regional emergency preparedness planning effort funded by the U.S. Department of Homeland Security (DHS).

He previously served as lead engineer and technical architect for planning and development of NCRnet, a regional fiber optic and microwave network that links public safety and emergency support users throughout the 19 jurisdictions of the National Capital Region (Washington, D.C. and surrounding jurisdictions), under a DHS grant. He wrote the initial feasibility studies that led to this project for regional network interconnection.

Smart Grid
Andrew and the CTC team provided expert testimony and advisory services to the Public Service Commission of Maryland regarding Advanced Metering Infrastructure (AMI). CTC provided objective guidance to the staff as it evaluated AMI applications submitted by three of the state's investor-owned utilities (IOUs). This contract represented the first time the PSC staff had asked a consultant to advise them on technology—a reflection of the lack of standards in the Smart Grid arena.

Broadband Communications Policy Advisory Services
Andrew advises public sector clients and a range of policy think tanks, U.S. federal agencies, and non-profits regarding the engineering issues underlying key communications issues. For example, he:

- Provided expert testimony to the FCC in the matter of the preparation of the **national broadband plan** as a representative of the National Association of Counties (NACo) and the National Association of Telecommunications Officers & Advisors (NATOA).
- Served as expert advisor regarding broadband deployment to the U.S. Conference of Mayors, NACo, National League of Cities, Public Knowledge, New America Foundation Open Technology Institute, and NATOA in those organizations' filings before the FCC in the matter of determination of the deployment of a **national, interoperable wireless network in the 700 MHz spectrum**.
- In connection with the FCC's ongoing **Open Internet proceeding**, advised the New America Foundation regarding the technical pathways by which "any device" and "any application" regimes could be achieved in the wireless broadband arena as they have been in the wireline area.
- Provided expert technical advice on the **700 MHz broadband and AWS-3 proceedings** at the FCC for the Public Interest Spectrum Coalition (including Free Press, the New America Foundation, Consumers Union, and the Media Access Project).
- Served as technical advisor to the **U.S. Naval Exchange** in its evaluation of vendors' broadband communications services on U.S. Navy bases worldwide.
- Advised the **U.S. Internal Revenue Service** regarding the history of broadband and cable deployment and related technical issues in that agency's evaluation of appropriate

regulations for those industries.

- Advised the Stanford Law School Center for Internet and Society on the technical issues for their briefs in the ***Brand X*** **Supreme Court appeal** regarding cable broadband.

Broadband Communications Instruction

Andrew has served as an instructor for the U.S. Federal Highway Association/National Highway Institute, the George Washington University Continuing Education Program, the University of Maryland Instructional TV Program, ITS America, Law Seminars International, and the COMNET Exposition. He developed curricula for the United States Department of Transportation.

He taught and helped develop an online graduate-level course for the University of Maryland. He developed and taught communications courses and curricula for ITS America, COMNET, and the University of Maryland. His analysis of cable open access is used in the curriculum of the International Training Program on Utility Regulation and Strategy at the University of Florida.

Andrew has also prepared client tutorials and presented papers on emerging telecommunications technologies to the National Fire Protection Association (NFPA), NATOA, the National League of Cities (NLC), the International City/County Management Association (ICMA), and the American Association of Community Colleges (AACC). He taught college-level astrophysics at the University of Wisconsin.

EMPLOYMENT HISTORY

1995–Present	CEO/Chief Technology Officer, CTC Previous positions: Director of Engineering, Principal Engineer, Senior Scientist
1990–1996	Astronomer/Instructor/Researcher University of Wisconsin–Madison, NASA, and Swarthmore College

EDUCATION

Ph.D., Astronomy, University of Wisconsin–Madison, 1996

- NASA Graduate Fellow, 1993–1996. Research fellowship in astrophysics
- Elected Member, Sigma Xi Scientific Research Honor Society

Master of Science, Astronomy, University of Wisconsin–Madison, 1993
Bachelor of Arts, Physics, Swarthmore College, 1991

- Eugene M. Lang Scholar, 1987–1991

PROFESSIONAL CERTIFICATIONS/LICENSES

Professional Engineer, states of Delaware, Georgia, Maryland, Illinois, and Virginia

HONORS/ORGANIZATIONS

- Disaster Response and Recovery Working Group, FCC's Broadband Deployment Advisory Committee (BDAC)
- Association of Public-Safety Communications Officials (APCO)
- Board of Visitors, University of Wisconsin Department of Astronomy
- National Association of Telecommunications Officers and Advisors (NATOA) Technology and Public Safety Committees
- Armed Forces Communications and Electronics Association (AFCEA)
- Society of Cable and Telecommunications Engineers (SCTE)
- Institute of Electrical and Electronic Engineers (IEEE)
- Charleston Defense Contractors Association (CDCA)

SELECTED PUBLICATIONS, PRESENTATIONS, and COURSES

- "SB 937: Wireless Facilities – Installation and Regulation," Testimony before the State of Maryland Senate, Feb. 2019
- "HB 654: Wireless Facilities – Installation and Regulation," Testimony before the State of Maryland General Assembly, Feb. 2019
- "The Three "Ps" of Managing Small Cell Applications: Process, Process, Process," Dec. 2018
- Declaration in Response to FCC's Order, "Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment," prepared for the Smart Communities and Special Districts Coalition, filed with the FCC, Sept. 2018
- Declaration in Response to the Proposed T-Mobile/Sprint Merger, prepared for the Communications Workers of America, filed with the FCC, Aug. 2018
- "A Model for Understanding the Cost to Connect Anchor Institutions with Fiber Optics" (co-author), prepared for the Schools, Health & Libraries Broadband Coalition, Feb. 2018
- "How Localities Can Prepare for—and Capitalize on—the Coming Wave of Public Safety Network Construction," Feb. 2018
- "Network Resiliency and Security Playbook" (co-author), prepared for the National Institute of Hometown Security, Nov. 2017
- "Mobile Broadband Service Is Not an Adequate Substitute for Wirelines" (co-author; addressing the limitations of 5G), prepared for the Communications Workers of America, Oct. 2017
- "Technical Guide to Dig Once Policies," April 2017
- "Streamlining Deployment of Small Cell Infrastructure by Improving Wireless Facilities Siting Policies," prepared for the Smart Communities Siting Coalition, filed with the FCC, March 2017
- "How Localities Can Improve Wireless Service for the Public While Addressing Citizen Concerns," Nov. 2016
- "LTE-U Interference in Unlicensed Spectrum: The Impact on Local Communities and Recommended Solutions," prepared for WifiForward, Feb. 2016

- "Mobile Broadband Networks Can Manage Congestion While Abiding by Open Internet Principles," prepared for the New America Foundation's Open Technology Institute – Wireless Future Project, filed with the FCC, Nov. 2014
- "The State of the Art and Evolution of Cable Television and Broadband Technology," prepared for Public Knowledge, filed with the FCC, Nov. 2014
- "A Model for Understanding the Cost to Connect Schools and Libraries with Fiber Optics," prepared for the Schools, Health & Libraries Broadband Coalition, filed with the FCC, Oct. 2014
- "The Art of the Possible: An Overview of Public Broadband Options," prepared jointly with the New America Foundation's Open Technology Institute, May 2014
- "Understanding Broadband Performance Factors," with Tom Asp, *Broadband Communities* magazine, March/April 2014
- "Engineering Analysis of Technical Issues Raised in the FCC's Proceeding on Wireless Facilities Siting," filed with the FCC (http://apps.fcc.gov/ecfs/document/view?id=7521070994), Feb. 2014
- "A Brief Assessment of Engineering Issues Related to Trial Testing for IP Transition," prepared for Public Knowledge and sent to the FCC as part of its proceedings on Advancing Technology Transitions While Protecting Network Values, Jan. 2014
- "Gigabit Communities: Technical Strategies for Facilitating Public or Private Broadband Construction in Your Community," prepared as a guide for local government leaders and planners (sponsored by Google), Jan. 2014
- "Critical Partners in Data Driven Science: Homeland Security and Public Safety," submitted to the *Workshop on Advanced Regional & State Networks (ARNs): Envisioning the Future as Critical Partners in Data-Driven Science*, Internet2 workshop chaired by Mark Johnson, CTO of MCNC, Washington, D.C., April 2013
- "Connected Communities: How a City Can Plan and Implement Public Safety & Public Wireless," submitted to the International Wireless Communications Exposition, Las Vegas, March 2013
- "Cost Estimate for Building Fiber Optics to Key Anchor Institutions," prepared for submittal to the FCC by NATOA and SHLB, Sept. 2009
- "Efficiencies Available Through Simultaneous Construction and Co-location of Communications Conduit and Fiber," prepared for submittal to the FCC by the National Association of Telecommunications Officers and Advisors and the City and County of San Francisco, 2009, referenced in the National Broadband Plan
- "How the National Capital Region Built a 21st Century Regional Communications Network" and "Why City and County Communications are at Risk," invited presentation at the FCC's National Broadband Plan workshop, Aug. 25, 2009

EXHIBIT 11
TO RESPONSE

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COMPETITIVE ENTERPRISE INSTITUTE
Advancing Liberty from the Economy to Ecology

October 10, 2019

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division
Department of Justice
450 Fifth Street NW, Suite 7000
Washington, DC, 20530

Re: *United States of America et al. V. Deutschland Telecom AG et al.*, No. 1:19-cv-02232-TJK.

Mr. Scheele,

On behalf of the Competitive Enterprise Institute (CEI), I write to you to file these comments in support of the proposed settlement of *United States of America et al. V. Deutschland Telecom AG et al.*, pertaining to the proposed T-Mobile/Sprint merger. These comments are filed pursuant to the Antitrust Procedures and Penalties Act (the Tunney Act).

CEI is a non-profit public policy organization dedicated to advancing the principles of limited government, free enterprise, and individual liberty. CEI scholars have written extensively about how antitrust regulation "harms consumers, competition, and innovation" and how "[a] market-based approach to competition would reduce the regulatory uncertainty and chilling of innovation that results from government antitrust regulation."[1]

From our market-based perspective, it is clear that a voluntary transaction such as the proposed T-Mobile/Sprint merger, absent significant market-distorting policies, should be allowed to proceed. However, our institution also recognizes the importance of the balance of power in government under the Constitution. It is the duty of the Executive Branch, in this case the Department of Justice (DOJ) to faithfully execute the law clearly and consistently, minimizing the economic harms caused by inefficient policies and regulatory uncertainty.

Yet, even when evaluating the proposed T-Mobile/Sprint merger within the regulatory guidelines for horizontal mergers outlined by DOJ and Federal Trade Commission (FTC), it is clear that the merger more-than passes muster.

T-Mobile/Sprint qualifies as a horizontal merger, as it is a merger between companies currently competing in the same market. Under the current Horizontal Merger Guidelines of DOJ and FTC (merger guidelines), regulators evaluate mergers to determine if the transaction will "encourage one or more firms to raise price, reduce output, diminish innovation, or otherwise harm

[1] Crews Jr., Clyde Wayne and Ryan Young, "The Case against Antitrust Law," Competitive Enterprise Institute, April, 2019. https://cei.org/sites/default/files/Wayne_Crews_and_Ryan_Young_-_The_Case_against_Antitrust_Law.pdf

customers as a result of diminished competitive constraints or incentives."[2] It is CEI's contention that the T-Mobile/Sprint merger will not result in any harms to the public under any of these criteria.

Mergers do not necessarily result in price increases, even in highly-concentrated markets such as the current wireless phone and internet service market (the wireless market). Under the merger guidelines, DOJ is permitted to evaluate "[e]ffects of analogous events in similar markets[.]"[3] A strikingly similar merger occurred recently in the domestic airline market.

There are a few important parallels to highlight between the domestic airline market and the wireless market. First, both markets are similarly concentrated at the top. There are four major competitors and there is a significant drop between the fourth and fifth largest companies in terms of annual passengers and quarterly subscribers.

Domestic Airlines[4]		Wireless Providers[5]	
2017	Passengers (millions)	Q3 2018	Subscribers (millions)
Southwest	157.677	Verizon Wireless	153.97
Delta	145.647	AT&T	150.25
American	144.864	T-Mobile USA	77.25
United	107.243	Sprint Nextel	53.51
JetBlue	40.015	U.S. Cellular	5.05
SkyWest	35.776	Shentel	1.04

The airline and wireless markets are also similar in that they are network industries. Former Principal Deputy Assistant Attorney General of the Antitrust Division, A. Douglas Melamed defined network industries as follows: "The most important characteristic -- indeed, the defining characteristic -- of network industries is that they involve products that are more valuable to purchasers or consumers to the extent that they are widely used."[6]

These markets are also subject to comparable market entrance and participation, which are heavily regulated at the federal, state, and local level. Local and state governments control gate access at most airports as well as access to rights of way and other infrastructure to install cellular towers. The air itself is regulated on the federal level in both markets: Federal Aviation

[2] Horizontal Merger Guidelines, US Department of Justice and the Federal Trade Commission, issued: August 19, 2010. https://www.justice.gov/atr/horizontal-merger-guidelines-08192010
[3] Horizontal Merger Guidelines, Section 2.1.2, *Direct Comparisons Based on Experience*
[4] 2017 Traffic Data for U.S Airlines and Foreign Airlines U.S. Flights, Bureau of Transportation Statistics, Release Number: BTS 16-18. https://www.bts.gov/newsroom/2017-traffic-data-us-airlines-and-foreign-airlines-us-flights
[5] Holst, Arne, "Number of subscribers to wireless carriers in the U.S. from 1st quarter 2013 to 3rd quarter 2018, by carrier (in millions)," Statista, September 13, 2019. https://www.statista.com/statistics/283507/subscribers-to-top-wireless-carriers-in-the-us/
[6] Melamed, A. Douglas, Before The Federalist Society The Eighteenth Annual Symposium on Law and Public Policy: Competition, Free Markets and the Law, Chicago, Illinois, April 10, 1999. https://www.justice.gov/atr/speech/network-industries-and-antitrust

Administration through air traffic control and Federal Communications Commission (FCC) through spectrum allocation.

In 2013, American Airlines completed its merger with U.S. Airways.[7] Prior to the merger, American and U.S. Airways represented the third and fifth largest domestic carriers by passengers, respectively.[8] Following this merger of major airlines, similarly situated in terms of marketshare to T-Mobile and Sprint currently, airline ticket prices collapsed:

This demonstrates that greater market concentration in network industries with regulatory constraints on market entry does not necessarily precipitate price increases. Furthermore, while the American Airlines/U.S. Airways merger reduced the total number of large competitors in the marketplace, the terms of the proposed T-Mobile/Sprint settlement creates a new significant competitor in the wireless marketplace. Per DOJ:

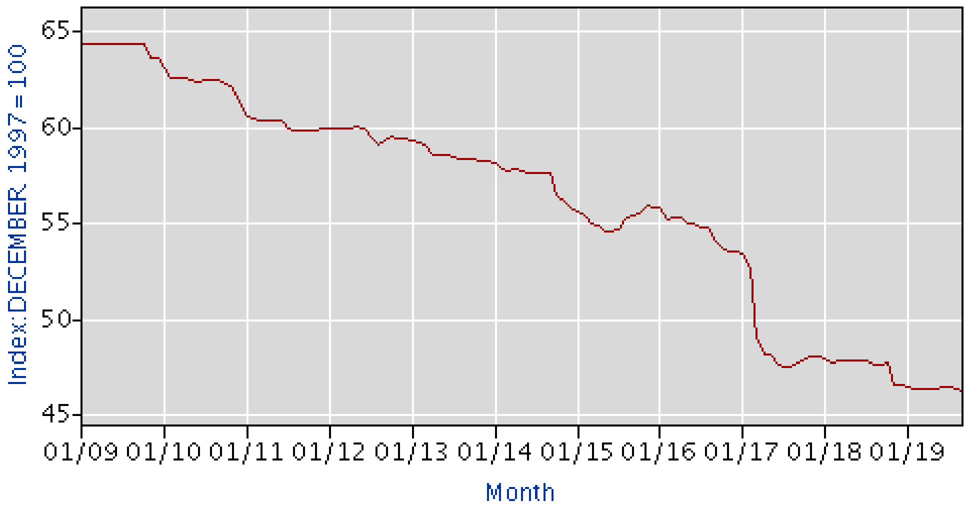
> "Under the terms of the proposed settlement, T-Mobile and Sprint must divest Sprint's prepaid business, including Boost Mobile, Virgin Mobile, and Sprint prepaid, to Dish Network Corp., a Colorado-based satellite television provider. The proposed settlement also provides for the divestiture of certain spectrum assets to Dish. Additionally, T-Mobile and Sprint must make available to Dish at least 20,000 cell sites and hundreds of retail locations. T-Mobile must also

[7] Carey, Susan, and Jack Nicas, "American Airlines, US Airways Complete Merger," The Wall Street Journal, December 10, 2013. https://www.wsj.com/articles/american-airlines-us-airways-complete-merger-1386599350
[8] Russell, Karl, "Airline Consolidation Continues," The New York Times, February 14, 2013. https://archive.nytimes.com/www.nytimes.com/interactive/2013/02/14/business/Airline-Consolidation-Continues.html

provide Dish with robust access to the T-Mobile network for a period of seven years while Dish builds out its own 5G network."[9]

With the post-merger wireless marketplace retaining four significant carriers, it is relevant to look at recent trends in subscription prices. According to the Bureau of Labor Statistics, prices have fallen by nearly 30 percent in the last decade:[10]

CPI for All Urban Consumers (CPI-U), Wireless telephone services in U.S. city average



Per merger guidelines, DOJ should also consider "non-price terms and conditions" that result from the merger. These include "reduced product quality, reduced product variety, reduced service, or diminished innovation." Quality, variety, and service are all natural sub criteria of the output criteria listed above.

In each of these areas, current market characteristics and plans for the proposed merger demonstrate that the public will continue to benefit. While the definitions of quality, variety, and service as set out in the merger guidelines are not neatly defined for the wireless market, for the purpose of these comments, quality will refer to wireless data speeds, variety will refer to available subscription plans, and service will refer to wireless network coverage.

In the current marketplace, wireless data speeds are up across the major carriers. According to a July 2019 report by Ookla, "Mean download speed over mobile in the U.S. increased 24.0% between Q1-Q2 2018 and Q1-Q2 2019[.]"[11] With quality increasing in conjunction with falling

[9] Press Release: Justice Department Settles with T-Mobile and Sprint in Their Proposed Merger by Requiring a Package of Divestitures to Dish, Department of Justice, July 26, 2019. https://www.justice.gov/opa/pr/justice-department-settles-t-mobile-and-sprint-their-proposed-merger-requiring-package
[10] CPI for All Urban Consumers (CPI-U), Wireless telephone services in U.S. city average, all urban consumers, not seasonally adjusted, Bureau of Labor Statistics.
https://data.bls.gov/timeseries/CUUR0000SEED03?output_view=data
[11] The 2019 Speedtest U.S. Mobile Performance Report by Ookla, accessed at: https://www.speedtest.net/reports/united-states/

prices, this means, in real terms, price decreases are even greater than suggested by the nominal data. Simply put, consumers are paying less and getting more.

Looking at the individual performances by the major networks shows how consumers will receive an additional quality benefit by the merger of T-Mobile and Sprint. T-Mobile, despite being third in marketshare, scored second in terms of overall network speed. Sprint was last among the major carriers. With the merger of the networks, Sprint's current customers will rapidly benefit from increased service quality.

Variety, at a minimum, will not be diminished by the proposed merger. In enforceable commitments to the FCC, T-Mobile and Sprint pledged to "make available the same or better rate plans as those offered by T-Mobile or Sprint … for three years following the merger."[12] Consumers are likely to see plan variety increase, especially in light of the recent FCC move to reclassify internet service providers (ISPs), including the wireless data providers, under Title I of the Communications Act (a decision recently upheld by the United States Court of Appeals for the District of Columbia Circuit[13]). This opens the door for a variety of what are known as "zero-rating" plans, where customers can select to have certain kinds of data not subject to their data caps. T-Mobile already offers one such plan known as "Binge On" where customers enjoy unlimited video streaming. Under the prior regulatory regime for ISPs, Title II, Binge On and other similar zero-rating plans came under significant regulatory scrutiny—since abandoned under the current FCC in light of reclassification.[14]

In terms of service or coverage, the current market has seen significant wireless coverage increases which should be expected to increase in the post-merger scenario. Per a 2018 FCC filing by CTIA:

> "[A] record 323,448 cell sites were in operation in 2017, representing a 52 percent growth over the last decade, and almost all of the country's population now has access to advanced wireless services. Indeed, 4G LTE service is now available to at least 99.7 percent of Americans and covers more than 73 percent of the total U.S. land area."[15]

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[12] Ex-parte, jointly filed by T-MOBILE US, Inc. & SPRINT CORPORATION before the Federal Communications Commission, Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations; WT Docket No. 18-197, May 20, 2019. https://newtmobile.com/wp-content/uploads/2019/05/FCC-Filing-May-20.pdf

[13] Mozilla Corporation v. FCC, et al, No. 18-1051, United States Court of Appeals for the District of Columbia Circuit. https://www.cadc.uscourts.gov/internet/opinions.nsf/FA43C305E2B9A35485258486004F6D0F/$file/18-1051-1808766.pdf

[14] Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators' Sponsored Data Offerings for Zero-Rated Content and Services, Federal Communications Commission. https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf

[15] Comments of CTIA Re: Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition, WT Docket No. 18-203, July 26, 2018. https://ecfsapi.fcc.gov/file/10727028840239/180726%20CTIA%20Comments%20on%20Mobile%20Wireless%20Competition.pdf

Since this filing, CTIA has reported that the number of cell sites has grown to 349,344 sites, an eight percent increase in a single year that demonstrates continued strong network growth, despite near universal population coverage.[16]

All of the above facts regarding quality, variety, and service are without mentioning a significant component of the proposed T-Mobile/Sprint merger: the deployment of a new fifth generation or "5G" wireless data network. The promise of 5G meets the innovation criteria and will significantly benefit the public interest in all other merger guideline criteria areas as well.

Per the companies' joint commitment to the FCC, within six years of the merger "99 percent of the population [will experience] download speeds equal to, or greater than, 50 Mbps; and 90 percent of the population experiencing download speeds equal to, or greater than, 100 Mbps."[17] On the most advanced devices and in the most competitive areas, T-Mobile's current network delivers speeds of 30.94 Mbps. This means, at a minimum, virtually all T-Mobile customers will enjoy roughly 62 percent higher speeds in the near-term.

In short, 5G innovation will deliver higher speeds for more people, increasing quality and service, while the new technology and regulatory structure will allow for continued data plan experimentation above the legally-binding level of plan varieties that currently exist. Even in the unlikely scenario nominal prices remain static or slightly increase—which the data suggest will not happen and the rate commitments will prevent within the post-merger network—real prices will continue to fall as consumers receive markedly better service.

The above analysis is all within the scope of the wireless marketplace. Increasingly, the silos within the broader telecommunications sector are crumbling. With wireless speeds already rivaling wired broadband speeds, and set to substantially increase through 5G networks, all other broadband providers find themselves competing directly against wireless. For example, cable companies such as Comcast, Charter, and Altice have launched their own wireless services.[18] Furthermore, the cable industry as a whole has already announced a 10 gigabit service initiative, trademarked as "10G" in an obvious attempt to compete directly with 5G offerings, despite the respective G's standing for gigabit versus generation.[19]

The increasingly blurred lines between wired and wireless providers is important for DOJ to consider. While the proposed T-Mobile/Sprint merger exceeds the horizontal merger guidelines criteria for approval within the defined market of wireless, the true definition of the market should already be evaluated as all ISPs. In this light, it is clear there is no reason to obstruct the proposed merger as more and more existing firms in previously disparate industries begin to compete with extant wireless providers.

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[16] 2019 Annual Survey Highlights, CTIA. https://api.ctia.org/wp-content/uploads/2019/06/2019-Annual-Survey-Highlights-FINAL.pdf

[17] Ex-parte, jointly filed by T-MOBILE US, Inc. & SPRINT CORPORATION

[18] Savitz, Eric J., "Cable Companies Are Building New Bundles, but a 5G Threat Looms," Barron's, July 18, 2019. https://www.barrons.com/articles/cable-5g-wireless-51563407055

[19] Press Release: Introducing 10G: The Next Great Leap for Broadband, NCTA, January 7, 2019. https://www.ncta.com/media/media-room/introducing-10g

On behalf of CEI, I appreciate the opportunity to offer these comments in accordance with the Tunney Act in support of the proposed T-Mobile/Sprint merger and respectfully encourage DOJ to accept the proposed settlement.

