

Antitrust Chronicle

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Telecommunications

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LETTER FROM THE EDITOR

Dear Readers,

Telecoms markets have long formed the vanguard of antitrust enforcement. From the formative days of the antitrust treatment of the Bell System in the U.S. in the 1960s, to seminal cases such as *Verizon v. Trinko* in the U.S. and cases such as *Wanadoo* in the EU, telecoms issues have long defined the contours of antitrust doctrines.

This dynamic continues to this day, with, for example seminal merger judgments on both sides of the Atlantic in telecommunications markets. Telecommunications, as a network industry, also has many lessons for upcoming debates on the regulation of digital markets. Questions of *ex ante* v. *ex post* regulation, in particular, have echoes of past debates in telecommunications regulation and are therefore of great salience today.

The articles in this edition address these very questions, and do so with a unique contemporary edge. They include contributions from leading academics and practitioners with unique insight into past telecommunications decisions in the antitrust domain, and the lessons they have to bring to the regulatory and antitrust debate going forward. We trust they will be informative and enlightening.

As always, thank you to our great panel of authors.

Sincerely,

CPI Team

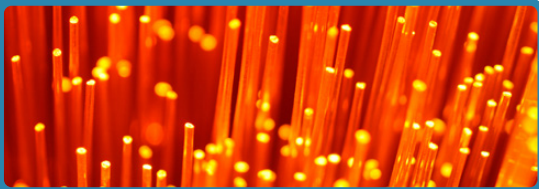
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SUMMARIES

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The Implications of Fixed/Mobile Convergence for Broadband Competition in the United States

By Matthew Jones

In the United States, the leading providers of fixed broadband service are different from the leading providers of mobile broadband service. In recent years, however, a trend known as “fixed/mobile convergence” has caused this line to blur. The major cable companies have launched mobile services that they now sell to customers located within their network footprints. Meanwhile, the major wireless providers have begun offering fixed services over their wireless networks and hope to improve the quality of these services as wireless technology advances. This article provides an overview of these new categories of services and their implications for broadband competition. It then considers the analytical framework that would apply to a merger between a fixed broadband provider and a mobile broadband provider in light of the changing competitive landscape.

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Ex Ante Regulation of Digital Platforms?: Cautionary Tales From Telecommunications

By Timothy J. Tardiff

Whether there should be increased antitrust enforcement, and/or *ex ante* regulation of heretofore lightly-regulated major high-tech companies has attached considerable academic, policy, and popular attention, both in the United States and internationally. Proposals for more vigorous intervention — by new *ex ante* regulation and/or stronger *ex post* antitrust enforcement — resemble measures implemented to accommodate the transition of the U.S. telecommunications from predominantly a regulated landline monopoly providing traditional voice telephone services to one in which such services are also offered as wireless and internet-based offerings. The regulatory and legal battles that accompanied this major technological shift provide important lessons on the efficacy of applying similar mechanisms to promote competition among major high-tech firms and their existing and emerging rivals. Telecommunications experience has shown that in determining whether market power is sufficient to warrant *ex ante* regulation and developing measures to facilitate efficient competition, major regulatory measures are revisited, sometimes several times, in response to changing market, technological, and even political conditions. Rapidly-changing market conditions and technology can make the factual basis and theories justifying *ex ante* regulation obsolete before the necessary actions to update the regulatory regime and/or defer to antitrust to deal with competition problems can be implemented.

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Three Things You Might Not Have Known About Sprint/T-Mobile Merger Litigation

By Nitin Dua & Keith Waehrer

The merger between T-Mobile and Sprint is now complete. After receiving clearance from the DOJ and the FCC, the last significant hurdle it had to clear was the court challenge by a group of states. It was a rare event in which states found themselves pitted against both the merging parties and the federal agencies that had cleared the merger with remedies. A number of issues related to the merger have already been dissected in the public discussion. In this paper, we highlight three significant issues that haven't received as much attention. These include, the court's exclusion of Mobile Virtual Network Operators (“MVNOs”) as participants in the relevant market, T-Mobile's estimation of standalone marginal costs and merger efficiencies, and the somewhat odd remedy that required dismantling of a fully operating network and building of a brand new network to replace that dismantled network.

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Mr. Watson, Come Here. I Want To See You: A Message From the Communications Industries on How To Promote Competition in the Online Platform Space

By Pantelis Michalopoulos & Andrew Golodny

The “legacy” communications industries — plain old telephone service, fixed and mobile broadband access, cable and satellite video distribution — afford two useful teachings for a way forward in the *Google search engine* antitrust case, including a way past the conundrums presented by the complaint filed against Google by the Department of Justice. First, be careful not to throw out the baby of the competition you want with the bathwater of the exclusivity arrangements you do not like. Second, to promote competition, nurture a competitor: find a white knight or two that are not burdened with market power baggage of their own, and give them the resources to compete.

SUMMARIES

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Rebooting Antitrust and Regulation for Digital Communications

By Mark Cooper & Amina Abdu

This paper analyzes the development of a “tight oligopoly on steroids” in the communications sector. It uses Business Data Service as an example because it represents a new choke point in the sector. The other services in the “tight oligopoly” include wireline and wireless, cable and set top boxes, and broadband. Using antitrust concepts in the Merger Guidelines the paper argues that high levels of concentration are reinforced by geographic separations, technological specialization, and product segmentation to magnify market power. The paper also uses Alfred Kahn’s discussion of the justification for regulation to explain the long and successful dual jurisdiction (antitrust and regulation) used to control the pervasive market power in the sector. The paper concludes by showing how the concepts and recommendations can be applied to the digital platforms (search and social media), in which an even worse “tight oligopoly on steroids” exists.

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Active Network Sharing in Belgium: Where Do We Stand?

By Suzanne Jude

The Belgian Competition Authority is investigating the active network sharing agreement between the two biggest Belgian mobile network operators, historic operator Proximus and Orange. The cooperation not only aims at optimizing the parties’ current mobile networks, but also to jointly develop their future 5G infrastructures in Belgium. In January 2020, a decision on the claim by third Belgian mobile network operator Telenet for interim measures suspended the cooperation for two months, in order for the Belgian telecoms regulator to provide an opinion on the case. The decision sheds some light on the possible competition concerns raised by the agreement, in particular exchange of sensitive information and reduced competition on infrastructure. Proximus and Orange have since moved forward with their cooperation. The investigation continues under no strict time limit. Its scope may exceed that of Telenet’s complaint.

WHAT'S NEXT?

For February 2021, we will feature Chronicles focused on issues related to (1) **Gatekeepers**; and (2) **The Music Industry**.

ANNOUNCEMENTS

CPI wants to hear from our subscribers. In 2021, we will be reaching out to members of our community for your feedback and ideas. Let us know what you want (or don't want) to see, at: antitrustchronicle@competitionpolicyinternational.com.

CPI ANTITRUST CHRONICLES MARCH 2021

For March 2021, we will feature Chronicles focused on issues related to (1) **China Edition**; and (2) **2021 Horizons**.

Contributions to the Antitrust Chronicle are about 2,500 – 4,000 words long. They should be lightly cited and not be written as long law-review articles with many in-depth footnotes. As with all CPI publications, articles for the CPI Antitrust Chronicle should be written clearly and with the reader always in mind.

Interested authors should send their contributions to Sam Sadden (ssadden@competitionpolicyinternational.com) with the subject line "Antitrust Chronicle," a short bio and picture(s) of the author(s).

The CPI Editorial Team will evaluate all submissions and will publish the best papers. Authors can submit papers on any topic related to competition and regulation, however, priority will be given to articles addressing the abovementioned topics. Co-authors are always welcome.



THE IMPLICATIONS OF FIXED/MOBILE CONVERGENCE FOR BROADBAND COMPETITION IN THE UNITED STATES

BY MATTHEW JONES¹



¹ Matthew Jones is an attorney in the Antitrust Division of the U.S. Department of Justice in Washington, DC. The views expressed herein do not necessarily reflect those of the U.S. Department of Justice. The author thanks Scott Scheele for his guidance and comments on this article.

I. INTRODUCTION

Most consumers purchase two types of broadband Internet service. “Fixed broadband” allows the user to access the Internet from home, and “mobile broadband” allows the user to access the Internet from a mobile device. In the United States, the leading providers of fixed broadband are different from the leading providers of mobile broadband. Cable companies sell approximately 70 percent of fixed broadband subscriptions nationwide, while three major wireless providers — Verizon, T-Mobile, and AT&T — sell around 98 percent of mobile broadband subscriptions.²

In recent years, however, a trend known as “fixed/mobile convergence” has caused the line between fixed broadband providers and mobile broadband providers to blur. The two largest cable companies — Comcast and Charter — have both launched *mobile* broadband services, which they now offer in bundles with their fixed broadband services. Comcast and Charter currently provide their mobile services over Verizon’s network, but both have signaled that they may deploy their own wireless infrastructure in the future. Meanwhile, Verizon, T-Mobile, and AT&T have all launched *fixed* broadband services over their wireless networks and offer these services in competition with the cable companies. Many observers predict that the ongoing transition of wireless networks from 4G LTE to 5G will improve the quality and competitiveness of these services in the coming years. This trend of convergence through fixed and mobile broadband providers launching new products to compete with one another has the potential to bring more choice to American consumers.

But some see a different trend on the horizon. In other parts of the world, certain fixed and mobile broadband providers have pursued convergence not by launching new products, but by acquiring each other instead. The business case for a merger between a fixed broadband provider and a mobile broadband provider is clear — it allows the merged firm to offer bundles of fixed and mobile services without having to deploy expensive new infrastructure or launch risky new products. Thus, some commentators expect that the major fixed broadband providers in the United States may soon attempt to merge with the nation’s major mobile broadband providers as their counterparts have done abroad.³ Given the changing competitive dynamics in the industry, any attempt at such a transaction would introduce interesting analytical issues from an antitrust perspective. It would also raise important questions about the future of broadband competition in the United States.

In this article, I provide an overview of the mobile broadband services that cable companies have launched in recent years as well as the fixed broadband services that wireless providers have introduced. I then consider the analytical framework that would apply to a proposed merger between a fixed broadband provider and a mobile broadband provider in the United States under antitrust law. While I do not express a view on the outcome of such an analysis, I identify factors that would bear on it. The analysis of such a transaction would require a fact-specific inquiry into the degree to which fixed/mobile convergence has brought the merging parties into actual or potential competition with one another. The more the parties compete or plan to compete, the greater the risk that such a transaction would raise antitrust concerns.

II. CABLE COMPANIES’ MOBILE BROADBAND SERVICES

In 2017 and 2018, Comcast and Charter each launched a mobile broadband service. They provide these services as mobile virtual network operators (“MVNOs”), which means that they do not own their own wireless networks. Instead, Comcast and Charter purchase access to Verizon’s wireless network pursuant to agreements that they signed with Verizon in 2011 and expanded and extended in 2020.⁴ Comcast’s MVNO service is branded “Xfinity Mobile,” and Charter’s is branded “Spectrum Mobile.”

Xfinity Mobile and Spectrum Mobile are very similar offerings. When purchasing either service, customers can choose between plans that offer data on a per-gigabyte basis and unlimited data plans. All plans come with unlimited calls and texts. Comcast and Charter seek to differentiate their services from those of the major wireless providers by pricing the services more competitively and by offering subscribers a greater degree of flexibility, such as the ability to adjust the size of their data plans on an as-needed basis. Notably, both companies sell their mobile services only to subscribers of their fixed broadband services. Because Comcast’s and Charter’s fixed broadband services are available

2 See Press Release, Leichtman Research Group, “About 1,530,000 Added Broadband in 3Q 2020” (Nov. 18, 2020) (listing top U.S. fixed broadband providers by subscriptions), <https://www.leichtmanresearch.com/about-1530000-added-broadband-in-3q-2020>; Mike Dano, *US Wireless Snapshot: Subscribers, Market Share and Q3 Estimates*, Light Reading (Oct. 16, 2020), <https://www.lightreading.com/4g3gwifi/us-wireless-snapshot-subscribers-market-share-and-q3-estimates/d/d-id/764688>.

3 See, e.g. Alex Sherman, *Why T-Mobile’s Deal with Sprint Could Be the Warmup to a Wild Decade of Mergers*, CNBC (Feb. 12, 2020) (“T-Mobile’s deal with Sprint may usher in the next wave of major U.S. media and telecommunications consolidation: the merging of cable and wireless companies.”), <https://www.cnbc.com/2020/02/12/t-mobile-sprint-merger-is-a-warmup-to-more-wireless-cable-mergers.html>.

4 See Mike Dano, *An Inside Look at Cable’s MVNO Business Model*, Light Reading (July 22, 2019), <https://www.lightreading.com/cable/cable-wi-fi/an-inside-look-at-cables-mvno-business-model/d/d-id/752938>; Mike Dano, *Verizon Inks ‘Expanded and Extended’ MVNO Deals with Comcast, Charter*, Light Reading (Nov. 11, 2020), <https://www.lightreading.com/5g/verizon-inks-expanded-and-extended-mvno-deals-with-comcast-charter/d/d-id/765372>.

only within the footprints of their respective cable networks, this means that only customers in these parts of the country may purchase the companies' mobile services.⁵

Comcast and Charter both have quickly signed up subscribers since launching their mobile services. As of the third quarter of 2020, Xfinity Mobile had 2.5 million subscribers, and Spectrum Mobile had 2.1 million.⁶ Comcast's leadership has explained to investors that the company is "committed to accelerating the wireless business" and sees Xfinity Mobile as "a really important product for us going forward."⁷ Indeed, analysts project that the cable companies will increase their share of mobile broadband subscriptions nationwide by more than triple over the next five years.⁸

Reportedly, the cable companies' reliance on purchasing network access from Verizon has caused them to incur relatively high operating costs to provide their services. Some analysts believe that this cost structure will limit the services' growth — one explained that "if the cable industry is to mount a more serious threat to the wireless industry, they will have to significantly lower their costs."⁹ Executives at Comcast and Charter have expressed a desire to lower their costs by increasingly "offloading" traffic from Verizon's network onto infrastructure that they own in order to reduce the amount that they pay Verizon under their MVNO agreements each month. Both companies already offload traffic onto Wi-Fi hotspots located in subscribers' homes and in public locations when subscribers are nearby, but their future plans are more ambitious. Both have signaled that they may deploy their own cellular infrastructure in select, high-traffic parts of their cable footprints.¹⁰

If Comcast and Charter decide to do so, they could look to the efforts of another, smaller cable company as a model. Altice USA, which launched Altice Mobile in 2019, has successfully deployed more than 20,000 LTE small cells along its cable network in the New York City metropolitan area.¹¹ While Comcast and Charter have much larger networks than Altice, they presumably could pursue a similar strategy in the portions of their footprints where their subscribers' mobile traffic is most concentrated. Both companies have already made substantial investments in wireless spectrum licenses.¹² If they were to deploy new cell sites along portions of their networks, they could use this spectrum to transmit traffic directly to subscribers in these areas without relying on Verizon, which could make them more independent and perhaps more competitive in the long run.

Notably, the U.S. District Court for the Southern District of New York considered the extent to which the cable companies' mobile broadband services compete with those of the major wireless providers in *State of New York v. Deutsche Telekom AG*, 439 F. Supp. 3d 179 (S.D.N.Y. 2020). The parties in that case disagreed on whether MVNOs — including the cable companies — should be attributed market shares for purposes of the court's analysis of T-Mobile's acquisition of Sprint. *Id.* at 199. After considering the parties' arguments, the court concluded that MVNOs "should not be considered independent competitors" and that their market shares should instead be attributed to the wireless providers

5 See Xfinity Mobile Frequently Asked Questions, <https://www.xfinity.com/mobile/support/article/frequently-asked-questions> (last visited Dec. 1, 2020); Switching to Spectrum Mobile FAQs, <https://mobile.spectrum.com/support/article/360000135828/switching-to-spectrum-mobile-faqs> (last visited Dec. 1, 2020).

6 See Comcast 3Q 2020 Trending Schedule, Cable Customer Metrics, Total Wireless Lines, <https://www.cmcsa.com/static-files/54cd5216-2f53-4b45-931c-3e00a1e-4d91a> (last visited Dec. 1, 2020); Charter 3Q 2020 Trending Schedule, Customer Metrics, Total Mobile Lines, <https://ir.charter.com/static-files/896bca93-a983-49e4-b710-6b2b7660a1b3> (last visited Dec. 1, 2020).

7 Comcast 3Q 2020 Earnings Call Transcript (Oct. 29, 2020), <https://www.cmcsa.com/static-files/0c5830b3-632e-41c9-9e04-33cf57a1f71a>.

8 See Dano, *supra* note 2.

9 Jeff Baumgartner, *Cable Must Cut Costs To Mount a Serious Mobile Threat — Analyst*, Light Reading (Aug. 19, 2020), <https://www.lightreading.com/4g3gwifi/cable-must-cut-costs-to-mount-serious-mobile-threat---analyst/d/d-id/763328>.

10 See Remarks of Comcast CEO Brian Roberts at Goldman Sachs Communicopia Conference (Sep. 15, 2020) (describing Comcast's "3-tiered strategy" to (1) offer mobile service over Verizon's network, (2) offload traffic onto Wi-Fi hotspots where possible, and (3) over time, deploy "our own wireless network or cellular infrastructure, which we might use to supplement our Verizon network to reap even higher cost savings in those highly dense mobile traffic areas"), <https://www.cmcsa.com/static-files/e51a7371-7065-4a6a-89be-2f22305d92ec>; Daniel Frankel, *Charter Moving Fast on CBRS*, Multichannel News (Nov. 11, 2019) (quoting Charter's SVP of Wireless Craig Cowden as explaining that the company sees "targeted opportunities for mobile offload" given that "something like 85% of outdoor mobile traffic takes place in 15% of geographic locations"), <https://www.nexttv.com/news/charter-moving-fast-on-cbrs>.

11 See Mike Dano, *What to Expect from Altice Mobile*, Light Reading (Sept. 10, 2019), <https://www.lightreading.com/services/mobile-services/what-to-expect-from-altice-mobile-/d/d-id/754024>. Altice offers Altice Mobile over the Sprint network pursuant to an MVNO agreement that provides Altice with the ability to leverage its own core infrastructure in providing the service. *Id.*

12 Comcast spent \$1.7 billion on 600 MHz spectrum in the FCC's broadcast spectrum incentive auction in 2016-17, and Comcast and Charter spent \$459 and \$464 million respectively in the FCC's CBRS spectrum auction in 2020. See Colin Gibbs, *Mapping T-Mobile, Dish, Comcast and AT&T: Who Got How Much 600 MHz Spectrum and Where*, Fierce Wireless (Apr. 18, 2017), <https://www.fiercewireless.com/wireless/mapping-t-mobile-dish-comcast-and-at-t-who-got-how-much-600-mhz-spectrum-and-where>; Joan Engbretson, *Big CBRS Auction Winners: Verizon, Windstream, Dish, Cable Companies*, Telecompetitor (Sept. 2, 2020), <https://www.telecompetitor.com/big-cbrs-auction-winners-verizon-windstream-dish-cox-comcast>.

over whose networks the MVNOs offer service (Verizon, in the case of Comcast and Charter). *Id.* at 200. The court pointed to a number of factors in support of this conclusion, including the small fraction of mobile subscribers that are served by MVNOs, the fact that MVNOs face lower profit margins due to the need to pay their wholesale providers for connectivity, and the fact that MVNOs generally do not have control over the wireless networks underlying their services, which limits their flexibility. *Id.* at 200-01. If the cable companies are able to grow their subscriber bases, reduce their operating costs by deploying their own wireless infrastructure, and ultimately become more independent of their wholesale providers, a court may be more likely ascribe greater competitive significance to them in the future.