Sincerely,

Patrick Hedger
Research Fellow
Center for Technology and Innovation
Competitive Enterprise Institute
1310 L Street NW, 7th Floor
Washington, DC, 20005

EXHIBIT 12
TO RESPONSE

Economists' Tunney Act Comments on the DOJ's Proposed Remedy in the Sprint/T-Mobile Merger Proceeding

Nicholas Economides, Professor of Economics, NYU Stern School of Business

John Kwoka, Neal F. Finnegan Distinguished Professor of Economics, College of Social Sciences and Humanities, Northeastern University

Thomas Philippon, Max L. Heine Professor of Finance, NYU Stern School of Business

Robert Seamans, Associate Professor of Management and Organizations, NYU Stern School of Business

Hal Singer, Managing Director at Econ One, Adjunct Professor at Georgetown McDonough School of Business

Marshall Steinbaum, Assistant Professor, Economics Department, University of Utah

Lawrence J. White, Robert Kavesh Professor of Economics, NYU Stern School of Business

INTRODUCTION

1. As economists with significant experience in competition and regulatory matters, we are submitting formal comments on the remedies proposed by the Department of Justice (DOJ) to address the competitive effects flowing from the proposed merger of Sprint and T-Mobile, as recognized by the DOJ's Complaint.[1] We are not being compensated for these comments. We accept the Complaint as written as a description of the significant anticompetitive effects inherent in this merger. We understand that the Tunney Act hearing is designed to assess whether the settlement agreement described by the DOJ's Proposed Final Judgment constitutes a "reasonably adequate"[2] remedy for addressing the competitive harms raised in the DOJ's Complaint. The Tunney Act requires that a court make an independent determination that the remedy the DOJ settled for is in the "public interest."[3] Indeed, Assistant Attorney General Makan Delrahim[4] and

1. Department of Justice Complaint, U.S. et al v. Deutsche Telekom AG, T-Mobile Us, Inc., Softbank Group Corp., and Sprint Corporation, No. 1:19-cv-02232, at 3 (D.D.C. Jul. 26, 2019) Case 1:19-cv-02232, July 26, 2019 [hereafter *Complaint*].

2. U.S. v. Iron Mountain, Inc., 217 F. Supp. 3d 146, 152–53 (D.D.C. 2016).

3. When the government seeks to settle a civil antitrust suit through a consent judgment, a court must independently "determine that ... entry of [the proposed] judgment is in the public interest" before granting the government's request. 15 U.S.C. § 16(e)(l).

4. Assistant Attorney General Makan Delrahim Delivers Keynote Address at American Bar Association's Antitrust Fall Forum, Washington, D.C., Nov. 16, 2017 ("I believe the Division should fairly review offers to settle but also be skeptical of those consisting of behavioral remedies or divestitures that only partially remedy the likely

Deputy Assistant Attorney General Barry Nigro[5] recently affirmed in public speeches that an acceptable remedy must restore competition on "day one."[6]

2. For the reasons explained herein, we believe that this condition is not satisfied—that is, the Proposed Final Judgment cannot and will not address the anticompetitive harms identified in the Complaint, or restore the *ex ante* competitive conditions in the affected antitrust product markets.[7] First, Dish will operate on a mobile virtual network operator ("MVNO") model that the DOJ and the Federal Communications Commission (FCC) have never deemed to be a meaningful competitive constraint on facilities-based providers. Second, Dish will be reliant on New T-Mobile for its network and operational support for years to come—the type of ongoing entanglements between the divestiture buyer and merged company that the DOJ and the FCC find problematic because the remedy creates ongoing competitive concerns. Third, even if Dish meets its commitments to build a 5G network covering 70 percent of the population—and we are highly skeptical that Dish will ever build out its network—it still would not replace Sprint, which currently reaches over 90 percent of Americans.

3. The proposed merger of Sprint and T-Mobile will have unambiguous anticompetitive effects, according to the DOJ's Complaint itself. The DOJ recognizes that existing competition among the four national wireless competitors has been essential in keeping "prices down" and "serv[ing] as a catalyst for innovation."[8] The DOJ emphasizes that "preserving this competition is critical to ensuring that consumers will continue to have reasonable and affordable access to an essential service."[9] Because this merger, in the DOJ's own words, "will eliminate Sprint as an independent competitor," the result is that, left to its own devices, the merged firm (the "New T-Mobile") would "compete less aggressively."[10] The DOJ concludes that "the result would be increased prices"[11] such that American consumers "would pay billions of dollars more

harm. We should settle federal antitrust violations only where we have a high degree of confidence that the remedy does not usurp regulatory functions for law enforcement, and fully protects American consumers and the competitive process."), *available at* https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-keynote-address-american-bar.

5. Deputy Assistant Attorney General Barry Nigro Delivers Remarks at the Annual Antitrust Law Leaders Forum in Miami, Florida, Feb. 2, 2018 ("We take seriously the choice of remedy, because consumers bear the risk of mistakes, and if we get it wrong, the consequences can be irreversible. Our client is the American consumer, and therefore it is our view, having been presented with an anticompetitive transaction, that the risk of a failed remedy must be borne by the parties, not the consumer. Any remedy must be complete and effective—or, as the Supreme Court put it, "[t]he relief in an antitrust case must be 'effective to redress the violations' and 'to restore competition.'" If we cannot reach a solution with the parties that will accomplish these goals, then we are left with no choice but to sue to block."), *available at* https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-barry-nigro-delivers-remarks-annual-antitrust-law.

6. *Id*. ("In other words, the goal of a divestiture is not to simply remove the offending combination; rather, it is to promote and protect competition by preserving the status quo competitive dynamic in the market from *day one*.)" (emphasis added).

7. The DOJ's Merger Remedies Guide states that a remedy must "effectively preserv[e] the competition that would have been lost through the merger." U.S. Dep't of Justice, Antitrust Division Policy Guide to Merger Remedies (June 2011), *available at* http://www.justice.gov/atr/public/guidelines/272350.pdf. The 2004 Merger Remedy Guidelines have similar statements regarding effective remedies. *See* Department of Justice, Antitrust Division Policy Guide to Merger Remedies, Oct. 2014, *available at* https://www.justice.gov/atr/page/file/1175136/download.

8. *Complaint*, ¶2.

9. *Id*.

10. *Id*. ¶5.

11. *Id*.

each year for mobile wireless service."[12] Yet, as we will explain, this is precisely what will result from the proposed settlement. Rather than suing to block the transaction (as a number of states have done), the DOJ has accepted a consent decree with Sprint/T-Mobile whereby Dish—a company with no history or presence in this industry—will for the foreseeable future try to compete as an MVNO reseller with no network, and in the less foreseeable future may acquire and develop assets sufficient to become a full-fledged wireless carrier. For that to happen, however, Dish will have to rely on T-Mobile's vague and non-credible promises to behave counter to its economic incentives.

4. Given the failings of the Proposed Final Judgment to address the harms enumerated in the DOJ Complaint, the proposed merger should be blocked; allowing the merger to move forward even with DOJ's proposed conditions would clearly reduce consumer welfare.[13] The DOJ settled for a remedy that does not meet the standard of restoring the competition currently provided by Sprint. Therefore, it does not satisfy the Tunney Act requirement that the remedy address the competitive harm alleged in the Complaint. We urge its rejection.

I. THE COMPETITIVE HARMS ENUMERATED IN THE DOJ'S COMPLAINT

5. We briefly review the harms enumerated in the DOJ's Complaint, and then characterize those harms from an economic perspective. We do this to underscore the DOJ's unambiguous acknowledgement that four wireless carriers are essential to competition in these markets. Moreover, while the DOJ itself describes this as a four-to-three merger overall, in fact it is significantly worse than that: The merger is effectively three-to-two in prepaid services, and roughly equivalent to two-to-one in the wholesale market.

A. The DOJ's Position on Competitive Harms

6. The DOJ's Complaint spells out harms in two markets: the wholesale market and the retail market. The Complaint also strongly implies that prepaid services—the locus of competition between Sprint and T-Mobile—constitutes a relevant antitrust market or, at a minimum, is a segment in which the harm is particularly acute.

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12. *Id*.

13. Moreover, to the extent that the DOJ's Complaint omitted certain important harms flowing from the merger, including harms to employees of the merging parties, it bears noting that the DOJ's Proposed Final Judgment fails to address those harms as well. *See* U.S. et al. v. CVS Health Corp. et al., Civil Case No. 18-2340 (RJL), Sept. 4, 2019, at 12 ("The Government's suggestion here—that by narrowly drafting a complaint it can effectively force the Court to shut its eyes to the real-world impact of a proposed judgment-thus—misconstrues *Microsoft*. 11 It also strikes-at the heart of the Tunney Act's very purpose. Congress passed the law to 'ensure[] that the economic power and political influence of antitrust violators do not unduly influence the government into entering into consent decrees that do not effectively remedy antitrust violations.' *Airline Tariff Pub. Co*., 836 F. Supp. at 11. The Government's position here could actually facilitate such undue influence so long as unduly influenced attorneys strategically draft complaints to shield their indifference to the public interest from judicial review. Neither the statute, nor *Microsoft*, supports such a reading.").

1. Harms in the Wholesale Market for MVNO Access

7. The merging parties offer wholesale wireless services to resellers or mobile virtual network operators (MNVOs). According to the DOJ's Complaint, the Sprint/T-Mobile merger would harm competition in the wholesale market for MVNO access:

> Competition between Sprint and T-Mobile to sell mobile wireless service wholesale to MVNOs has benefited consumers by furthering innovation, including the introduction of MVNOs with some facilities-based infrastructure. The merger's elimination of this competition likely would reduce future innovation.[14]

Wholesale services permit resellers to target customer segments that would otherwise be ignored or underserved by vertically integrated carriers. For example, an incumbent carrier cannot post two separate prices for the same service—a high price for price-insensitive customers, and a low price for price-sensitive customers. Resellers allow carriers to effectively offer the same service at different price points under a different brand. MVNOs are the mechanism by which cable companies compete in wireless; with the ability to bundle wireless offerings with other products like broadband and pay television, cable companies such as Comcast and Charter have competed aggressively on price (for example, selling wireless at a loss).[15] These innovative offerings, including prepaid plans, could be threatened if wholesale prices were to rise as a result of the merger.

8. The merging parties represent the two largest companies in the wholesale market, accounting for nearly 68 percent of U.S. wholesale connections. This is no accident: Relative to AT&T and Verizon, Sprint and T-Mobile are more willing to engage in wholesale activity because the risk of cannibalizing their retail offerings are less, given their relatively smaller retail market shares and relatively low margins per retail customer. Moreover, given their excess spectrum, Sprint and T-Mobile would have strong incentives to continue offering wholesale service in the absence of the merger. In the national wholesale market, the merger would increase HHI by a staggering 2,256 points by our estimation, representing roughly the equivalent of a two-to-one merger and triggering the presumption of enhanced market power.

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14. *Complaint*. ¶22.

15. In September 2019, Altice launched an extremely aggressive wireless offering—undercutting the major carriers on price—utilizing, in part, an innovative MVNO with Sprint that no other MNO was willing to offer. *See* Press Release, Altice Mobile, the New 'Unlimited Everything' Mobile Service is Here, Sept. 5, 2019, *available at* https://alticeusa.com/news/articles/press-release/products-services/altice-mobile-new-unlimited-everything-mobile-service-here. The DOJ settlement agreement may force New T-Mobile to honor this MVNO for the term of the Proposed Final Judgment (seven years), but the critical question is whether this type of MVNO would have been possible if Sprint was not competing independently. *See* Bevin Fletcher, *Altice Mobile launches its wireless service at $20/month*, FIERCE WIRELESS, Sept. 5, 2019, *available at* https://www.fiercewireless.com/operators/altice-mobile-launches-wireless-service-at-20-month ("Both Charter and Comcast operate as MVNOs running on Verizon's network, but Altice's infrastructure-based MVNO with Sprint is different in that Altice owns and operates its own mobile core.").

2. Harms in the Retail Mobile Wireless Services, Including Postpaid and Prepaid

9. The DOJ's Complaint defines a relevant product market as "retail mobile wireless services."[16] These include postpaid and prepaid services, and the Complaint concludes that "The proposed merger would substantially lessen competition and harm consumers in the relevant market."[17] The Complaint acknowledges that U.S. wireless consumers "have benefitted from the competition T-Mobile and Sprint have brought to the mobile wireless industry," including the introduction of unlimited data plans to retail customers in 2016.[18] Within this broader market, the DOJ recognized that an important dimension of competition between the merging parties has been in prepaid services, which has "exerted significant downward pressure on prices."[19] The Complaint notes that "competition between T-Mobile and Sprint also has led to improvements in the quality of devices and the plan features available to prepaid subscribers,"[20] including unlimited calling to Mexico. It concludes that "If the merger were allowed to proceed, this competition would be lost," resulting in what economists refer to as unilateral price effects.[21] Moreover, "the merger would leave the market vulnerable to increased coordination among these three competitors."[22]

10. Prepaid wireless subscriptions are aimed at price-sensitive (or budget-constrained) customers. This is consistent with the DOJ's and FTC's *Horizontal Merger Guidelines* which contemplate markets in which services are targeted to certain customers as "price discrimination" markets.[23] Given that wireless customers select into prepaid and postpaid on the basis of price-sensitivity, and given the merging partners focus on the prepaid segment—they collectively account for 53 percent of prepaid connections—it is natural to posit a prepaid market when studying this merger. Indeed, the DOJ defined a market in its Complaint in the (since abandoned) AT&T/T-Mobile merger, as "mobile wireless telecommunications services provided to enterprise and government customers," under the rationale that "[t]hese customers constitute a distinct set of customers for mobile wireless telecommunications services."[24] In the national retail prepaid market, the Sprint/T-Mobile merger would increase HHI by at least 808 points, from 2,880 to 3,688, by our estimation. This estimate conservatively treats Dish as if it were a full-blown facilities-based horizontal competitor, as opposed to a prepaid MVNO—despite FCC and industry precedent to the contrary.[25] The clear implication is that this merger triggers a presumption of enhanced market power.

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16. *Complaint* ¶14.
17. *Id*. ¶16.
18. *Id*. ¶17.
19. *Id*. ¶19.
20. *Id*. ¶20.
21. *Id*. ¶21. Unilateral effects arise when the customers of one merging party might have opted for the other if the former attempted to raise price. The effect of the merger is to recapture within the combined firm those otherwise lost customers—a clear incentive for the parties to merge.
22. *Id*.
23. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, at Section 4.1.4.
24. Department of Justice Complaint, U.S. et al v. AT&T, Inc. T-Mobile USA and Deutsche Telekom AG, Case: 1:11-cv-01560, Aug. 31, 2011, ¶13.
25. *See, e.g.,* Federal Communications Commission, 20th Wireless Competition Report, n. 99 ("Following widespread industry practices, the Commission generally attributes the subscribers of MVNOs to their host facilities-based service providers, including when it calculates market concentration metrics.").

B. There Is No Compelling Record Evidence of Marginal Cost Savings Attributable to the Merger

11. The DOJ's Complaint rejects the sufficiency of the merging parties' efficiency claims.[26] Having reviewed the record evidence presented by the merging parties in the FCC proceeding, we agree and conclude that there is no compelling evidence that the merger would reduce the *marginal costs* of New T-Mobile.[27] According to Dr. David Evans, an economist hired by the merging parties, the merger purportedly will increase capacity, which "will decrease the marginal cost of each gigabyte of data, New T-Mobile will be able to lower prices while increasing quality and value."[28] But Dr. Evans offers no proof that the merger would reduce the marginal costs of the carriers. Similarly, T-Mobile CEO John Legere claims the merger would reduce marginal cost by creating new capacity.[29] But again there is no explanation of how a purported increase in capacity reduces the merged firm's marginal cost of serving the next customer or the next neighborhood. Even if one were to credit T-Mobile's economists' claims of enhanced 5G deployment in otherwise unprofitable-to-deploy neighborhoods—prior to the merger proposal, Sprint and T-Mobile separately announced plans to deploy 5G services nationwide[30]—these largely rural households are distinct from those urban and suburban households that likely will incur a price increase on 4G services resulting from the merger. An economically significant and pervasive merger-related injury to one party should not be treated as being "offset" by a purported gain to a separate party.[31]

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26. *Complaint*, ¶24 ("Any efficiencies generated by this merger are unlikely to be sufficient to offset the likely anticompetitive effects on American consumers in the retail mobile wireless service market, particularly in the short term, unless additional relief is granted.").

27. Marginal or incremental costs are the costs associated with making the last unit of production. Because fixed costs do not inform a firm's (marginal) pricing analysis in the short run, changes in fixed costs are not given the same consideration in efficiencies analysis as are changes in marginal costs. *See, e.g.*, Department of Justice and Federal Trade Commission, 2010 Horizontal Merger Guidelines, Section 10 Efficiencies ("In a unilateral effects context, *incremental cost reductions* may reduce or reverse any increases in the merged firm's incentive to elevate price. Efficiencies also may lead to new or improved products, even if they do not immediately and directly affect price. In a coordinated effects context, *incremental cost reductions* may make coordination less likely or effective by enhancing the incentive of a maverick to lower price or by creating a new maverick firm.") (emphasis is added).

28. David Evans Declaration, ¶¶212-13.

29. John Legere Declaration, ¶12.

30. *See, e.g.*, R. Cheng, *Sprint: We're in a Unique Position to Deliver Broader 5G,* CNET, Feb. 2018; T-Mobile Newsroom, *T-Mobile Building Out 5G in 30 Cities This Year…and That's Just the Start*, Feb. 2018.

31. Given the DOJ's rejection of efficiency claims in its Complaint, it not necessary to rebut the merging parties' efficiency claim of more ubiquitous 5G. From a policy perspective, because there is no mechanism to compensate harmed parties by purported gains to newly served rural subscribers, the court should be skeptical of supposed offsetting merger-related efficiencies or offsets. The DOJ's own position on efficiencies is consistent with our position. *See* DOJ Joint Statement on the Burden of Proof at Trial, U.S. v. AT&T Inc., DIRECTV Group Holdings, LLC, and Time Warner Inc., *available at* https://www.justice gov/atr/case-document/file/1043756/download ("No court has ever found efficiencies that justified the anticompetitive effects of a merger. As a result, the law is unsettled as to whether defendants can defeat a Section 7 case merely by showing the merger creates efficiencies, even if they 'outweigh' the anticompetitive effects proven by the plaintiff. There is absolutely no support for, or merit to, the contention that it is the anticompetitive effects that must 'substantially outweigh' the pro-competitive efficiencies, rather than the other way around. Rather, 'doubts are to be resolved against the transaction.'" (citations omitted)). This position is also consistent with the Supreme Court's decision in *Philadelphia National Bank*, which rejected an efficiency argument that the district court had accepted—that the merger would stimulate economic development in Philadelphia. 374 U.S. at 371 ("We are clear, however, that a merger the effect of which 'may be substantially to lessen competition' is not saved because, on some ultimate reckoning of social or economic debits and credits, it may

II. THE NATURE OF THE PROPOSED FINAL JUDGMENT

12. The Proposed Final Judgment establishes a number of affirmative obligations on the parties, obligations that lock the parties into a long-term relationship with Dish. Despite this fact, the AAG for Antitrust has described this settlement as "structural" in nature, undoubtedly because structural remedies are more likely to be successful in remedying a merger's harm. But as we will establish, this remedy strays far from the classic model of divestiture, which involves identifying an overlapping operation or product of two merging companies, requiring divestiture of one of them, and then—if done well—counting on competition to produce roughly the same market outcome as before. In the classic model case, no further oversight, monitoring, or intervention is necessary.

13. In reality the structural elements of this settlement are modest, problematic in several respects, and dwarfed by behavioral provisions, as we shall now explain.

A. Behavioral and Structural Aspects of the DOJ's Proposed Remedy

1. Behavioral Aspects

14. The DOJ's proposed remedy contains several critical behavioral components. It imposes on the merging parties an obligation to permit Dish to operate as a reseller on New T-Mobile's wireless network for the entire seven-year term of the settlement.[32] In setting out various provisions seeking to make this arrangement work, it discloses by implication the enormous difficulties that arise in having one company assist its direct competitor. The settlement details a host of obligations that T-Mobile must observe in carrying out the resale agreement, including traffic non-discrimination, device non-discrimination, and obligations to provide operational support and support handover mobility.[33] The settlement requires T-Mobile and Sprint to provide certain "transition services" to Dish for a period up to three years, including billing, customer care, SIM card procurement, device positioning, and "all other services [previously] used by the Prepaid Assets."[34] The New T-Mobile is also required to extend existing MVNO agreements to resellers.[35] In the wholesale market, until Dish builds its own network, the number of network operators is indisputably reduced from four to three. In this market the settlement has only a behavioral remedy in which competition is supposedly preserved by the parties extending existing MVNO agreements. But as previously described, an MVNO agreement is widely acknowledged to result in less than a full competitor because its provisions, like behavioral remedies, require the merged company to act against its own interests.

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be deemed beneficial. A value choice of such magnitude is beyond the ordinary limits of judicial competence, and in any event has been made for us already, by Congress when it enacted the amended § 7. Congress determined to preserve our traditionally competitive economy. It therefore proscribed anticompetitive mergers, the benign and the malignant alike, fully aware, we must assume, that some price might have to be paid.").

32. Proposed Final Judgment at Section VI.A.

33. *Id*. at VI.B.

34. *Id*. at IV.A.4.

35. *Id*. at VII.A.

15. Moreover, Dish is required to "offer retail mobile wireless services, including offering nationwide postpaid retail mobile wireless service,"[36] reflecting the concern that Dish may ultimately have little incentive to expand beyond prepaid service. Dish also must "comply with the June 14, 2023, network build commitments made to the FCC."[37] The settlement stipulates that Dish must provide wireless service using cell sites and retail stores as they are "decommissioned" and determined to be redundant by the merged firm. If Dish's own network does not serve 70 percent of the country by 2023, it will face penalties up to $2.2 billion. To the DOJ, these detailed operational instructions may have seemed necessary for the remedy to be effective, but just as surely, they will prove insufficient for all the reasons that behavioral remedies—especially when critical and long-term—have proven unlikely to succeed.

2. Structural Aspects

16. The DOJ's Proposed Final Judgment is claimed to be structural in nature, whereas any arguable structural features are extremely limited. The sole certain divestiture consists of Sprint's prepaid business, but that business consists of subscribers, which are to be divested to Dish, and an opportunity to contract with Sprint's current employees in that business. These are not hard and sunk assets whose transfer clearly confers on the recipient a going viable production process. It is essentially a handoff of a business operation which could evaporate overnight if either customers or employees decide not to switch to the new and untested Dish brand and management.

17. Dish also has the option to purchase Sprint's 800-megahertz spectrum licenses, as well as decommissioned cell sites and retail locations. In terms of acquired personnel, the settlement "includes a complicated process by which Sprint will identify all employees of its existing prepaid operations so that Dish can vet, interview, and negotiate with those employees for continued employment with Dish's follow-on service."[38] The option to purchase spectrum is intended to expand Dish's own 800 MHz spectrum holdings and thereby permit it to build out an entirely new 5G network. The settlement penalizes Dish for failing to acquire Sprint's spectrum, unless it demonstrates that it can provide such service strictly with its own, currently unused 800 MHz spectrum.

B. It Is Inappropriate to Characterize the DOJ's Proposed Remedy as Structural

18. The above-cited provisions make clear that the proposed settlement has all the crucial elements of a conduct or behavioral remedy. It involves the parties in an on-going relationship over critical aspects of the business. It depends on the DOJ's ability to oversee and judge those relationships for a period of seven or more years. The extreme dependency of Dish on the good graces of New T-Mobile creates abundant opportunities for the merged firm to engage in strategic pricing, slowdown of provision, alteration of terms or quality of the assets and services, and so forth. This proposed settlement, in short, has all the hallmarks of a detailed, regulatory, and interventionist remedy of the sort previously and properly criticized by the same AAG now inexplicably offering up this proposal to an anticompetitive merger.

36. *Id*. at Section IV.F.
37. *Id*. at Section VII.A.
38. This section draws heavily from John Kwoka, Masquerading as Merger Control: The U.S. Department of Justice Settlement with Sprint and T-Mobile, AAI Working Paper 2019.

III. THE MERGER-RELATED HARMS WILL NOT BE ADEQUATELY ADDRESSED BY THE PROPOSED FINAL JUDGMENT

19. For the reasons offered below, we are highly skeptical that Dish will ever deploy its own facilities-based network. What is clear, however, is that the merger reduces the number of facilities-based carriers from four to three, and the loss to postpaid customers is immediate, obvious, and long-term. Any price-disciplining effect that Sprint previously imposed on T-Mobile's postpaid offerings (and vice versa) is forever lost. And wholesale competition is forever diminished. The only harm potentially attenuated via the settlement is the harm to prepaid customers, and even that is partial and uncertain; because Dish will operate as an MVNO, where its business partner is a rival, the remedy will not fully offset the loss of a facilities-based provider of prepaid services. Even in the unlikely scenario where Dish elects to build out, given the significant time required, competition will be weakened in the intervening years. Because prepaid customers, by definition, do not have long-term contracts (they pay month-to-month), they are particularly susceptible to seeing any benefits from competition disappear to the extent *other* prepaid providers—primarily offering service via MVNOs—experience the effects of lost competition in wholesale.