III. WIRELESS PROVIDERS' FIXED BROADBAND SERVICES

Each of the three major wireless providers — Verizon, T-Mobile, and AT&T — have begun offering fixed broadband services over their wireless networks.¹³ Customers access these services through gateway devices in their homes that connect to nearby cell sites. Thus far, these services have been provided primarily over 4G LTE technology. Given the limitations of this technology, 4G LTE-based services generally offer download speeds of around 25 Mbps, and quality can vary significantly depending on factors like the distance to the nearest cell site and the congestion load of the cell site.¹⁴ This puts these services at a significant disadvantage relative to the cable companies' fixed broadband services where they are available — Comcast's and Charter's featured service tiers currently offer download speeds of 200 Mbps.¹⁵ For this reason, the wireless providers primarily market their 4G LTE-based fixed broadband services to households in rural areas that may not have access to higher-quality options.

As the wireless providers transition their networks from 4G LTE to 5G, however, many expect that the quality of their fixed broadband offerings will improve. For purposes of analyzing competition, an important question is whether these improvements will be sufficient to make these services competitive with the cable companies' fixed broadband offerings across the country. The wireless providers vary in their answers to this question. AT&T's CEO has explained that he “personally do[es] not believe that 5G is a replacement in the near term for suburban, residential, single-family living units” given their access to “embedded gigabit-capable fixed line networks,” such as cable networks.¹⁶ But the other providers' public statements have been more bullish. Verizon's CEO has called its 5G Home product “totally transformative,” adding that “there's usually one player only in the cable area” and “we think we can definitely compete with that.”¹⁷ T-Mobile's CEO has more colorfully explained that, with its 5G Home Internet service, the company is “disrupting the status quo and mixing it up with bloated, over-confident incumbents that have never been forced to compete for customers.”¹⁸

While Verizon and T-Mobile share in their ambition to compete with the cable companies' fixed offerings, they differ significantly in their plans for how to do so. Verizon has begun rolling out its 5G Home product over high-frequency spectrum known as “millimeter wave” or “mmWave” spectrum. This spectrum allows for the transmission of large volumes of data, which lets Verizon's 5G Home users achieve peak download speeds up to 1 Gbps (with typical speeds closer to 300 Mbps).¹⁹ On the other hand, signals sent over mmWave spectrum generally cannot travel as far as those sent over lower-frequency spectrum, which restricts the geographic area over which Verizon can offer the service. As of this writing, the service is available only in select parts of 12 cities.²⁰

13 Verizon and AT&T also offer fixed broadband services over a combination of DSL and fiber-to-the-home technologies in the regions where they serve as incumbent telephone companies. Given the topic of this article, this discussion focuses on their newly deployed fixed wireless services rather than these wireline services.

14 See, e.g. AT&T Fixed Wireless, Frequently Asked Questions (“Expect speeds of at least 10 Mbps download and 1 Mbps upload. Customers typically experience download speeds of 25Mbps Service performance may be affected by the customer's proximity to a cell site, capacity of the cell site, number of other users connected to the same cell site, surrounding terrain, radio frequency interference, applicable network management practices, and applications used. Typical speeds are not guaranteed and individual results will vary.”), <https://www.att.com/internet/fixed-wireless> (last visited Dec. 1, 2020).

15 For subscribers willing to pay higher monthly prices, Comcast and Charter offer service tiers with download speeds as fast as 2 Gbps in certain parts of the country. See Xfinity Internet, <https://www.xfinity.com/learn/internet-service> (last visited Dec. 1, 2020); Spectrum Internet, <https://www.spectrum.com/internet> (last visited Dec. 1, 2020).

16 AT&T 2Q 2020 Earnings Call (July 23, 2020), https://investors.att.com/~/_media/Files/A/ATT-IR/financial-reports/quarterly-earnings/2020/q2-2020/Final%20Q2%20earnings%20transcript%2072320.pdf.

17 Remarks of Verizon Chairman and CEO Hans Vestberg Presentation at Goldman Sachs Communicopia Conference (Sept. 15, 2020), <https://www.verizon.com/about/sites/default/files/2020-09/GoldmanSachsConf-Transcript-091520.pdf>.

18 Press Release, T-Mobile, “T-Mobile Expands Home Internet Pilot in Grand Rapids” (July 8, 2020), <https://www.t-mobile.com/news/network/t-mobile-expands-home-internet-pilot-in-grand-rapids>.

19 Verizon 5G Home Internet FAQs, <https://www.verizon.com/support/5g-home-faqs> (last visited Dec. 1, 2020).

20 *Id.*; see also Sascha Segan, *For Now, Verizon's 5G Home Internet Service Offers Very Little Coverage*, PCMag (Oct. 5, 2020), <https://www.pcmag.com/news/for-now-verizons-5g-home-internet-service-offers-very-little-coverage>.

In contrast, T-Mobile plans to offer its 5G Home Internet service over low- and mid-band spectrum, which would allow for broader coverage but could be more limited in terms of data transmission. This means that T-Mobile's service may not offer speeds as high as Verizon's. In connection with its acquisition of Sprint, T-Mobile made a binding commitment to the Federal Communications Commission to provide fixed broadband service "covering over half the country's households" over the next six years with average download speeds of at least 100 Mbps and minimum download speeds of at least 25 Mbps.²¹ Despite the fact that these speeds are not as high as those offered by Verizon's mmWave-based service, T-Mobile contends that its offering will "forc[e] incumbent broadband providers to lower prices and improve services to respond to an aggressive new broadband competitor."²²

As the wireless providers increasingly transition their networks to 5G, it will become apparent whether 5G-based fixed broadband services will in fact be competitive with the cable companies' offerings. The answer may well be different for different varieties of 5G. In the end, regardless of technical specifications, the competitiveness of these services will depend on the level of coverage the wireless providers can achieve and the levels of speed and reliability the services can offer.

IV. POTENTIAL MERGERS BETWEEN FIXED AND MOBILE BROADBAND PROVIDERS

While the trend of fixed and mobile broadband providers launching and investing in new product offerings to compete with one another has the potential to increase choice for consumers, certain providers in other countries have taken a different approach to convergence. In a 2017 interview with CNBC, Liberty Global CEO Mike Fries was asked about his company's broadband strategy in the European Union. Liberty Global had recently completed transactions that combined its cable operations with those of wireless providers in Belgium and the Netherlands.²³ Explaining the logic behind these transactions, Fries predicted that the European Union will ultimately have "two fixed/mobile players in every country, and we want to be one of them."²⁴ Fries's comments reflected the growing trend of mergers between fixed and mobile broadband providers in Europe, but they did not stop there. Fries went on to predict that "[t]he U.S. will ultimately go that direction" as well.²⁵

If Fries's prediction comes true, this would represent a departure from the current trend in the United States, where broadband providers thus far have not pursued convergence through consolidation. Given the developments discussed in the prior section, a merger between a fixed broadband provider and a mobile broadband provider in the United States could eliminate budding competition between the merging parties in fixed or mobile broadband markets. Such a transaction would achieve the merging parties' goal of being able to offer bundles of fixed and mobile services, but it would also reduce the number of providers that could ultimately offer such bundles. Due to these effects, any transaction of this kind would likely generate controversy and could draw legal challenges from parties claiming that the transaction would violate antitrust law.

In this section, I consider the analytical framework that would apply to such a challenge. I briefly explore three legal theories on which a plaintiff could rely to challenge a transaction of this kind: (1) that the transaction would violate Section 7 of the Clayton Act by eliminating *actual* competition between the merging parties, (2) that the transaction would violate Section 7 of the Clayton Act by eliminating *potential* competition between the merging parties, and (3) that the transaction would violate Section 2 of the Sherman Act by allowing one merging party to unlawfully acquire or maintain a monopoly.²⁶ To streamline this discussion, I use the term "crossover merger" to refer to a merger between a fixed broadband

21 T-Mobile committed that the service would provide "minimum speeds of 25 Mbps downlink and 3 Mbps uplink (more than fast enough for streaming 4K Ultra HD video); provide average speeds above 100 Mbps downlink; be priced significantly . . . below incumbent provider prices for service with comparable speeds; have no extra charge for the router; have no installation charge; have no contract; and provide customer care from T-Mobile's award-winning Magenta Glove Team." See Letter from Counsel to T-Mobile and Sprint to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-197 (May 20, 2019), [https://ecfsapi.fcc.gov/file/10520302189557/Redacted%20FCC%20Commitments%20Ex%20Parte%20\(05.20.2019\).pdf](https://ecfsapi.fcc.gov/file/10520302189557/Redacted%20FCC%20Commitments%20Ex%20Parte%20(05.20.2019).pdf).

22 *Id.*

23 See Press Release, Liberty Global, "Liberty Global and Vodafone Complete Dutch Joint Venture, Creating a Fully-Converged National Communications Operator" (Dec. 31, 2016), <https://www.libertyglobal.com/pdf/press-release/12-31-2016-Closing-NL-JV-transaction-FINAL.pdf>; Press Release, Liberty Global, "Liberty Global's Subsidiary Telenet to Acquire BASE" (Apr. 19, 2015), <https://www.libertyglobal.com/pdf/press-release/Liberty-Global-BASE-Acquisition-FINAL.pdf>.

24 Giovanni Bruno, "We Believe in Fixed Mobile Convergence," *Liberty Global CEO Fries Says*, TheStreet (Jan. 18, 2017), <https://www.thestreet.com/investing/stocks/we-believe-in-fixed-mobile-convergence-liberty-global-ceo-fries-says-13957608>.

25 *Id.*

26 Some have questioned the usefulness of distinguishing between "actual" and "potential" competition for purposes of forward-looking Section 7 cases. See, e.g. Gregory J. Werden & Kristen C. Limarzi, *Forward-Looking Merger Analysis and the Superfluous Potential Competition Doctrine*, 77 ANTITRUST L.J. 109, 110 (2010) ("The 'actual' and 'potential' labels have not been used to make a meaningful distinction. With unconsummated mergers, the assessment of effects on competition termed 'actual' has been no less future oriented, and no less predictive, than the assessment of effects on competition termed 'potential.'"). For purposes of this article, however, I use these terms in the way that courts have traditionally used them.

provider and a mobile broadband provider. I use the term “crossover product” to refer to a mobile service that a fixed broadband provider has launched or a fixed service that a mobile broadband provider has launched, such as the services discussed in the prior section.²⁷

A. Elimination of Actual Competition

First, a plaintiff could claim that a crossover merger would violate Section 7 of the Clayton Act by eliminating *actual* competition between the merging parties. This claim would likely be focused on geographic areas in which one merging party has launched a crossover product that competes with the other merging party, such as areas in which a merging wireless provider has launched a 5G-based fixed broadband service in competition with a merging cable company, or areas in which a merging cable company has launched a robust mobile broadband service in competition with a merging wireless provider. A court assessing such a claim would follow the familiar burden-shifting framework that courts apply in horizontal merger cases. See *Chi. Bridge & Iron Co. N.V. v. Fed. Trade Comm’n*, 534 F.3d 410, 423 (5th Cir. 2008).²⁸

A plaintiff pursuing this theory would likely allege harm in markets for fixed broadband services, markets for mobile broadband services, or both, depending on which of the merging parties have launched crossover products. A plaintiff could also allege harm in markets for bundles of service. For example, if both of the merging parties have launched crossover products and sell them in competing bundles that include both fixed *and* mobile broadband services, a plaintiff could allege harm in a market for such bundles. In order to sustain such a market definition, the plaintiff would likely try to prove that the market has evolved to the point that a sufficient number of consumers demand such bundles and would not switch to purchasing standalone products in response to a small but significant increase in price. See *United States v. Aetna*, 240 F. Supp. 3d 1, 20-21 (D.D.C. 2017) (explaining the standard for market definition).

Regardless of how the relevant market is defined, a critical factor in a court’s analysis would be the level of success that the crossover product or products have achieved at the time of the merger. The larger the share of the relevant market a crossover product has captured, the more likely the merger would result in a significant increase in concentration and trigger a presumption of anticompetitive effects. Notably, however, even if a crossover product has not captured a large share of the market at the time of the merger, this fact would not be dispositive. If the parties project that the product would capture a larger share in the future, a plaintiff could argue that it would be more appropriate to use this projected market share for purposes of analyzing competitive effects. In making this argument, the plaintiff would find support in the U.S. Department of Justice and Federal Trade Commission’s Horizontal Merger Guidelines, which state that “[i]n analyzing mergers between an incumbent and a recent or potential entrant, to the extent the Agencies use the change in concentration to evaluate competitive effects, they will do so using projected market shares.”²⁹ The question of whether to assign more weight to a crossover product’s actual share at the time of a merger or to its projected share in future years would be up to the court, but in any event, both metrics would likely be relevant to the analysis.

B. Elimination of Potential Competition

Second, a plaintiff could allege that a crossover merger would violate Section 7 of the Clayton Act by eliminating *potential* competition between the merging parties. This claim would likely focus on geographic areas in which neither merging party has yet launched a crossover product to compete with the other party. Potential competition theories “address mergers between firms that are not actual competitors because they produce different products or operate in different geographic markets.” *Ginsburg v. InBev NV/SA*, 623 F.3d 1229, 1233 (8th Cir. 2010). A merger of such firms “does not reduce the number of competitors or raise concentration in the markets of either.” *Id.* As courts have explained, however, Section 7 was “designed to arrest the creation of monopolies ‘in their incipiency’” and to “nip monopoly in the bud.” See *United States v. Gen. Dynamics Corp.*, 415 U.S. 486, 505 n.13 (1974); *Transamerica Corp. v. Bd. of Governors of Fed. Reserve Sys.*, 206 F.2d 163, 169 (3d Cir. 1953). In keeping with this purpose, courts have identified at least two ways in which mergers of this kind may reduce competition in violation of Section 7: by eliminating “perceived potential competition” and by eliminating “actual potential competition.” *Ginsburg*, 623 F.3d at 1234.³⁰

²⁷ Given the topic of this article, this discussion does not address any potential competitive effects involving wireline businesses affiliated with mobile providers, such as the Verizon and AT&T wireline businesses in the regions where they serve as incumbent telephone companies.

²⁸ “Typically, the [plaintiff] establishes a *prima facie* case by showing that the transaction in question will significantly increase market concentration, thereby creating a presumption that the transaction is likely to substantially lessen competition. Once the plaintiff establishes the *prima facie* case, the [defendant] may rebut it by producing evidence to cast doubt on the accuracy of the [plaintiff’s] evidence as predictive of future anti-competitive effects. Finally, if the [defendant] successfully rebuts the *prima facie* case, the burden of production shifts back to the [plaintiff] and merges with the ultimate burden of persuasion, which is incumbent on the [plaintiff] at all times.” *Id.*

²⁹ U.S. Department of Justice & Federal Trade Commission, Horizontal Merger Guidelines § 5.3 (issued Aug. 19, 2010).

³⁰ See also Horizontal Merger Guidelines, *supra* note 29, § 5.3 (“A merger between an incumbent and a potential entrant can raise significant competitive concerns. The lessening of competition resulting from such a merger is more likely to be substantial, the larger is the market share of the incumbent, the greater is the competitive significance of the potential entrant, and the greater is the competitive threat posed by this potential entrant relative to others.”)

Under the “perceived potential competition” doctrine, a merger may be found to violate Section 7 if one of the merging parties is “so positioned on the edge of the market that it exert[s] beneficial influence on competitive conditions in that market.” *United States v. Falstaff Brewing Corp.*, 410 U.S. 526, 532-33 (1973). In other words, this doctrine is focused on the elimination of a present competitive constraint rather than the elimination of a *future* one. The Supreme Court has referred to this constraint as the “wings effect” because the mere fact that the potential entrant is perceived to be waiting in the wings influences the behavior of market participants. See *United States v. Marine Bancorporation, Inc.*, 418 U.S. 602, 625 (1974).

In contrast, under the “actual potential competition” doctrine, a merger may violate Section 7 if it would eliminate a *future* competitive constraint by removing a merging firm that would “probably have entered” the other’s market but-for the merger. See *Yamaha Motor Co. v. Fed. Trade Comm’n*, 657 F.2d 971, 977 (8th Cir. 1981). Courts have identified two preconditions that a plaintiff must satisfy to prove a violation of this kind: “First, it must be shown that the alleged potential entrant had ‘available feasible means’ for entering the relevant market, and second, ‘that those means offer[ed] a substantial likelihood of ultimately producing deconcentration of that market or other significant procompetitive effects.’” *Id.* at 977-78 (quoting *Marine Bancorporation*, 418 U.S. at 633). The Supreme Court has not expressly endorsed the “actual potential competition” doctrine, but some lower courts have applied it. E.g. *Yamaha Motor Co.*, 657 F.2d at 977-80; *United States v. Phillips Petroleum Co.*, 367 F. Supp. 1226, 1231-57 (C.D. Cal. 1973); see also *Fed. Trade Comm’n v. Steris*, 133 F. Supp. 3d 962 (N.D. Ohio 2015) (applying the “actual potential competition” doctrine without reaching a decision as to its validity).

In challenging a crossover merger, a plaintiff could allege harm under both of these doctrines, or under other potential competition theories.³¹ A court applying the “perceived potential competition” framework would look for evidence that market participants had altered their behavior in response to the threat that a merging party might launch a crossover product. A court applying the “actual potential competition” framework would assess the probability that the merging party would have launched a crossover product but-for the merger, and the probability that this entry would have brought significant new competition to the relevant market.

C. Acquisition or Maintenance of Monopoly Power

Third, a plaintiff could allege that a crossover merger would violate Section 2 of the Sherman Act because one of the merging parties is entering into the transaction in order to acquire or maintain a monopoly in a relevant market. Section 2 makes it illegal to “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations.” 15 U.S.C. § 2. In order to support a claim of monopolization, a plaintiff must prove “(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.” *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

While Section 7 is most often used to challenge mergers, Section 2 can be used to do so as well where the transaction itself represents conduct by which a firm is acquiring or maintaining a monopoly.³² The U.S. Department of Justice relied in part on a monopoly maintenance theory when it recently filed suit to block Visa’s acquisition of Plaid, a fintech firm developing a payments platform that posed a threat to Visa’s market position. See Complaint, *United States v. Visa Inc.*, No. 5:20-cv-07810 (N.D. Cal. Nov. 5, 2020). In that case, the Department alleged that Visa is “a monopolist among providers of online debit services, with a durable market share of approximately 70%.” *Id.* ¶ 25. According to the Complaint, Plaid did not compete directly with Visa prior to the proposed acquisition but was uniquely suited to do so in the future. *Id.* ¶¶ 8, 37-41. Thus, in addition to alleging that the transaction would violate Section 7, the Department alleged that the transaction would violate Section 2 because it would “eliminate the nascent competitive threat that an independently owned Plaid poses to Visa’s monopoly power and unlawfully maintain Visa’s monopoly power in the online debit market.” *Id.* ¶ 76.

In order to support a claim that a crossover merger would violate Section 2, a plaintiff would first have to prove that one of the merging parties has monopoly power in a relevant market or would have such power following the merger. This means the plaintiff would have to show that a merging party’s post-transaction market share in a relevant geographic area, such as a fixed broadband provider’s share in a particularly

³¹ See C. Scott Hemphill & Tim Wu, *Nascent Competitors*, U. Pa. L. Rev. (forthcoming 2020) (manuscript at 16-19) (contending that Section 7 challenges to mergers that eliminate nascent competition need not be based on the “perceived potential competition” or “actual potential competition” doctrines and that another framework may be more appropriate), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3624058.

³² The D.C. Circuit has explained that “it would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will—particularly in industries marked by rapid technological advance and frequent paradigm shifts.” *United States v. Microsoft Corp.*, 253 F.3d 34, 779 (D.C. Cir. 2001); see also *id.* (“The question in this case is not whether Java or Navigator would actually have developed into viable platform substitutes, but (1) whether as a general matter the exclusion of nascent threats is the type of conduct that is reasonably capable of contributing significantly to a defendant’s continued monopoly power and (2) whether Java and Navigator reasonably constituted nascent threats at the time Microsoft engaged in the anticompetitive conduct at issue.”).

noncompetitive part of the country, would be very high. If this were true, the plaintiff would also have to prove that the acquisition itself is a means by which the provider is acquiring or maintaining monopoly power. In assessing a monopoly maintenance claim, a court would likely look to whether the monopoly provider perceived the crossover product as a potential threat to its market position and saw the transaction as a way to eliminate that threat.

The viability of each of these three theories in any particular case would depend on the facts at issue, including the degree to which convergence has brought the merging parties into actual or potential competition with one another. Thus, any analysis of a crossover merger would require a fact-specific inquiry into the merging parties' crossover products and their current and projected roles in the relevant markets. The strength of these theories may change over time as providers' crossover products prove to be successful or unsuccessful.

V. CONCLUSION

The trend of fixed/mobile convergence is changing the landscape of broadband competition in the United States. This trend is still in its early days, and its direction is uncertain. If fixed and mobile broadband providers continue to enter each other's markets by deploying new infrastructure and investing in new product offerings, this has the potential to reduce concentration in these markets and increase choice for American consumers. If these providers instead change course and pursue convergence through consolidation, this would have significant implications for the marketplace and would raise interesting analytical questions under antitrust law. The manner in which the industry evolves over the next several years will be critical, both in determining the answers to these questions and in determining the future of American broadband competition more generally.



EX ANTE REGULATION OF DIGITAL PLATFORMS?: CAUTIONARY TALES FROM TELECOMMUNICATIONS

BY TIMOTHY J. TARDIFF¹



¹ Principal, Advanced Analytical Consulting Group, Inc. 112 Water Street, Boston, MA, 02109 (TimTardiff@aacg.com). I thank Professors Victor Glass and Dennis Weisman for their insightful comments on earlier drafts.

I. INTRODUCTION

A major issue in the economics literature, legal literature, public policy debates, and the popular press is whether there should be increased antitrust enforcement, and even perhaps *ex ante* regulation of heretofore lightly-regulated major high-tech companies, such as Google, Facebook, Amazon, and Apple.² This issue has been deliberated upon in Congressional hearings in the United States,³ and in major studies in the rest of the world. For example, in July 2020, the UK regulator released a voluminous report calling for more vigorous antitrust enforcement and the establishment of regulatory codes of conduct for the major high-tech companies,⁴ and in July 2020, the Australian competition authority proposed a regulatory mechanism for resolving pricing disputes involving traditional media companies that deliver content to Google and Facebook.⁵

While the debate over whether stronger antitrust enforcement and regulation of major high-tech companies are necessary is relatively recent, the economic issues that inform sound competition policy are not new. In particular, many of the proposals for more vigorous intervention — by new *ex ante* regulation and/or stronger *ex post* antitrust enforcement — resemble measures implemented to accommodate the transition of U.S. telecommunications from predominantly a regulated landline monopoly providing traditional voice telephone services to one in which such services are also offered as wireless and internet-based offerings. The regulatory and legal battles that accompanied this major technological shift provide important lessons on the efficacy of applying similar mechanisms in an attempt to promote competition among major high-tech firms and their existing and emerging rivals. Those lessons provide insight for evaluating suggestions such as a 2019 University of Chicago Report’s recommendation that the U.S. Congress seriously consider establishing a Digital Authority along the lines of the Federal Communications Commission (“FCC”).⁶ In its discussion of the possible scope of such a regulatory regime, the Stigler Report observed that “the focus of this regulator will be on both carrying out remedies for the antitrust authority that require ongoing oversight, and on developing regulations going forward that are a combination of structural safeguards, such as unbundling or separation, with limited behavioral interventions in areas where traditional antitrust tools are insufficient.”⁷

II. DO WE NEED AN *EX ANTE* REGULATOR? MAJOR ISSUES

Evaluating the merits of *ex ante* regulatory intervention poses several questions. Among the most prominent in the case of telecommunications were (1) what products or services should potentially be subject to regulation; (2) whether the strength of competition for such services is insufficient to the degree that the benefits of *ex ante* regulation likely outweigh the costs imposed on competitors and regulators; (3) in the case where competitors need to interconnect, how are prices and other terms and conditions of interconnection established; and (4) if competition depends on wholesale inputs provided by a monopoly (or near monopoly) competitor, how should the prices and quality of the required inputs be determined.

A. Services to be Regulated

Proper determination of services subject to regulation is similar to the market definition in an antitrust analysis — what products or services face insufficient competition so that regulatory intervention is required. For services for which market conditions and technology are subject to rapid change, a major issue is whether regulatory measures intended to facilitate competition can be timely established and updated as needed to accommodate changing conditions. For example, the earlier periods of the telecommunications industry’s transition from vertically integrated regulated monopoly to competition were characterized by court actions and regulatory policies consistent with a particular view of the industry

2 Recent articles in this journal have addressed some of the recent proposals for stronger antitrust enforcement and *ex ante* regulation. See, for example, Gilman, Alexis J., Sheth, Akhil, Prado, Angel, and Fanchiang, Eric. 2019. “Digital Competition Reports and Merger Enforcement,” *Antitrust Chronicle*, December; Regibeau, Pierre. 2020. “Antitrust Regulation in the Digital Economy,” *Antitrust Chronicle*, October; Wilson, Christine S. and Guniganti, Pallavi. 2020. “FTC Fit to its Purpose: Responding to Kovacic’s Market Investigation Proposal,” *Antitrust Chronicle*, October; Fox, Eleanor M. and First, Harry. 2020. “We Need to Rein in Big Tech,” *Antitrust Chronicle*, October.

3 U.S. House of Representatives, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee of the Judiciary. 2020. “Investigation of Competition in Digital Markets” Majority Staff Report and Recommendations, available at https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf.

4 Competition and Market Authority. 2020. “Online Platforms and Digital Advertising,” July 1, available at <https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study>.

5 Australian Competition and Consumer Commission. 2020. “Draft News Media Bargaining Code,” July 31, available at <https://www.accc.gov.au/focus-areas/digital-platforms/draft-news-media-bargaining-code>.

6 Stigler Committee on Digital Platforms. 2019. *Final Report*, University of Chicago Booth School of Business, Stigler Center for the Study of the Economy and the State, 2019, pp. 100 -104 (“Stigler Report”), available at <https://research.chicagobooth.edu/stigler/media/news/committee-on-digital-platforms-final-report>.

7 *Id.* at. 104-105.

structure that would emerge from the transition, which turned out to be incorrect. Services previously provided by the regulated monopolies would be open to competition that relied on new entrants obtaining wholesale inputs from the incumbent providers that allowed the entrants to provide services similar to those of the incumbent. Incumbent providers were deemed to have a high degree of market power over the mandated wholesale services they provided to entrants. Potential entrants needed to interconnect with the incumbents' networks and in some cases lease network components so they would not have to build entire networks, either because incumbents were the only source for these inputs or other sources (including self-supply) were insufficient to mitigate the incumbents' ability to charge supracompetitive prices or other engage in other forms of anticompetitive behavior.

Among the earliest inroads into the formerly monopoly-provided services were competitive long-distance services offered by companies such as MCI. The U.S. Department of Justice's antitrust suit that resulted in the 1984 divestiture of AT&T into new regional providers of local service, AT&T long-distance, and a separate network equipment manufacturer included the claim that AT&T had made interconnection arrangements between its local companies and the new entrants difficult.⁸ Subsequently, the 1996 Telecommunication Act provided for opening Bell Operating Company (BOC) networks to facilitate local services competition. Subsequently, the development of the internet (at best a secondary or tertiary issue in the 1996 Telecommunications Act) raised similar issues regarding whether providers of broadband access connecting end-use customers and content providers possessed market power sufficient to justify *ex ante* regulation.

B. Evaluating Market Power

While the determination of whether market power is a competitive concern can be similar to antitrust analyses, e.g. approaches used to analyze mergers,⁹ the frequency and manner in which such approaches would be applied would ideally recognize industry characteristics and emerging technological and competitive trends. For example, in its most recent order that rescinded *ex ante* regulation of broadband internet connections that link end users with content providers, the FCC observed that these services are moderately unconcentrated by Horizontal Merger Guidelines standards¹⁰ and that "even two competing wireline ISPs [internet service providers] place competitive constraints on each other. ISPs' substantial sunk costs imply that competition between even two ISPs is likely to be relatively strong."¹¹

As discussed in greater detail below, experience has shown that such competitive assessments supporting major regulatory measures are revisited, sometimes several times, in response to changing market, technological, and even political conditions.

8 See, for example, Crandall, Robert W. 2019. "The Dubious Antitrust Argument for Breaking Up the Internet Giants," *Review of Industrial Organization* 54(4) 633 and Brennan, Timothy J. 1987. "Why Regulated Firms Should Be Kept Out Of Unregulated Markets: Understanding the Divestiture in U.S. v. AT&T," *Antitrust Bulletin*, 32(3) 741-793.

9 Indeed, the FCC has often analyzed market power with approaches that closely resemble the Horizontal Merger Guidelines (U.S. Department of Justice and Federal Trade Commission. 2010. *Horizontal Merger Guidelines*, August 19, available at <https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf>). See, for example, Tardiff, Timothy J. 2015. "Reregulation or Better Deregulation?: Economic Evaluation of Recent FCC Competition Actions," *Journal of Competition Law & Economics*, 11(1) 145-163, available at <https://www.aacg.com/aacg-principal-dr-timothy-tardiffs-article-published/>.

10 Federal Communications Commission. 2018. *Restoring Internet Freedom*, WC Docket No. 17-108, Declaratory Ruling, Report and Order, and Order, January 4, 33 FCC Rcd 311, ¶ 132, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-166A1.pdf.

11 *Id.* at ¶ 126. See, also, Tardiff, *supra* note 9, at 154 and Tardiff, Timothy J. 2007. "Changes in Industry Structure and Technological Convergence: Implications for Competition Policy and Telecommunications Regulation," *International Economics and Economic Policy*, 4 128-130.

C. Establishing Interconnection

Informative telecommunications examples of the need for competitors to interconnect with each other include the early period of long-distance competition and the interconnection arrangements among broadband internet service providers, providers of “backbone” transmission, and content providers. In the former case, interconnection rates have been determined by regulators and subject to frequent adjustment, primarily to prevent uneconomic arbitrage opportunities. For example, local telecommunications carriers in rural areas charged higher rates to terminate long-distance traffic than in non-rural areas, because the network costs in such areas are generally higher in denser areas. A number of companies offering “free” conference calling services located in these rural areas, generating massive increases in long-distance traffic and interconnection revenue, which the local company and the conference call company shared. These arrangements, which persisted for several years, were greatly restricted by the FCC’s imposition of rate caps and other restrictions designed to hinder such uneconomic revenue sharing.¹²

In the case of internet interconnection, prices and other terms have been the result of commercial negotiations, with no *ex ante* regulation.¹³ In 2015, the FCC established a regulatory mechanism for resolving interconnection disputes on a case-by-case basis,¹⁴ which the FCC abandoned in 2018 and deferred to the antitrust authorities to settle any such disputes.¹⁵

D. Mandatory Wholesale Inputs?

The local competition provisions in the FCC’s 1996 order¹⁶ implementing the 1996 Telecommunications Act were among the most heavily-litigated issues in the industry’s transition to competition. These provisions were designed to replace the prevailing regulatory structure that generally prevented vertical integration of local voice services and long-distance services by ensuring that new entrants had competitively neutral access to incumbent networks.

Wholesale inputs (unbundled network elements and resale of incumbents’ retail services) mandated by the FCC’s order were intended to facilitate competition among new vertically-integrated entrants and the incumbent providers, who in turn were allowed to provide long-distance once they had been deemed to have met their interconnection and unbundling obligations. Like the rules for the structurally separated arrangement, the new rules were consistent with a presumed industry structure in which entrants were unable to self-supply the wholesale inputs (or at least needed a jump-start towards eventually building more complete networks). This belief about the inability of entrants to compete without access to parts of incumbents’ networks is similar to the rationale behind proposals to treat digital platforms essentially as utilities and prevent platform owners from offering services on the platform.¹⁷

12 Federal Communications Commission. 2011. *Connect America Fund*, WC Docket No. 10-90, *A National Broadband Plan for our Future*, GN Docket No. 09-51, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *High-Cost Universal Service Support*, WC Docket No. 05-337, *Developing an Unified Inter-carrier Compensation Regime*, CC Docket No. 01-92, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-455, *Lifeline and Link-up*, WC Docket No. 03-109, *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, November 18, 26 FCC Rcd 17663, ¶¶ 656-701, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-161A1.pdf. A similar example of uneconomic arbitrage that resulted from above-cost rates was the location of dial-up internet service provider in areas served by a new local telecommunications entrants, which also generated interconnection revenues far in excess of what regulators had expected. See, for example, Tardiff, Timothy J. 2006. “The Economics of Access and Interconnection Charges in Telecommunications,” in Crew, Michael and Parker, David eds. 2006 *The International Handbook of Economic Regulation*, Cheltenham: Edward Elgar, 279.

13 Federal Communications Commission. 2015. *Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, March 12, 30 FCC Rcd 5601, ¶ 196, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf.

14 *Id.* at ¶ 203.

15 Federal Communications Commission, *supra* note 10, at ¶¶ 143-146.

16 Federal Communications Commission. 1996. *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98; *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95-185, First Report and Order, and Order, August 8, 11 FCC Rcd 15499, available at <https://docs.fcc.gov/public/attachments/FCC-96-325A1.pdf>.

17 Herndon, Astead W. 2019. “Elizabeth Warren Proposes Breaking Up High Tech Companies like Amazon and Facebook,” *New York Times*, March 8, available at <https://www.nytimes.com/2019/03/08/us/politics/elizabeth-warren-amazon.html>. Brennan’s economic analysis of the AT&T divestiture assumed that local service provision was a regulated monopoly. Brennan, *supra* note 8 at 770-771.

III. INSIGHTS FROM TELECOMMUNICATIONS

A. Previous Commentary

Previous reviews of the transition towards more competitive long-distance and local service markets have noted the antitrust and regulatory challenges. For example, while Carlton and Picker¹⁸ observed that “Deregulation can be seen as the result of a consensus that regulation imposed high costs on the economy and that courts are sensibly applying the antitrust laws,”¹⁹ they also noted the challenges in establishing competition policies: “We should not ask antitrust and federal judges to perform tasks for which they are ill suited — namely price setting — and crafting affirmative duties because those tasks require specialized industry knowledge that judges lack.”²⁰ The authors also explained that:

The regulators’ concern with entry is especially acute in network industries in which firms may interconnect with each other, such as airlines, trucking, electricity, railroads, and telecommunications. In such industries, the regulator needs to administer the price and quality of the interconnection. If two firms compete in the end market and one competitor supplies the other a key input, the regulator must worry that the supplier will misuse its control over the input to harm his rival.²¹

Crandall’s review of the regulation and antitrust enforcement of emerging telecommunications competition in the face of rapidly-changing technological and market conditions suggests that the challenges identified by Carlton and Picker proved to be quite daunting:²²

The AT&T divestiture thus “succeeded” in establishing long-distance competition, but neither the decree nor the 1996 Act could pry open local fixed-wire telecom markets. After more than 30 years of contentious regulatory proceedings, court hearings, and even new legislation, local entry occurred due to technical change, not regulation. Cable television companies, wireless carriers, and even fixed satellite companies began to compete with the local telephone companies in offering Internet connections.

In short, technological change created competitive opportunities that regulators could not deliver. As a result, it is difficult to invoke the *AT&T* case as a successful application of antitrust to high-technology industries.

B. Additional Insights

In its order that rescinded its previously-established *ex ante* regulation of broadband internet access services, the FCC observed the following:²³

Among the benefits of the antitrust laws over public utility regulation are (1) the rule of reason allows a balancing of pro-competitive benefits and anti-competitive harms; (2) the case-by-case nature of antitrust allows for the regulatory humility needed when dealing with the dynamic Internet; (3) the antitrust laws focus on protecting competition; and (4) the same long-practiced and well-understood laws apply to all Internet actors.

Among the reasons for caution in dealing in an environment of changing technology and converging markets such as the internet is whether regulation can adapt to such change. In particular, can regulation act quickly enough to modify *ex ante* rules when they are no longer needed and/or undermine efficient competition? The FCC’s experience in (1) modifying rules when the structure underlying a current regime has substantially changed, (2) determining whether market power is high enough so that the benefits of regulation outweigh the associated costs, and (3) updating specific rules suggests otherwise.

18 Carlton, Dennis W. and Picker, Randall C. 2014. “Antitrust and Regulation,” in Nancy L. Rose, ed., *Economic Regulation and its Reform: What Have We Learned?* Chicago: University of Chicago Press, pp. 25-61.

19 *Id.* at 45.

20 *Id.* at 43-44.

21 *Id.* at 44-45.

22 Crandall, *supra* note 8 at 634. In a forthcoming article, Herbert Hovenkamp deemed the AT&T divestiture to be successful, observing that “[t]he AT&T breakup carries some important advice for anyone considering structural relief against monopoly: identify those markets and assets where competition can be made to work well and devise the remedy accordingly.” Hovenkamp, Herbert J. 2021. “Antitrust and Platform Monopoly,” *Yale Law Journal*, Vol. 130 (forthcoming), available at https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=3194&context=faculty_scholarship.