A. If Dish Does Not Build Out a National Facilities-Based Network, Wireless Competition Will Be Forever Weakened

20. The supposed rationale for approving the merger subject to this settlement appears to be Dish's actually building out its own national facilities-based network. We urge a careful assessment of the prospects for this happening. In predicting what a firm might do in the future when subject to a remedy, one good source of such information is the firm's past behavior in analogous settings. Dish has repeatedly failed to meet prior FCC build-out requirements on its existing spectrum. This conduct goes back to as early as 2012 with the company's acquisitions of DBSD and TerreStar. Dish's existing 700 megahertz and AWS-4 spectrum licenses come with an FCC requirement to construct a wireless network by March 2020. Dish has missed a number of interim construction deadlines on that front. Indeed, in the FCC's review of the pending merger, in March 2019 a T-Mobile attorney wrote that "Dish has a track record of price increases for its services, speculative warehousing of spectrum and failing to meet FCC-imposed deadlines to construct the facilities required."[39] The filing goes on to note "Dish stands out for its efforts to game the regulatory system by proffering a modernized version of last century's two-way paging as a substitute for meeting its obligations to start building a real 5G network."[40]

21. Moreover, because of Dish's importance in securing the settlement, it likely extracted a favorable resale arrangement. Why would Dish invest and become a facilities-based provider if the margins from resale are large and guaranteed for seven years? If the DOJ wanted to wean Dish from the resale agreement, the term would have been shorter than seven years and the access terms would have deteriorated over time. The financial markets would likely penalize

39. Letter from Nancy Victory to Marlene Dortch, In Re Notification of Written *Ex Parte* Presentation Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Dkt. No. 18-197, Mar. 11, 2019, at note 3, *available at* https://bit.ly/2kVbOrI.

40. *Id*.

Dish for making any infrastructure investments. Any Dish investment in towers and other facilities likely would not add value to the most likely buyers of the spectrum—namely, New T-Mobile, AT&T or Verizon. A similar episode occurred in Germany. There, a reseller named Drillisch served the role of "fixing" a four-to-three merger of E-Plus and Telefonica, by taking on a retail obligation.[41] Drillisch saw its stock hammered when it started to invest in spectrum to build out its own network.[42]

22. The risk to Dish if it fails to build a national facilities-based network is a modest $2.2 billion financial penalty, which is small compared to Dish's estimated $10 billion in build-out costs.[43] The penalty is also small relative to what some think its spectrum holdings could fetch if sold outright. It bears noting that the $2.2 billion fine is the maximum, which implies that it could be lower, as Dish could challenge the fine in court as, for example, inappropriate due to unforeseen obstacles to the build-out. Because the license forfeitures would have occurred with respect to Dish's original buildout requirements, they are not incremental to Dish's marginal calculus now. If Dish has the "natural" incentive to build out anyway, it is not clear why financial penalties are even necessary. If Dish reaches only 50 percent of nationwide population by June 2023, it will have to make a voluntary, tax-deductible contribution of $580 million. In that case, Dish gets a two-year extension until June 2025 to hit the buildout criteria for license renewal, which are 70 percent population coverage in each license area for AWS-4, H block, and the Lower 700 MHz E Block, and 75 percent of population for 600 MHz.[44]

23. With respect to resellers, given that Sprint was a well-documented innovator in the wholesale market, T-Mobile's extending existing MVNO agreements will not fully restore competition in wholesale. Sprint's MVNO with Altice USA was the first and only MVNO agreement with so-called "core control" provisions, giving Altice control over various features such as subscriber identity module (SIM), roaming and network partners, customer care, and billing.[45] It is true that New T-Mobile would be constrained from raising wholesale rates to existing MVNO partners. But absent the merger, wholesale competition between Sprint and T-Mobile

41. *See, e.g.*, Michael Filtz, *Telefonica Deutschland closes €8.6bn acquisition of E-Plus*, ZDNET, Oct. 2, 2014, *available at* https://www.zdnet.com/article/telefonica-deutschland-closes-eur8-6bn-acquisition-of-e-plus/ ("For the deal to pass muster, the regulator found, Telefonica had to agree to initially sell off 20 percent of the combined network capacity to Drillisch, a mobile virtual network operator.").

42. *See Market unimpressed as billionaire throws hat into Germany's 5G ring*, DW.com, *available at* https://bit.ly/2kI5Kmv ("Investors were skeptical about the move. TecDax-listed Drillisch and United Internet shares fell after the announcement by 7.7 percent and 2.8 percent, respectively, on concerns they would give up their current profitable business as a virtual mobile network operator (MVNO) and have to borrow heavily to secure a license and build network infrastructure. Since the announcement of interest in the auction in last summer, Drillisch has lost 43 percent of its value.").

43. *See* Drew Fitzgerald, *A TV Maverick Is Going All-In on a New Wireless Bet*, WALL STREET JOURNAL, July 27, 2019, *available at* https://on.wsj.com/2ZjITws.

44. There are other reasons to suspect that Dish might not build out its network. For example, the handsets that would work on Dish's 5G network might not be readily available, and that delay would provide a fresh justification for Dish to delay its 5G infrastructure roll-out. Moreover, because Dish will be a wholesale customer of T-Mobile, Dish will be limited to T-Mobile's handsets that will have 5G for the particular Dish spectrum added to them. It is unclear whether handset OEMs will create and sell such handsets without enough demand from Dish customers. But with Dish being new in this market, its customers may be few, resulting in few if any handsets for T-Mobile and 5G Dish capabilities, resulting in even fewer Dish 5G customers.

45. Responses of Altice USA, Inc. to the Federal Communication Commission's October 4, 2018 Information and Document Request, Jan. 28, 2019, *available at* https://bit.ly/2m71dua.

might well have driven down the wholesale rates to MVNOs. Now that competition is eliminated. The existing MVNOs, who are only guaranteed to be held whole by the settlement, would be worse off relative to the but-for world with no merger. Moreover, holding the terms of existing agreements in place does not mean that New T-Mobile has to enter into new agreements with MVNOs, such as cable operators; it simply preserves existing prices for existing MVNO partners.

B. Even in the Unlikely Scenario Where Dish Elects to Build Out, Given the Time Required, Competition Will Be Weakened in the Intervening Years

24. Under this proposed settlement Dish has until June 2023 to construct a network covering 70 percent of the population. That leaves four years in which Dish does not operate its own network, and so the transaction is essentially a four-to-three merger. This is because of the widespread recognition that MVNOs do not actually constrain the postpaid pricing of incumbent operators; thus, postpaid competition will be diminished in the interim even if Dish ultimately deploys its own network. Dish will certainly not be able to constrain New T-Mobile's selling power in the wholesale market in the intervening years. Moreover, because the coverage requirement is denominated in terms of population, not geography, it is clear that certain parts of the country will lose out. Thus, it possible, for example, to cover 50 percent of the population by just targeting 15 percent of the most urban areas in the U.S. Even if Dish hits that 70 percent goal, the resulting network likely will not fully replace Sprint's ubiquitous nationwide network, leaving nearly 100 million Americans with one fewer facilities-based carrier.[46]

25. T-Mobile's CEO, John Legere, acknowledged on an investor call right after the settlement was announced that Dish would not affect New T-Mobile's profitability: "It's important to point out that the target synergies, profitability and long-term cash generation have not changed for T-Mobile."[47] If New T-Mobile really just helped provision a disruptive number four carrier, as Mr. Delrahim suggested, then the new carrier would rapidly take market share away from the incumbents: otherwise, it would not justify a $10 billion network investment. How would it *not* impact the profitability of a player (New T-Mobile) that is going to have roughly one third of the wireless market? Thus, it is very hard to square Mr. Legere's comments with what the DOJ's settlement promises. Expecting that Dish will bring "disruptive" competition is implausible. The parties would never willingly and knowingly create such a competitor. This statement would seem to reflect DOJ's anxiety about approving the merger that eliminates such a firm, and the claim should be firmly rejected.

C. The Impact of the Deficient Remedy Will Be Significant Consumer Injury

26. At the closing of this deal, and with this proposed settlement, there will in fact be only three facilities-based national wireless competitors, and the DOJ's own concerns about competition will be realized. Dish will acquire and seek to maintain a small prepaid business with roughly 8.7 million customers, or about 2.5 percent of all U.S. wireless subscribers and less than one fifth of Sprint's 54.3 million subscriber base. And Dish will operate on an MVNO model that

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46. *See, e.g.*, Jon Brodkin, *DOJ's plan to make Dish the fourth major carrier has a fatal flaw*, ARS TECHNICA, Aug. 27, 2019, *available at* https://bit.ly/2kqbzVs.

47. T-Mobile US, Inc. (TMUS) CEO John Legere on Q2 2019 Results - Earnings Call Transcript, Seeking Alpha, July 29, 2019, *available at* https://bit.ly/2m38U4o.

the DOJ and the Federal Communications Commission (FCC) have never deemed to be a meaningful competitive constraint on facilities-based providers.[48] Dish will be reliant on New T-Mobile for its network and operational support for years to come—the type of ongoing entanglements between the divestiture buyer and merged company that the DOJ and the FCC find problematic because the remedy creates ongoing competitive concerns. Indeed, the DOJ itself recognizes that going from four to three wireless providers will harm consumers through higher prices, lower quality and less choice.[49]

27. There will also be consumer harm in the long term. In 2023, in the unlikely event that Dish meets its commitments to build a 5G network covering 70 percent of the population, it still would not replace Sprint, which currently reaches over 90 percent of Americans. Accordingly, the DOJ settlement would leave over 60 million Americans (or 30 percent of the U.S. population), primarily in smaller communities and rural areas, still paying those higher prices and without any assurance of restored competition. But Dish is not likely to ever be able to replace Sprint even for that 70 percent of the population. Dish would be starting from scratch with significant debt, no network infrastructure or wireless experience, in a business that the DOJ itself characterizes as having "high barriers to entry."[50] It would be attempting what no company has ever done before—to build and operate a nationwide wireless network, at a cost of at least $10 billion, from scratch, and in a short number of years.[51] This significant undertaking exceeds what Dish has promised regulators before, but failed to deliver time and again. The DOJ's aspiration to create a new competitor in these circumstances is fraught with risk that will surely doom it to failure.[52]

CONCLUSIONS

28. For the foregoing reasons, we conclude that DOJ's proposed remedy does not address the competitive harms identified in the Complaint, and will not restore competition to its *ex ante* state. By eliminating Sprint as an independent competitor, the Sprint/T-Mobile merger, even in the presence of DOJ's proposed remedy, would inflict serious antitrust injury on consumers and competition. Some may disagree with that assessment and contend that there is some prospect of success. But that prospect, if it exists at all, is surely dim, and does not alter the conclusion that

48. *See* FCC 20th Wireless Competition Report, ¶33 n. 99, Sept. 17, 2017, *available at* https://www fcc.gov/document/fcc-releases-20th-wireless-competition-report-0 ("Following widespread industry practices, the Commission generally attributes the subscribers of MVNOs to their host facilities-based service providers, including when it calculates market concentration metrics.").

49. *Complaint* ¶30 ("… prices likely would be higher, quality of service likely would be lower, innovation likely would be lessened, and consumer choice likely would be more restricted than in the absence of the merger.").

50. *Id*. ¶23 ("Given the high barriers to entry in the retail mobile wireless service market, entry or expansion of other firms is unlikely to occur in a timely manner or on a scale sufficient to replace the competitive influence now exerted on the market by Sprint.").

51. *See* Drew Fitzgerald, *A TV Maverick Is Going All-In on a New Wireless Bet*, WALL STREET JOURNAL, July 27, 2019, *available at* https://on.wsj.com/2ZjITws. Dish has also pointed to a $10 billion investment figure for its 5G buildout. *See* Mike Dano, ***Ergen's 5G build-out ambitions for Dish could pass $10B***, FIERCE WIRELESS, May 23, 2018, *available at* https://bit.ly/2kJ6xUo.

52. Letter from T-Mobile to Donald Stockdale, Oct. 25, 2018 ("On its face, DISH's plan fails to meet its stated commitment to fulfill the Commission's vision of using the spectrum to deploy wireless broadband services. Significantly, the plan would use only a fraction of the available spectrum capacity. DISH's build out plan is nothing more than a scheme for the company to further warehouse valuable spectrum assets, and the Commission should not condone it."), *available at* https://bit.ly/2mdLOs7.

this remedy ought not be accepted. The reason is "error analysis." A Type I error is accepting the remedy when it fails to restore competition, and a Type II error is rejecting the remedy when it adequately restores competition. Our point is that rejection of the merger leaves all options open, both for the firm and the agency. But approval is irreversible, so if that is the wrong policy, there is no fixing it retrospectively. This case is far from a close call, but even close calls (or "ties") should go to stopping a merger.

29. This proposed settlement would permit a four-to-three merger based on a remedy that accepts competitive harms in the short and medium term even based on an exceedingly optimistic view of possible benefits in the longer term. This does not represent good policy. Rather, it suggests a determined effort to invent a basis for approval of a merger that is anticompetitive on its face. Indeed, if the substantial and acknowledged competitive problems with this four-to-three merger are remedied by this strategy of re-arranging some assets, negotiating some contracts, and then hoping for the best some years down the road, it is unclear what merger would *not* be salvageable with the same scheme.

EXHIBIT 13
TO RESPONSE

Enterprise Wireless Alliance

2121 Cooperative Way, Suite 225
Herndon, VA 20171

17750 Creamery Road, Suite B10
Emmitsburg, MD 21727

800.482.8282
Info@EnterpriseWireless.org
www.EnterpriseWireless.org

October 1, 2019

VIA EMAIL AND USPS

Mr. Scott Scheele
Chief, Telecommunications & Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street, NW, Suite 7000
Washington, DC 20530
scott.scheele@usdoj.gov
antitrust.atr@usdoj.gov

Re: Comments
Case No. 1:19-cv-02232-TJK

Dear Mr. Scheele:

The Enterprise Wireless Alliance ("EWA" or "Alliance") submits the following comments for consideration by the Department of Justice ("DOJ") regarding the proposed merger of T-Mobile US, Inc. and Sprint Corporation (collectively, the "Parties"). The Alliance is a national trade organization representing the communications interests of a broad range of private business enterprise, commercial entities and regional land mobile network operators. Its members operate self-provisioned wireless facilities that promote business enterprise competition, productivity and employee safety. The Alliance's membership also benefits from accessing robust nationwide or regional wireless networks for a variety of business critical applications.

Pursuant to the recently announced consent decree with the DOJ and the Parties agreement with DISH Network Corporation ("DISH") to divest Sprint's 800 MHz spectrum assets and related prepaid businesses, EWA supports the introduction of DISH as a potential fourth national wireless carrier by these actions and continues to support the proposed merger.

As referenced in EWA's supporting comments filed with the Federal Communications Commission, approval of the transaction would promote competition in the nationwide commercial wireless marketplace and accelerate the deployment of a 5G network covering much of the population of the country including substantial expansions in coverage to rural areas, which is essential for the U.S. to remain a leader in the development of wireless technologies and capabilities.

EWA supports the merger of T-Mobile US, Inc. and Sprint Corporation and encourages DOJ's approval.

Sincerely,

[redacted]

Mark E. Crosby
President/CEO

[redacted]

Robin J. Cohen
Vice President, Regulatory Affairs

EXHIBIT 14
TO RESPONSE

CHAMBER
30 W Pershing Road, Suite 301 | Kansas City, MO 64108-2423 | 816-221-2424 | kcchamber.com

JOE REARDON
President and
Chief Executive Officer

October 8, 2019

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530

Dear Mr. Scheele:

I am writing as President and CEO of the Greater Kansas City Chamber of Commerce to express the KC Chamber's support for the merger of Sprint and T-Mobile. Our organizational focus spans regional business and economic interests in two states: Kansas and Missouri.

The merger of T-Mobile and Sprint is of great interest to the KC Chamber. Sprint not only is a local employer with deep roots in our community, but also a major force in the regional economy of both Kansas and Missouri. After examining Sprint's existing business and its plans for investment and expansion following the merger with T-Mobile, we have concluded that the combined company—the new T-Mobile—will continue Sprint's strong record of developing the local workforce and contributing to our region's economy. The new T-Mobile will have the resources and complementary spectrum assets to deploy a 5G network that is both broad and deep. Expanding 5G to both urban and rural areas improves economic competitiveness in Kansas City, as it will bolster businesses not only in our immediate area but the surrounding region in both states.

High-speed wireless has proven to be an economic engine in the US. Many of the companies we interact with on a daily basis were made possible by the expansion of 4G. The rollout of 5G shows even greater promise—and not just for tech businesses; it has the potential to impact everything from education to manufacturing to biosciences—all of which are active, vital industries in the Kansas City region.

I urge the Department of Justice to favorably consider the merger's potential to dramatically improve economic competitiveness for business. This is true not just in the Kansas City region, but to the nation as a whole.

Respectfully,

[redacted]

Joe Reardon
President and CEO

EXHIBIT 15
TO RESPONSE

July 18, 2019

Antitrust Division
950 Pennsylvania Avenue, NW
Washington, DC 20530

Re: T-mobile Sprint Merger

Dear Sir or Madam:

NO! NO! NO! NO! NO!

[redacted]

You don't need me to tell you the reasons why.

Thank You.

Edward S. Hasten
[redacted]

[redacted]

EXHIBIT 16
TO RESPONSE

September 27, 2019

VIA First Class Mail

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, Department of Justice
450 Fifth Street NW, Suite 7000
Washington, DC 20530

Re: Comments of the International Center for Law & Economics, United States et al. v. Deutsche Telekom AG et al.; Proposed Final Judgment and Competitive Impact Statement, 84 Fed. Reg. 39862 (Aug. 12, 2019)

Dear Mr. Scheele:

We are filing this Tunney Act comment regarding the Proposed Final Judgment in the above captioned case under review in the United States District Court for the District of Columbia.

The central question of a merger review is the likely effect that the transaction will have on consumers. The DOJ's complaint in this case is built upon the allegation that the proposed transaction represents a reduction from four to three national facilities-based mobile network operators (a so-called "4-to-3 merger"), and that such a transaction would reduce competition and result in "higher prices, reduced innovation, reduced quality and fewer choices" in the marketplace.[1] This is an empirical question that has been studied by numerous scholars in recent years.

The upshot of the empirical literature is that, in fact, such mergers appear to *increase*, not decrease, innovation. Moreover, the research is, at best, inconclusive with respect to the price effects of such mergers. Based on these findings, we believe that the DOJ

[1] Competitive Impact Statement, United States of America, et al., Plaintiffs, v. Deutsche Telekom AG, et al., Defendants, Civil Action, United States District Court for the District of Columbia, No. 1:19-cv-02232-TJK, at 7 (Jul. 30, 2019), *available at* https://www.justice.gov/opa/press-release/file/1189336/download.

was correct to approve the transaction, and that this is so regardless of the expected competitive effects of the Final Judgment's Divestiture Package, which is likely unnecessary to ensure that the market remains competitive.

In a recent ICLE report,[2] attached to this comment, we assess the state of the existing empirical literature evaluating the effects of changes in market concentration (such as by merger) in the wireless telecommunications industry, and lay out the implications for subsequent mobile industry mergers that can plausibly be drawn from the literature. Although the existing empirical evidence is not conclusive with respect to the likely effects of any particular transaction,[3] it does offer sufficient data to challenge any claims that the proposed T-Mobile/Sprint transaction will reduce innovation and to call into question any assumptions that it will increase prices.

The report reviews 18 empirical analyses published in the last five years that study the effects of changes in market concentration in the wireless telecommunications industry. As we note in the report:

> [B]ecause analyses of past mergers are being used to support or critique a particular transaction (the proposed T-Mobile/Sprint merger), the purpose of this study is to assess and identify the utility of these past analyses in prospectively evaluating any particular transaction.[4]

Although, as noted, we question the utility of basing the evaluation of any particular transaction on the results of previous studies, a few general conclusions can be drawn from these previous studies. Most important among these:

1. "Of those analyses that looked at specific mergers, about half found that prices decreased following a merger whereas half found that prices increased. But there was no common measure of price effects across these studies…."[5]

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[2] Eric Fruits, Justin (Gus) Hurwitz, Geoffrey A. Manne, Julian Morris, & Alec Stapp, *A Review of the Empirical Evidence on the Effects of Market Concentration and Mergers in the Wireless Telecommunications Industry*, ICLE Antitrust & Consumer Protection Research Program White Paper (Sep. 17, 2019), *available at* https://laweconcenter.org/wp-content/uploads/2019/09/ICLE-Telco_Merger_Lit_Review_Jud_Rpt_FINAL.pdf. Online appendices available at https://laweconcenter.org/wp-content/uploads/2019/09/ICLE-Telco_Merger_Lit_Review_ApendixFINAL.pdf.

[3] *See id.* at 23-24.

[4] *Id.* at 8.

[5] *Id.* at 11.

2. "Only about half of the studies considered investment effects. **Of those that found a statistically significant relationship, all found that network investment increased with a 4-to-3 merger.**"[6]

As we discuss in the report, on the basis of the studies reviewed, previous 4-to-3 mobile industry mergers appear to generate net benefits to consumer welfare in the form of increased investment, especially when the result is a more symmetrical market (with three players of more equal size)—as would be the case with the proposed T-Mobile/Spring merger. Meanwhile, based on the literature, it is simply incorrect to conclude that other countries that have allowed consolidation from four to three mobile wireless network operators have experienced price increases. In short, although the implications are necessarily uncertain for the proposed T-Mobile/Sprint transaction, nothing in the prior literature supports claims that the proposed transaction would harm consumer welfare on balance through increased coordination, reduced competition, or reduced incentive to innovate.

Of note—and because it is frequently cited and relied upon by critics of the proposed transaction—the ICLE report also analyzes and finds woefully wanting the methodology and proffered conclusions of the "Rewheel study," which purports to show that consumers in markets with three facilities-based providers paid twice as much per gigabyte as consumers in four-firm markets.[7] As we conclude, the Rewheel study

> focuses on an artificially constructed measure that does not represent real-world characteristics of competition; that measure focuses only on price effects to the exclusion of other effects, and even then it considers only two (non-realistic) consumption baskets to the exclusion of the fuller range of services consumers actually have available.[8]

It is wholly unreliable as a guide to the likely competitive effects of this or any other mobile industry merger.

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[6] *Id.* at 12 (emphasis in original).

[7] *The state of 4G pricing–2H2018*, Rewheel/research (Oct. 26, 2018), *available at* http://research.rewheel.fi/downloads/The_state_of_4G_pricing_DFMonitor_10th_release_2H2018_PUBLIC.pdf.

[8] Fruits, et al., *A Review of the Empirical Evidence on the Effects of Market Concentration and Mergers in the Wireless Telecommunications Industry*, *supra* note 2, at 29. *See generally id. at* Part IV.

The studies we reviewed show once again that it is important to avoid confusing "competitors" with competition: the former is simply a number, while the latter is a dynamic process that depends on many factors. Thus the State AGs challenging the proposed deal are simply incorrect when they assert in their complaint that:

> According to the USDOJ and Federal Trade Commission 2010 Horizontal Merger Guidelines (the "Horizontal Merger Guidelines"), the Merger is presumptively anticompetitive because the HHI in the national market will increase by more than 200 points and result in an HHI above 2,500.[9]

To the contrary, a proper analysis suggests that the merger will likely be pro-competitive, regardless of—indeed, in part *because of*—its effect on market concentration. In this case, higher concentration will very likely *increase* competition between the subsequently more-equal-sized national players, and will thus both incentivize and enable increased investment in innovation and deployment of new technologies, including 5G wireless infrastructure.

In sum, there is no sound economic evidence from which to conclude that the proposed T-Mobile/Sprint transaction should be blocked on the grounds that it will lead to less competition and higher prices to consumers. On the contrary, the proposed merger would likely allow for higher levels of investment, especially in 5G technology, from which consumers would directly benefit.

Respectfully Submitted,

Eric Fruits, Chief Economist
Justin (Gus) Hurwitz, Director of Law & Economics Programs
Geoffrey A. Manne, President
Julian Morris, Executive Director
Alec Stapp, Research Fellow

International Center for Law & Economics

[9] Redacted Third Amended Complaint, State of New York et al v. Deutsche Telekom et al, U.S. District Court of Southern New York, Case No. 1:19-cv-5434-VM-RWL, at 17.

ICLE International Center for Law & Economics

A Review of the Empirical Evidence on the Effects of Market Concentration and Mergers in the Wireless Telecommunications Industry

Eric Fruits,[1] Justin (Gus) Hurwitz,[2] Geoffrey A. Manne,[3] Julian Morris,[4] and Alec Stapp[5]

ICLE Antitrust & Consumer Protection Research Program

White Paper 2019-09-17

The International Center for Law & Economics (ICLE) is a nonprofit, nonpartisan research center whose work promotes the use of law and economics methodologies to inform public policy debates. We believe that intellectually rigorous, data-driven analysis will lead to efficient policy solutions that promote consumer welfare and global economic growth.[6]

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[1] Chief Economist, ICLE, and adjunct professor of economics at Portland State University.

[2] Director of Law & Economics Programs, ICLE, and assistant professor of law and co-director of the Space, Cyber, and Telecom Law program at the University of Nebraska College of Law.

[3] Founder and President, ICLE, and distinguished fellow at Northwestern Law School's Searle Center on Law, Regulation, & Economic Growth.

[4] Executive Director, ICLE, and Senior Fellow, Reason Foundation.

[5] Research Fellow, ICLE.

[6] ICLE has received financial support from telecom firms with diverse and often-divergent interests. We have also received financial support from non-telecom companies with similarly divergent interests. All ICLE financial support is general support, and no company's donation represents more than 10% of our budget. This work reflects the views of its authors and does not necessarily reflect the views of any of ICLE's donors, scholarly affiliates, or academic advisors.

Executive Summary

This report reviews 18 empirical analyses published in the last five years that study the effects of changes in market concentration (such as by merger) in the wireless telecommunications industry. Of those 18 studies, eight analyzed changes in market concentration across multiple jurisdictions between 2000 and 2015, while ten analyzed specific mergers. We also reviewed a recent study that considered the effects of market concentration in spectrum ownership in the U.S. on measures of quality.

Of the ten studies that looked at specific mergers, about half found that prices decreased following a merger whereas half found that prices increased. Even different studies of the *same* merger found wildly different effects on prices, ranging from significant price decreases to significant price increases. As regards the effect of mergers, including so-called 4-to-3 mergers, on price, the results might best be characterized as conclusively inconclusive.

We identified a number of reasons for these apparently divergent results, including:

- a lack of common measures of prices and price effects across studies;
- differences in the time period chosen; and
- difficulties accounting for variations in geography, demography and regulatory regimes between jurisdictions (the latter also creates a potential for endogeneity bias).

Of those studies that considered the effect on investment in 4-to-3 mergers, all found that capital expenditures, a proxy for investment, increased post-merger.

Several recent studies that looked more broadly at the effects of market concentration in the mobile telecommunications industry indicate that the highest levels of country-wide investment occurred in markets with three facilities-based operators (though total investment was not significantly lower in markets with four facilities-based operators). In addition, a recent analysis found that U.S. markets with higher concentration of ownership of spectrum had faster, more reliable cellular service.

Studies of investment also found that markets with three facilities-based operators had significantly higher levels of investment by individual firms. The implication is that in such markets, individual firms have stronger incentives to invest in the infrastructure that supports the range, quality, and quantity of services provided to

consumers. Studies also suggest this effect may be strengthened when the merger results in a market structure that is more symmetrical (i.e. the various facilities-based providers become more equal in market share).

From an investment perspective, the optimal number of wireless firms in a given market appears, in some studies, to be three; however, in some jurisdictions (such as those that are more densely populated), the optimal number may well be four, while in others (such as those with small populations that are widely dispersed) the optimal number may well be two. Regardless, there is little or no support for categorically claiming that the optimal number of firms in larger jurisdictions, or indeed in any jurisdiction, is four.

When evaluating the merits of a merger, authorities are charged with identifying the effects on the welfare of consumers. On the basis of the studies that we review, 4-to-3 mergers appear to generate net benefits to consumer welfare in the form of increased investment, while the effects on price are inconclusive.

Introduction

This study is prompted by the ongoing federal consideration of, and broader policy discussion about, the proposed merger of T-Mobile and Sprint.[7] As with previous mobile provider mergers, this merger has occasioned the frequent assertion that further concentration in the wireless telecommunications industry will be harmful to consumers,[8] and, in particular, that "it's going to be hard for someone to make a persuasive case that reducing four firms to three is actually going to improve competition for the benefit of American consumers."[9]

A central question in the review of this merger—as it is in all merger reviews—is the likely effects that the transaction will have on consumers. Some observers have characterized this merger—between the third and fourth largest mobile wireless providers in the United States—as a "4-to-3" merger, as it will reduce the number of large, ostensibly national carriers from four to three (though some have persuasively argued that such a characterization may not be accurate). A number of previous mergers around the world can or have also been characterized as 4-to-3 mergers in the wireless telecommunications industry.

A significant number of economic studies have evaluated the welfare effects of these and similar mergers in other countries, as well as the effects of market concentration in the wireless industry more generally. These studies have been used by both proponents and opponents of the proposed merger of T-Mobile and Sprint to support their respective contentions that the merger will benefit or harm consumer welfare.

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

[8] *See, e.g.*, Petition to Deny of Free Press at 2, Applications of T-Mobile US, Inc. and Sprint Corporation For Consent to Transfer Control of Licenses and Authorizations (2018), WT Docket No. 18-197. ("[Applicants] have not shown that the deal would not lessen competition, far less that it could enhance competition. In fact, the merger would massively increase concentration in the U.S. wireless market and in critical market segments too.").

[9] *See, e.g.*, Sen. Amy Klobuchar, et al., Letter to Assistant Attorney General Makan Delrahim and FCC Chairman Ajit Pai (May 7, 2018) (*quoting* former Assistant Attorney General Bill Baer), *available at* http://bit.ly/2Kr4cVB.

This literature review comprises a critical appraisal of these economic studies of previous wireless industry mergers in other countries. Its purpose is to better understand what the existing body of empirical literature, taken as a whole, tells us about the likely consumer welfare effects of 4-to-3 mergers between wireless firms and the proposed T-Mobile/Sprint merger.[10]

The review begins with a narrative discussion of our findings. Section I briefly describes the studies reviewed and considers some of the methodological challenges. Section II discusses the findings regarding price and quality effects in the studies. Section III considers the relevant factors that affect the outcomes of the studies and their applicability to the assessment of future mergers. Section IV highlights the importance of a careful review of the empirical literature by critically evaluating the Rewheel study,[11] a report of wireless pricing which has been cited by opponents of the proposed T-Mobile/Sprint merger. The Rewheel study is not included among the set of empirical studies in this review because, as we demonstrate, it is deeply methodologically flawed. Section V concludes. Throughout this review, we refer to our more detailed, quantitative analysis of the studies, published separately as an Appendix.[12]

I. The Studies Reviewed and Methodological Challenges

We have reviewed 18 empirical analyses, published in the last five years, studying the effects of changes in market concentration (such as by merger) in the wireless telecommunications industry. Of those 18, eight analyzed changes in market concentration across multiple jurisdictions between 2000 and 2015,[13] while ten ana-

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[10] Whether the merger of T-Mobile and Sprint is a true "4-to-3 merger" is beyond the scope of this study. Indeed, there is reason to believe that the merger is better characterized as a "2-to-3" merger by creating a symmetrical market structure of nationwide carriers.

[11] *The state of 4G pricing – 2H2018*, Rewheel/research (Oct. 26, 2018) at 6, http://research.rewheel.fi/downloads/The_state_of_4G_pricing_DFMonitor_10th_release_2H2018_PUBLIC.pdf ("Rewheel study").

[12] The Appendix is here: https://laweconcenter.org/wp-content/uploads/2019/04/ICLE-Telco_Merger_Lit_Review_ApendixFINAL.pdf

[13] Affeldt & Nitsche (2014); Csorba & Pápai (2015); Frontier (2015); Houngbonon & Jeanjean (2014); Jeanjean & Houngbonon (2015); Jeanjean & Houngbonon (2017); Ofcom (2016); WIK (2015).

lyzed specific mergers.[14] These 18 studies represent all the recent empirical studies of which we are aware that report estimated effects associated with the number of firms or changes in the number of firms, along with measures indicating whether the results are statistically significant (in contrast to, for example, the Rewheel study, which we discuss separately, IV, below). The specific mergers considered in these analyses are:

- T-Mobile/tele.ring (2006, Austria, 5-to-4),
- T-Mobile/Orange (2007, Netherlands, 4-to-3),
- T-Mobile/Orange (2010, UK, 5-to-4),
- Hutchinson/Orange (2012, Austria, 4-to-3),
- Hutchison/Telefonica (2014, Ireland, 4-to-3), and
- Telefonica/KPN (2014, Germany, 4-to-3).

In addition, we reviewed a recent study that considered the effects of market concentration in spectrum ownership in the U.S. on measures of quality.[15]

The complete results of our review are presented in the attached Appendix A;[16] a narrative summary of the results is presented below.

In general, our review raises significant questions about the utility of individual empirical studies, both in understanding the effects of past transactions and, especially, in predicting the likely effects of future transactions. The reviewed studies find divergent price effects possibly arising from similar-seeming mergers, and sometimes even from the *same* merger, ranging from significant price decreases to significant price increases. They also show a range of effects of mergers on quality of service and/or investment (although in all cases these effects are positive or neutral), both of which are, of course, essential to properly assessing a merger's consumer welfare effects.

Perhaps most important, our review demonstrates that any individual study is, in fact, *likely* to offer only a partial picture of the effects of a given merger, which may

[14] Aguzzoni, et al. (2015); Aguzzoni, et al. (2018); BEREC (2018); BWB (2016); Genakos, et al. (2018); GSMA (2017); Houngbonon (2015); HSBC (2015); Lear, et al. (2017); RTR (2016).

[15] Woroch (2019)

[16] https://laweconcenter.org/wp-content/uploads/2019/04/ICLE-Telco_Merger_Lit_Review_ApendixFINAL.pdf

be misleading. This is best seen in the empirical analyses of the 2012 Hutchison/Orange merger, a 4-to-3 merger in Austria. The Hutchison/Orange merger was specifically considered in seven of the analyses that we reviewed.[17] Of these, four found that the merger resulted in price *increases*, two found that it resulted in price *decreases*, and one did not study price effects at all. Collectively, the studies estimated the merger's price effects to range from between a 40 percent decrease and a 90 percent increase.[18] On the investment and/or quality front, three of the studies also found that the merger *increased* network investment and/or quality, while four analyses did not consider these effects.

Even taken collectively (and without reference to the objectivity of the individual studies), the studies of the Hutchison/Orange merger that we review present an incomplete picture of the likely effects of a given merger. In the advocacy context, for instance, one might expect such results to be portrayed by merger opponents as supporting the assertion that "4-to-3 mergers are twice as likely to cause price increases as decreases." While naively defensible (since four studies showed price increases, while only two showed decreases), such a statement does not fairly represent the actual effects either of the specific merger or 4-to-3 mergers in general. One reason is that only one of the studies spanned a long enough period-of-time to include the entry by mobile virtual network operators (MVNOs) that occurred in the studied market. As a result, it would be appropriate to characterize only this study as even *potentially* capturing long-run price effects.

By contrast, with respect to the effects on investment it would be rather more defensible to observe that "of those studies that found an effect on investment in 4-to-3 mergers, all found that investment increased post-merger."

In addition to the merger studies, we also reviewed two large-scale studies that investigated the relationship between market concentration and capital expenditures in the wireless telecommunications industry.[19] These studies—one of which looks at capital spending by firms in 199 countries between 2000 and 2014, and the other

[17] Aguzzoni, et al., (2015); Houngbonon (2015), HSBC (2015), RTR (2016), BWB (2016), and BEREC (2018); Genakos, et al. (2018). See Appendix Section 3.

[18] Appendix Section 3.

[19] Houngbonon and Jeanjean (2014) and HSBC (2015)

of which looks at capital spending by firms in 66 countries between 2003 and 2013—produce similar results, finding that firms' capital expenditures (a measure of investment in networks and a proxy for network quality) are maximized around a Lerner index of 37 to 38 percent (a rough proxy for market power). Based upon these findings, it appears that network investment is generally maximized in a market with three providers. Indeed, HSBC (2015) recommends the European approval of 4-to-3 mergers as a way to facilitate higher network investment with better outcomes for users.

We also reviewed two studies that looked at the relationship between market concentration and investment in a range of countries over 10-year periods. The first considered 38 countries between 2004 and 2013. The authors found that, broadly, investment followed an inverted-U curve, with the highest levels of investment occurring in markets with three operators, though markets with four operators had only slightly lower levels of total investment and the difference was not statistically significant. But, importantly, the study found that at the firm level investment was considerably lower in markets with four than in markets with three operators. Given the importance of firm level investment for improving quality and lowering prices over time, the authors conclude that "the unit price paid by consumer is larger with four firms than with three if the dynamic efficiency effect is significant."[20]

The second study considered 17 Western European markets between 2006 and 2015. It found that where the market is fully covered (i.e. where all consumers who might realistically have access to mobile telephony already have service of some kind), an increase in the number of firms tends to reduce overall investment.[21] Moreover, it found that where markets are asymmetric (i.e. some firms are significantly larger than others), the effect of an increase in the number of firms tends to have a more significant negative effect on investment by smaller firms. Thus, a merger that both reduces the number of firms and makes the market structure more symmetric, as is likely to be the case with the T-Mobile/Sprint merger, could potentially have significantly positive effects on both firm level and industry investment.

[20] Jeanjean and Houngbonon (2015)

[21] Jeanjean and Houngbonon (2017)

Finally, we reviewed a recently-published study that considered the relationship between measures of quality and carrier-level holdings of spectrum as a share of total holdings in 697 Cellular Market Areas (CMA) in the United States.[22] This study found that quality and coverage measures are positively related to carrier-level holdings of spectrum as a share of total holdings in the CMA. In particular higher carrier-level holdings of spectrum are associated with statistically significant broader 4G coverage, as well as generally faster and more reliable networks (with mixed statistical significance). In addition, Woroch (2018) concludes carriers with faster and more reliable networks and with a broader deployment of 4G technology are associated with more subscribers.

The purpose of our review is not to make predictions about any particular transaction, nor is it to express support for or concern about policy decisions that may have been undertaken in reliance on the empirical analysis of any past transaction. Rather, because analyses of past mergers are being used to support or critique a particular transaction (the proposed T-Mobile/Sprint merger), the purpose of this study is to assess and identify the utility of these past analyses in prospectively evaluating any particular transaction.

The results of our review suggest that the use of these empirical analyses for predictive purposes, either alone or collectively, is a fraught and ultimately unreliable endeavor, especially regarding the effects on price. But this does not mean that the studies do not offer valuable insights helpful for the review of any given merger. The value, however, is not for the most part in the "headline results" that the studies report; rather, the value is in the factors that the studies identify—or that can be identified from the studies—as affecting the outcomes of past (and, thus, presumably, future) mergers. Especially when taken as-a-whole, our review reveals a number of factors that should be considered when seeking to understand the likely welfare effects of a given merger. These include:

- whether the effects to be evaluated are limited to price or also include qualitative measures such as capital expenditures and other investment in quality of service;

[22] Woroch (2019)

- the effects on different tiers of service measured by hypothetical consumption profiles or "baskets";
- the presence or entry of MVNOs;
- the effects of different geographic circumstances or regulatory regimes on a given firm (including divestitures or other commitments imposed as part of the merger review process);
- the extent to which the effects of previous mergers may confound projected effects of the merger at-hand; and
- whether a transaction occurs during, or even as part of, a transition between different generations of technology (e.g., during an upgrade from 3G to 4G networks).

A. The relevance of empirical studies of past mergers to merger enforcement

The question at the heart of the regulatory review of, and enforcement decision regarding, a merger is whether the transaction's potential benefits to consumers outweigh its potential costs. Our review thus focuses on the evidence presented in the studies of past mergers that reliably pertains to the identifiable benefits and/or costs those mergers yielded for consumers.

Crucially, this requires consideration of merger effects *other* than merely price effects. Merger welfare effects are multi-dimensional. Evaluation of a merger with reference to only a single outcome—e.g., "prices went up" or "investment went down"—are invariably insufficiently nuanced and misleading.

The most obvious merger effects are price effects: increases or decreases in prices charged to consumers for a given quantity and quality of service. The traditional concern of competition law is that reduced competition allows firms greater ability to increase their profits by raising prices charged to consumers. But prices do not exist in a vacuum, and many mergers are undertaken specifically on the expectation that the combined firm will be able to improve quality or lower costs in ways that *also* affect consumer welfare. Of course, the converse may be true, as well: again, facing less competition, one concern of competition law is that firms will increase their profits by reducing product or service quality (thereby reducing the costs of providing those products or services) to the detriment of consumers.

At the same time, it is important to understand what is meant by reduced or increased "competition." A transaction that reduces the number of competitors within a market need not necessarily reduce *competition*. Rather, a merger might result in the creation of a more effective competitor to other incumbents, thereby potentially increasing competition, even while reducing the number of *competitors*. And a smaller number of larger firms facing more intense competition may be far better for consumers than a larger number of smaller, less-effective firms. For example, in examining the Hutchison/Orange merger in Austria, BEREC (2018) points out that in addition to the merger itself, in another transaction Hutchison spun off the Orange sub-brand Yesss! to A1 Telekom Austria, creating a "more symmetrical market structure."

Precisely because competition is multi-dimensional, and because a transaction may increase consumer welfare along one dimension (by increasing R&D investment, for example) while simultaneously reducing it along another (by raising short-term prices, for example), assessments and predictions of merger effects that focus solely on price are unlikely to offer an accurate picture of the overall effects of a merger on competition and consumer welfare. As the commentary on one recent study notes:

> [A] merger can be justified if there are large efficiency gains from the merger (e.g., because investments in the broadband networks increase). Hence, it is important to assess empirically the existence of this potential trade-off between efficiency gains and increases in prices charged to consumers.[23]

Contrary to the laments of some advocates for more aggressive antitrust enforcement,[24] American antitrust law has long recognized the importance of both price-

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[23] Francesco Drago, Discussion of Christos Genakos, Tommaso Valletti & Frank Verboven, *Evaluating market consolidation in mobile communications*, 33 (93) ECON. POL'Y 86, 87 (2018).

[24] Kevin Caves and Hal Singer, *When the Econometrician Shrugged: Identifying and Plugging Gaps in the Consumer Welfare Standard*, GEORGE MASON L. R. (forthcoming), *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3205518; Marshall Steinbaum, *The Consumer Welfare Standard Is an Outdated Holdover from a Discredited Economic Theory*, ROOSEVELT INSTITUTE (Dec. 11, 2017) *available at* http://rooseveltinstitute.org/consumer-welfare-standard-outdated-holdover-discredited-economic-theory/.

and non-price effects in evaluating the competitive effects of conduct.[25] The importance of both types of effects is expressly recognized in the Horizontal Merger Guidelines,[26] and has been consistently affirmed by the courts.[27] Thus our review assesses the studies' results along both of these dimensions.

II. Top-line Results

A. Effects on Price and Quality

A detailed, critical review of the studies' findings on price and quality, including summary tables, are provided in Appendix A. Our key findings from this review are:

- Of those analyses that looked at specific mergers, about half found that prices decreased following a merger whereas half found that prices increased.
- But there was no common measure of price effects across these studies. Some, for instance, considered low, medium, and high hypothetical consumption

[25] *See* Makan Delrahim, *All Roads Lead to Rome: Enforcing the Consumer Welfare Standard in Digital Media Markets*, Remarks as Prepared for Delivery at The Jevons Colloquium (2018) (noting that the consumer welfare standard is flexible, and the Court has long recognized the importance of factors such as innovation, consumer choice, and quality), *available at* https://www.justice.gov/opa/speech/file/1065096/download; *See also* Joshua D. Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation*, FREE STATE FOUNDATION (Aug. 16, 2017) at 6 ("The rule of reason, and antitrust jurisprudence generally, has evolved to reach all forms of competitive harms–including innovation and quality.") *available at* http://www.freestatefoundation.org/images/Antitrust_Provides_a_More_Reasonable_Framework_for_Net_Neutrality_Regulation_081617.pdf.

[26] U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 6.4 (rev. 2010), *available at* https://www.justice.gov/atr/horizontal-merger-guidelines-08192010#6d.

[27] As recently noted by the Supreme Court, "[d]irect evidence of anticompetitive effects would be 'proof of actual detrimental effects on competition,' such as reduced output, increased prices, or decreased quality in the relevant market," *Ohio v. American Express*, 585 U.S. ___ (2018) (holding that American Express's anti-steering practices did not violate antitrust law because, *inter alia*, "business model has spurred robust inter-brand competition and has increased the quality and quantity of credit-card transactions.") (quoting *FTC v. Indiana Federation of Dentists*, 476 U. S. 447, 460 (1986) (alterations omitted)). For examples of recent merger litigation alleging non-price effects, *see, e.g.*, FTC v. Sysco Corp., 113 F.Supp. 3d 1 (D.D.C. 2015); FTC v. Sanford Health (D.D.C. 2017); United States et al. v. Anthem, Inc., and Cigna Corp (D.D.C. 2016); United States v. H&R Block, Inc., 833 F.Supp. 2d 36 (D.C. Cir. 2011).

baskets,[28] while another considered smartphone and "traditional" device users.[29] Most, if not all, of the studies do not consider business or data-only plans.

- The study time periods varied such that some allowed for subsequent entry[30] while others were more narrowly short-run studies in which the measurement period was too short to allow for entry.[31]
- Only about half of the studies considered investment effects. **Of those that found a statistically significant relationship, all found that network investment increased with a 4-to-3 merger.**[32]
- One study found both increased investment and decreased prices (the best of all possible consumer outcomes, at least in terms of the direction of each effect)[33]
- Another study found increased investment effects as well as increased prices (at least in the short term). This result, while common, is perhaps the most difficult to parse in consumer welfare terms: Identifying the net welfare effect of divergent price and investment effects is difficult in absolute terms, but made even more complicated by generally requiring a comparison of short-run price effects with anticipated, long-run benefits from short-run investment.[34]

The results of our review are similar to those of other surveys of the empirical literature. BEREC (2018) (which offers both its own empirical analysis, so is included in our review, as well as its own survey of prior literature) notes that:

> It is clear that the evidence from the literature on the effects of 4-to-3 mergers is mixed (which is not surprising given the heterogeneity of the approaches and the events investigated). While there are studies which

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[28] See, for example, Csorba & Pápai (2015), Aguzzoni, et al. (2018), Lear, et al. (2017), and BEREC (2018).

[29] RTR (2016).

[30] See, for example, BEREC (2018).

[31] See, for example, Genakos, et al. (2018), Houngbonon (2015), HSBC (2015), RTR (2016), and BWB (2016).[32] Houngbonon & Jeanjean (2014), Jeanjean & Hongbonon (2015), HSBC (2015), Genakos, et al. (2018), GSMA (2017).

[32] Houngbonon & Jeanjean (2014), Jeanjean & Hongbonon (2015), HSBC (2015), Genakos, et al. (2018), GSMA (2017).

[33] Lear, et al. (2017)

[34] Genakos, et al. (2018)

find significant price increases, there are also studies finding no price effects or even a decrease in prices or positive quality effects.

B. What the results tell us about prospective merger enforcement

Some of this inconclusiveness, especially with regard to the effects on prices, is a function of the difficulty, endemic to most empirical work of this kind, of reliably measuring even seemingly simple things like price changes. Moreover, comparing results across countries, years, and mergers is complicated, at best; like-kind comparisons are inevitably imperfect and the interpretation of results invariably defies simple slogans. Consider, for example, that (among other things):

- Different carriers offer different tiers of service with different qualitative characteristics (e.g., speed and data allowances);
- Carriers offer different promotions, payment terms, combinations of service, and the like such that there is rarely a single "price" at any given time;
- The prices for these services also change over time in response to exogenous factors (e.g., pricing pressures from competitors or changes in consumer preferences);
- A merger may yield short-run price effects on specific offerings that give way to different longer-run price effects, and it may change its service offerings over time to reflect changes in demand, cost, and the like; and
- All of this is compounded by the varying effects of different, merger-specific regulatory commitments or pricing constraints that may result from each merger.

All these factors make it difficult to measure how or even whether a given merger affects prices, and even more difficult to compare those effects across mergers.

> These measurement difficulties are compounded in the case of non-price effects. All of the same factors may apply to non-price effects (e.g., changes in the quality of service), but because non-price effects are generally not readily reduced to directly measurable or standardized units (as opposed to price which is, arguably, measurable and consistent), assessing and comparing non-price effects is that much more difficult. Many studies thus simply ignore non-price effects and focus on seemingly measurable characteristics. Those studies that do attempt to measure quality effects typically rely on proxies such as capital expenditures: In the wireless telecommunications industry, increased capex

> suggests that a firm is investing to improve its network either to accommodate higher quantities of usage (indicating lower costs of service per unit) or to accommodate higher qualities of service.