23 Federal Communications Commission, *supra* note 10, at ¶ 146.

1. Industry structure change

As Crandall observed above, the regulatory intervention produced by the 1996 Telecommunications Act coincided with a period of profound changes in the telecommunications industry. Mobile wireless services were rapidly increasing, traditional wireline services had begun their steady decline, and traditional long-distance had disappeared as a separate business with acquisition of the legacy long-distance companies (AT&T and MCI) by incumbent local providers (SBC, taking on AT&T's name and Verizon acquiring MCI).²⁴ At the same time, from 1996 through 2005, the FCC and state regulators were determining the prices and quality standards for the mandated wholesale inputs, and the DC. Circuit Court and Supreme Court were ruling on challenges to these regulatory actions.²⁵ Table 1 depicts some of these changes.

Table 1: Telecommunications Transition in the New Millennium

A. Wireline and Wireless Volumes (million)					
	2000		2005		2018
Total Wireline	194		175		113
Incumbent Wireline	181		144		50
Competitive Wireline	13		31		63
Competitors' Share	6%		18%		56%
Mobile	91		194		343
B. Wireline Competitors' Use of Mandatory Inputs (million)					
	June 2006		June 2018		
	Volume	Percent of Total	Volume	Percent of Total	
Facilities-Based	11	36%	58	92%	
Full Resale	15	50%	3	5%	
Unbundled Loops	4	14%	2	3%	
Total Competitor	30		63		
Sources: Tardiff, <i>supra</i> note 11, at 114 (Figure 3) and 118 (Table 1); Federal Communications Commission 2020. <i>Voice Telephone Services: Status as of June 30, 2018</i> , Industry Analysis Division, Office of Economics and Analytics, March, Table 1, available at https://www.fcc.gov/voice-telephone-services-report .					

The top part of the table presents wireline and wireless volumes for 2000, 2005, and 2018. At the outset of local wireline competition around 2000, total wireline volume — predominately provided by incumbent carriers — was about twice mobile wireless volume. In five years, wireless volume had overtaken declining traditional wireline service, with competitors' share of that volume approaching 20 percent. By 2018, wireless volume was triple that of the continuously declining wireline volume for which incumbent providers had a minority share.

The bottom part of Table 1 shows that as of 2006 — when the litigation over the pricing and provision of mandatory wholesale elements had been largely resolved and the traditional long-distance companies no longer existed as stand-alone businesses, the incumbents' competitors served roughly half their volumes by reselling services provided by incumbents' networks,²⁶ another 14 percent obtained the connection between customers and their networks (unbundled loops) from incumbents, but provided the rest of the required service (e.g. switching) with their own facilities, while a little over one-third of competitors volume was delivered without wholesale inputs obtained from incumbents (facilities-based).²⁷

²⁴ See, for example, Tardiff, *supra* note 11, at 110.

²⁵ *Id.*

²⁶ The "full resale" volume for 2006 in Table 1 included resale of incumbents' tariffed retail offerings and the unbundled network elements platform—a generally low-priced version of resale, which a 2005 FCC order began phasing out.

²⁷ Apart from interconnection facilities so that their customers could communicate with the incumbents' customers.

By 2018, although competitors' volumes had doubled, less than 10 percent of that volume depended on wholesale inputs provided by the incumbents. In short, contrary to the viewpoint underlying regulatory policy at the onset of local competition, by the end of the period incumbent local providers were dominant in neither the wholesale nor retail arenas, because competition and technology had evolved to a point when the wholesale regime imposed by the 1996 Telecommunications Act and implemented by the FCC plays a very minor role in telecommunications competition.

2. Does Market Power Justify *Ex Ante* Regulation?

In addition to its dual role (with the antitrust agencies) of evaluating telecommunications mergers, the FCC has engaged in ongoing proceedings in which it evaluated market power in determining the extent of *ex ante* regulation (if any) for certain services. Among the most prominent of these efforts were the regulatory treatment of high-capacity dedicated facilities used by large businesses and other carriers (recently relabeled "business data services"²⁸) and the broadband services smaller users use to access internet content. Market power assessment in these arenas proceeded for long periods during which broadband technology was rapidly advancing, with a number of twists and turns along the way.²⁹

a. Business Data Services

The FCC began relaxing price regulation of business data services in 1999 by establishing a trigger mechanism that allowed the incumbent providers to operate under reduced or no price regulation in *Metropolitan Statistical Areas* ("MSA") where competitive entry had exceeded specific triggers. The incumbent providers eventually satisfied the triggers for (1) price deregulation in MSAs accounting for 28 percent of the U.S. population and (2) downward price flexibility and contract authority in MSAs accounting for 43 percent of U.S. population. The remaining areas, accounting for 29 percent of U.S. population remained subject to regulation in the form of price caps for larger incumbents and rate-of-return for some of the more rural smaller incumbents.

The FCC's regime was almost immediately challenged (primarily by purchasers of business data services), with a major complaint that the trigger mechanism was too coarse and to detect pockets of market power within parts of MSAs satisfying the triggers. In response, the FCC opened a review of the regime in 2005, suspended the expansion to new areas in 2012 (on the basis that the existing triggers were a poor proxy for whether there was enough competition to justify relaxed regulation). Also, in 2012, the FCC instituted an intensive data collection investigation with the objective of determining whether determining whether competition is sufficient should be undertaken on a more granular level than MSAs. In 2016, the FCC relied on the results of the data collection effort to seek comments on a new regime that would assess market power within *census blocks*, but by the end of the year had announced a plan that would (1) re-impose price regulation on legacy (generally lower capacity/old technology) services, including an initial across-the-board price reduction, but (2) not impose *ex ante* price regulation on higher capacity business data services, which typically rely on internet protocol (IP) technology. However, because of the 2016 presidential election, the FCC never voted to approve the plan. Finally, in 2017, the FCC with its new Republican majority, concluded that competition for business data services was very robust and on that basis limited *ex ante* price regulation to *counties* that failed to meet new trigger criteria, which account for less than 10 percent of U.S. population.

In addition to the duration of the FCC's deliberations on how to regulate business data services, the difficulties of determining whether there was sufficient market power to justify extensive regulation (with politically closely-divided commissions arriving at fundamentally different answers) and if so, the proper geographic scope of that market power illustrate the burdens associated with an effective *ex ante* regulatory regime.

²⁸ These services were previously labeled "special access."

²⁹ The discussion below of business data services is based on Tardiff, *supra* note 9, at 152 -154; Glass, Victor and Tardiff, Timothy. 2017. "Reregulating Business Data Services," *Rutgers Business Journal* 2(1) 73-75, available at <https://rbr.business.rutgers.edu/sites/default/files/documents/rbr-020107.pdf>; and Glass, Victor and Tardiff, Timothy. 2017. "What Kind of Regulatory and Competitive Strategies Work When Customers are Likely to become Competitors?" *Rutgers Business Journal* 2(3), 297 and 311 (endnote 8), available at <https://rbr.business.rutgers.edu/sites/default/files/documents/rbr-020302.pdf>. The discussion of broadband internet access services is based on Tardiff, Timothy J. 2015, "Net Neutrality: Economic Evaluation of Market Developments," *Journal of Competition Law and Economics* 11(3) 701-725, available at <https://www.aacg.com/empirical-evidence-on-justification-for-net-neutrality/>; Tardiff, Timothy J. 2016. "Economic Evaluation of the Factual Basis for," *Criterion Journal of Economics and Innovation* 1 479-495, available at <https://www.criterioninnovation.com/articles/fcc-open-internet-order/>; and Glass, Victor and Tardiff, Timothy. 2019. "A New Direction of the Net Neutrality Debate," *Telecommunications Policy* 43(3) 199-212, available at <https://www.sciencedirect.com/science/article/abs/pii/S0308596118300673>.

b. Broadband Internet Access

The FCC's attempts to regulate broadband ISPs encountered difficulties similar to its experience with business data services — namely strong differences in opinion as to whether market power sufficient to justify regulation prevailed and how that determination should be made. Unlike business data services, where the FCC generally confined *ex ante* regulation to legacy services, the FCC's regulations were imposed on broadband services, which because of technological advances that have continuously improved the capacities and capabilities of the services, have remained at the leading edge of technology. In particular, on several occasions the FCC concluded that there was insufficient competition at particular performance levels (e.g. upload and download speeds), but when competition subsequently developed at those levels, redefined adequate broadband performance to require higher capabilities.

Consistent with federal policy, which includes the policy objective “to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation,”³⁰ the FCC opted not to impose *ex ante* regulation on cable modem service (generally the leading alternative) in 2002 and extended this deregulatory treatment to incumbent telephone companies' broadband services in 2005.³¹ However, starting in 2010, the FCC relied on its mandate to “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion”³² and take “immediate action” if not to conclude that competition was not sufficient. Based on that determination, the FCC imposed a number of new regulations on ISPs, including a non-discrimination rule that it expected would prevent content providers from paying ISPs for priority in transporting their content. The D.C. Circuit upheld the FCC's authority to impose regulation based on its predictive judgment on the state of competition, but overturned specific rules on the grounds that the FCC had not classified ISPs as telecommunications carriers. In 2015, the FCC reclassified ISPs from information services providers to telecommunications carriers, and based on this classification, imposed several rules, including a ban on paid prioritization. The commission explained that this action was needed because “[w]ithout rules in place to protect the open Internet, the overwhelming incentives broadband providers have to act in ways that are harmful to investment and innovation threaten both broadband networks and edge content.”³³ Similar to the change in direction in the regulation of business data services described in the previous subsection, rather than finding overwhelming incentives for anticompetitive ISP behavior, the new FCC majority concluded that competition was sufficient to rely on the antitrust agencies.³⁴

3. Can Regulation Adapt to Changing Conditions?

Interconnection pricing provides interesting examples of the responsiveness of *ex ante* regulation to changing conditions. At the time of the 1984 divestiture of AT&T and its vertical separation of long-distance from local services, long-distance prices (and the access service input long-distance companies needed to obtain from local service providers in order to reach their customers) were priced well above cost in order to subsidize telephone subscription in high-cost areas. While there was some concern that business customers with large volumes could find ways to bypass these access arrangements (e.g. with dedicated connections to long-distance providers) and erode the subsidies for high-cost built into interconnection prices, extensive local competition did not arise until after the 1996 Telecommunications Act. Accordingly, the FCC was able to design and implement a relatively smooth glide-path that lowered interconnection prices a factor of six (from \$0.18 per minute in 1984 to \$0.03 per minute in 2000), with offsetting changes to end-use customers.³⁵

In contrast, establishing local interconnection prices — payments between competing carriers to exchange traffic — proved to be trickier. As noted earlier, arrangements such as between dial-up internet service providers and competitive local carriers and between conference call companies and rural local carriers emerged to generate large amounts of revenue from rates that were well above cost. The FCC began addressing this issue in 2001 by initially capping some of the problematically higher rates, while at the same time, seriously considering whether

30 47 U.S.C. § 230(b)(2).

31 The FCC's 2018 decision to refrain from *ex ante* regulation relied on a study that found that the greater regulatory burden placed on incumbent telephone companies broadband services had depressed their growth. Federal Communications Commission, *supra* note 10, at ¶ 94.

32 47 U.S.C. § 1302(b).

33 Federal Communications Commission, *supra* note 13, at ¶ 103.

34 Nuechterlein and Shelanski similarly concluded that U.S. broadband markets are sufficiently competitive so that aggressive economic regulation is not warranted. Nuechterlein, Jonathan E. and Shelanski, Howard. 2020. “Building on What Works: An Analysis of U.S. Broadband Policy,” September, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3698055.

35 See, for example, Tardiff, *supra* note 12, at 293 (Table 13.1). Over the same period, the offsetting charges for residential customers increased from zero in 1984 to \$3.50 per line per month in 2000.

to mandate bill-and-keep arrangements, where carriers exchange traffic with no payments in either direction.³⁶ Major changes were not implemented until 2011, when the FCC further capped prevailing interconnection charges, followed by a glide-path to bill-and keep over a six-year period (2012-2018) for larger carriers and an eight-year period (2012-2020) for smaller carriers.³⁷ To summarize, interconnection charge reform required a decade to adopt bill-and-keep, which “address[es] arbitrage and marketplace distortions arising from the current intercarrier compensation regimes, and therefore . . . promote[s] competition in the telecommunications marketplace”³⁸ and almost another decade to complete the glide-paths.

IV. CONCLUSION

The Federal Communications Commission’s 2018 decision to rely on antitrust to deal with potential competition issues regarding broadband internet access services acknowledged the important of “regulatory humility needed when dealing with the dynamic Internet.”³⁹

When market conditions and technology are rapidly changing, the factual basis and theories justifying *ex ante* regulation can become out-of-date before the necessary actions to update the regulatory regime and/or defer to antitrust to deal with competition problems can be implemented.

36. See, for example, Federal Communications Commission. 2001. *Access Charge Reform; Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, CC Docket No. 96-262, Seventh Report and Order, and Further Notice of Proposed Rulemaking, April 27, 16 FCC Rcd 9923, ¶ 53, available at <https://www.fcc.gov/edocs/search-results?t=quick&fccdaNo=01-146>. Bill-and-keep arrangements have resulted from commercial negotiations to exchange internet traffic. See, for example, Federal Communications Commission, *supra* note 13, at ¶ 196.

37 Federal Communications Commission, *supra* note 12, at ¶ 801 (Figure 9).

38 *Id.* at ¶ 752.

39 Federal Communications Commission 2018, *supra* note 10, at ¶ 146. The FCC’s cautionary note is similar to the Department of Justice’s (under a Democratic administration) advice to the FCC eight years earlier:

The Department recommends that the Commission monitor carefully those areas in which only a single provider offers—or even two providers offer—broadband service. Although enacting some form of regulation to prevent certain providers from exercising market power may be tempting with regard to such areas, care must be taken to avoid stifling the infrastructure investments needed to expand broadband access. In particular, price regulation would be appropriate only where necessary to protect consumers from the exercise of monopoly power and where such regulation would not stifle incentives to invest in infrastructure deployment.

Ex Parte Submission of the United States Department of Justice to the FCC. 2010. *Economic Issues in Broadband Competition: A National Broadband Plan for Our Future*, GN Docket No. 09-51, January 4, p. 28, available at <https://ecfsapi.fcc.gov/file/7020355122.pdf>.

THREE THINGS YOU MIGHT NOT HAVE KNOWN ABOUT THE *SPRINT/T-MOBILE* MERGER LITIGATION

BY NITIN DUA & KEITH WAEHRER¹



¹ Nitin Dua is a Principal at Bates White, LLC; Keith Waehrer is a Principal at Economists Incorporated. The views expressed in this paper are solely those of the authors and do not necessarily reflect the opinions of Bates White, Economists Incorporated, or their clients.

INTRODUCTION

The recently closed merger between T-Mobile and Sprint went through a long legal process in front of antitrust enforcers across the United States. At one point, the merger was simultaneously being investigated by the Federal Communications Commission (“FCC”), Department of Justice (“DOJ”), California Public Utilities Commission (“CPUC”), and numerous state Attorneys General (“AGs”), including AGs of New York, California, and Texas. Even though the FCC and the DOJ approved the merger, a group of 13 states and the District of Columbia, led by New York and California, sued in the Southern District of New York (“SDNY”) to block the merger.² After a short two-week trial in December 2019, Judge Victor Marrero cleared the merger in February of 2020 opining that the merger is not “reasonably likely to substantially lessen competition...”³ The merger was widely reported on, but as two economists who worked on the case, here we describe three underappreciated aspects of the litigation.

Prior to the merger, T-Mobile and Sprint were the third and fourth-largest mobile wireless carriers in United States, with AT&T and Verizon as the two leading carriers. Together, the four firms accounted for over 95 percent of all wireless network access in the country.⁴ Sprint and T-Mobile had considered merging in the past, including in 2012 and 2014, but didn’t proceed due to likely push back from FCC and DOJ at the time.⁵ In 2019, the two companies tried again and this time found a sympathetic regulator in the FCC and a less combative enforcer in the DOJ.

In its published opinion, the FCC stated that, per a “static” analysis, an unconditional approval of the merger will create upward pricing pressure. However, the FCC also agreed with T-Mobile and Sprint that the merger would yield “quality and dynamic competitive benefits” that will offset the upward pricing pressure.⁶ The FCC approved the merger with several conditions, the most significant of which was the divestiture of Sprint’s pre-paid brand Boost Mobile.⁷ In contrast to the FCC’s published opinion, the DOJ’s public complaint was unequivocal regarding the likely anticompetitive effects from the merger between T-Mobile and Sprint. The complaint stated, among other things, that the reduction in the number of national facilities-based wireless carriers from four to three will reduce competition in the wireless market and harm wireless consumers. The complaint further stated that the merger could lead to collusion between the three remaining facilities-based carriers and that any efficiencies generated from the merger would be unlikely to offset the anticompetitive effects on consumers.⁸

In spite of its concerns, the DOJ cleared the merger with a remedy that went beyond the FCC’s approval terms. As part of this remedy DISH, a satellite television company with substantial holdings of unused wireless spectrum, was identified as the divestiture buyer of Sprint’s Boost Mobile brand. In addition to Sprint’s prepaid business, DISH would to receive a seven-year network access agreement with T-Mobile and certain infrastructural assets that would facilitate the building of its own wireless network. The DOJ’s remedy was designed to keep the number of national facilities-based carriers at four. However, for the first few years, DISH would be what is known as a mobile virtual network operator (“MVNO”) before it hopefully transitions into a full-fledged facilities-based carrier with its own wireless network. This transition period and MVNOs ability to compete with national facilities-based carriers were among the central issues in the case litigated in front of Judge Marrero.

As has been widely recognized, this was a rare situation because the merger litigation was led by a group of states without any support from the two federal agencies responsible for enforcing antitrust in United States (DOJ and FTC). In fact, the DOJ and the FCC had already essentially cleared the merger with remedies when the States filed their complaint in Federal Court to block the merger. The coverage of the trial and the reporting afterwards focused on a number of relevant issues, including Sprint’s ability to be an effective competitor given the strength of its network and financial position, DISH’s incentive to build out a network within a seven-year period required by the remedy, and T-Mobile’s incentive to remain a maverick after the merger. Antitrust practitioners also found interesting Judge Marrero’s decision to put relatively little weight on the testimony from economic experts.⁹ The judge stated in his opinion that the “incompatible visions of the competitive future” laid out by both sides’

² See <https://techcrunch.com/2019/12/09/fourteen-attorneys-general-will-challenge-t-mobile-and-sprint-merger-in-court-this-week/>.

³ Judge Marrero Opinion, p. 167–168; <https://www.consumerreports.org/cell-phone-plans/what-the-t-mobile-merger-with-sprint-means-for-consumers/>.