Given these considerations, the results of our review are unsurprising—and perhaps "unsexy." They are, however—and precisely because of this—policy-relevant. Our review of the 18 empirical studies of previous changes in concentration in the wireless industry are conclusively inconclusive as to the price effects of 4-to-3 or similar mergers.

III. Factors that Commonly Affect Study Results

Although the studies we reviewed do not produce consistent results with any predictive value for understanding the effects of a prospective merger, our evaluation of the studies nonetheless identifies a number of factors that should be considered when reviewing the likely competitive effects of comparable, prospective mergers. This result, as well, is not unique to our review. As Genakos, et al (2018) conclude:

> [T]he main pay-off from an understanding of the expected efficiencies arising from a horizontal merger is likely to be the insights this gives about the nature of competitive rivalry in an industry, which in turn will assist in gathering evidence on market dynamics and likely supply-side responses. Such evidence should not be an after-thought. It deserves a central role in a unilateral effects assessment that justifies a departure from the constraints imposed by simple theoretical static models.

In particular, our review suggests that the following four elements should be included in any review of a wireless telecommunications industry merger:

1. Evaluation of both price and non-price factors;
2. Evaluation of the full range of product and service offerings, including an accounting of the relevant differences in the cost inputs to each;
3. Assessment of the timing and effects of MVNO entry and ongoing competition on the marketplace; and
4. Accounting for the effects on conduct and merger outcomes of transaction-specific regulatory, technological, geographic, and other characteristics of the merging parties and their competitive environment.

Some of these factors are particularly important to consider when evaluating a transaction on its own merits; others are more relevant to the comparison of a prospective transaction with potentially analogous, prior ones.

A. Challenges measuring price effects

Most research evaluating the relationship between the number of firms or firm concentration and wireless carrier prices relies on published tariffs as a measure of price. Many of these studies, such as Aguzzoni et al. (2018), Lear et al. (2017), and Genakos et al. (2015) use a price-basket approach. They define "high," "medium," and "low" usage profiles (or "baskets") based on the consumption of voices, minutes, and data, and then identify the lowest-cost tariff or set of tariffs for each user profile and for each period and compute the average mobile expenditure. In most studies, information for only the two largest carriers is available.

The reliance of information from only the largest carriers in a country may produce biased results inasmuch as smaller carriers and MVNOs may engage in competitive pricing strategies that benefit consumers and discipline larger firms. Thus it is possible, if not likely, that nearly all studies suffer from an upward bias in their measures of price.

Affeldt & Nitsche (2014) criticize the use of tariff data:

> Such approaches are taken by Rewheel (2013) and also the Austrian regulator rtr (when tracking prices over time, see rtr (2014)). Such studies face the following problems: They may pick tariffs that are relatively meaningless in the country. They will have to assume one or more consumption baskets (voice minutes, data volume etc) in order to compare tariffs. This may drive results. Apart from these difficulties such comparisons require very careful tracking of tariffs and their changes. Even if one assumes studying a sample of tariffs is potentially meaningful, a comparison across countries (or over time) would still require taking into account key differences across countries (or over time) like differences in demand, costs, network quality etc. We are not aware of any study which does this carefully.

Lear et al. (2017), which uses the usage profile approach based on baskets defined by the OECD, concedes that the approach has several drawbacks in that "it requires making several assumptions on the 'representative' usage profile and may be based on tariffs that are irrelevant for the country."

None of the studies reviewed report the share of consumers represented by each of the hypothetical baskets used. Thus, even if a study reports a large, sustained price increase for a "high" basket, and small decreases for "medium" and "low" baskets, for example, it is still impossible to infer a net consumer welfare loss from the relative magnitudes of the effects because there is no way to know what fraction of the market is subject to each of them.

Perhaps more important for antitrust review is the implicit presumption that each usage profile represents a distinct product market. There is widespread agreement that there is considerable churn of consumers between wireless providers with often differing service offerings, and that usage patterns vary across countries and time. These dynamics suggest that there is no bright line separating the wireless market into distinct product markets distinguished by usage.

Another approach uses the average revenue per user (ARPU) as a measure of prices. On the one hand ARPU has the advantage that it captures, to some degree, the actual (average) cost to consumers. On the other hand, however, this straightforward measure does not distinguish between price and usage level: An increase in revenues may be attributed to indeterminate combinations of either or both increased prices and/or increased usage per user. Studies such as Affeldt & Nitsche (2014) use ARPU while accounting for usage, a measure they call "effective price per minute" (EPPM), but this measure is related only to voice services.

Finally, and as discussed in more detail below, every study suffers from one of more of the following complications:

- Failure to account for differences in pre- and post-paid plans,
- Exclusion of business plans,
- Exclusion of data-only plans,
- Computation of prices without handset subsidies,
- Failure to account for MVNO entry and/or MVNO pricing, and/or
- Failure to consider competition from smaller mobile network operators (MNOs).

In addition to data considerations, it is also important to consider the analytical approaches taking in the research. Most pricing studies employ a difference-in-difference approach, a synthetic control group approach, or both approaches.

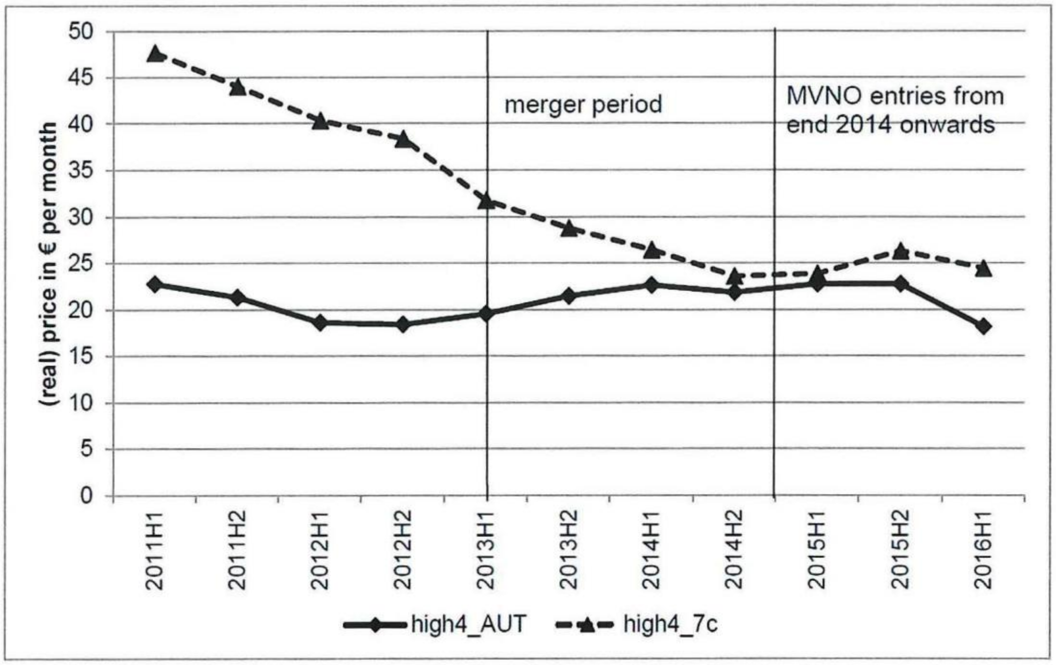
With a difference-in-differences approach, price effects are estimated by comparing the differences between the price trends in the country being examined (the country affected by the merger, or the "treatment" country) and prices in several unaffected countries (the "control" countries.) The approach is intended to statistically estimate the difference between the pre-merger differences and the post-merger differences, giving the procedure the name difference-in-differences.

The synthetic control approach combines elements from matching and difference-in-differences approaches. Rather than using a large set of different control countries, the synthetic control approach identifies a smaller subset of control countries that have statistically similar pre-merger price trends. The difference-in-differences approach is then applied to treatment country and the smaller subset.

Both approaches have gained acceptance *in other contexts*. However, in evaluating the results of such studies in the context of mergers, caution should be exercised. In particular, the results of the approaches may find a statistically significant positive increase in the differences. However, this result does not indicate that a merger led to higher absolute prices for consumers. A difference-in-differences approach in each of the following hypotheticals would lead to a conclusion the merger led to higher prices.

1. **Pre-merger:** Treatment and control have same prices.
   Post-merger: Treatment prices increase 10 percent, and control countries prices are unchanged.
2. **Pre-merger:** Treatment and control have same prices.
   Post-merger: Treatment prices are unchanged, and control countries prices decrease 10 percent.
3. **Pre-merger:** Treatment and control have same prices.
   Post-merger: Treatment prices decrease 5 percent, and control countries prices are decrease 10 percent.

In only one of the hypothetical examples does the country in which the merger takes place experience an increase in absolute prices. In the other example, the country with the merger simply did not experience the same decrease as the control countries. Thus, one cannot infer high absolute post-merger prices from examining difference-in-differences results alone.

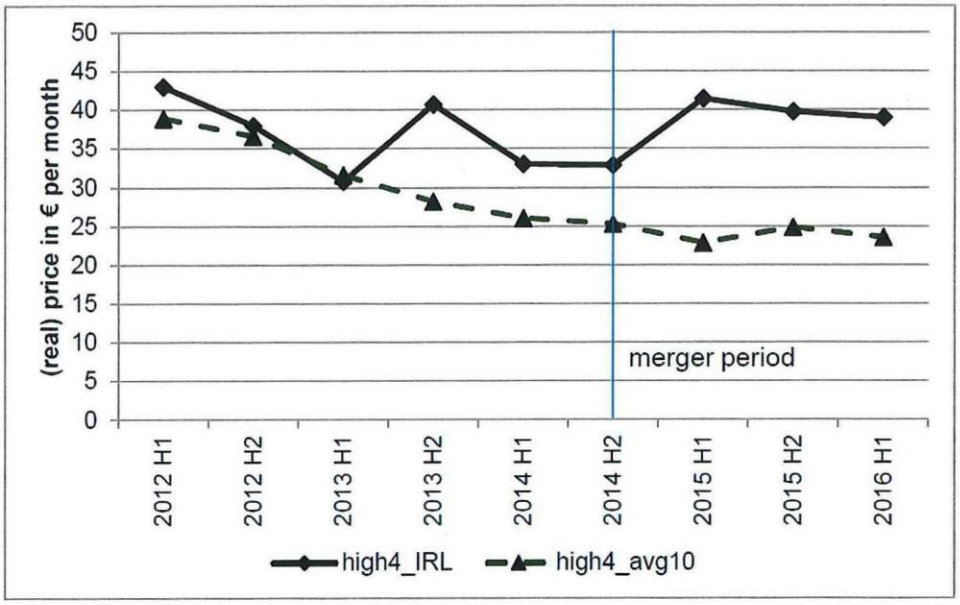


7c refers to an average of the seven control group countries BE, DK, ES, EL, IT, PT, SE

Figure 6: Price trends for users with a high usage profile in Austria
Source: BEREC (2018)

For example, BEREC's (2018) study of the Hutchison/Orange merger in Austria finds a statistically significant positive increase in the differences between Austria (the treatment country) and the control countries, especially for the "high" bundle of hypothetical usage. However, Figure 6 from the study, shown above, indicates much of the price difference between Austria and comparison countries results from a decline in comparison country prices, rather than increases in prices in Austria.

Similarly Figure 9 from BEREC's (2018) analysis of the Hutchison/Telefónica merger in Ireland, shown below, indicates much of the price difference between Ireland and comparison countries for the high basket results from a decline in comparison country prices, rather than increases in prices in Ireland.



avg10 refers to a simple average of the ten control group countries

Figure 9: Price trends for users with a high usage profile in Ireland

Source: BEREC (2018)

B. Evaluation of both price and non-price factors

A first and, frankly, obvious observation from our review of these studies is that it is essential to consider both the price and non-price effects of a transaction in order to assess its likely net effect on consumer welfare. This is well-trod merger law in the United States, yet advocates frequently focus on price-effects to the exclusion of non-price effects, and regulators often allow price-effects to overdetermine their evaluations of proposed transactions.

The empirical analyses we survey demonstrate both the extent to which merger policy can be myopically focused on price effects and the reasons that this is problematic. Roughly half of the empirical studies of 5-to-4 and 4-to-3 mergers do not look at non-price effects at all. Of those that do, *all* find likely positive (i.e. beneficial) non-price effects.[35] This suggests that pro-consumer non-price effects are prevalent

[35] Genakos, et al. (2018), GSMA (2017), Houngbonon & Jeanjean (2014), Jeanjean & Hongbonon (2015), HSBC (2015).

in these transactions. Studies that do not consider these effects are incomplete for purposes of evaluating the mergers' consumer welfare effects, and all-too-easily used by advocates to misleadingly predict negative consumer outcomes. This is not necessarily a criticism of the studies themselves, which generally do not make comprehensive policy conclusions. The reality is that it is exceptionally difficult to comprehensively study even price effects, such that a well-conducted study of price effects alone is a valuable contribution to the literature. Nevertheless, in the context of evaluating prospective transactions, the results of such studies must be discounted to account for their exclusion of non-price effects.

Quality improvements attributable to network investment are especially crucial to evaluating the welfare effects of telecommunications industry mergers occurring in large and/or sparsely populated countries or regions or areas with a large rural population (see Section III.D below), and during periods of technological transition—such as from 3G to 4G, or 4G to 5G networks. This is true both as it reflects the deployment of more technologically advanced services, but also as a determinant of future price competition.

Firms "race" to deploy new technologies both so that they can offer customers a higher-quality product (and correspondingly charge more for that product) and also so that, if they "win" that race compared to their peers, they will benefit from a period of reduced competition while other firms continue to upgrade their own networks.[36] Mergers that occur during periods of technological dynamism may tend to increase the short-term, negative price effects of monopolistic competition, allowing firms to raise their prices further above marginal cost than in periods of static technologies, during which firms instead compete on price alone. But that effect may also increase the pace of deployment of a next-generation technology, during a period that the firm's competitors are also deploying their own next-generation technologies, thus benefitting consumers in the short-run (by allowing them access to

[36] See generally: Schumpeter, Joseph A. (1950) *Capitalism, Socialism, and Democracy*. 3d ed. New York: Harper and Brothers.

more advanced technology sooner) and also in the long-run (as completion of these improved networks facilitates price competition).[37]

C. Evaluation of the full range of product and service offerings and an accounting of their cost differences

One of the primary reasons that empirical studies of price effects show different results when analyzing the same transactions is that each study may consider prices for a different set of services, or different aspects of multi-part prices within a transaction. Ironically, this typically presents a greater challenge for price-effects than for non-price effects. This is because markets such as wireless telecommunications often involve a wide range of pricing options for different users and services, with the result that there are so many possible prices to consider that meaningful comparison is often impossible. By contrast, when it comes to non-price effects, researchers more often face the challenge of finding *any* relevant measurements.

In the case of the studies we reviewed, we find studies measuring a range of different price effects: prices associated with varying combinations of high, medium, and low hypothetical consumption profiles; short-run and long-run prices; prices for service plans that both do and do not include subsidized features such as handsets; and prices for both pre- and post-paid service. Additionally, the studies generally exclude certain types of plans that may provide important information about the competitive effects of a transaction, such as business-tier and data-only plans.

D. Assessment of the effects of MVNO entry and competition on the marketplace

One of the most significant factors affecting competition in the wireless marketplace is the entry, ongoing presence (or absence), and consumer usage of mobile virtual network operators (MVNOs). Yet most studies, including those that found negative (consumer) price-effects, did not explicitly account for the possibility that MVNO competition could exert downward pricing pressure on merged firms. The absence of an assessment of the possibility or actuality of MVNO competition is particularly likely to lead to misleading conclusions because MVNOs, given their

[37] See e.g. Declaration of David S. Evans in the Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197, Appendix G, at 112 ff.

structure as resellers of facilities-based providers' (also known as mobile network operators, or MNOs) services, benefit from certain advantages as a means of disciplining prices relative to mobile network operators, such as: the ability to leverage existing brands and retail marketing infrastructure (and in some cases relevant physical infrastructure, such as a fiber-optic network), while avoiding the need for investment in network-wide cellular infrastructure and spectrum licenses.[38] Meanwhile, as Michelle Connolly (2018) notes:

> With multiple MNOs competing for MVNOs that have access to unique consumer segments, MVNOs are able to obtain competitive wholesale rates. This leads to lower overall prices, due to greater economies of scale in the upstream market, and increased price/quality discipline in the downstream retail market.

These effects are seen, for instance, in the studies evaluating the 2012 Hutchison/Orange merger in Austria. Five of the six studies of this merger that we review look at merger effects occurring in a timeframe that does not include the entry of MVNOs into the marketplace in 2015. The only study that did consider the market's competitiveness following *both* the merger and the subsequent entry of MVNOs was BEREC (2018), which notes that:

> In 2016 H1 (first half of 2016), the [price-effects] became considerably smaller and statistically insignificant in most specifications (although, for the medium usage basket, some effect in 2016 H1 cannot be ruled out completely). This is likely caused by competitive pressure from MVNOs, which gained significant market share since entry at the beginning of 2015.

Similarly, Lear, et al.'s (2017) study of the 2010 T-Mobile/Orange merger notes that the firms' combined market share decreased by 6.4 percent in the four years following the merger and suggests that this may have been due in part to competition from MVNOs (which grew in market share by 2.3 percent in the same period).

Meanwhile, it is likely just as important to consider the effect of smaller carriers on the overall mix of services and prices available in the market following a merger. Because of limitations in available data, many studies focus on only the largest car-

[38] Banerjee and Dippon (2009)

riers in a country or region, to the exclusion of smaller carriers that may not be seen as a substitute for the services offered by larger carriers because their offerings are more limited in geographic scope. No studies that we reviewed expressly considered the role of smaller carriers, but it is reasonable to expect that they could have a price-disciplining effect comparable to that of MVNOs, especially in markets in which regional carriers are more common (such as in parts of the United States).[39] While Csorba & Pápai (2015) and Ofcom (2016), consider the effects of "disruptive" carriers, such carriers can, in principle, be large or small.

E. Accounting for transaction-specific characteristics of the merging parties and their competitive environment

A final factor that bears consideration relates to how (or whether) to use the results of a prior transaction to understand the likely effects of a future transaction. It is entirely possible that exogenous factors affecting a given transaction will predominate over any likely consistencies attributable to structural similarities with past transactions. The key selection factor for the empirical studies that we reviewed was that they focused on four versus three firm, or similarly concentrated, markets in the wireless telecommunications industry. But the fact that a future proposed transaction is also a 4-to-3 wireless merger does not automatically mean that these studies meaningfully bear upon it.

It is as important to consider the regulatory, geographic, and technological setting of a merger as it is to consider the transaction's market structure. A transaction undertaken in a regulatory regime with strong *ex post* enforcement of competition law, or with substantial experience designing and implementing effective *ex ante* remedies in its transaction reviews, for example, is likely to lead to very different effects than a transaction undertaken in a different regulatory environment.[40]

Perhaps even more important to understanding the implications for US mergers of the merger studies included in this review is that all of the mergers evaluated in those studies were European. The dramatically different geography of the United

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[39] For example, Jeanjean & Houngbonon (2015) exclude the U.S. and Canada from their study because the presence of regional carriers "makes it difficult to assess the impact of the number of firms."

[40] See e.g. Jeanjean and Houngbonon (2017) at 13-16.

States imposes vastly different constraints upon telecommunications providers than do the geographies of the countries in which these mergers took place. Austria, the Netherlands, Ireland, the UK, and even Germany are much smaller countries, with far fewer people, and much simpler geographies, than the United States. At the margin, smaller countries—especially those with greater population densities—are likely to see a greater portion of consumer benefit from a transaction arising from lower prices than from infrastructure investment. Larger countries—especially those, like the United States, with huge swaths of land with minimal population density and a larger rural population—require significant capital expenditures to provide comprehensive coverage. For example, GSMA (2015) finds that higher population density in a country has a statistically significant positive relationship with 4G coverage levels. The consumer welfare benefits of mergers in larger countries are much more likely to arise from network investment.

IV. A Cautionary Example: The Rewheel Study

As problematic as it is to apply otherwise methodologically sound studies to subsequent mergers, it is even more problematic to apply methodologically *unsound* studies to any purpose at all. Whatever the problems of making inferences from the studies discussed in our review, there is no basis at all for accepting any predictions or assessments based on fundamentally flawed studies. Our review of the relatively high-quality studies included here also provides a useful point of reference for distinguishing and disregarding studies that fail to offer any intrinsically reliable findings.

In his testimony before the House Committee on Energy & Commerce, Subcommittee on Communications & Technology, Phillip Berenbroick of Public Knowledge referred to "[a]n October 2018 report from Finnish research firm Rewheel[, which] found that consumers in markets with three facilities-based providers paid twice as much per gigabyte as consumers in four firm markets."[41] The Rewheel Study that Mr. Berenbroick relied upon, however, is marred by a number of significant flaws, which undermine its usefulness.

[41] Testimony of Phillip Berenbroick, Senior Policy Counsel, Public Knowledge, Before the U.S. House of Representatives Committee on Energy & Commerce Subcommittee on Communications & Technology, *Protecting consumers and competition: An examination of the T-Mobile and Sprint merger* (Feb. 13, 2019), *citing* Rewheel study, *supra* note 11, at 6.

Rewheel's report purports to analyze the state of 4G pricing across 41 countries that are either members of the EU or the OECD or both. The report's conclusions are based mainly on two measures:

1. Estimates of the *maximum* number of gigabytes available under each plan for a specific hypothetical monthly price, ranging from €5 to €80 a month. In other words, for each plan, Rewheel asks, "How many 4G gigabytes would X euros buy?" Rewheel then ranks countries by the median amount of gigabytes available at each hypothetical price for all the plans surveyed in each country.
2. Estimates of what Rewheel describes as "fully allocated gigabyte prices." This is the monthly retail price (including VAT) divided by the number of gigabytes included in each plan. Rewheel then ranks countries by the median price per gigabyte across all the plans surveyed in each country.

A. Rewheel's convoluted calculations

Rewheel's use of the country median across all plans is problematic. In particular it gives all plans equal weight, regardless of consumers' use of each plan. For example, a plan targeted for a consumer with a "high" level of usage is included with a plan targeted for a consumer with a "low" level of usage. Even though a "high" user would not purchase a "low" plan (which would be relatively expensive for a "high" user), all plans are included, thereby skewing upward the median estimates.

But even if that approach made sense as a way of measuring consumers' willingness to pay, in execution Rewheel's analysis contains the following key defects:

- The Rewheel report is essentially limited to quantity effects alone (i.e., how many gigabytes available under each plan for a given hypothetical price) or price effects alone (i.e., price per included gigabyte for each plan). These measures can mislead the analysis by missing, among other things, innovation and quality effects.
- Rewheel's analysis is not based on an impartial assessment of relevant price data. Rather, it is based on hypothetical measures. Such comparisons say nothing about the plans actually chosen by consumers or the actual prices paid by consumers in those countries, rendering Rewheel's comparisons virtually meaningless, as noted by Affeldt & Nitsche (2014).

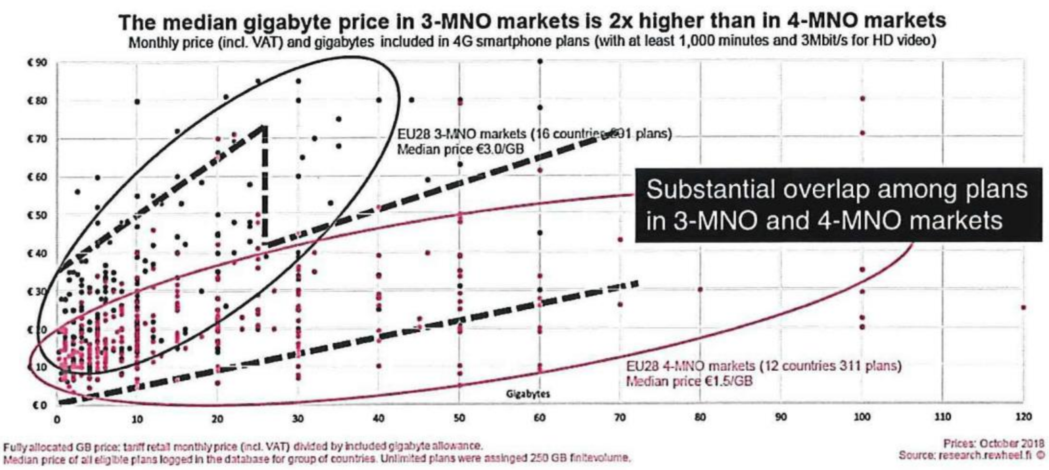
- The Rewheel report bases its comparison on dissimilar service levels by not taking into account, for instance, relevant features like comparable network capacity, service security, and, perhaps most important, overall quality of service.

B. Rewheel's unsupported conclusions

Rewheel uses its analysis to come to some strong conclusions, such as the conclusion on the first page of its report declaring the median gigabyte price in countries with three carriers is twice as high as in countries with four carriers.

The figure below is a revised version of the figure on the first page of Rewheel's report. The yellow blocks (gray dots) show the range of prices in countries with three carriers the blue blocks (pink dots) shows the range of prices in countries with four carriers. The darker blocks show the overlap of the two. The figure makes clear that there is substantial overlap in pricing among three and four carrier countries. Thus, it is not obvious that three carrier countries have significantly higher prices (as measured by Rewheel) than four carrier countries.

A simple "eyeballing" of the data can lead to incorrect conclusions, in which case statistical analysis can provide some more certainty (or, at least, some measure of uncertainty). Yet, Rewheel provides no statistical analysis of its calculations, such as measures of statistical significance. However, information on page 5 of the Rewheel report can be used to perform some rudimentary statistical analysis.



The information from the columns for hypothetical monthly prices of €30 a month and €50 a month can be converted into a hypothetical price per gigabyte to generate the dependent variable. Following Rewheel's assumption, "unlimited" is converted to 250 gigabytes per month. Greece is dropped from the analysis because Rewheel indicates that no data is available at either hypothetical price level.

This rudimentary statistical analysis includes the following independent variables:

- Number of carriers (or mobile network operators, MNOs) reported by Rewheel in each country, ranging from three to five. Israel is the only country with five MNOs.
- A dummy variable for EU28 countries. Rewheel performs separate analysis for EU28 countries, suggesting they think this is an important distinction.
- GDP per capita for each country, adjusted for purchasing power parity. Several articles in the literature suggest higher GDP countries would be expected to have higher wireless prices.
- Population density, measured by persons per square kilometer. Several articles in the literature argue that countries with lower population density would have higher costs of providing wireless service which would, in turn, be reflected in higher prices.

The tables below confirm what an eyeballing of the figure suggest: Rewheel's data show the number of MNOs in a country have no statistically significant relationship with price per gigabyte, at either the €30 a month level or the €50 a month level.

Dependent variable: Price per GB at €30 per month

	Coeff.	Std. Err.	t-stat	p-value
Intercept	9.536	6.676	1.43	0.162
Number of MNOs	-1.854	1.692	-1.10	0.281
EU28 country dummy	-0.332	1.955	-0.17	0.866
GDP per capita (PPP)	-1.6E-05	5.5E-05	-0.29	0.771
Population density	0.003	0.004	0.76	0.455
R-squared	0.05			
Observations	40			

Dependent variable: Price per GB at €50 per month

	Coeff.	Std. Err.	t-stat	p-value
Intercept	3.067	2.006	1.53	0.135
Number of MNOs	-0.597	0.509	-1.17	0.249
EU28 country dummy	0.023	0.587	0.04	0.968
GDP per capita (PPP)	1.5E-06	1.7E-05	0.09	0.928
Population density	0.001	0.001	0.56	0.577
R-squared	0.05			
Observations	40			

While the signs on the MNO coefficient are negative (i.e., more carriers in a country is associated with lower prices), they are not statistically significantly different from zero at any of the traditional levels of statistical significance.

Also, the regressions suffer from relatively low measures of goodness-of-fit. The independent variables in the regression explain approximately five percent of the variation in the price per gigabyte. This is likely because of the convoluted way Rewheel measures price, but is also due to the known problems with performing cross-sectional analysis of wireless pricing, as noted by Csorba & Pápai (2015):

> Many regulatory policies are based on a comparison of prices between European countries, but **these simple cross-sectional analyses can lead to misleading conclusions because of at least two reasons. First, the price difference between countries of n and (n + 1) active mobile operators can be due to other factors, and the analyst can never be sure of having solved the omitted variable bias problem.** Second and more importantly, the effect of an additional operator estimated from a cross-sectional comparison cannot be equated with the effect of an actual entry that might have a long-lasting effect on a single market.

C. The Rewheel report cannot be relied upon in assessing consumer benefits or harm associated with the T-Mobile/Sprint merger, or any other merger

Rewheel apparently has a rich dataset of wireless pricing plans. Nevertheless, the analyses presented in its report are fundamentally flawed. Moreover, Rewheel's conclusions regarding three vs. four carrier countries are not only baseless, but clearly unsupported by closer inspection of the information presented in its report. The Rewheel report cannot be relied upon to inform regulatory oversight of the T-Mobile/Sprint merger or any other.

The Rewheel study is, in effect, the epitome of a flawed study and the opposite of the approach that we have attempted to take in our analysis. It focuses on an artificially constructed measure that does not represent real-world characteristics of competition; that measure focuses only on price effects to the exclusion of other effects, and even then it considers only two (non-realistic) consumption baskets to the exclusion of the fuller range of services consumers actually have available. While every study we have reviewed necessarily makes certain limiting assumptions, either as a reflection of data limitations inherent in these sorts of empirical studies or of the necessity of limiting the scope of analysis in order to yield a manageable undertaking, the extent of the Rewheel study's assumptions and limitations is breathtaking. If anything, the Rewheel study demonstrates the importance of rigorous critical literature reviews such as this one, which endeavor to systematically synthesize results across a wide range of empirical analyses in order to discern the legitimate generalized understandings that may be gleaned from such a complex data set. The Rewheel study, by contrast, is a careless mish-mash of data points from which no reliable conclusions can be draw.

Conclusion

This review of studies looking at the effects of changes in market concentration in the mobile telecommunications industry has highlighted numerous challenges facing researchers undertaking such studies—as well as the resulting challenges for the regulators and others trying to use studies such as these to predict the future effects of any given merger.

These challenges appear to be most acute when trying to analyze the effects of mergers on prices of mobile offerings. As we noted above, studies of these effects yield conclusively inconclusive results. The authors of most of these studies acknowledge these challenges and do not pretend that their results are in any way definitive. Unfortunately, others have used the findings in these studies selectively and without reference to the challenges in order to claim, erroneously, to have found more conclusive evidence of price effects.

Some studies, most notably the Rewheel analysis described in section IV, take a more cavalier approach, drawing conclusions that are simply not grounded in a sound analysis of the evidence.

Studies that look at the effect of market concentration on investment consistently find a positive correlation between concentration and investment at both the industry and firm level. From an investment perspective, the optimal number of wireless firms in a given market appears, in some studies, to be three; however, in some jurisdictions (such as those that are more densely populated), the optimal number may well be four, while in others (such as those with small populations that are widely dispersed) the optimal number may well be two. There is little or no support for categorically claiming that the optimal number of firms in larger jurisdictions is four.

The finding, in the only study that specifically investigated the issue, that increases in the number of competitors in asymmetric markets leads to disproportionately lower levels of investment by smaller firms, suggests that a merger between two smaller firms that results in greater market symmetry is likely to result in higher levels of investment by the merged firms relative to the unmerged entities.

These findings have implications for dynamic efficiency, since higher levels of investment are plausibly correlated with more rapid roll-out of new technologies, improved service for customers and, over time, reduced costs. This is likely to be particularly true during periods when new generations of mobile communications are being rolled out.

From a consumer welfare perspective, it seems plausible that in a large, geographically dispersed market such as the U.S., facing the prospective introduction of 5G, the optimal number of national facilities-based mobile telecommunications firms may well even be fewer than four.

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A Review of the Empirical Evidence on the Effects of Market Concentration and Mergers in the Wireless Telecommunications Industry

Eric Fruits, Justin (Gus) Hurwitz, Geoffrey A. Manne, Julian Morris, and Alec Stapp

Appendix A

Review of Economic Analyses of 4-to-3 and Comparable Mergers in the Wireless Telecommunications Market

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Summary Table

		Price	Investment/Quality
No specific merger			
	Affeldt & Nitsche (2014)	n.s.	
	Houngbonon & Jeanjean (2014)		∩-shaped
	Jeanjean & Houngbonon (2015)		∩-shaped
	Csorba & Pápai (2015)	n.s.	
	Frontier (2015)	n.s.	n.s.
	HSBC (2015)		∩-shaped/Increase
	WIK (2015)		n.s.
	Ofcom (2016)	Increase	
	Jeanjean & Houngbonon (2015)		Increase
Austria	**T-Mobile/tele.ring**		
5-to-4 merger (2006)	Aguzzoni, et al. (2015, 2018)	n.s. / Decrease	
Netherlands	**T-Mobile/Orange**		
4-to-3 merger (2007)	Genakos, et al. (2018)	Increase	Increase
	Aguzzoni, et al. (2015, 2018)	n.s. / Increase	
Austria	**Hutchison/Orange**		
4-to-3 merger (2012)	Genakos, et al. (2018)	Increase	Increase
	Houngbonon (2015)	Decrease	
	HSBC (2015)	Decrease	
	RTR (2016)	n.s. / Increase	
	BWB (2016)	Increase	
	GSMA (2017)		Increase
	BEREC (2018)	n.s. / Increase	
UK	**T-Mobile/Orange**		
5-to-4 merger (2010)	Genakos, et al. (2018)	Increase	Increase
	Lear, et al. (2017)	Decrease	n.s. / Increase
Ireland	**Hutchison/Telefónica**		
4-to-3 merger (2014)	BEREC (2018)	Increase (short-run)	
Germany	**Telefónica/KPN**		
4-to-3 merger (2014)	BEREC (2018)	Increase (short-run)	

"n.s." denotes not statistically significant

Empirical research in wireless telecommunications industry competition is fractured in many ways that may not be helpful in guiding merger reviews by competition and telecom authorities. Many studies focus on short-run price effects and do not evaluated the extent to which post-merger entry, especially by MVNOs, tends to ameliorate or reverse price increases. In economics, the long-run is defined as the time it takes for entry or exit of firms to occur. Thus, any study that does not span a period of time sufficient to include actual or potential entry is, by definition, a study solely of short-term effects.

For example, six of the studies in this literature review analyzed the price effects of the 2012 Hutchison/Orange merger in Austria. Only one, BEREC (2018), spanned a time period that included MVNO entry three years later.

The empirical literature evaluating the effects of competition on investment is sparse: Only six of the studies in this literature review evaluate investment. And most of the studies that evaluate investment review it separately from price—either ignoring price or performing separate regressions for price effects and investment effects.

Frontier (2015) points to an interaction between investment, quality, and price:

> In the mobile sector, investment is likely to be the main driver of consumer benefits and social welfare. Investment in the mobile industry will benefit consumers in several ways:
>
> - investment will impact the quality of existing products and services which the consumers receive,
> - investment will enable innovation and the delivery of entirely new products and services, and
> - investment will lead to improved efficiencies which will lower the unit prices that consumers pay for those products and services.
>
> These are the key factors relevant for consumer welfare and each is highly dependent upon network investment in the mobile industry. Therefore, the impact of mergers on investment should be fundamental to any assessment of mobile mergers.

Frontier (2015) concludes that increased investment would be associated with improved quality and lower prices. However, if improved quality increased consumer demand (i.e., shifts the demand curve out), consumer welfare can be increased even in the face of higher prices. Thus, a thorough merger review must consider the interaction of prices and investment/quality to evaluate whether a potential merger would enhance or harm consumer welfare. Current research does not answer this question.

I. Studies of price effects

The summary table above shows that among the studies in this literature review, statistical analysis of the effects of market concentration—measured by number of firms, HHI, or merger activity—provides mixed results. BEREC (2018) reports:

> It is clear that the evidence from the literature on the effects of 4-to-3 mergers is mixed (which is not surprising given the heterogeneity of the approaches and the events investigated). While there are studies which find significant price increases, there are also studies finding no price effects or even a decrease in prices or positive quality effects. The evidence on 5-to-4 mergers so far does not suggest that the cases investigated had negative effects for consumers. It should be noted that the only mergers that can be studied are those which have been approved by competition authorities (possibly with remedies) because they were considered not likely to impede competition significantly.

The summary table shows that most research evaluating the relationship between the number of firms or firm concentration and wireless carrier prices relies on published tariffs as a measure of price. Many of these studies, such as Aguzzoni et al. (2018), Lear et al. (2017), and Genakos et al. (2015) use a price-basket approach. They define "high," "medium," and "low" usage profiles (or "baskets") based on the consumption of voices, minutes, and data, and then identify the lowest-cost tariff or set of tariffs for each user profile and for each period and compute the average mobile expenditure. In most studies, information for only the two largest carriers is available.

The reliance of information from only the largest carriers in a country may produce biased results inasmuch as smaller carriers and MVNOs may engage in competitive pricing strategies that benefit consumers and discipline larger firms. Thus it is possible, if not likely, that nearly all studies suffer from an upward bias in their measures of price.

Affeldt & Nitsche (2014) criticize the use of tariff data in that the tariffs may be meaningless with respect to a country's consumption bundle. They also caution that researchers should be careful in tracking changes in tariffs over time and cross-country differences in demand, costs, and network quality. Lear et al. (2017), which uses the usage profile approach based on baskets defined by the OECD, concedes that the approach has several drawbacks.

None of the studies reviewed report the share of consumers represented by each of the hypothetical baskets used. Thus, even if a study reports a large, sustained price increase for a "high" basket, and small decreases for "medium" and "low" baskets, for example, it is still impossible to infer a net consumer welfare loss from the relative magnitudes of the effects because there is no way to know what fraction of the market is subject to each of them.

Perhaps more importantly for antitrust review is the implicit presumption that each usage profile represents a distinct product market. There is widespread agreement that there is considerable churn of consumers between wireless providers with often differing service offerings, and that usage patterns vary across countries and time.[1] These dynamics suggest that there is no bright line separating the wireless market into distinct product markets distinguished by usage.

Another approach uses the average revenue per user (ARPU). However, this simple measure does not distinguish between price and usage level: An increase in revenues may be attributed to indeterminate combinations of either or both increased prices and/or increased usage per user. Studies such as Affeldt & Nitsche (2014) use ARPU while accounting for usage, a measure they call "effective price per minute" (EPPM), but this measure is related only to voice services.

Finally, and as discussed in more detail below, every study suffers from one of more of the following complications:

- Failure to account for differences in pre- and post-paid plans.
- Exclusion of business plans.
- Exclusion of data-only plans.
- Computation of prices without handset subsidies.
- Failure to account for MVNO entry and/or MVNO pricing.

1

- Failure to consider competition from smaller MNOs.

A. Studies of no specific merger

Using data from 23 European countries spanning 2003 through 2012, Affeldt & Nitsche (2014) find "no positive relationship between concentration and prices and some indications that the relationship may be negative." Number of firms is their measure of competition and they confine their analysis to observations with either three or four MNOs.

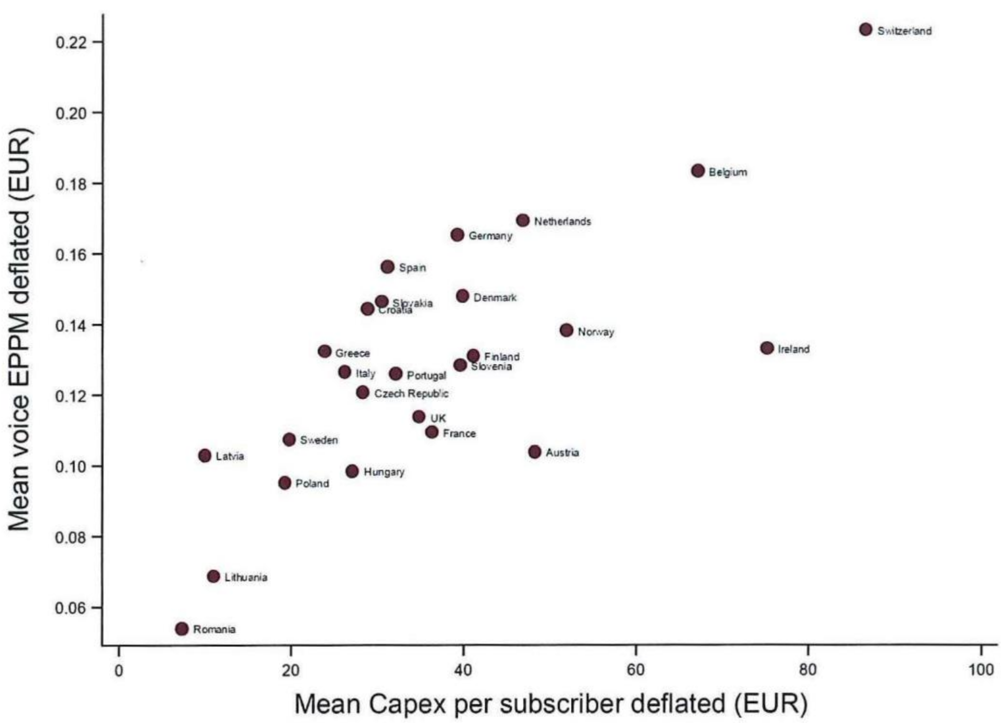
In their regression with number of firms as the only independent variable, Affeldt & Nitsche (2014) find that countries with three firms have statistically significantly higher prices than countries with four firms, using effective price per minute (EPPM) as the measure of price. The regression has a relatively poor goodness-of-fit (R-squared of 0.01). The addition of a linear time trend increases the goodness-of-fit (R-squared of 0.66), but causes the number of firms variable to be insignificant and to switch signs.

Affeldt & Nitsche (2014) is one of the few studies that includes investment, measured by capex, as an independent variable in its price regressions. In the two specifications that include capex, the paper finds higher capex is associated with higher prices, as shown in Figure 3 from their paper, below. They note that capex "is not purely an indicator of quality but also partly an indicator of differences in costs (at given quality levels)."

Affeldt & Nitsche (2014) criticize the use of tariff data, which is used by most of the research in this area. They argue that hypothetical baskets may be "relatively meaningless" in a particular country, the choice of basket may drive results, and the choice of basket does not allow for changes in consumer usage over time.

Using data from 27 European countries for 2003 through 2010, Csorba & Pápai (2015) find a wide range of effects of the number of firms on prices. These effects vary with how firm activity is measured: e.g., number of MNOs, whether the change in number of firms was associated with entry or a merger, whether an entering firm was a multinational firm or a "disruptive" firm. Csorba & Pápai (2015) conclude there are no price-increasing effects of 5-to-4 mergers. For the only 4-to-3 merger in their data (the 2004 acquisition of Orange by TeliaSonera in Denmark), they find no significant price effects in the first two years, but a 29 percent increase in prices in the third year after the merger.

Figure 3: Voice EPPM over Capex per subscriber (averaged over the period 2003 to 2012)



Frontier (2015) finds no statistically significant relationship between prices and concentration (measured by HHI) or number of firms (measured by a dummy variable). The report uses data from the EU for the years 2000 through 2014. It measures competition by HHI and a dummy for four firms (versus three firms) as measures of competition. Average revenue per minute of use is the measure of price and capex the measure of investment.

WIK (2015), criticizing Frontier's (2015) use of ARPM as a measure of prices, notes that the measure may not be appropriate if the mix of call-types or volumes differs between countries. Nevertheless, WIK (2015) concurs with Frontier's (2015) assessment that competition authorities that focus on short-term price effects overlook longer term "dynamic efficiencies" arising from mergers.

A. Studies of specific mergers

1. *Austria: T-Mobile/tele.ring*

Using a difference-in-difference approach Aguzzoni et al. (2018) conclude that after the acquisition—for which remedies were imposed—**prices in Austria did not increase relative to the considered control countries.** Their regression results, presented below, indicate the merger likely led to lower prices in the short- and medium-term across each of the hypothetical consumption baskets.

Table 5 Estimation of merger effect Austria—four cheapest tariffs

Dep. variable basket	(1) Log price Low	(2) Log price Low	(3) Log price Mid	(4) Log price Mid	(5) Log price High	(6) Log price High
Short-term effect	−0.231***	−0.019	−0.134***	−0.056	−0.074	−0.104*
	(0.036)	(0.055)	(0.042)	(0.058)	(0.045)	(0.058)
Medium-term effect	−0.340***	0.005	−0.180**	−0.057	−0.128	−0.177*
	(0.052)	(0.096)	(0.071)	(0.102)	(0.074)	(0.095)
GDP growth	1.562	1.351	0.906	1.282	1.114	1.433
	(1.296)	(1.107)	(1.500)	(1.203)	(1.482)	(1.308)
Log MTR	0.007	0.128	0.098	0.120	0.130	0.125
	(0.135)	(0.118)	(0.167)	(0.084)	(0.172)	(0.081)
Observations	1727	1727	1727	1727	1727	1727
R^2	0.737	0.754	0.815	0.841	0.832	0.865
Country-spec. trend	No	Yes	No	Yes	No	Yes
Common trend test (*p* val)	0.014	–	0.261	–	0.674	–

Cluster-robust SE below coefficients (SE clustered at country level)
Time fixed effects and country-MNO fixed-effects
Period: Q2/2004–Q2/2008; 8 quarters pre- and 8 quarters post-merger; Q2/2006 is dropped (merger quarter)
Common trend test—null hypothesis of common trend
Significance level: ***1, **5, *10%

Using a synthetic control group approach Aguzzoni et al. (2015) find a **price reduction for Austria following the merger, relative to the selected control countries:**

> For the Low basket we estimate a strong price reduction of 20% in the short term and 40% in the medium term. For the Mid basket we estimate a price drop of 8% and 15% over the same periods, and for the High basket we find negligible effects.

2. *Netherlands: T-Mobile/Orange*

Using a difference-in-difference approach Aguzzoni et al. (2018) conclude that after the acquisition **prices increased in the Netherlands in the analyzed period, relative to the control countries.** They caution that they **could not establish whether price increases were exclusively caused by the T-Mobile/Orange merger or in part by possible price effects brought about by the KPN/Telfort merger completed two years earlier** in the Netherlands. The regression results, presented below, indicate a mix of non-significant and statistically significant estimated coefficients, with the size and significance determined by the inclusion of a country-specific linear time trend in the regression.

Table 6 Estimation of merger effect the Netherlands—four cheapest tariffs

Dep. variable basket	(1) Log price Low	(2) Log price Low	(3) Log price Mid	(4) Log price Mid	(5) Log price High	(6) Log price High
Short-term effect	0.062	0.148**	0.093**	0.126**	0.133***	0.050
	(0.049)	(0.052)	(0.035)	(0.053)	(0.021)	(0.036)
Medium-term effect	0.009	0.141*	0.099**	0.149	0.167***	0.030
	(0.050)	(0.070)	(0.042)	(0.084)	(0.036)	(0.063)
GDP growth	2.598**	1.315**	1.964**	0.980*	1.825**	0.806*
	(0.889)	(0.581)	(0.765)	(0.456)	(0.644)	(0.384)
Log MTR	0.015	−0.032	−0.032	−0.036	−0.083	−0.029
	(0.126)	(0.065)	(0.088)	(0.037)	(0.065)	(0.059)
Observations	1318	1318	1318	1318	1318	1318
R^2	0.707	0.727	0.785	0.806	0.825	0.842
Country-spec. trend	No	Yes	No	Yes	No	Yes
Common trend test (*p* val)	0.039	–	0.410	–	0.005	–

Cluster-robust SE below coefficients (SE clustered at country level)
Time fixed effects and country-MNO fixed-effects
Period: Q2/2005–Q3/2009; 4 quarters pre- and 8 quarters post-merger; Q2-Q3/2007 excluded quarters (merger quarters)
Common trend test—null hypothesis of common trend
Significance level: ***1, **5, *10%

Using a synthetic control group approach Aguzzoni et al. (2015) find **price increases for Austria following the merger, relative to the selected control countries, but "none of the estimated effects appears to be significant."**

Genakos, et al. (2018) do not directly estimate the effect of the merger on prices in the Netherlands. They use data from 33 European countries for the years 2002-14, with the number of firms, HHI, and entry/exit of firms as independent variables measuring competition, and apply the estimates from the HHI regressions to estimate the effect of mergers in Austria, the Netherlands, and the United Kingdom.

Using the number of firms as independent variable, the estimates of Genakos, et al. (2018) suggest, in separate regressions:

- The addition of a fourth competitor (new entry) would be associated with a price reduction of 8.6 percent;
- The loss of a fourth competitor (e.g., a four to three merger) would be associated a price increase of 15.9 percent; and
- Cumulative net exit of a competitor would be associated with a price increase of 4.3 percent.

Genakos et al. (2018) express HHI as a percent, rather than the standard 0-10,000 scale. Using HHI as independent variable, they suggest a 10 percentage point increase in HHI would be associated with a 20-25 percent increase in price. They estimate that **the T-Mobile/Orange merger increased HHI by 3.6 percentage points, suggesting a 0.6 to 6.8 percent increase in prices.**

Genakos et al. (2018) caution that the T-Mobile/Orange merger may not be the only, or most important, factor explaining the price differences, and identify the earlier KPN/Telfort merger as one additional factor.