⁴ Fig. A-3, Communications Marketplace Report (FCC-18-181A1; Dec 26, 2018).

⁵ Judge Marrero Opinion, p. 28; <https://www.consumerreports.org/cell-phone-plans/what-the-t-mobile-merger-with-sprint-means-for-consumers/>.

⁶ Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, p. 5, para. 9–11.

⁷ Boost would have operated as an MVNO with superior wholesale network access terms than a typical MVNO.

⁸ See DOJ Complaint, “United States et al v. Deutsche Telekom AG; T-Mobile US, Inc.; SoftBank Group Corp.; and Sprint Corp.”

⁹ See <https://fortune.com/2020/02/12/fortune-poll-many-americans-are-uneasy-about-the-merger-of-t-mobile-and-sprint/> <https://mattstoller.substack.com/p/the-sprint-t-mobile-merger-a-jump>.

experts “essentially cancel each other out.”¹⁰ These are important issues and each of them may deserve a detailed examination of its own. In this piece, however, as two individuals deeply involved in the litigation we focus on three aspects that didn’t get as much attention either during the trial or in post-trial examination of the arguments made in favor of and against the merger.

II. COURT’S EXCLUSION OF MVNOS (RESELLERS) AS PARTICIPANTS IN THE RELEVANT MARKET

The DOJ’s remedy envisions DISH acquiring Sprint’s prepaid business but not the facilities needed to provide wireless service to its subscribers. Thus, until it builds its own network DISH will operate as an MVNO. DISH will not be unique in its status as an MVNO. MVNOS have been around for decades. MVNOS in the United States do not own the physical infrastructure required for a mobile wireless network.¹¹ They instead lease access to a mobile network on a wholesale basis from the big four (now three) facilities-based wireless carriers and then resell mobile services to end customers, usually under prepaid brands.¹² Most MVNOS help traditional mobile wireless carriers reach specific consumer segments, such as low-income consumers.

One of the disputes at the center of the trial was whether these MVNOS, including the largest MVNO Tracfone (with over 20 million subscribers)¹³ and large cable companies like Comcast and Charter that have their own MVNO offerings, are independent market participants that should be attributed shares for the purpose of determining whether the merger is presumptively anticompetitive based on HHI thresholds. Before the start of the trial Judge Marrero identified this as one of the main issues of the case.¹⁴ If the court agreed with Sprint and T-Mobile and considered MVNOS as independent competitors in a “retail mobile wireless telecommunication services market,” the market shares could have generated HHI levels below the threshold required to meet the presumption of substantial harm due to the merger under the *Horizontal Merger Guidelines* (HMG).¹⁵ Not meeting the presumption would have been seen as a serious blow to the states’ case against the merger because US courts have typically followed a burden-shifting framework.¹⁶ The very first step of this framework requires plaintiffs (states, in this case) to show that the merger is likely to have significant anticompetitive effects. Plaintiffs generally rely on the HMG at this step. The general standards laid out in the HMG include a presumption of significant anticompetitive harm from mergers that lead to further increases in concentration in an already highly concentrated market.¹⁷

Sprint and T-Mobile argued that MVNOS should be treated as market participants because, among other reasons, MVNOS account for a large number of subscribers and independently set their own prices.¹⁸ For calculating concentration statistics, this would require attribution of shares to each MVNO as opposed to attributing all MVNO subscribers to the wireless facilities-based carriers that provide network access. The approach of attributing MVNO subscribers to facilities-based carriers is consistent with what the FCC has done for years in its annual wireless competition reports, citing it as industry practice.¹⁹ However, T-Mobile and Sprint argued that existence of large MVNOS like Tracfone (operating as a reseller for years), and new large entrants like Google (with its *Google fi* MVNO product), Comcast, Altice, and Charter in the MVNO space

10 Judge Marrero Opinion, p. 4.

11 Mobile wireless network includes radio access network, core network, and backhaul connections that connect the cells in the radio access network to the core. MVNOS do not operate radio access networks, which are critical for the provision of mobile wireless telecommunication services. Most MVNOS do not own any facilities—i.e., radio access network, core network, or backhaul.

12 See FCC Annual Report: Federal Communications Commission, “Consolidated Communications Marketplace Report - 2018” (Report FCC 18-181, Dec. 26, 2018), at ¶¶7, 16.

13 Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, p. 128, footnote 191.

14 Court transcript, December 6.

15 U.S. DOJ and Federal Trade Commission, *Horizontal Merger Guidelines*, August 19, 2010. “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.” According to the guidelines, markets with HHI above 2,500 are considered highly concentrated.

16 Antitrust, Vol. 33, No. 2, Spring 2019. “The Four-Step Rule of Reason.”

17 Once the plaintiff has met their burden, the burden shifts to the defendants (Sprint and T-Mobile, here) who have to show that there are aspects of the merger that would offset the anticompetitive effects (such as, efficiencies from the merger). And, finally, the burden moves back to the plaintiffs who have to successfully rebut the defendant’s case and show that there are reasonable alternatives to a merger that would help the defendant achieve its procompetitive objectives.

18 FCC opinion, p. 32, para. 75. Judge Marrero Opinion, p. 37.

19 FCC footnote 90, 20th competition report, “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.” DISH, a new MVNO as a result of the merger, also stated in 2018 (in a petition to deny the Sprint/T-Mobile merger) that “MVNOS are likely not effective competitors to facilities based carriers in light of these operators’ dependence on their landlord carriers’ consent. . . .” Petition to Deny of DISH Network Corporation at p. 6, *In re Applications of T-Mobile US, Inc. and Sprint Corporation*, No. 18-197 (F.C.C. Aug. 27, 2018), ¶103.

increased the importance of MVNOs as competitors. Because large MVNOs, due to their size and presence in other related markets, could, in theory, bargain with the four major wireless facilities-based carriers to get network access at sufficiently low rates to make them competitively independent of the carriers that lease them their network capacity. Additionally, some of the MVNOs, like cable companies, could use their mobile products as loss leaders in an effort to gain more cable subscribers. However, the key issue from an antitrust standpoint was whether MVNOs could effectively act as competitive restraints on the facilities-based wireless carriers. The court had to settle whether MVNOs could be considered independent competitors to the four nationwide carriers. That is, could an MVNO be an effective competitor to the carrier it leased network capacity from?

One of the states' economic experts, Professor Carl Shapiro, testified to the states' case on this question. There are at least two main aspects of MVNOs that render them ineffective as competitive constraints on facilities-based carriers. First, retail sellers of mobile wireless services compete on network quality (e.g. network speed, network coverage) and invest billions of dollars in maintaining and upgrading their network to meet the data needs of their subscribers. MVNOs simply cannot compete on network quality because they do not own a network. This, in turn, limits their ability to steal subscribers from facilities-based carriers by increasing quality. Second, even if MVNOs were able to survive in the market as low margin competitors, given their low margins, they have limited ability to adjust prices in order to steal business from facilities-based carriers. Importantly, facilities-based carriers do not have much incentive to compete with MVNOs either. This is because of the large margin that facilities-based carriers earn on MVNO subscribers.

The evidence presented at the trial showed that Tracfone, the largest MVNO in the market, had a one percent profit margin, after covering marginal costs, including the cost of network access. T-Mobile, one of the four nationwide carriers, in comparison, had about a 50 percent profit margin, after covering marginal costs. Tracfone's low margins are explained by the high fees it pays for network access. Operating at low margin and high costs simply means that Tracfone and other MVNOs (with similar or likely even smaller margins) have very limited ability to compete for new customers on the basis of prices.

The evidence presented at the trial further showed that on every new customer Tracfone pays, in addition to subscriber acquisition costs, nearly \$15 per month in network access costs. Tracfone's MVNO products have an average monthly price of about \$25. At a one percent margin, Tracfone earns approximately 30 cents on every new subscriber. In contrast, on an average MVNO subscriber, T-Mobile earns around \$11 from what it charges MVNOs like Tracfone for network access. This ability of the facilities-based carriers to extract most of the value from a new MVNO subscriber clearly shows that MVNOs are best considered as partners instead of competitors to the four nationwide facilities-based carriers. Indeed, the sentiment is reflected in Verizon's recent statement announcing its intention to acquire TracFone in a \$6 billion deal.²⁰ Verizon explained in its public announcement that the acquisition of a "longtime partner" (i.e. TracFone) expands Verizon's portfolio "into the value segment."²¹ MVNOs' lack of independence does not mean that they do not compete with the facilities-based carriers at all. Rather, it means that facilities-based carriers own or control the important levers of competition and can easily limit MVNOs from acting as a competitive constraint. This was echoed in the judge's opinion. He stated that, "the mere fact that a firm may be termed a competitor in the overall marketplace does not necessarily require that it be included in the relevant product market for antitrust purposes."²²

The analysis underlying the court's decision to not consider MVNOs as independent competitors is generalizable and can be effectively used for studying competition in other industries where resellers and manufacturers sell products alongside each other in a retail market. To understand if a reseller is an independent competitor to the manufacturer, one may ask if the reseller has the wherewithal to independently compete on price and quality. If the inputs supplied by the manufacturers account for a significant percentage of the reseller's production cost and there are few available substitutes to those inputs, it is difficult for the reseller to meaningfully act as a competitive constraint on the manufacturer.

20 See <https://www.theverge.com/2020/9/14/21435980/verizon-tracfone-acquisition-prepaid-phones-budget>.

21 See <https://www.verizon.com/about/news/verizon-to-acquire-tracfone?AID=11365093&SID=66960X1514734Xf3f12b702cccfb06badbfdcd3c049656&vendorid=CJM&PUBID=100084481&cjevent=6ab83eeb2dc411eb809302e60a240614#donotlink>.

22 Judge Marrero Opinion, p. 37.

III. T-MOBILE'S ESTIMATION OF STANDALONE MARGINAL COSTS AND EFFICIENCIES FROM THE MERGER

Early in their advocacy for getting the merger through without divestitures, Sprint/T-Mobile presented an argument that the efficiencies from the merger outweighed the anticompetitive effects. The Horizontal Merger Guidelines place a high bar on efficiency evidence.²³ While the FCC was sympathetic, the DOJ did not accept these arguments and required parties to enable DISH's entry in the retail mobile wireless market.²⁴ Efficiency arguments were a large part of the testimony of Sprint/T-Mobile's economic expert, Professor Michael Katz. Most of the arguments in court about the efficiencies claimed by Sprint/T-Mobile related to the sensitivity of the marginal cost reduction estimates to assumptions relating to the availability of spectrum to the standalone firms and the network speed requirements of mobile wireless users. A little discussed aspect of the models that Sprint/T-Mobile used to estimate cost savings is that a significant fraction of the predicted efficiencies were the result of network cost increases that the standalone Sprint and T-Mobile would face in the period immediately after the planned closing date of the merger, as opposed to the merged firm enjoying substantially lower network costs than the pre-merger standalone firms.

That is, the model used by Sprint and T-Mobile predicted large marginal cost increases for the standalone firms post-merger rather than a large marginal cost decrease for the New T-Mobile. This was notable because it implied that without the merger there would be a significant increase in marginal costs that there had been no indication of in the pre-merger period. This increase in marginal costs however has a somewhat contradictory source as it requires a large increase in the demand for speed by consumers, which would seem unlikely to arise unless speed became less expensive and not more expensive.

The core of Sprint/T-Mobile's intuitive explanation for its efficiency claims was that the combination would be multiplicative as opposed to additive in terms of wireless network capacity. T-Mobile's President of Technology, Neville Ray, explained in public filings that "[t]he combination of the two companies does not simply double the network capabilities, but instead provides a multiplicative effect for the overall capacity of the New T-Mobile network."²⁵ The effect of the merger on network capacity is central to the issue of merger efficiencies relevant to the antitrust review. More potential capacity implies lower marginal costs.

T-Mobile's public filings to the FCC explained how network capacity is calculated with the following simple formula:

$$\text{Network capacity} = (\# \text{ cell sites}) \times (\text{MHz per site}) \times (\text{Spectral efficiency}).^{26}$$

In words, network capacity is equal to the number of cell sites (i.e., cell towers) times the amount of spectrum deployed at those sites times a factor relating to the efficiency of the communications standard being used. Sprint/T-Mobile did not claim that there would be an improvement in spectral efficiency as a result of the merger, but that the merger would have a multiplicative effect on network capacity because more spectrum would be deployed on more cell sites.

According to this formula, the network capacity of the New T-Mobile would be:

$$\begin{aligned} \text{New T-Mobile capacity} \\ &= [(\# \text{ cell sites})_S + (\# \text{ cell sites})_T] \times [(\text{MHz per site})_S + (\text{MHz per site})_T] \\ &\times (\text{Spectral efficiency}), \end{aligned}$$

Subscripts S and T in this formula stand for Sprint and T-Mobile. Simple algebra using the two formulas above shows that the increase in capacity due to the combination of the two networks can be written as:

$$\Delta \text{Capacity} = [(\# \text{ cell sites})_S \times (\text{MHz per site})_T + (\# \text{ cell sites})_T \times (\text{MHz per site})_S] \times (\text{Spectral efficiency}).$$

²³ HMG, §10.

²⁴ FCC Memorandum Opinion, p. 69, para. 157: "While we are confident that the transaction will lead to significant marginal cost savings, developing a precise estimate of those savings is a difficult and inherently uncertain task." DOJ Complaint p. 8, para. 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."

²⁵ DECLARATION OF NEVILLE R. RAY, p. 13. (Page 177 of the public interest statement and appendices).

²⁶ *Ibid.*

Depending on the magnitude of the inputs, this formulation has the potential to imply a very large increase in capacity relative to the sum of the capacities of standalone Sprint and T-Mobile. For example, for a hypothetical merger of two symmetric networks, the formula implies that the merged firm's network capacity would be double of what could be achieved by just summing up the capacity of standalone firms.

While the simple formula provides a good approximation of the technological explanation for potential efficiencies, it does not account for a number of real-world complications that are important for a detailed quantification of efficiency claims in the context of a merger review. For example, to achieve the efficiencies implied by the formula above, New T-Mobile would need to make significant investments in deploying new radios on the cell towers it intends to keep in service. This leads one to ask if the merged firm would have the incentive to make such an investment. Likely recognizing this, Sprint/T-Mobile did not rely on this formula for quantification of efficiency claims. Instead, T-Mobile created a complicated model that had its origins in an ordinary course network engineering tool that helped T-Mobile predict cell site congestion.

Putting aside plaintiff arguments that the efficiencies associated with deploying Sprint's spectrum on T-Mobile's cell sites is not merger specific and thus should not be considered as an offset to the anticompetitive effects of the merger, there was yet another issue with Sprint/T-Mobile's efficiency claims. The New T-Mobile planned to keep only 30 percent of Sprint's former cell sites.²⁷ This fact undercut the efficiency logic of the simple formula, as it has the effect of reducing the potential capacity gains. In the illustrative example of symmetric networks described above, if only 30 percent of the cell sites from one of the merging companies are kept, capacity increases are greatly reduced. Instead of a hypothetical 100 percent increase in capacity, the simple formula would imply only a 30 percent increase in capacity. While still potentially large, not quite the multiplicative effect that was claimed publicly.

A quantitative estimate of the effects of the claimed efficiencies needs to be compared with an estimate of the anticompetitive effects arising from the merger. While the simple formula implies significant potential efficiencies, measures of unilateral effects presented in the court implied that the actual efficiencies would need to be extraordinarily large to reverse the predicted price increase from the merger. For example, Professor Carl Shapiro testified that in order to reverse the price effect on T-Mobile's post-paid customers, the New T-Mobile's marginal costs would need to decrease by 90 percent.²⁸ The supersized cost reductions needed to reverse the post-merger unilateral incentive to raise price were due to the relatively high diversions between Sprint and T-Mobile and the relatively high margins that facilities-based wireless carriers enjoy. Even with the multiplicative effect described in the Sprint/T-Mobile filings, it is a steep uphill climb to establish efficiencies large enough to overcome the unilateral price effects predicted from the merger.

To quantify marginal cost savings, Sprint/T-Mobile relied on a network congestion model that predicted capacity expansion needed in response to predicted data demand increases for each of the three networks (standalone Sprint, standalone T-Mobile, and the New T-Mobile). The marginal cost was derived from the cost of adding the capacity needed for the increased data use associated with an increase in the number of subscribers. As described in the testimony of Professor Fiona Scott Morton, one of the plaintiff's economic experts, most of the difference between the predicted cost of the New T-Mobile and predicted costs of the standalone Sprint and T-Mobile were the result of a large marginal cost increase for the standalone firms that the congestion model conveniently predicted would occur soon after the closing of the merger. According to a demonstrative accompanying Professor Scott Morton's testimony, the congestion model predicted a threefold increase in standalone Sprint's costs from under \$1 per subscriber per month in 2020 to almost \$3 per subscriber per month in 2022. The model also predicted a sudden two-fold increase in marginal costs for the standalone T-Mobile, from a little over \$3 in 2020 to over \$6 in 2022.²⁹ Such large cost increases seem unlikely to have occurred in the past as wireless plans prices have been mostly stable or decreasing.³⁰

The marginal cost increases for the standalone firms, as predicted by the model, occur during the 5G implementation period (i.e. 2020 and beyond). While the facilities-based carriers will need to make significant investments to upgrade their networks as part of the transition to 5G, these costs are different from marginal costs that are key to the efficiency claims. Among the technological benefits of 5G are increased spectral efficiency and an increase in the wave lengths of usable spectrum, both of which have the effect of expanding network capacity as defined in the simple formula that Sprint/T-Mobile claimed as support for their efficiency argument. Holding other factors constant, these technological advancements should lower the marginal costs of the standalone firms.

27 DECLARATION OF NEVILLE R. RAY, June 2018 states that New T-Mobile would keep 11,000 of Sprint sites. Dish's petition to deny of dish network corporation, <https://ecfsapi.fcc.gov/file/108271088719800/REDACTED%20DISH%20PTD%20Sprint%20TMO%208-27-18.pdf>. "...T-Mobile's AWS-3 spectrum will be deployed on all retained Sprint sites (11,000) (out of Sprint's existing 46,000 sites)."

28 Trial Transcript, p. 708.

29 Trial demonstratives of Prof. Fiona Scott Morton, p. 20.

30 Trial transcript, p. 684.

The key assumption underlying Sprint/T-Mobile's efficiency quantification was that mobile wireless users would require significantly higher data speeds with the introduction of 5G. Professor Scott Morton testified that these assumed data speeds were much greater than those required by applications currently used on mobile phones, such as streaming high-definition video.³¹ Significantly higher speeds predicted by Sprint/T-Mobile would only be used by mobile consumers if there was widespread adoption of new uses such as applications involving augmented or virtual reality in environments where Wifi access is not available. Putting aside the likelihood that Wifi would remain the preferred source of high-speed data applications, one would only expect such an adoption on mobile wireless networks if the cost of achieving the required faster speeds decreased, so it seems inconsistent to simultaneously predict an increase in marginal costs per subscriber (without the merger) while at the same time assume a large increase in the demand for network speed that would likely only occur if the cost of that speed were decreasing.³²

IV. DOJ'S REMEDY THAT INVOLVED THE DISMANTLING OF A WORKING NETWORK WHILE SIMULTANEOUSLY REQUIRING THE CONSTRUCTION OF A NEW NETWORK

According to DOJ's complaint and other filings, but-for the remedy, the merger was anticompetitive and thus would have been challenged.³³ The remedy required T-Mobile and Sprint to divest selected assets to DISH and bound DISH to commitments, enforced with financial penalties, to follow through with the construction of a new wireless network.³⁴ Thus, the remedy envisions recreation of a fourth independent facilities-based wireless competitor. The competitive impact statement published by the DOJ indicates that creation of a new fourth competitor to replace Sprint is critical.³⁵ DISH was seen as uniquely situated for this role given its large unused spectrum holdings that could be used in the creation of this new network.³⁶

The remedy negotiated by the DOJ requires the divestiture of all of Sprint's prepaid business and subscribers to DISH.³⁷ In addition, DISH has been given the option to acquire at least 400 retail locations that the New T-Mobile decided not to retain. However, the asset package divested to DISH is missing the network infrastructure required to provide service to DISH's newly acquired subscribers, which is the key asset needed to operate as an independent facilities-based competitor. To solve this issue, DOJ's remedy creates incentives for DISH to build a new network of its own. To help facilitate the building of a new network, the divestiture package includes options for DISH to acquire 20,000 decommissioned Sprint cell sites and certain spectrum assets.³⁸ Given that building a network from scratch takes years and DISH will need to provide service to its acquired subscribers beginning immediately, for a period of up to seven years, the New T-Mobile will provide the required network service through a MVNO agreement with DISH.³⁹

31 4K video is not yet widely used on mobile handsets and even it requires significantly lower speeds than Sprint/T-Mobile's efficiency quantification assumed would be required in the near future. See Trial transcript, p. 2210.

32 A reasonable questions to ask here is whether such an increase in demand might be driven by AT&T and Verizon's low costs for high speeds. However, given the spectrum holdings of the 4 national facilities-based carriers pre-merger, it would seem that Sprint was better positioned than any to expand capacity at the lowest cost. Sprint by far had the most spectrum on a per subscriber basis than any of the other carriers. See <https://www.fiercewireless.com/wireless/25-charts-spectrum-ownership-united-states>.

33 See DOJ complaint, *United States et al v. Deutsche Telekom AG; T-Mobile US, Inc.; SoftBank Group Corp.; and Sprint Corp.*

34 <https://www.justice.gov/opa/pr/justice-department-settles-t-mobile-and-sprint-their-proposed-merger-requiring-package>; DOJ Stipulation and Order, *United States et al v. Deutsche Telekom AG; T-Mobile US, Inc.; SoftBank Group Corp.; and Sprint Corp.*

35 DOJ Competitive Impact Statement, *United States et al v. Deutsche Telekom AG; T-Mobile US, Inc.; SoftBank Group Corp.; and Sprint Corp.* "The elimination of a fourth national facilities-based mobile wireless carrier would remove competition from Sprint and restructure the retail mobile wireless service market." "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." Without the relief provided in the proposed Final Judgment, neither entry nor expansion is likely to occur in a timely manner or on a scale sufficient to replace the competitive influence now exerted on the market by Sprint."

36 <https://www.nytimes.com/2019/07/26/business/media/sprint-tmobile-merger.html>. "Under the agreement's terms, Mr. Delrahim said, Dish is in a unique position to succeed."

37 In addition to the terms intended to make DISH a new fourth competitor, DOJ's remedy include a number of "behavioral" components. It includes such commitments in the form of merging parties' commitment to abide by the terms of their existing MVNO agreements and to extend such agreements on their existing terms, subject to certain limitations. The remedy also requires New T-Mobile and DISH to provide support for eSIM technology and requires them to adopt certain policies and procedures regarding the "unlocking" of handsets. See Proposed Final Judgment at §§VII.A, VII.B–VII.F, *United States et al. v. Deutsche Telekom AG, et al*, No. 1:19-cv-02232 (D.D.C. July 26, 2019), available at <https://www.justice.gov/atr/case-document/file/1187771/download>.

38 Department of Justice, "Justice Department Settles with T-Mobile and Sprint in Their Proposed Merger by Requiring a Package of Divestitures to Dish," news release, July 26, 2019, <https://www.justice.gov/opa/pr/justice-department-settles-t-mobile-and-sprint-their-proposed-merger-requiring-package>. The Proposed Final Judgment (PFJ) requires the merging parties to divest Sprint's prepaid businesses, including the Boost Mobile, Sprint-branded prepaid and Virgin Mobile businesses to DISH. The PFJ also requires New T-Mobile to divest certain 800 MHz spectrum licenses to DISH. DISH can elect not to acquire the 800 MHz spectrum if it has met certain network deployment milestones or in exchange for making a payment to the United States. See Proposed Final Judgment at V.B.2., *United States et al. v. Deutsche Telekom AG, et al*, No. 1:19-cv-02232 (D.D.C. July 26, 2019), available at <https://www.justice.gov/atr/case-document/file/1187771/download>.

39 U.S. Department of Justice, *U.S. and Plaintiff States v. Deutsche Telekom AG, et al.*, Proposed Final Judgment, <https://www.justice.gov/atr/case-document/file/1187771/download>, §§IV.A., VI.

Critical commentary related to the remedy has focused on its behavioral aspects, DOJ's reliance on the somewhat uncertain prospect that DISH will follow through with its commitment to build its own network, and the reduced coverage of the planned DISH network relative to the coverage of the pre-merger Sprint network.⁴⁰ While DOJ refers to the remedy as structural and DISH as an independent fourth competitor, the remedy involves DISH competing as an MVNO for the first few years operating on networks owned and operated by the New T-Mobile. DOJ and the FCC have generally not considered MVNOs as independent competitors,⁴¹ and as discussed above the trial court here agreed.⁴² As such the remedy does not appear to meet DOJ's own stated requirement that a structural divestiture include all of the assets needed to compete effectively and independently.⁴³

However, here we seek to point out a different aspect of the remedy that has gotten less attention. Recognizing the presence of a fourth facilities-based carrier as critical to replace the competition lost as a result of the merger, DOJ's remedy allowed for the complete dismantling of a working network and at the same time incentivized DISH to build a new network from scratch.

The New T-Mobile's plan was to upgrade the old T-Mobile network in order to have the capacity to move Sprint subscribers onto that network and eventually discontinue the use of the old Sprint network. That means the physical infrastructure of the Sprint network would eventually be unused and taken down. The acquired assets that the New T-Mobile intends to use includes, perhaps most importantly, Sprint's spectrum. After the transition to the new network the New T-Mobile will have also kept 30 percent of Sprint's towers and of course the acquired subscribers that it is able to retain.⁴⁴ However, the pre-merger Sprint assets that the New T-Mobile planned to use are not unique in the sense that additional spectrum and towers are available elsewhere, including from DISH itself.

From a purely economic welfare perspective, it seems rather odd, and inefficient, to allow a working network with a planned path to 5G to be torn down at the same time as requiring resources to be expended to build a new network that replaces the torn down network. Nowhere in the analysis of the remedy was there an accounting of the welfare costs associated with replacing the Sprint network.

40 For example, see <https://ideas.repec.org/p/net/wpaper/1914.html>.

41 <https://ideas.repec.org/p/net/wpaper/1914.html>.

42 Judge Marrero Opinion, p. 38.

43 DOJ Merger Remedies Manual, Page 6, Section III.A, "Any divestiture must include the assets necessary to ensure the efficient current and future production and distribution of the relevant product or service and thereby preserve the competition that would have been lost as a result of the merger. A structural remedy requires a clear identification of the assets a competitor needs to compete effectively in a timely fashion and over the long term." DOJ Merger Remedies Manual, Page 21, Section III.F, "Ongoing entanglements between the merged firm and the purchaser may put the purchaser in the position of having to rely on its rival in order to compete, and therefore call into question the purchaser's position as a truly independent competitor."

44 DECLARATION OF NEVILLE R. RAY, June 2018 states that New T-Mobile would keep 11,000 of Sprint sites. Dish's petition to deny of dish network corporation, <https://ecfsapi.fcc.gov/file/108271088719800/REDACTED%20DISH%20PTD%20Sprint%20TMO%208-27-18.pdf>. "...T-Mobile's AWS-3 spectrum will be deployed on all retained Sprint sites (11,000) (out of Sprint's existing 46,000 sites)."

MR. WATSON, COME HERE. I WANT TO SEE YOU: A MESSAGE FROM THE COMMUNICATIONS INDUSTRIES ON HOW TO PROMOTE COMPETITION IN THE ONLINE PLATFORM SPACE



BY PANTELIS MICHALOPOULOS & ANDREW GOLODNY¹



¹ Pantelis Michalopoulos is a partner at Steptoe & Johnson LLP and the head of the firm's telecom, internet and media group. Andrew Golodny is counsel at Steptoe & Johnson LLP and a member of the telecom, internet and media group. Pantelis and Andrew led the Steptoe team representing DISH Network in the *T-Mobile/Sprint* merger cases.

I. INTRODUCTION

The communications industries range from plain old telephone service, through broadband access, whether fixed or mobile, to cable and satellite video distribution. These industries are not exactly passé compared to the online platforms such as the search engine “market” that Google has so admirably revolutionized and may (or may not) dominate today. After all, Google search queries need a pipe to travel from us, the hopeful searchers toiling on our computers, tablets or smartphones, to Google servers. Even more important, the pipe is necessary for the return trip back to us, bringing a cornucopia of audio and video that condenses real and imaginary worlds on one small screen in ways that would have been incredible to time travelers visiting us from the twentieth century.

And so, the communications industries and online platforms need each other: the first needs the second’s content. The second needs the first’s pipes. In that sense, they are contemporaries and codependents. But the communications industries have a history longer than that of the online platforms — after all, they go back to 1876, when Alexander Graham Bell summoned Mr. Watson on the phone. With the longer history comes longer experience with analyzing and resolving competitive issues. And the communications industries afford many useful teachings for a way forward in the *Google search engine* case, including a way past and around the impasses and conundrums presented by the complaint filed against Google by the Department of Justice (“DOJ”).²

Here are two of these lessons: be careful not to throw out the baby of the competition you want with the bathwater of the exclusivity arrangements you do not like. And, to promote competition, nurture a competitor: find a white knight or two; and give them the resources to compete.

But first, a few words about what links legacy communications and online platforms together from the perspective of competition analysis. There is a lot that does. First, they are both networks prone to market power and its exercise: each additional user of the network does not merely add a proportionate unit to a provider’s market share; it takes out disproportionate quantities of oxygen away from would-be competing networks. Second, both industries are chains of intricately connected links. In the communications industry, we have electromagnetic spectrum, wireless towers, cable or satellite platforms, broadband access pipes, and online video products or cable networks that pass through these pipes. In the online platform space, we have search engines, browsers, and operating systems. And, of course, as mentioned, each industry is a link to the other’s chain in its own right: online platforms provide increasing amounts of content for the communications conduits, which in turn provide all of the transmission capacity for that content. Vertical integration over many links of the chain also gives companies with market power over one of them one more chance to leverage that power. At the same time, a presence in one link of the chain may endow a company with the wherewithal to become a credible competitor over another link.

II. DON’T THROW OUT THE BABY WITH THE BATHWATER

The DOJ, joined by a group of eleven states, alleges that Google has a 90 percent share of all “general-search-engine queries” in the United States (95 percent on mobile devices), and that Google is able to maintain this position through contracts with browser providers (such as Apple’s Safari or Mozilla’s Firefox) or device manufacturers (such as Samsung) that make Google the default search engine in those browsers or on devices running Google’s Android operating system.³ The complaint takes aim at these exclusivity agreements as one of the chief methods that Google has employed to exercise its market power. In the complaint’s words, “Google has unlawfully maintained its monopolies by implementing and enforcing a series of exclusionary agreements with distributors over at least the last decade. Google’s exclusionary contracts cover almost 60 percent of U.S. search queries. Almost half the remaining searches are funneled through properties owned and operated directly by Google.”⁴ The complaint concludes, “Google has thus foreclosed competition for internet search. General search engine competitors are denied vital distribution, scale, and product recognition—ensuring they have no real chance to challenge Google.”⁵

The question that arises is, what next? Let us assume for the moment that the DOJ is right in its market definition and market power assertions. Let us also assume (another big assumption) that the default search engine agreements reflect an exercise of market power on Google’s part. The complaint’s requested relief to address this behavior is vague. The complaint simply asks for an injunction preventing Google

² See *United States, et al. v. Google LLC*, 1:20-cv-03010 (D.D.C. Oct. 10, 2020), <https://www.justice.gov/opa/press-release/file/1328941/download>.

³ Google Complaint ¶ 5.

⁴ Google Complaint ¶ 112.

⁵ Google Complaint ¶ 6.

from engaging in anticompetitive practices and “enter structural relief as needed to cure any anticompetitive harm.”⁶ From this relative silence, it might be possible to infer that DOJ wants the court to strike at the default search engine agreements that, to hear the DOJ, are one of the roots of the competitive evil the complaint sets to uproot.

The inference goes like this: forbid Google to enter into such agreements, or require their unwinding, and the harm described in the complaint will be undone. There are two fundamental and related mistakes about this inference. First, there is no plausible connection between unwinding these agreements and promoting competition in the search engine market as defined by the DOJ. Assume away the default search engine provisions that have so exercised the DOJ. What then? Either other companies may be allowed to bid to receive these default rights instead of Google; or no one will be allowed to receive such rights. But none of this is likely to mean that a new vibrant search engine competitor will spring like a phoenix from the ashes of Google’s erstwhile contractual rights.

After all, the Bing search engine is owned by Microsoft, which also controls the Edge browser and has accumulated one of the largest concentrations of wealth the world has ever seen (with some \$14 billion in profits in its most recent quarter alone). Another browser, Safari, is controlled by Apple, which matches or exceeds Microsoft in the annals of history’s wealthiest and most profitable companies. Both Apple and Microsoft could easily afford to outbid Google for these default rights (or in Apple’s case refuse to sell them to Google) if these rights were capable of catapulting them into an effective search engine competitor. Give me a place to stand, and I can move the earth, said Archimedes. Default search engine rights do not appear to provide this leverage. To move the earth, one may not stand on it. Neither Apple’s Safari 16 percent share nor Mozilla Firefox’s 7 percent share provide enough of such an extraterrestrial foothold. After all, Google’s Chrome browser would still enjoy 60 percent share of browser usage.

And suppose that DOJ had an answer for this: to propose that the court require the divestiture of Chrome. Here again, the effectiveness of such a remedy might be undone by the DOJ’s distaste for default search engine preferences. The main revenue source for an independent browser seems to be precisely the amounts paid by Google for these preferences. And that brings us to the second problem with the misguided knee-jerk inference — first, kill all exclusivity — that could be drawn from the DOJ’s complaint. If Chrome were divested but then prohibited from entering into such agreements with its former affiliate Google, one hand would be taking away what the other gives. If the idea is to help promote competition in the search engine space by making a divested Chrome browser into a lever for such competition, then a prohibition on default search engine agreements is like giving the lever but taking away the Archimedean ground from which to wield it. It would be self-defeating if a purported remedy to promote competition in the search engine market took away tools from those best equipped to become competitors.

Of course, antitrust law has developed a nuanced view of exclusionary agreements, recognizing their anticompetitive risks, as well as their possible efficiencies and procompetitive potential. Even exclusive dealing agreements reached by market dominant entities are not automatically considered illegal — they are instead analyzed under a case by case standard — the “rule of reason.”⁷ Under this standard, exclusive dealing can only be unlawful if there is foreclosure of a “substantial share” of the market in question. To determine whether foreclosure is “substantial,” the Supreme Court has directed courts to examine “the relative strength of the parties, the proportionate volume of commerce involved in relation to the total volume of commerce in the relevant market area, and the probable immediate and future effects which pre-emption of that share of the market might have on effective competition therein.” *Id.* at 329.

Communications law, too, has some useful teachings in store. Witness the treatment of exclusive deals in Federal Communications Commission (“FCC”) program carriage cases. Independent programmers face enormous difficulty in obtaining carriage on the distribution platforms of vertically integrated conglomerates, whose holdings extend to distribution and content, such as AT&T (cable, satellite, broadband access, Time Warner media) or Comcast (cable, broadband access, NBC Universal).

Let us now assume that the only way for a small independent programmer to gain carriage is to grant some exclusivity rights to the vertically integrated distributor. Does outlawing exclusivity help promote competition in the market for cable programming? Or does it set back the case of competition by eliminating the only hope of that independent programmer to have a shot at improving its ratings and to become an effective competitor in that space? The FCC’s program carriage rules resolve this conundrum by stopping short of a *per se* prohibition on exclusivity. On the one hand, distributors are prohibited from imposing exclusivity as a condition on carriage. But it is up to the independent programmer to invoke this prohibition by filing a program carriage complaint. The same goes for the related rule that vertically integrated distributors may not discriminate in favor of their programming affiliates and against independent programmers. Nothing keeps the independent programmer from accepting a discriminatory agreement under protest and *then* complaining about discrimination.

⁶ Google Complaint ¶ 194.

⁷ See *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 328 (1961). See generally, Holmes and Mangiaracina, *Antitrust Law Handbook* § 2:19 (2020).

None of it is to say that all is well in the programming market. In fact, the enforcement of the program carriage rules by the FCC (or the lack of such enforcement) has done little to mitigate the market power enjoyed by the large, vertically integrated programmers. But the point is that the program carriage rules do not worship in the shrine of an abstract principle — no anticompetitive exclusives, and do not elevate such a principle above the practicalities of what it takes to promote competition.

III. FIND SOME WHITE KNIGHTS

Back in Ithaca a few thousand years ago, Penelope had more than one hundred suitors vying for her favors. None of them succeeded. The problem for markets dominated by one company, as the search engine market (if it indeed is a market) seems to be, is that the suitors are fewer, and their likelihood of success is not much better. Demanding that Google stop doing anticompetitive things, or even structural divestitures, is all well and good, but it is not clear which firms would be empowered by such steps to take Google on in the search engine space. The complaint establishes no link between the hinted-at narrow cure for the practices it describes and the broad cure for an uncompetitive market that is necessary.

The best way to promote competition is to nurture one or more competitors. Here, too, the experience of the communications industry is instructive. In particular, both the court and the DOJ could take a page from the remedy that the DOJ itself helped forge to cure the anticompetitive effects that the merger of T-Mobile and Sprint would otherwise produce. Granted, that case involved a remedy for a merger, not for monopolization claims. But it is relevant nevertheless here for a number of reasons. Most important, it suggests that the solution of nurturing a competitor depends on three key ingredients: first, identifying the entity or entities that already possess key inputs necessary to make them a competitive threat; second, ensuring that these inputs do not come with anticompetitive baggage of these entities' own; and third, endowing these entities with additional tools that will enable them to compete, including the temporary use of the incumbent's network, appropriate divestitures, and a revenue stream that will facilitate construction of their own network.