3. *Austria: Hutchison/Orange*

BEREC (2018) describes the Hutchison/Orange merger in Austria as "the most investigated mobile merger in terms of ex-post analysis." Genakos, et al. (2018), Houngbonon (2015), HSBC (2015), RTR (2016), BWB (2016), and BEREC (2018) analyze the effects of the merger on prices, with a **wide range of estimated effects, ranging from a 40 percent decrease in price (Aguzzoni, et al., 2015) to 90 percent increase in price (RTR, 2016).**

BEREC (2018) is the most recent study of the Hutchison/Orange merger in Austria. The authors use data from 13 European countries spanning 2012-16, and covering two years prior to the merger and three years post-merger. The data do not include MVNO prices, handset subsidies, and business plans and data-only plans. The report concludes there is **evidence that the merger led to significant price increases in the first two years.** However, **after two years—with MVNO entry—the effect became considerably smaller and statistically insignificant** in most of BEREC's specifications, as shown in Table 3 from the report, shown below.

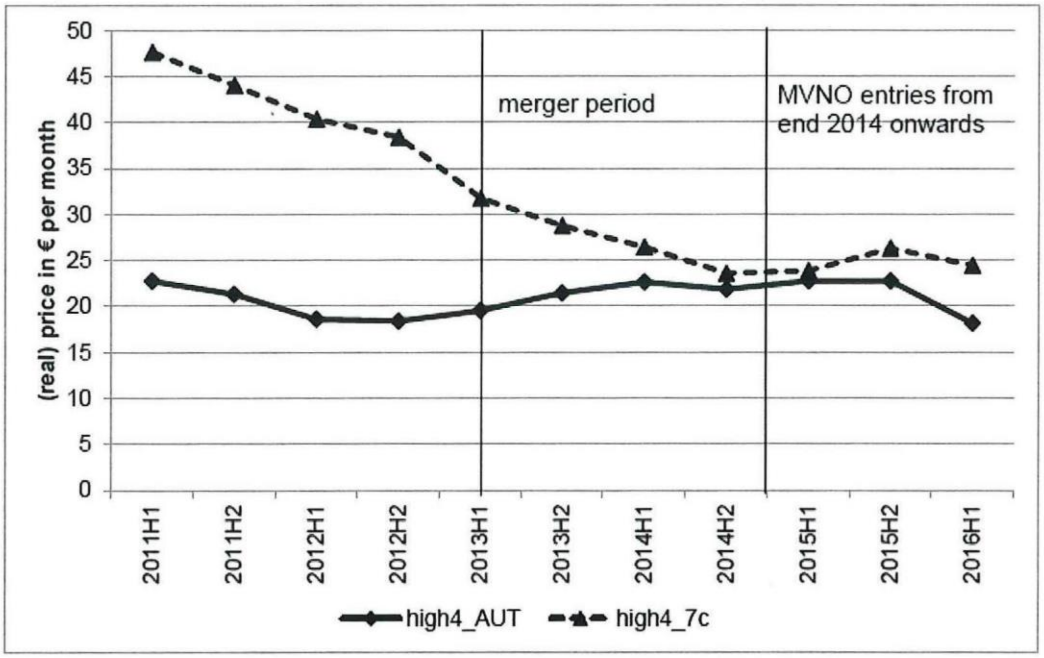
Table 3: Results for Austria, country-level, 2013 usage

	Low (4 tariffs)			Medium (4 tariffs)			High (4 Tariffs)		
	DiD basic	DiD trend	Synth	DiD basic	DiD trend	Synth	DiD basic	DiD trend	Synth
2013 H2	0.179	0.244**	0.098	0.254	0.372***	0.246	0.423***	0.477***	0.187
	(0.182)	(0.023)	(0.571)	(0.132)	(0.007)	(0.143)	(0.003)	(0.002)	(0.286)
2014 H1	0.261***	0.223*	0.280†	0.418***	0.483***	0.449	0.520***	0.532***	0.298
	(0.004)	(0.070)	(0.000)	(0.000)	(0.000)	(0.143)	(0.000)	(0.000)	(0.429)
2014 H2	0.328***	0.258**	0.247†	0.518***	0.545***	0.456†	0.661***	0.664***	0.452
	(0.000)	(0.024)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.286)
2015 H1	0.248***	0.178	0.153†	0.493***	0.561***	0.617†	0.662***	0.671***	0.474
	(0.002)	(0.186)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.286)
2015 H2	0.277***	0.168	0.138†	0.549***	0.564***	0.533†	0.666***	0.663***	0.463
	(0.007)	(0.300)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.143)
2016 H1	0.100	-0.004	-0.038	0.230*	0.301*	0.117	0.381***	0.387*	0.142
	(0.379)	(0.982)	(0.714)	(0.067)	(0.076)	(0.429)	(0.000)	(0.063)	(0.429)
GDP growth	0.621	-0.321		4.614	2.114		4.141	3.690	
	(0.830)	(0.848)		(0.132)	(0.411)		(0.107)	(0.219)	
MTRs	-0.114	-0.232*		0.097	-0.020		0.034	-0.022	
	(0.287)	(0.088)		(0.444)	(0.898)		(0.763)	(0.901)	
constant	2.443***	7.596***		2.660***	10.813***		2.497***	5.910**	
	(0.000)	(0.000)		(0.000)	(0.000)		(0.000)	(0.012)	
Obs.	80	80		80	80		80	80	
R^2	0.845	0.927		0.813	0.922		0.906	0.943	
Trend test passed?	Yes			Yes			Yes		

Country and time fixed effects included in the regressions (but not shown in the table)

DiD: Robust p-values in parentheses, *** p<0.01, ** p<0.05, * p<0.1
Synth: Standardised p-values (Galiani and Quistorff, 2016): † treated county has highest RMSP-ratio

Figure 6 from BEREC (2018), shown below, indicates **much of the price difference between Austria and comparison countries results from a decline in comparison country prices, rather than increases in prices in Austria. After MVNO entry, the figure shows that prices in Austria declined, while prices in comparison countries increased.**



7c refers to an average of the seven control group countries BE, DK, ES, EL, IT, PT, SE

Figure 6: Price trends for users with a high usage profile in Austria

BEREC (2018) cautions that they may overestimate the impacts of the merger on price because of "significant competitive pressure" from the entry of additional MVNOs in 2015. The study points out that, in addition to the merger, another transaction Hutchison spun off the Orange sub-brand Yesss! to A1 Telekom Austria, creating a "more symmetrical market structure."

Genakos, et al. (2018) do not directly estimate effects of the merger on prices in Austria. They use data from 33 European countries for the years 2002-14, with the number of firms, HHI, and entry/exit of firms as independent variables measuring competition. They apply the estimates from the HHI regressions to estimate the effect of mergers in Austria, the Netherlands, and the United Kingdom.

Using the number of firms as independent variable, the estimates of Genakos, et al. (2018) suggest, in separate regressions:

- The addition of a fourth competitor (new entry) would be associated with a price reduction of 8.6 percent;

- The loss of a fourth competitor (e.g., a four to three merger) would be associated a price increase of 15.9 percent; and
- Cumulative net exit of a competitor would be associated with a price increase of 4.3 percent.

Genakos et al. (2018) express HHI as a percent, rather than the standard 0-10,000 scale. Using HHI as independent variable, they suggest a 10 percentage point increase in HHI would be associated with a 20-25 percent increase in price. They **estimate that the Hutchison/Orange merger increased HHI by 6.4 percentage points, suggesting a 1.0 to 12.2 percent increase in prices.**

The time period covered by Genakos et al. (2018) does not include MVNO entry. BEREC (2018) notes that two years after the merger, with MVNO entry, their effect became considerably smaller and statistically insignificant in most specifications.

The Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR, 2016) **estimates price increases of 24 percent in the short run and 90 percent in the long run in the smartphone segment.** The study **estimates no significant change in the short run and 31 percent increase in the long run in the traditional segment.** RTR (2016) uses data from 11 European countries spanning 2011-14 and a merger dummy as measure of competition.

Figure 2 from RTR (2016), shown below, indicates **much of the price difference between Austria and comparison countries in the smartphone segment results from a decline in comparison country prices, rather than increases in prices in Austria**—a finding similar to that shown in BEREC (2018). The time period covered by RTR (2016) does not include MVNO entry, which occurred in 2015. BEREC (2018) notes that two years after the merger, with MVNO entry, their effect became considerably smaller and statistically insignificant in most specifications.

The Austrian Federal Competition Authority (BWB) 2016 uses a merger simulation to **estimate price increases of 14-20 percent after merger.** BWB (2016) makes clear that it consider the Hutchison/Orange merger together with sale of the Orange Yesss! segment to Telecom Austria. Thus, BWB (2016) does not evaluate the Hutchison/Orange merger by itself.

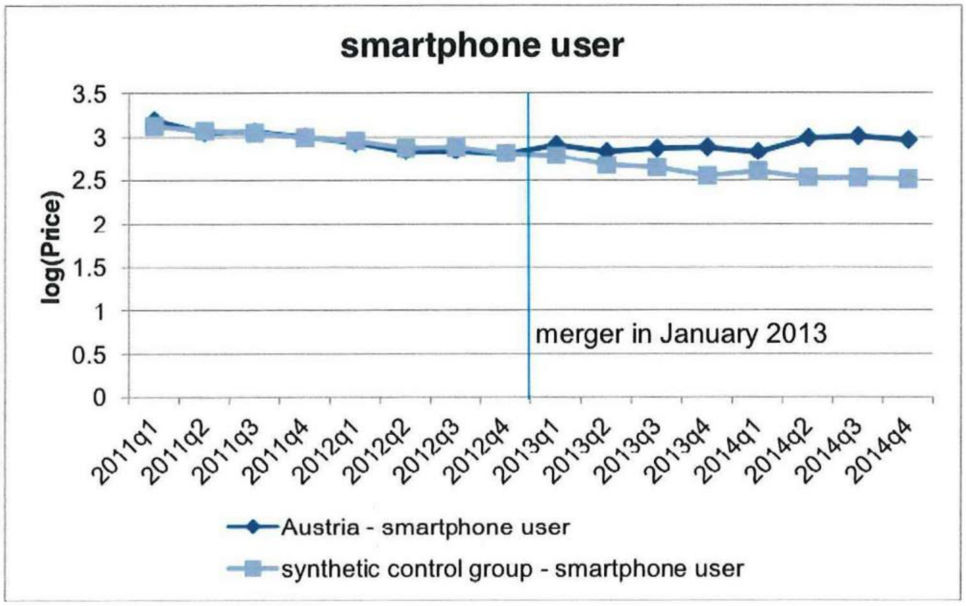


Figure 2: Price development in Austria compared to the synthetic control group

BWB (2016) notes its analysis does not include MVNO entry, which occurred in 2015, and was associated with a decrease in price.

Houngbonon (2015) examines the Hutchison/Orange four to three merger in Austria and a three to four entry in France. **He estimates the effect of the Austria merger as a price decrease. The paper reports no effect of the merger on standalone data and a decrease of $6 per GB in price for bundled data.** Results indicate a price-increasing effect associated with the entry of a fourth MNO in France.

The study uses data from 40 countries for seven quarters spanning 2013-14 to identify countries with the most similar pre-merger price series to Austria and identifies Italy as the most similar country. Estimates are based the comparison of Austria and Italy's price series pre- and post-merger, using a merger dummy. HSBC's (2015) price analysis follows Houngbonon's (2015) approach and supports the latter's results.

HSBC (2015) estimates the effects of competition on prices and investment. For the price analysis, the research examines the Hutchison/Orange four to three merger in Austria and a three to four entry in France. As with Houngbonon (2015), **the paper finds no price effect of the merger on standalone data and a decrease of $8.00 to**

$8.60 per GB in price for bundled data. Results indicate a price-increasing effect associated with the entry of a fourth MNO in France.

For the price analysis, HSBC (2015) focuses on the same issue as Houngbonon (2015), and applies the same econometric approach to a slightly different database.

4. *UK: T-Mobile/Orange*

Genakos, et al. (2018) do not directly estimate effects of the merger on prices in the U.K.. They use data from 33 European countries for the years 2002-14, with the number of firms, HHI, and entry/exit of firms as independent variables measuring competition. They apply the estimates from the HHI regressions to estimate the effect of mergers in Austria, the Netherlands, and the United Kingdom.

Using the number of firms as independent variable, the estimates of Genakos, et al. (2018) suggest, in separate regressions:

- The addition of a fourth competitor (new entry) would be associated with a price reduction of 8.6 percent;
- The loss of a fourth competitor (e.g., a four to three merger) would be associated a price increase of 15.9 percent; and
- Cumulative net exit of a competitor would be associated with a price increase of 4.3 percent.

Genakos et al. (2018) express HHI as a percent, rather than the standard 0-10,000 scale. Using HHI as independent variable, they suggest a 10 percentage point increase in HHI would be associated with a 20-25 percent increase in price. **They estimate that the T-Mobile/Orange merger increased HHI by 6.7 percentage points, suggesting a 1.1 to 12.7 percent increase in prices.**

Lear, et al. (2017) examine a five to four merger in 2010 in the U.K. between T-Mobile and Orange. The econometric analysis, using a difference-in-difference approach similar to Aguzzoni et al. (2018) **indicates that the prices of mobile services fell 8.5-18.6 percent because of the merger, in particular for medium-consumption and high-consumption profiles, with no significant effect on low-consumption profiles.** The study uses data from 13 European countries spanning 2009-14.

Lear, et al. (2017) report T-Mobile and Orange, whose aggregate market share by subscribers was 35.6 percent before the merger, dropped to 29.2 percent four years after the merger. Over the same period, the aggregate market shares of MVNOs increased from 11.3 percent to 13.6 percent.

5. *Ireland: Hutchison/Telefónica*

BEREC (2018) uses data from 13 European countries spanning 2012-16, and covering two years prior to the merger and 18 months post-merger. The data do not include MVNO prices, handset subsidies, and business plans and data-only plans. BEREC (2018) estimates some evidence of price increases for all three baskets in the difference-in-difference specification. However, the results are not robust across the difference-in-difference specifications and the synthetic control group specifications.

Table 5: Results for Ireland, country-level, 2013 usage

	Low (4 tariffs)			Medium (4 tariffs)			High (4 tariffs)		
	DiD basic	DiD trend	Synth	DiD basic	DiD trend	Synth	DiD basic	DiD trend	Synth
2015 H1	0.163** (0.042)	0.351*** (0.000)	0.244 (0.400)	0.398*** (0.000)	0.402** (0.011)	0.444 (0.300)	0.436*** (0.000)	0.279* (0.063)	0.829 (0.300)
2015 H2	0.121 (0.167)	0.414*** (0.002)	0.229 (0.400)	0.156 (0.136)	0.235 (0.312)	0.239 (0.400)	0.360*** (0.002)	0.154 (0.439)	0.682 (0.500)
2016 H1	0.052 (0.664)	0.329*** (0.009)	0.197 (0.400)	0.370*** (0.004)	0.346 (0.107)	0.167 (0.900)	0.305** (0.027)	0.063 (0.774)	0.644 (0.500)
GDP growth	0.256 (0.798)	-0.358 (0.731)		1.078 (0.312)	0.198 (0.866)		-0.420 (0.752)	-0.353 (0.766)	
MTRs	-0.118 (0.131)	-0.063 (0.440)		-0.058 (0.484)	-0.065 (0.440)		0.041 (0.623)	0.005 (0.956)	
constant	2.394*** (0.000)	6.723*** (0.000)		2.675*** (0.000)	9.131*** (0.002)		3.036*** (0.000)	6.112*** (0.000)	
Obs.	88	88		88	88		88	88	
R^2	0.873	0.926		0.877	0.915		0.903	0.931	
Trend test passed?	Yes			Yes			Yes		

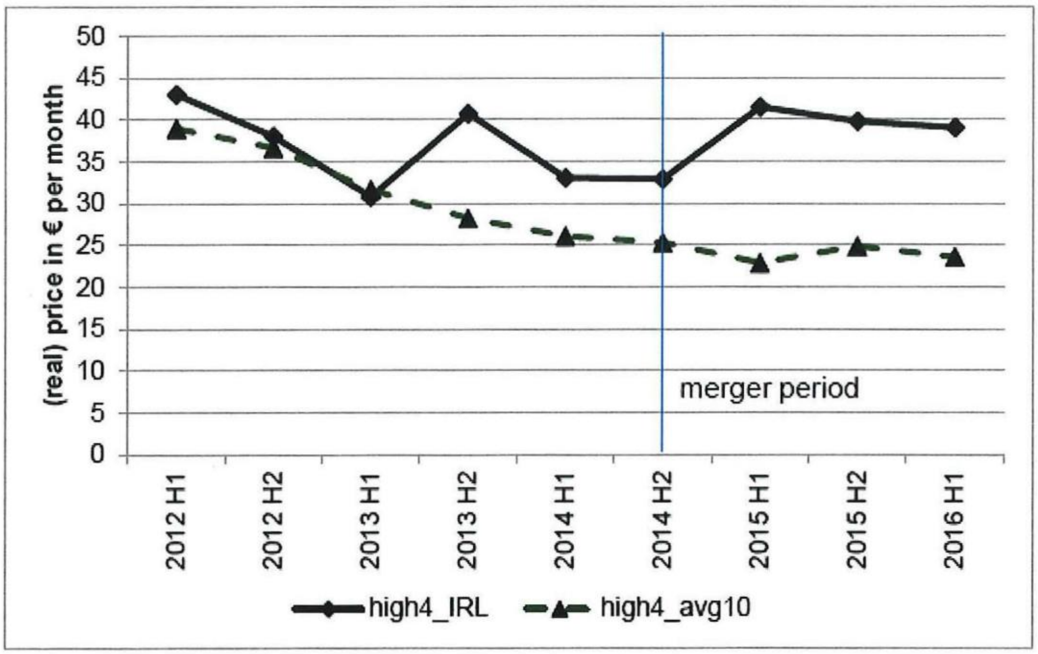
Country and time fixed effects included in the regressions (but not shown in the table)

DiD: Robust p-values in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Synth: Standardised p-values (Galiani and Quistorff, 2016): † treated county has highest RMSP-ratio

For example, as shown below in Table 5 from BEREC (2018), while the difference-in-difference approach **finds statistically significant short term price increase in each basket, the synthetic control group approach finds no statistically significant price increase for any basket over any period of time.**

Figure 9 from BEREC (2018), shown below, indicates **much of the price difference between Ireland and comparison countries for the high basket results from a decline in comparison country prices, rather than increases in prices in Ireland.**



avg10 refers to a simple average of the ten control group countries

Figure 9: Price trends for users with a high usage profile in Ireland

6. *Germany: Telefónica/KPN*

BEREC (2018) uses data from 13 European countries spanning 2012-16, and covering two years prior to the merger and 18 months post-merger. The data do not include MVNO prices, handset subsidies, and business plans and data-only plans. BEREC (2018) estimates statistically significant price increases for all three baskets in the difference-in-difference specification. However, the results are not robust across the difference-in-difference specifications and the synthetic control group specifications.

For example, as shown below in Table 8 from BEREC (2018), while the difference-in-difference approach finds **statistically significant price increases in each basket, with the exception of the low basket in the first half of 2016, the synthetic control group approach only finds no statistically significant price increase for any basket over any period of time.**

Table 8: Results for Germany, 4 cheapest tariffs, country-level, 2013 usage

	Low (4 tariffs)			Medium (4 tariffs)			High (4 tariffs)		
	DiD basic	DiD trend	Synth	DiD basic	DiD trend	Synth	DiD basic	DiD trend	Synth
2015 H1	0.434***	0.458***	0.461	0.202***	0.270*	0.088	0.136**	0.180	0.154
	(0.000)	(0.000)	0.100	(0.004)	(0.083)	0.200	(0.039)	(0.304)	0.400
2015 H2	0.248***	0.277**	0.212	0.139*	0.219	0.043	0.131*	0.181	0.181
	(0.000)	(0.034)	0.300	(0.050)	(0.249)	0.200	(0.071)	(0.402)	0.100
2016 H1	0.454***	0.506***	0.431†	0.348***	0.470**	0.126	0.250***	0.327	0.124
	(0.000)	(0.002)	0.000	(0.000)	(0.048)	0.200	(0.001)	(0.219)	0.400
GDP growth	1.017	-0.000		2.484*	0.480		2.762**	1.362	
	(0.483)	(1.000)		(0.097)	(0.800)		(0.047)	(0.461)	
MTRs	-0.094	-0.002		-0.064	-0.022		0.041	0.062	
	(0.274)	(0.975)		(0.472)	(0.820)		(0.662)	(0.576)	
constant	2.375***	4.555***		2.647***	6.071*		3.022***	4.686*	
	(0.000)	(0.006)		(0.000)	(0.086)		(0.000)	(0.055)	
Obs.	77	77		77	77		77	77	
R^2	0.863	0.922		0.877	0.913		0.899	0.919	
Trend test passed?	Yes			Yes			Yes		

Country and time fixed effects included in the regressions (but not shown in the table)

DiD: Robust p-values in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Synth: Standardised p-values (Galiani and Quistorff, 2016): † treated county has highest RMSP-ratio

In the case of the low basket, it should also be noted that no data is available for the MVNO and service provider segment or for sub-brands of MNOs. The paper points out this may be especially relevant in Germany as the MVNO and service provider segment of the German market is relatively large at approximately 20 percent of the market.

II. Investment and quality effects

B. Studies of no specific merger

Using data from 199 countries around the world for 2000 through 2014, Houngbonon & Jeanjean (2014) find an inverted-U relationship between the intensity of competition (measured by a Lerner index) and investment (measured by capex). **The capex maximizing Lerner index is at 63 percent plus or minus 6 percentage points at the 5 percent confidence level, which corresponds to an EBITDA of 37 percent of total revenue.**

Using an approach similar to Houngbonon & Jeanjean (2014), HSBC (2015) uses capex data from 66 countries for 2003-13 to evaluate the four to three Hutchison/Orange merger in Austria, using a Lerner index as a measure of competition, where L = 1 - (EBITDA/Revenue). The report estimates the **maximum level of investment, as measured by capex, occurs at an EBITDA of 38 percent.** HSBC (2015) reports the average EBITDA of the mobile sector in Europe is significantly below this—on average 31-32 percent. Thus, **the report concludes a four to three merger in Europe would result in EBITDA closer to the optimal amount of 38 percent and would, therefore, lead to higher investment with better outcomes for users.**

Both Frontier (2015) and WIK (2015) find no statistically significant relationships of competition measured by HHI or a four firm (versus three firm) dummy.

Jeanjean & Houngbonon (2015) construct a dataset 38 countries worldwide, spanning the years 2004 to 2013. The data do not include Canada, the U.S., India, and China. They estimate capex at both the firm level (818 observations) and the market level (378 observations). Rather than use the number of firms in a country as a measure of competition, the study uses a dummy variable for each number of firms, with three firms as the baseline. Thus, the regression results are relative to a country with three firms. In addition, the study uses a measure of relative market share as a measure of what the authors call "relative efficiency." **They conclude a merger would be associated with an increase in each firm's investment and firms with a larger market share would make larger investments. They also conclude that aggregate investment is maximized at three or four MNOs.**

Jeanjean and Houngbonon (2017) use a dataset of 50 mobile operators from 17 European countries, spanning the years 2006 through 2015. The data includes operator-level information regarding capex, market share by subscribers (both pre- and post-paid), average revenue per subscriber, EBITDA, and mobile termination rates. Country-level data include the number of mobile operators, the total number of subscribers, the penetration rate of fixed lines, population, gross domestic product (GDP) per capita, and a political variable that aims to capture the position of the government towards the welfare state. Investment is measured by the natural logarithm of capex. Competition is proxied by the number of mobile operators in each country and each firm's market share asymmetry. Market share asymmetry is measured as the difference between each firm's market share and the average market share for the country. **Jeanjean and Houngbonon (2017) find that in markets that are asymmetric (i.e., where firms are of different sizes), an increase in the number of firms tends to have a more significantly negative effect on investment by smaller firms. This suggests that a merger that results in a more symmetric market structure would be associated with a stronger positive effect on investment.**

Woroch (2019) uses a data set of 697 U.S. Cellular Market Areas, spanning the years 2012–2013. Using carrier-level data, he concludes quality and coverage measures are positively related to carrier-level holdings of spectrum as a share of total holdings in the CMA. In particular higher carrier-level holdings of spectrum are associated with statistically significant broader 4G coverage, as well as generally faster and more reliable networks (with mixed statistical significance). In addition, Woroch (2018) concludes carriers with faster and more reliable networks and with a broader deployment of 4G technology are associated with more subscribers.

C. Studies of specific mergers

Genakos, et al. (2018) do not separately estimate effects of individual mergers on investment in specific countries. They use data from 33 European countries for the years 2002-14, with the number of firms, HHI, and entry/exit of firms as independent variables measuring competition. They apply the estimates from the HHI regressions to estimate the effect of mergers in Austria, the Netherlands, and the United Kingdom.