Let us look more closely at the remedy approved by two agencies (the DOJ itself and the FCC) and two courts in the *T-Mobile/Sprint* case, and then explore its implications for the *Google* case. The white knight in that case was DISH Network, which the remedy teed up as the new nationwide wireless carrier to cure the effects of what would otherwise have been a four-to-three merger.

Here are some of the remedy's relevant features:

Divestitures:

- T-Mobile was required to divest its prepaid wireless business operating under the Boost brand to DISH Network. T-Mobile is also required to lease part of its wireless spectrum to DISH.⁸
- T-Mobile had to make other assets available to DISH, including decommissioned cell phone sites and retail locations.⁹

Creation of New Competitor:

- In turn, DISH is required to offer retail mobile wireless service nationwide within a year of acquiring Boost.¹⁰
- Under conditions between DISH and the FCC, and adopted into the DOJ's consent decree, DISH is also required to build out a nationwide 5G network by June of 2023.¹¹
- As DISH works to build out its own wireless network, it has full access to T-Mobile's network for seven years.¹²

⁸ Proposed Final Judgment, *United States et al. v. Deutsche Telekom AG*, 1:19-cv-02232 at 6, 18 (D.D.C. July 26, 2019), <https://www.justice.gov/opa/press-release/file/1187706/download>.

⁹ *Id.* at 13-16.

¹⁰ *Id.* at 17.

¹¹ *Id.* at 23. See also FCC, Order of Modification and Extension of Time to Construct, WT Docket 18-197, (Sept. 11, 2020), <https://docs.fcc.gov/public/attachments/DA-20-1072A1.pdf>.

¹² *Id.* at 19.

The DISH remedy had all three of the aforementioned key ingredients: DISH had almost as much spectrum holdings as Verizon, and so had the required wherewithal — enough spectrum to become the nation’s fourth wireless carrier; DISH has no market power in any relevant market, and so the remedy did not risk creating other unwanted competitive repercussions; and DISH was empowered to become a fourth carrier through the right to use T-Mobile’s network while DISH builds out its own network, and through revenue streams from the acquisition of the Boost service and from a temporary lease of some spectrum to T-Mobile.

Here, too, the white knights, which may extend to a variety of stakeholders without market power, must be provided with a full chain-mail suit of armor, shield, and spear, including an enhanced revenue stream and contractual rights. And of course, it would also be helpful if no Odysseus shows up to chase away the suitors: limitations on the conduct of dominant incumbents at all links of the online chain may need to round out the remedy package.

If heeded, these messages from the communications industry to the online platform space may enhance competition in both.



REBOOTING ANTITRUST AND REGULATION FOR DIGITAL COMMUNICATIONS



BY MARK COOPER & AMINA ABDU¹



¹ Director of Research, and Antitrust Advocacy Associate, Consumer Federation of America.

This paper uses Business Data Services (“BDS”)² as an example of a broad problem that affects antitrust and regulatory oversight of the communications sector and its primary consumer products – wireless and wireline telephone service, cable connectivity devices (set top boxes) and services,³ and broadband.⁴ The unique challenge is a “Tight Oligopoly on Steroids” that came to dominate the sector because of the inherent economic conditions in communications markets and a combination of lax antitrust enforcement and weak regulation since the Telecommunications Act of 1996.

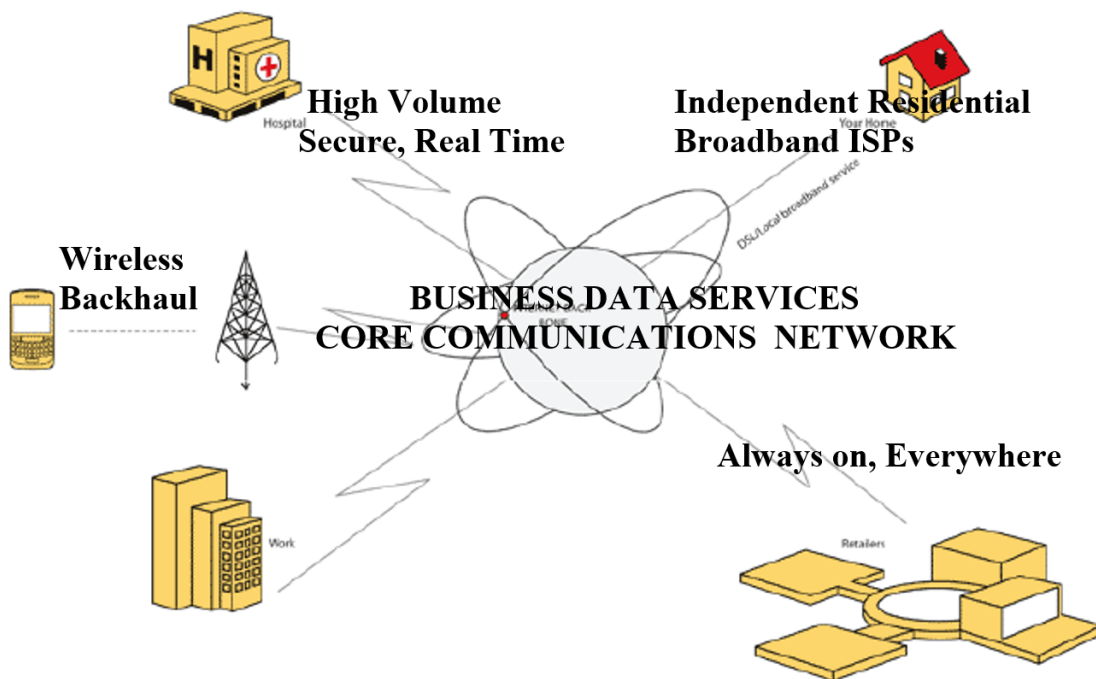
Section 1 describes the how the “tight oligopoly on steroids” came to dominate the communications sector. Section 2 shows that the Trump administration reversed the oversight that the Obama administration had begun to impose with “Flip-Flop” orders that administratively repealed the Communications Act of 1934 by largely deregulating the market power of the dominant firms. It reviews the evidence of abuse that the FCC ignored in making its deregulatory decision based on its new, and erroneous theory of “sufficient” competition.

Section 3 introduces antitrust and regulatory concerns about market power. Section 4 discusses justification for regulation based on Alfred Kahn’s analysis Section. Section 5 identifies key steps that must be taken to prevent the abuse of market power in the “traditional” communications sector. In Section 6 the conclusion briefly explains why the analysis also applies to big digital information platforms.⁵

I. THE TIGHT OLIGOPOLY ON STEROIDS: AVOIDING REGULATION AND COMPETITION

BDS are a new chokepoint in the communications network, the point at which the ocean of data coursing through the digital network becomes a stream directed to each individual consumer. These services have been growing at a rate of almost 15 percent per year for a decade and a half, driven by the fact that high capacity, high quality, always-on connections are vital to a wide range of businesses and economic activities. As shown in Figure 1, affected services include not only communications – mobile, broadband and video – but all forms of high capacity connection for hospitals, ubiquitous networks like ATMs, and the evolving “Internet of Things.”

Figure 1: Business Data Services, the Choke Point of Access to the Digital Network⁶



2 Traditionally and more narrowly, these were called special access, or middle mile services. See, Mark Cooper, & Amina Abdu, *Business data services: Another Failure Of Free Market Fundamentalism To Promote Competition Or Prevent Abuse Of Market Power*, Consumer Federation of America, September 2020.

3 Mark Cooper, *Overcharged and Underserved*, Consumer Federation of America, December 2016.

4 Mark Cooper & Amina Abdu, *Pragmatic, Progressive Capitalism at Its Best: Network Neutrality How an Entrepreneurial State Used Public Policy to Foster Experimental Entrepreneurialism and Create The Internet*, Consumer Federation Of America, August, 2020.

5 Mark Cooper and Amina Abdu, *Big Data Platforms A New Chokepoint in the Digital Communications Sector: Meeting New Challenges with Successful Progressive Principles*, Consumer Federation of America, September 2020.

6 See note 2, pp. 2-8, 48-52.

The pervasive problem in the sector is high concentration, which is magnified by several other characteristics that are well recognized in the antitrust literature (see Figure 2). The same four firms constitute a tight oligopoly across four communications product markets, meaning that the number of firms needed to engage in parallel and reciprocal conduct is very small.⁷ Their history prior to the Telecommunications Act of 1996 and their pattern of expansion since have resulted in geographic separation of home (fortress) territories, technological specialization, and product segmentation. These are the steroids that enable them to dampen rivalry and abuse market power.

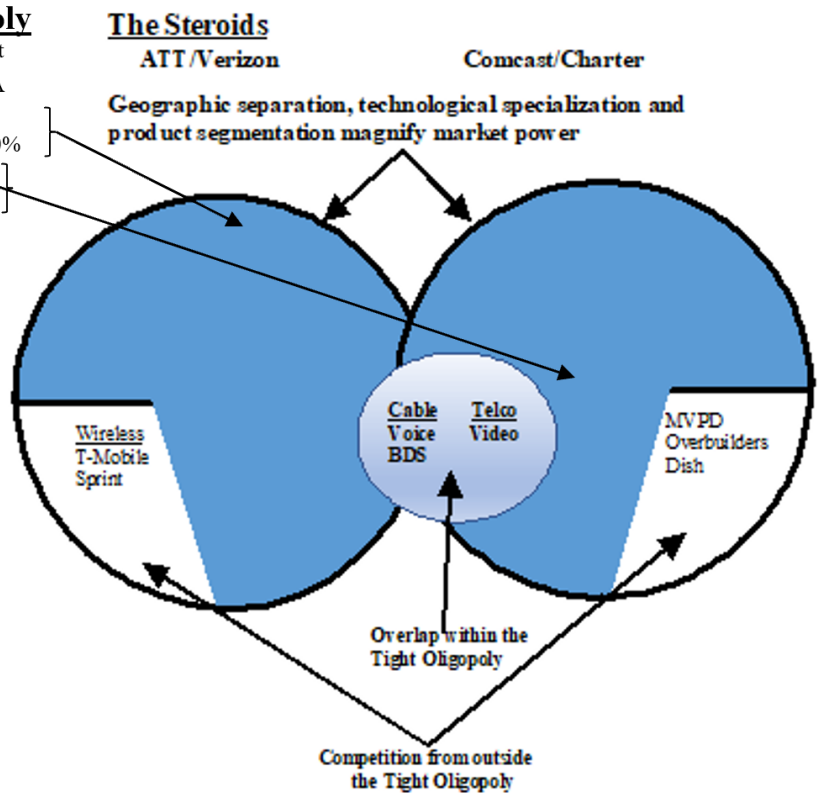
The tight oligopoly on steroids was driven by two reinforcing patterns of behavior by the dominant incumbents. The goal of the communications companies after the 1996 Telecommunication Act was a push to define services via the categories that carried the fewest public interest obligations and were generally the least regulated. Neither law nor economic convergence required this direction of policy convergence. Even if policymakers concluded that it was too complicated to maintain the distinctions (known and reviled as silos), policy could read the law in the opposite direction – declaring that, where services involved mixed functionalities, applying the strongest regulatory category and broadest public interest obligations was (more) consistent with the purpose and intent of the Communications Act.

Figure 2: The Tight Oligopoly on Steroids⁸

The Highly Concentrated, Tight Oligopoly

Service	National		Local		Segment EBITDA
	HHI	CR4	HHI		
Wireless	3350	100%	3900		45%
BDS*	6600	80%	7000		60% -80%
Broadband	1850	76%	5900		90%
MVPD	1900	77%	3820		40%

*ATT/VZ have near monopoly on local BDS market
Comcast/Charter self-supply BDS



In fact, the 1996 Act explicitly stated that regulation should be relaxed only where competition, or other factors, had rendered it no longer necessary in the public interest.⁹ It stated that the definition of services, which would trigger the public interest obligations, should not be dictated by the technologies used.¹⁰ The fundamental values of the Communications Act, coupled with real world experience could have guided policy in a different direction. But given the tenor of the times, there was an “irrational exuberance” for deregulation.¹¹

7 C. Scott Hemphill & Tim Wu, “Parallel Exclusion,” *Yale Law Journal*, 122, 2013.

8 See note 2, p. 48.

9 Section 402.

10 See the definition of telecommunications in the '96 Act.

11 The term was popularized in an Alan Greenspan in a 1996 speech, “The Challenge of Central Banking in a Democratic Society.” He attested to its deeper meaning in congressional testimony (October 22, 2008) after the financial meltdown a decade later. “Those of us who have looked to the self-interest of lending institutions to protect shareholder’s equity -- myself especially -- are in a state of shocked disbelief.”

The second thrust was to avoid competition. The dominant firms did not invade each other's service territories and were slow (at best) in offering products that might compete head-to-head with other dominant firms. The problem was compounded by a weak view of antitrust that was dominant at the time. A massive sustained merger wave was allowed to severely concentrate all the communications markets. Twenty years after the passage of the 1996 Act, much of the old Bell system has been put back together (in three pieces) and that structure has been extended to mobile through the merger waves that affected both landline and wireless. Two cable providers, Comcast and Charter, have come to dominate broadband Internet access service, while continuing to hold a dominant share in the MVPD market.

Given the specialized nature of network industries, it was reasonable to expect that these firms would be the "ideal" candidates to engage in head-to-head competition by geographic extension (overbuilding their neighbors) or product extension (adding a new product to an existing line), but they merged instead, removing the best candidates to promote competition. Given their central location, some markets, like BDS possess unique forms of vertical market power that pose a broad threat to competition and consumers. Other markets, like the one for video programming, are national and the problem of monopsony power is important.

II. IRRATIONAL EXUBERANCE FOR DEREGULATION CONTRARY TO THE EVIDENTIARY RECORD

Given the significant and repeated examples of coordination – sometime explicit, frequently parallel, and the reinforcing behaviors in multiple market, it is proper to call the current situation a "virtual cartel" or a "tight oligopoly on steroids." That being the case, there should be no pretense that competition is sufficient to protect consumers. The amount of scrutiny they require is magnified by the important role they play and their central location as chokepoints and bottlenecks in the digital communications sector and the digital economy.

The Obama FCC, understanding this problem, banned illegal business practices and was addressing how to restore Fair Reasonable and Nondiscriminatory rates terms and conditions (FRAND in antitrust, just and reasonable rates for in FCC-speak). The Trump administration, however, headed in exactly the opposite direction. In a series of "Flip Flop" orders, the FCC sidestepped the data, rather than try to refute it.¹² It invented a new theory of "sufficient" competition.

The data show that the BDS market is not only one of the most concentrated markets in the entire digital communications sector (with four firm concentration ratio [CR4] values close to 100 percent and HHI indices in the range of 6000 to 7000), but also that it is rife with market power abuse in contracting practices. The firms that dominate the BDS market (like AT&T and Verizon), have a near monopoly derived from the long-standing franchise services offered and the ubiquitous deployment of the network during the legal monopoly period. New entrants could not overcome the huge advantage of a fully deployed network and the anticompetitive practices implemented by the incumbents. Perhaps the most telling evidence is that when members of the tight oligopoly must purchase BDS services outside of their home territories, they do not buy services from outside the oligopoly lest they create more viable competition.

The BDS proceeding that was the basis of the FCC's 2016 order showed that in-building competition and nearby potential competition, (in-census block) were the key to competitive pressures. The FCC chose a much larger geographic market using 3,000 counties to incorrectly deregulate about 90 percent of customers, because the cost of extending facilities across the county to reach customers makes them uneconomic as a competitor.¹³

The FCC "Flip Flop" went on to claim that no actual competitors were necessary to discipline market power, since the threat of entry was enough to prevent abuse. It claimed that it did not have to regulate because market power abuse would not occur even where there were no actual competitors, hence it is a "0 competition" rule. The theory of sufficient competition was identical to the theory of contestability that was thoroughly refuted when it was erroneously applied to transportation networks in the 1980a, as shown in Table 1.¹⁴ Communications markets clearly exhibit a large number of characteristics that make theory inapplicable to the majority of its properly defined markets. The FCC's own data showed that adding in building competitors lowered prices much more than in-census block competitors and adding the eight competitor still lowered prices by 10 percent.¹⁵

¹² This was true of both the BDS order (as explained in the citation in note 2 above) and the Network Neutrality Order (as explained in the citation in note 4 above).

¹³ Competing products must offer products that are close substitutes on quality and price.

¹⁴ In addition to the reference in note 2, a recent paper provides an extensive critique of the "ersatz" version of capitalism espoused in the theory of "sufficient" competition and the nearly identical theory of "perfect" contestability before it: Mark Cooper, *From Brandeis to Stiglitz: Into & Beyond The 2020 Election: The Brandeis Protocol and the Stiglitz Model Create a Framework for Pragmatic, Progressive Capitalism*, Consumer Federation of America, September 2020.

¹⁵ See source in note 2, chapter 7 for this data and review of the empirical literature that makes this point.

Table 1: Market Conditions that Render Contestability (Potential Competition) Ineffective in Disciplining the Abuse of Market Power¹⁶

<u>Structure:</u>	Requires rapid (hit and run) entry and exit, thereby failing in the face of Barriers to entry and exit (e.g., physical assets, scale, time, finance) Sunk costs (asset specificity) Powerful incentives for incumbents to resist entry Requires very large, even total shift of demand Switching costs, partnering in tangible specific assets, -intangible social assets including brand loyalty and advertising Assumes contrary to reality, many small potential entrants No incumbent cost advantages Absences of vertical integration that affords incumbents control of access to the ubiquitous network. Access to technology (e.g., patenting) Is a static analysis that ignores path dependence Asymmetric information between incumbents, potential entrants and customers is ignored
<u>Conduct:</u>	Strategic (even predatory) and oligopolistic interactions like limit pricing are responses that reduce and undermine the threat of entry Product differentiation makes entry more difficult. Other Anti-competitive practices inhibit entry (lock-in contracts)
<u>Performance:</u>	Persistence of supranormal profits. Small number of the same firms over an extended period Limited ability of entrants to succeed and remain viable. Acquisition of new entrants and potential competitors.

III. ANTITRUST CONCERNS ABOUT MARKET POWER

These data are generally consistent with the recent change in the DOJ guidelines that “relaxed” the threshold for highly concentrated markets from six to four and the threshold for moderately concentrated markets from ten to six.

In highly concentrated markets (now four or fewer) the DOJ finds:

Highly Concentrated Markets: Mergers resulting in highly concentrated markets that involve an increase in the HHI of between 100 points and 200 points potentially raise significant competitive concerns and often warrant scrutiny. 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. The presumption may be rebutted by persuasive evidence showing that the merger is unlikely to enhance market power.¹⁷ While highly concentrated markets trigger the greatest concern, moderately concentrated markets are also a concern.