Using the number of firms as independent variable, the estimates of Genakos, et al. (2018) suggest, in separate regressions:

- The addition of a fourth competitor (new entry) would be associated with a price reduction of 8.6 percent;
- The loss of a fourth competitor (e.g., a four to three merger) would be associated a price increase of 15.9 percent; and
- Cumulative net exit of a competitor would be associated with a price increase of 4.3 percent.

Genakos et al. (2018) express HHI as a percent, rather than the standard 0-10,000 scale. Using HHI as independent variable, **they suggest a 10 percentage point increase in HHI would be associated with a 24-28 percent increase in price**. For their three mergers evaluated in their report, they estimate:

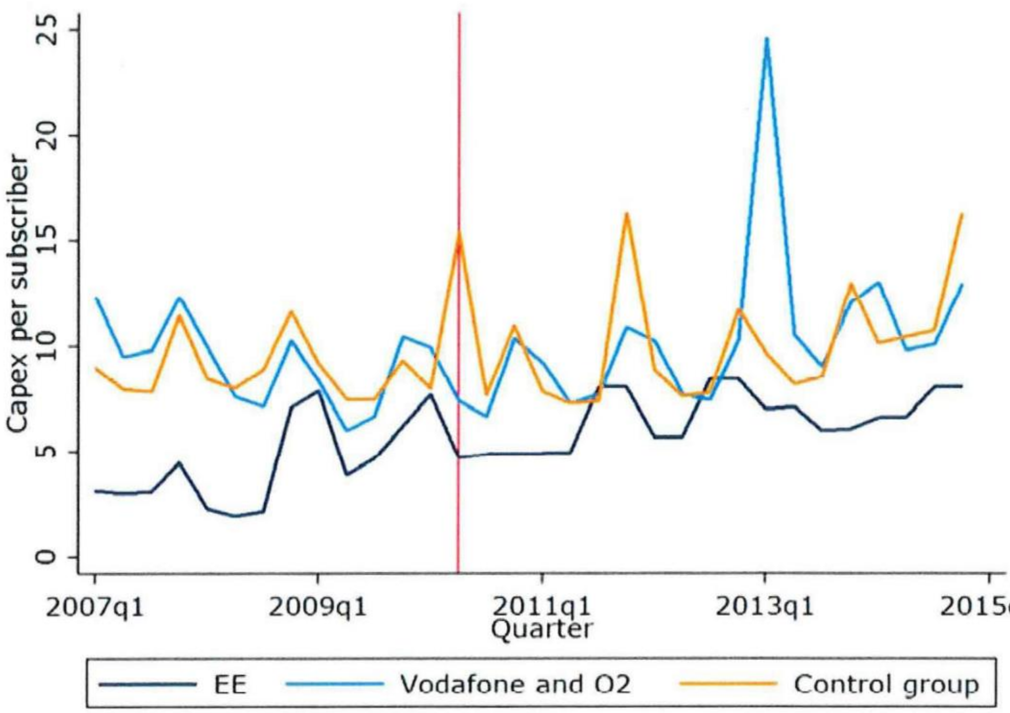
- **The Hutchison/Orange merger in Austria increased HHI by 6.4 percentage points and was estimated to result in 1.2 to 25.5 percent increase investment;**
- **The T-Mobile/Orange merger in the Netherlands increased HHI by 3.6 percentage points and was estimated to result in 0.7 to 14.3 percent increase investment**; and
- **The T-Mobile/Orange merger in the UK increased HHI by 6.7 percentage points and was estimated to result in 1.2 to 26.5 percent increase investment.**

Lear, et al. (2017) reviewed the five to four merger in 2010 in the U.K. between T-Mobile and Orange. The study uses data from 13 European countries spanning 2009-14. The study uses a merger dummy as measure of competition and uses capex and capex per subscriber as measures of investment. The econometric analysis suggests that **the merger was associated with increased investment, as measured by capex. However, estimates calculated using the ratio of capex to the number of subscribers are not significant.**

Figure 6.4 from Lear, et al. (2017) indicates relatively high seasonal variation in capex per subscriber, which could affect the estimates of statistical significance (where "EE" denotes combined T-Mobile and Orange). The authors, however, use several specification to control for seasonality and, "rule out the possibility that the volatility of the results is driven by seasonality in capex data."

GSMA (2017) analyzes the four to three Hutchison/Orange merger in Austria on innovation and quality in mobile services, using data from 17 European countries spanning 2011-16, and using a merger dummy as measure of competition. The study uses 4G coverage data in order to measure the level of innovation and download/upload speeds of 4G and 3G networks as indicators of quality of service. **The estimates suggest that the merger accelerated the rollout of Hutchison's 4G network and that all measures of network quality also increased.**

Figure 6.4 – Capex over number of subscribers, EE against other UK operators and control countries (weighted average)



BEREC (2018) criticizes the approach and data in GSMA (2017):

- No pre-merger 4G download speed data available for Hutchison.
- Limited pre-merger 4G download speed for other Austria operators. Most of the increase in speeds occurred in the two quarters immediately after the merger. BEREC concludes the timing suggests that the increases were not because of the merger.

- Pre-merger, Austria had no 800 MHz spectrum available (and 1,800 MHz spectrum was not allowed for 4G), calling into question HSBC's implication that the merger itself led to increased 4G coverage.

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EXHIBIT 17
TO RESPONSE

NATIONAL
DIVERSITY
COALITION

October 9, 2019

Scott Scheele
Chief, Telecommunications & Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth St., NW, Suite 7000
Washington, DC 20530

Dear Mr. Scheele:

The National Diversity Coalition is one of many organizations that support the merger between T-Mobile and Sprint. It is our belief that this merger holds tremendous potential to greatly benefit people of color throughout California.

T-Mobile is exactly the type of employer we should be supporting, as they have a long track record of promoting diversity and inclusion. Working with the support of our organization, New T-Mobile has committed to further bolstering its credentials in this area in three key ways. First, by continuing and increasing its support for minority organizations in California; second, by increasing workforce diversity in the state; and third, by committing to the diversity of its Board of Directors.

Direct benefits of the merger to California do not stop there. As you know, T-Mobile has stated that upon completion of the merger, it will build a new Customer Experience Center in the Central Valley city of Kingsburg. This important project will not only bring much-needed jobs to the Central Valley, which on its own would be significant—but because of the number of new jobs and the estimated annual salaries, New T-Mobile would be one of the largest and highest-paying employers in the region. There are approximately 1,000 new, fully benefitted jobs at stake.

Another benefit of the merger that will directly impact low-income and ethnically diverse communities are the investments New T-Mobile will make to build a robust, nationwide 5G network. Because these communities depend heavily on wireless service to access the internet, improvements will benefit them directly.

My organization has spent a great deal of time examining what this merger will bring to California. The level of commitment that has been promised in these areas: promoting diversity and inclusion, creating new jobs, and expanding broadband access to underserved communities—is precisely what California needs. This is a remarkable opportunity for our state and I firmly believe that it would be a mistake to pass this up.

Sincerely,

[redacted]

Faith Bautista
President & CEO, National Diversity Coalition

15 Southgate Avenue, Suite 200, Daly City, California 94015 | Phone (650) 952-0522 | nationaldiversitycoalition.org

EXHIBIT 18
TO RESPONSE

October 11, 2019

Mr. Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530
Via e-mail to: scott.scheele@usdoj.gov

RE: *Tunney Act comment on the T-Mobile – Sprint merger proposed settlement*

Dear Mr. Scheele,

As stated in our letter to the Federal Communications Commission of October 31, 2018, the National Hispanic Caucus of State Legislators (NHCSL) supports the proposed merger of T-Mobile and Sprint (New T-Mobile).[1] We believe that the merger will generate material economic and educational benefits for the Hispanic-American community by improving broadband access and digital literacy. We believe the proposed settlement addresses some residual concerns we had previously identified and therefore support its enforcement.

NHCSL in a non-partisan, non-profit organization representing more than 400 Hispanic state legislators throughout the United States, Puerto Rico, and the U.S. Virgin Islands. Our primary mission is to organize Hispanic state legislators to better advocate on behalf of their constituents and Hispanic communities across the nation. In addition to our advocacy role, we provide leadership training and a forum for our members to collaborate and exchange information. Our efforts focus on advancements in education, healthcare, economic development, telecommunications and information technology, and employment and job training for the Hispanic community.

Broadband equity is a key policy issue for NHCSL and its constituents. In 2010, NHCSL released a landmark white paper studying the digital divide in the Hispanic community.[2] Our study showed that broadband adoption was far lower in Hispanic-American communities than in white or African-American communities. We also found that the lack of broadband access imperiled one's

[1] *NHCSL Letter regarding the Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations*, Public Interest Statement, FCC WT Docket No. 18-197 (filed June 18, 2018) ("Public Interest Statement"), available at https://ecfsapi.fcc.gov/file/10311791322711/NHCSL%20letter%20re%20New%20T-Mobile.pdf

[2] *Expanding Opportunities in the Hispanic Community: Solutions for Increased Broadband Access*, National Hispanic Caucus of State Legislators (2010) ("*2010 White Paper*") (https://bloximages.chicago2.vip.townnews.com/nwitimes.com/content/tncms/assets/v3/editorial/7/16/71602168-fa39-5e13-80e0-a16bf9a7d2b9/4db74db1723f2.pdf.pdf).

NHCSL

National Hispanic Caucus of State Legislators health, finances, and ability to participate in modern society. As we noted at the time, "public and private investment is central to full digital inclusion through full access and adoption. Hundreds of billions of dollars are needed over the coming decades to upgrade and expand broadband networks and to enhance sustainable broadband adoption."[3]

While many of these issues have improved in the last eight years, many remain salient as ever, and more investment in underserved communities continues to be a priority. In fact, wireless has become essential to Hispanics, 23% of whom tend to use it as their primary means to access the internet; more than any other group.[4] Fortunately, New T-Mobile has stated that it plans to invest nearly $40 billion to upgrade its nationwide network to 5G. And, because Americans of color are significantly overrepresented in T-Mobile's customer base, much of that investment will directly benefit in communities of color.[5] By combining the complementary spectrum sites and assets of Sprint and T-Mobile and investing in 5G infrastructure build-out to a greater extent than Sprint and the current T-Mobile would separately, New T-Mobile will help further bridge the digital divide by bringing underserved communities greater broadband coverage and quality of service.[6] Its nationwide 5G network is slated to cover two-thirds of the U.S. population by 2020 and nearly 90% of the population by 2024.[7]

We are especially cognizant of New T-Mobile's promises to use their low-band spectrum to improve connectivity in rural areas, which, along with the efforts of other industry members, is key to increasing the quality of life of America's farmworkers, the vast majority of which are Hispanic.[8] In communities without reliable access to high-speed broadband, NHCSL found in 2010 that citizens may not fully participate in the political process due to a lack of information about the issues being decided or the procedures for participation.[9] And while connectivity may have markedly improved for younger urban Hispanics since then, older ones and those in rural areas still need more investment to fully enjoy the benefits of wireless.[10] Civic engagement is a key benefit of broadband deployment, and NHCSL is on the front lines of informing, educating, and promoting the active participation of Hispanic Americans in the civic, political and electoral process. With New T-Mobile's stronger network, more Americans of color will hopefully be able to meaningfully engage in civic participation than have up to this point.

We are not blind to the theoretical danger to competitive pricing of merging the third and fourth largest of the big four nationwide wireless carriers. But we take special note of the pricing

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[3] *Id.* at 8.
[4] Pew Research Cntr., *Digital Divide Narrows for Latinos as More Spanish Speakers and Immigrants Go Online*, p. 15 http://www.pewhispanic.org/wp-content/uploads/sites/5/2016/07/PH_2016.07.21_Broadbank_Final.pdf
[5] Public Interest Statements at 15.
[6] *Id.* at ii, 65.
[7] Public Interest Statement at 59.
[8] Public Interest Statement at 65.
[9] *See 2010 White Paper* at 17; see also *Hispanics and the Future of America*, National Research Council Panel on Hispanics in the United States, NATIONAL ACADEMIES PRESS (2006).
[10] Pew Research, *supra*, p. 7. See also, Yosef Getachew, et al., 5G, SMART CITIES & COMMUNITIES OF COLOR, pp. 19-20 (Joint Center for Political and Economic Studies, June 2017) at https://jointcenter.org/sites/default/files/Joint%20Center%205G%20Smart%20Cities%20And%20Communities%20of%20Color_Final%206.9.17.pdf

commitments that T-Mobile has made with the FCC.[11] And we believe that Sprint would not be able to effectively fund a competitive national 5G transition at a time when bandwidth is king.[12] This is particularly true given the recent revelations that much of Sprint's income has been illegally received from non-closed Lifeline accounts amounting to 30% of its Lifeline billing being fraudulent.[13]

We have consistently stated that because New T-Mobile will increase the total supply of cell sites and overall network capacity in the United States, mobile carriers will still be incentivized to competitive prices. And, as connectivity technologies converge and previously fixed-service-only providers move to provide wireless, we believe that competition, or at least the threat of meaningful competition, will also help keep consumer pricing in the current range or lower it.

We are especially heartened in this regard by the settlement's enforceable commitment that requires New T-Mobile to divest Sprint's prepaid business, including Boost Mobile, Virgin Mobile, and Sprint prepaid, along with certain spectrum assets, to Dish Network Corp., while making available to Dish at least 20,000 cell sites and hundreds of retail locations along with robust access to the New T-Mobile network for a period of seven years.

So, while we have never been as bullish on price reduction predictions brought on by the merger as the petitioners and certain economists were in their FCC filings,[14] we believe it is likely that consumer pricing will at remain at least as competitive as it is today, even as we hope that it improves. That is particularly reassuring to wireless-dependent Hispanics and to Hispanic entrepreneurs, who are more likely than non-Hispanics to use the internet for marketing, public relations, and networking purposes.[15]

NHCSL's work with Verizon, AT&T, Comcast and Charter has taught us that good telecom corporate citizenship goes beyond pricing. We admire and are grateful for many of the non-pricing efforts those companies have made in diversity and inclusion with our communities and will expect the same or better from New T-Mobile.

T-Mobile has a strong history of diverse hiring, as evidenced by the numerous awards and recognitions the company has received for its commitment to diversity. T-Mobile has been named one of the "best employers for Latinos," and CEO John Legere was recognized as a top CEO for diversity.[16] We are confident that New T-Mobile will work to internally increase and advocate for the hiring and promotion of Hispanics in the private sector. New T-Mobile has

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[11] https://ecfsapi.fcc.gov/file/10204163125179/Legere%20Pricing%20Commitment%20Letter%2002.01.2019.pdf

[12] Public Interest Statement at 19.

[13] Of course, we realize that T-Mobile had nothing to do with this issue.

[14] Public Interest Statement at 51.

[15] Parker Morse, *Six Facts About The Hispanic Market That May Surprise You*, Forbes (Jan. 9, 2018), https://www.forbes.com/sites/forbesagencycouncil/2018/01/09/six-facts-about-the-hispanic-market-that-may-surprise-you/#3ba4640a5f30.

[16] Dixita Limbachia, *Top-rated CEOs for diversity: Leaders of T-Mobile, Intuit and HubSpot*, USA TODAY (June 6, 2018), https://usat.ly/2sMdbJg; Alan Goforth, *The Best Employers for Latinos 2018*, LATINO LEADERS (Feb. 28, 2018), https://bit.ly/2MpSafY.

committed to create thousands of new employment opportunities for Hispanic Americans.[17] And NHCSL plans to hold it accountable to that commitment.

The quality of newly created opportunities for Hispanics is as important as the number of positions. New T-Mobile has been slated to feature at least one Hispanic board member, current Sprint Executive Chairman Marcelo Claure, who had a strong track record of C-suite diversity at Sprint, at a time when Hispanics are woefully underrepresented in corporate boardrooms, but who also allowed the Lifeline fraud to happen in his watch. We expect that, as part of accepting his new position, he will commit to specific plans and deliverables to improve services for the neediest. We will also push for the inclusion of another Hispanic in New T-Mobile's board of directors, especially one from a broader, non-industry, community leadership background. Both perspectives should help strengthen services to those most impacted by Lifeline. We hope that the number of Hispanic board members will only increase beyond that.

To underscore many of the above commitments regarding deployment and hiring, T-Mobile signed an extensive Memorandum of Understanding with the National Diversity Coalition that lays the groundwork for their implementation, particularly in California. We expect similar efforts nationwide. For Puerto Rico in particular, they are uniquely important now that AT&T has announced plans to sell, leaving New T-Mobile as the sole nationwide wireless carrier.

In summary, if all goes as planned, the merger of T-Mobile and Sprint will, on balance, improve the lives of our members' constituents and Hispanic-Americans and Americans of color across the United States, Puerto Rico, and the U.S. Virgin Islands by creating diverse jobs, stimulating the economy, and bridging the digital divide. We support the proposed settlement agreement.

Thank you for your consideration.

Respectfully submitted,

[redacted]

Senator Carmelo J. Rios Santiago
Majority Leader – Puerto Rico
NHCSL President

[redacted]

Kenneth Romero-Cruz
Executive Director

[redacted]

Representative Carlos Tobon
Rhode Island
NHCSL Vice President for Policy

[17] Public Interest Statement at 68-69.

EXHIBIT 19
TO RESPONSE

The National Puerto Rican™ CHAMBER OF COMMERCE

866.576.5222
info@NPRChamber.org
www.NPRChamber.org

October 1, 2019

Scott Scheele
Chief, Telecommunications and Broadband Section
Antitrust Division, U.S. Department of Justice
450 Fifth Street NW, Suite 7000
Washington, D.C. 20530

The National Puerto Rican Chamber of Commerce
1629 K St NW
Suite 300
Washington, DC 20006

RE: Justification of Support for T-Mobile/Sprint Merger

To whom it may concern,

We are writing to respectfully offer the National Puerto Rican Chamber of Commerce's (NPRCC) support for the T-Mobile and Sprint merger. We offer our mutual support because we believe it will expedite restoration of fast, reliable broadband service in Puerto Rico, which in turn will help encourage the continued recovery of Puerto Rico's economy and communities after Hurricane Maria. In the long term, NPRCC is confident that the merger will enhance entrepreneurship and competition among small businesses and will improve the quality of life for the citizens of Puerto Rico.

As a non-profit organization created to promote entrepreneurship, innovation and business expansion throughout Puerto Rico and the U.S. mainland. We act as a comprehensive resource for incubating business ideas, providing financing and planning assistance, leveraging new markets and opportunities, and advocating for policies that help our communities grow. NPRCC knows that access to broadband and other telecommunications services is crucial to Puerto Rico's economic and entrepreneurial growth. Education about how consumers, entrepreneurs, and small businesses can leverage the many benefits of broadband and advocacy for policies that will deliver high-speed broadband service and reliable cellular network coverage to as many Puerto Ricans as possible are key tenets of NPRCC's mission.

Communications will be key to Puerto Rico's recovery and growth following years of economic downturn and the devastation caused by Hurricane Maria. The T-Mobile and Sprint merger can help provide this essential connectivity through its broadband services. Puerto Rico has been suffering an economic downturn for over a decade. Numerous factors contributed to the crisis, including population loss, a drastic decline in the island's job market, and overextended credit accompanied by significant debt.

As the DoJ is well aware, Hurricane Maria wreaked havoc on an already economically depressed Puerto Rico in September 2017, and much of the island remains devastated. Before the hurricane, nearly 85% of Puerto Ricans had mobile broadband service, and approximately 35% had access to fixed wireless service. The storm destroyed 91% of cellphone coverage, leaving nearly all Puerto Ricans without mobile phone and Internet service—and many without any communications services at all. This had dramatic consequences. Too many of the Puerto Ricans who died as a result of Hurricane Maria perished because of delays in receiving medical care—delays that may have been avoided if those in need of care could have contacted medical providers or accessed information about where to get help. Nearly a year later, consumers frequently experience inconsistent cell service. Lack of reliable connectivity denies Puerto Ricans a crucial lifeline as the island continues to recover from the storm and makes much-needed entrepreneurship and innovation more difficult to sustain, even for those with better access to basic services.

Puerto Rico appreciates the strong support it has received from the FCC, other administrative officials and agencies, as well as numerous members of Congress and we hope to add the DoJ to this list of supporters. However, despite these efforts, significant investment and deployment from private actors—including carriers like New T-Mobile, who are focused on expanding high-quality, reliable broadband service coverage—remains necessary to bring full recovery and true economic growth to the island.

After the merger, New T-Mobile will expand T-Mobile's and Sprint's existing coverage and capacity on the island to restore economy-boosting, life-saving communications services in Puerto Rico. T-Mobile and Sprint as standalone companies have faced challenges in competing with incumbents AT&T and the Puerto Rico Telephone Company on the island. But together, the combination of Sprint's 2.5 GHz high-capacity spectrum with T-Mobile's 600 MHz low-band, broad coverage spectrum will enable New T-Mobile to deploy an industry-leading mobile 5G platform. New T-Mobile's world-class 5G network will expand service coverage, improve signal quality and network capacity, increase speeds, and offer far better mobile in-home broadband options than Puerto Ricans have today, particularly those living in remote areas. The proposed transaction will enable further rural expansion, which will introduce more competition with AT&T and PRT, prompting rural investment and deployment in response. New T-Mobile has also pledged to continue its current small rural carrier assistance programs and relationships to promote wireless deployment in rural areas.

Access to New T-Mobile's 5G network is also expected to be more affordable than access to other carriers' networks. As New T-Mobile expands its capacity, the cost of delivering each gigabyte of data to customers will go down. This is especially important to the many Puerto Ricans who struggle to afford communications services or live below the poverty line—and who need access to this essential input to get back on their feet and contribute to the island's economic recovery.

New T-Mobile's 5G network will provide the high speeds, low-latency, and reliable connectivity necessary to enable enhanced capabilities in business, health care, and other applications that will help support recovery and promote economic growth.

First and foremost, New T-Mobile's highly reliable network will provide critical connectivity in emergencies. 5G technologies promise to provide faster, nearly real-time, always-on connections to an almost unlimited number of access points. Among other things, the high-capacity network will have the ability to transmit high-resolution video and audio to distant physicians, which will enable Puerto Ricans in remote parts of the island to access higher-quality medical care and to get it faster. Hurricane Maria was a painful reminder of how important it is to have reliable, high-quality connectivity to prevent unnecessary harm or loss of life.

Beyond the most basic needs, New T-Mobile's network will also provide the affordable, high-speed, high-capacity mobile broadband service that the many small businesses and entrepreneurs revitalizing Puerto Rico's economy depend upon. Traditional businesses in Puerto Rico have been struggling for years. But a new generation of Puerto Ricans and an influx of tech workers, including programmers, startup founders, and freelancers have created new companies and services as well as demand for a tech-oriented workforce and next-generation networks. The deployment of 4G LTE in the United States created a huge base of entrepreneurs who leveraged the new technology to spawn new businesses, products, and even new markets. And the arrival of 5G is expected to spur even more innovation and create even greater economic value, contribute to the overall U.S. economy, and reduce the Puerto Rican economy's reliance on transfers from the U.S. Federal Government.

While Hurricane Maria set back some of this progress in Puerto Rico, entrepreneurs have applied their creativity to disaster relief efforts. And after hurricane recovery is substantially complete, Puerto Rico's entrepreneurial communities will leverage the power of 5G to seize the many opportunities next-generation broadband connectivity provides and help Puerto Rico's economy rebound.

While T-Mobile has worked hard to leverage its investment in improve technology and service, it has also committed to continuing investment in Puerto Rico's future and in its network to expand and enhance LTE coverage after this initial deployment. These commitments are impressive, but the merger will further increase and accelerate New T-Mobile's investments and deployments in Puerto Rico. As T-Mobile and Sprint have explained in previously recorded applications, the transaction will generate approximately $43.6 billion in synergies by 2024, and New T-Mobile will dedicate nearly $40 billion to deploying its 5G network over the next three years, a portion of which will go toward the Puerto Rican network. All in all, it is anticipated that these investments will further increase the current and increasingly uncompetitive landscape that exists in Puerto Rico.

Given our experience with T-Mobile, we expect the New T-Mobile to deliver a reliable, high-speed, high-capacity 5G network that will provide a much-needed lifeline to the many Puerto Ricans who have lacked adequate communications and health services as a result of the economic downturn and, most acutely, in the wake of Hurricane Maria. New T-Mobile's mobile broadband will also help promote the growth of the new businesses that are revitalizing the island's economy. Finally, the merger will not harm local competition; instead, it will spur competitive responses from the incumbent providers particularly in more rural and remote parts of the island. The DoJ should approve the merger to help Puerto Rico expedite its recovery and grow its economy.

Respectfully,

[redacted]

Justin Vélez-Hagan
Executive Director

The National Puerto Rican™
CHAMBER OF COMMERCE

JustinV@NPRChamber.org