Moderately Concentrated Markets: Mergers resulting in moderately concentrated markets that involve an increase in the HHI of more than 100 points potentially raise significant competitive concerns and often warrant scrutiny.¹⁸

We suggest that a superior conceptualization of thresholds lies between the two, “four is few, six may be okay and ten is competitive, depending on the inherent characteristics of the sector.” For the communications products addressed here, the distinction is largely moot, since these services generally have fewer than four equal sized competitors. The important point here is that, while there is certainly more competition in the communications sector or the digital information sector (i.e. digital platforms like search (google) and social media (Facebook)

¹⁶ See note 2.

¹⁷ DOJ/FTC, 2010, p. 19.

¹⁸ *Id.* p. 19.

This was the thrust of the Order and Further Notice of Proposed Rulemaking (“FNPRM”) published by the FCC in May 2016.¹⁹ Ignoring this record, the FCC changed direction, reiterating the claim that potential competition and weak actual competition are sufficient to eventually deliver just, reasonable and non-discriminatory rates several years in the future.²⁰ The new theory of potential competition deregulates more markets and products than the failed old theory. The record shows not only that the old theory failed, but it also shows why the new theory will fail as well.

- The key elements of the market structure analysis are well-supported in economic theory and practice, applied to the data in the record.
- Measured by customers, the markets are highly concentrated, but more importantly, the overwhelming majority are monopolies with the remainder being duopolies. This conclusion is dependent on the product and market definition.
- The product is defined as always-on guaranteed quality of service. Different products that do not guarantee service, like best-effort cable, are not considered good substitutes, even by the cable companies who supply them.
- The geographic market is defined as a building, or a census block, because of the prohibitive cost of extending connection over large distances.
- The need for ubiquity is also a barrier to competitive entry.
- These problems are more intense in the lower capacity time division multiplexing (TDM) services.

IV. REASONS TO REGULATE TO PREVENT ABUSE AND PROMOTE PROGRESS IN COMMUNICATIONS

In the second edition of his classic work, *Economics of Regulation*,²¹ published less than a decade before the enactment of the Telecommunications Act of 1996, Alfred Kahn identified a series of characteristics that could justify regulation, although he was generally critical of the way regulatory oversight had been practiced,

A. Infrastructure and Externalities

Making the case for economic regulation, Kahn pointed to the fact that, because communications networks exhibit economies of scale, the market will support only a small number of large firms compared to other sectors of the economy.²² In addition, because of the essential inputs the communications networks provide, they influence the growth of other sectors and the economy.²³ They are infrastructure.

Kahn added two other characteristics as potential justifications for regulation: “natural monopoly” and markets where “for one or another of many possible reasons, competition does not work well.”²⁴ Although Kahn was skeptical of the monopoly rationale for regulation, he later argued that the nature and extent of competition is an empirical question: “It is a question also of what, in the circumstances of each regulated industry, is the proper *definition*, what are the *prerequisites*, of effective competition.”²⁵

¹⁹ Federal Communications Commission, 2016 Final rule and FNPRM). Business Data Services in an Internet Protocol Environment et al., 31 FCC Rcd. 4723 (rel. May 2, 2016).

²⁰ Federal Communications Commission, 2017 (Flip-Flop Order), Business Data Services in an Internet Protocol Environment et al., Report and Order, WC Docket Nos. 16-143 et al. (rel. Apr. 28).

²¹ Kahn, Alfred, 1988, *The Economics of Regulation: Principles and Institutions*, (Cambridge: MIT Press).

²² Kahn, 1988, p. 11.

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.* at 114.

B. Market Structure

The second rationale offered by Kahn is a market structure problem. Very large economies of scale mean that building multiple networks raises costs. The market will not support competition. In the extreme, we run into the problem of a natural monopoly. Firms that become too large behind high barriers to entry, with high transaction costs on the supply side or high switching costs or other behavioral flaws on the demand side, obtain market power. Monopolists (natural or otherwise) have market power and there is a strong incentive to abuse it. With the incentive and ability to exercise it, they engage in behaviors that harm competition (by creating additional obstacles to entry or extending their market power to complementary markets) and to harm consumers (by raising prices and restricting choices). Regulation controls market power. However, monopoly is not the only reason to implement public policy – e.g., it has never been a necessary condition to impose common carriage in the communications and transportation sectors.

C. Social Values

We turn next to Kahn's third reason for regulation – “other.” Although it is less specific, it can be given several referents in the communications space. Competitive markets do not deliver universal service because there are significant parts of society where the rate of profit does not support extending infrastructure or making it affordable. Rural or high-cost areas and low-income populations may not be very attractive from an investment point of view, but they are important from public policy and social values points of view.

Freedom and diversity of opinion and voices are extremely important socio-political values that may not be accomplished by a competitive market. Society cannot leave them to the vagaries of the market. Speech is perhaps the most important example of these values,²⁶ diversity is too. Communication is well-recognized as a key to democracy and many consider it a human right.²⁷ The challenge is not simply to ensure that all have the opportunity to speak, but also to address gross imbalances in those opportunities.

The challenge of preventing the abuse of market power in communications and network industries was particularly severe. From the beginning of the deployment of the telephone in the earliest days of the second industrial revolution the problem of market power abuse had been addressed by both antitrust and regulation. By the early 1900s, the two pillars of oversight – the Sherman Act (by a consent decree in 1913) and the Interstate Commerce Act (by the Mann Elkins Act of 1910) had been extended to the telephone network. The animus behind the ICA and the target of regulation was the abuse of market power by another network industry, railroads. Access to important networks was addressed by antitrust in early Supreme Court cases (St. Louis Bridge, 1912, the AT&T Consent Decree, 1913). The strands of federal oversight over telecommunications were pulled together in separate agencies by the Communications Act of 1934. Thus history of dual jurisdiction is long and rich, as shown in Table 2.

V. CORRECTING THE MISTAKES OF THE TRUMP ADMINISTRATION

After a period of dormancy under a Republican administration and uncertainty in the wake of the Telecommunications Act of 1996, the Obama administration had restored this dual jurisdiction. The Federal Communications Commission had re-established its authority to ensure just and reasonable rates (BDS, order issued and further notice put out), nondiscriminatory access and interconnection (network neutrality, wireless roaming, both upheld by Appeals Courts), as well as the promotion of universal service (Order upheld by 10th Circuit). These were the primary goals of the '34 Act. The Department of Justice had reasserted control over mergers, rejecting some (*Comcast/Time Warner*) and imposing conditions on others (*Comcast/NBC*). In these merger cases, the FCC exercised its independent merger oversight by adopting parallel decisions that it would enforce.

The FCC's actions rest on the basic principle that market power is so pervasive in this network industry that it cannot be met by antitrust or regulation alone. The abuse of market power on a daily basis strains antitrust laws, which hesitate to engage in behavioral regulation. The big competitive issues (mergers, divestiture) are generally beyond the reach of the regulatory agency.

After the Trump administration's effort to essentially repeal the '34 Act by administrative inaction and explicit effort to and abandon its authority to other agencies, the challenge will be to restore effective oversight and pull the strands of policy into a coherent overall approach. This effort will require a mix of regulatory and legislative actions including:

²⁶ *Associated Press v. United States*, 1945.

²⁷ Cooper, 2013, 2014.

1. reversing the theory of “sufficient” competition and the deregulation to which it gave rise,
2. asserting full Title II authority over nondiscrimination and universal service,
3. bringing the full weight of Title II authority to bear on achieving universal service to broadband,
4. restoring full dual jurisdiction by repealing the Trinko decision that neuters antitrust even when there is only a whiff of regulation present.

Table 2: The long History of Dual Oversight in the Communications Sector²⁸

Year	Regulation	Antitrust
1887	Interstate Commerce Act	
1890		Sherman Act
1910	Mann-Elkins Act	
1913		ATT/DOJ Consent Decree
1914		FTC Act
1927	Radio Act	
1934	FCC Act	
1945		Associated Press
1949		Final Judgment
1956		Modification of Final Judgment
1968	Carter Phone and Computer Inquiries	
1969	Red Lion	
1984	Spread spectrum decision leading to Cable deregulation	Break-up of ATT
1987		Triennial reviews begin in the Antitrust court
1992	Cable Reregulation (Consumer Protection Act)	
1996	Telecom Act of 1996	
2003	Cable Modem Order	
2005	Madison River	
2005	Wireline Broadband Order	
2010	Open Internet Neutrality Order Comcast/NBC Merger Conditions	Ticket Master Comcast-NBC Consent Decree
2011	ATT/T-Mobile merger blocked	
2013	Data Roaming Order	e-Book Price Fixing
2014	Open Internet Order remanded Universal Service Reform Upheld	
2015	Title II jurisdiction over Broadband Under the Communications Act of 1934	
2017	Administrative Repeal of the '34 Act	

²⁸ See note 4, p. 57.

VI. CONCLUSION: THE IMPORTANCE OF TIGHT OLIGOPOLIES ON STEROIDS, BIG DATA PLATFORMS

There is one final reason to introduce the concept of a tight oligopoly on steroids.²⁹ Not only is it useful in describing the current market structure and harms in the traditional communication sector (regardless of the technology used, i.e. broadband), it is also useful in describing the current situation in Big Data Platforms, which requires an independent analysis. As shown in Table 3, the four conditions for steroids to amp up market power and to frustrate competitive entry are found in the Big Data Platforms. The manifestation of the traits and the policies necessary to prevent abuse and promote competition are somewhat different, but the magnification of market power and the need to have policy to prevent abuse and promote competition remains the same.

Table 3: Tight Oligopoly on Steroids: Broadband Networks and Data Platforms³⁰

Tight Oligopoly on Steroids Characteristic	Big Broadband Networks	Big Data Platforms		
High Concentration & multi-market contact	Franchise, economies of scale Telco BDS, Wireless Cable MVPD, BIAS	Economies of scale & scope, zero marginal cost, winner-take-most Google Search	Facebook, connectivity	Amazon, distribution
Technological Specialization	Point-to-point (landline) Cell Networks Star video	Google Algorithms & network value	Facebook Network Value	Amazon Distribution efficiency
Product Segmentation	Voice, wireless Video, BIAS	Search	Social Media	Distribution
Unique Product Traits	Geographic Separation Local network Franchise origin	All: Must Have Content protected by lock-in supply-side foreclosure and demand-side bundling and behavioral manipulation		

The approach to Big Data platforms builds on the broader view of antitrust and regulation outlined in this paper, but the principles must be adapted to these new industries.

- While the principles on which they rest are the same, the practice must be adapted to the new techno-economic relationships in the economy.
- Antitrust and regulation need to be rebooted, after a long period in activity.
- Antitrust and regulation also need to be recalibrated to fit the new economy.
- Antitrust practice needs to be redefined to be better equipped for the challenges of the new economy.
- Regulation, which was designed and is well-suited for communications networks (Big Broadband Networks), needs to be redefined for the challenges of digital information (Big Data Platforms).

²⁹ In addition to the sector specific discussions above, a much earlier discussion of antitrust in high technology industries can be found in Mark Cooper, "Antitrust as Consumer Protection in the New Economy: Lessons from the Microsoft Case," *Hastings Law Journal*, 52:4, 2001. Broader discussion of the role of antitrust with application to the communication sector can be found in Gene Kimmelman and Mark Cooper, "Antitrust and Economic Regulation: Essential and Complementary Tools to Maximize Consumer Welfare and Freedom of Expression in the Digital Age," *Harvard Law & Policy Review*, Volume 9-2.

³⁰ See note 5, p. 57.

- A new regulatory agency is necessary because the existing sector specific expert agencies do not have portfolios and approaches (authority and power) to meet the task of overseeing the digital information sector.
- A new agency designed for the digital sector is important not only to provide oversight, but also to ensure flexibility and adaptability and promote competition.

In tight oligopolies with scale economies and barriers to entry, we need strong pro-competition regulation. Antitrust enforcers' failure to block mergers exacerbated the situation greatly for telecom, but there were also an array of anti-competitive business practices that antitrust authorities could have challenged, but did not. The breakup of AT&T took place in a context where (was made necessary by) regulators had failed to prevent the abuse of vertical market power. For digital platforms, this historical example shows we both need a regulator and clearer antitrust guidelines, both of which must do the hard work that wasn't done for BDS. It is exactly this coordination and backstopping with regulators doing the daily work, backed up by the threat of an antitrust action, that the Obama administration began to achieve. It needs to go back in that direction, but must be more systematic in developing oversight for digital data platforms that tend even more strongly to smaller numbers and larger market power.



ACTIVE NETWORK SHARING IN BELGIUM: WHERE DO WE STAND?

BY SUZANNE JUDE¹



¹ Suzanne Jude is a competition prosecutor with the Belgian Competition Authority. Any views expressed are her own. Many thanks to fellow competition prosecutor Carl Wettinck for his comments.

I. INTRODUCTION

The two biggest Belgian mobile network operators (“MNOs”), historic operator Proximus and Orange, are joining forces on mobile telecoms infrastructure deployment by actively sharing their nationwide mobile networks.

On November 22, 2019, they signed a Multiple Operator Radio Access Network (MORAN) sharing agreement and a shareholder’s agreement creating a 50/50 joint venture (named MWingz) that will be in charge of planning, construction, and management of the parties’ radio access sites.

Proximus and Orange are therefore going beyond the regulatory obligation for Belgian MNOs to share passive infrastructure, such as mast sites, power or cooling systems, etc.

In addition, the cooperation not only aims at optimizing the parties’ current 2G, 3G, and 4G mobile networks, but also to jointly develop their future 5G infrastructures in Belgium.

Near the end of October 2019, after unsuccessful discussions on how to join the project, the third and smallest MNO, Telenet (a subsidiary of cable giant Liberty Global), filed a formal complaint with the Belgian Competition Authority (“BCA”).

Telenet argued that Proximus and Orange’s network sharing agreement infringes Article 101 of the Treaty on the Functioning of the European Union and Article IV.1 of the Belgian Code of Economic Law, which prohibit anticompetitive agreements.

According to Telenet, the network sharing agreement may negatively impact Belgium’s upcoming spectrum auction, as well as, more generally, competition on the Belgian mobile market.

Together with the formal complaint, Telenet filed a request for interim measures, demanding for the cooperation agreements between Proximus and Orange to be suspended pending the results of the BCA’s investigation. For this Telenet needed to convince the BCA that there was a *prima facie* case, i.e. a sufficiently plausible infringement to competition law (the exact expression in Belgian case law is “*not manifestly unreasonable*”), and that there was an urgent need to prevent its harmful consequences.

On January 8, 2020, the Competition College of the BCA (the deciding body of the BCA, as opposed to the Investigation and Prosecution Service, the investigative body of the BCA) ordered Proximus and Orange to suspend their cooperation for two months. This would allow Belgian telecoms regulator BIPT to provide a confidential and non-binding opinion on the case and tackle the most pressing concerns. The public version of the decision is heavily redacted.

Proximus and Orange have since moved forward with their cooperation.

The Investigation and Prosecution Service’s investigation on the merits continues under strict confidentiality rules and no strict time limit. Its scope may exceed that of Telenet’s complaint.

Proximus and Orange’s public statements and the interim measures decision by the BCA, are the only publicly available documents to describe the project and the competition law issues that it may raise.

II. THE PARTIES ENGAGED WITH PUBLIC AUTHORITIES AT AN EARLY STAGE

Proximus and Orange announced their plans in July 2019 when signing the term sheet for their cooperation.

They had engaged with the BCA and the BIPT shortly before to present their project.

The BCA has (*ex post*) jurisdiction on the agreements to investigate infringements to antitrust rules. BIPT was also involved because it is in charge of sector-specific (*ex ante*) regulation on the telecoms market and oversees spectrum auctions.

Proximus and Orange defended their project before BIPT and the BCA, in particular claiming that they would remain competitors with their own core networks and spectrum. They explained how they intended to fully comply with competition law. In particular, MWingz acts as an “*operational black box*” while the parties remain competitors in the Belgian mobile market. Safeguards are in place to prevent breaches of competition law in the context of the cooperation.

Proximus and Orange pointed at already existing network sharing agreements in Poland, the United Kingdom, and Greece.

They also emphasized the differences between their case and the active network sharing agreement between T-Mobile CZ, O2 CZ, and CETIN in the Czech Republic which is being challenged by European Commission’s Directorate General for Competition (“DG COMP”). T-Mobile CZ, O2 CZ, and CETIN received DG COMP’s statement of objections in August 2019.

A common feature between the two network sharing agreements is the substantial combined market share of the parties concerned (T-Mobile CZ, O2 CZ, and CETIN’s have around three quarters of the Czech mobile market by subscribers).

However, Proximus and Orange claimed that the Czech and Belgian cases cannot be compared. The legal and regulatory framework in the Czech Republic is different from the one in Belgium, prices for mobile services in Belgium are relatively lower, which suggests a higher level of competition, and, contrary to Telenet, the third and smallest Czech MNO is not a strong fixed telecoms player.

Both the Investigation and Prosecution Service of the BCA and BIPT questioned the parties on their cooperation.

The Investigation and Prosecution Service also contacted the case team at DG COMP in charge of investigating the network sharing agreement in the Czech Republic.

In its written comments on the request for interim measures, BIPT explains that it expressed concerns regarding the effect of the cooperation and the governance of the JV, and that Proximus and Orange undertook to address these.

III. THE COMPETITION COLLEGE OF THE BCA DISAGREED THAT THE NETWORK SHARING *PRIMA FACIE* LED PROXIMUS AND ORANGE TO COORDINATE ON THEIR FUTURE BIDS FOR SPECTRUM

Belgium is preparing for the auctioning of expiring 2G, 3G, and 4G spectrum rights in the 900 MHz, 1800 MHz and 2 GHz bands and for new usage rights for 5G spectrum in the 700 MHz, 1400 MHz and 3.6 GHz bands. The timing of the auction is still to be determined.

Telenet argued before the Competition College of the BCA that Proximus and Orange's cooperation should be suspended because the network sharing would inevitably result in Proximus and Orange aligning their future bidding behavior. In particular, in order to reduce costs, the parties would have an incentive to coordinate so that they would eventually hold contiguous frequency blocks to be used in the same radio units.

BIPT expressed concerns that certain clauses in the term sheet might impact Proximus and Orange's behavior during the auction.

Proximus and Orange maintained that their cooperation does not concern spectrum usage and that they remain fully independent in this respect. Their cooperation agreement sought to guarantee this independence. In particular, the agreements in place provide that no board meeting will be held during the course of an auction or bidding process.

The Investigation and Prosecution Service intervened to explain that at this preliminary stage (the investigation could take years) its findings did not confirm that only contiguous blocks of network could be used in a single radio unit. In addition, while recognizing the benefits of contiguous frequency blocks, there are technical solutions to circumvent the challenges posed by non-consecutive blocks of spectrum. Moreover, there are numerous parameters other than contiguity that are at play for an optimized network.

The Competition College concluded that Telenet has not sufficiently substantiated its claim that it was "*not be manifestly unreasonable*" that the cooperation would lead the parties to coordinate during the spectrum auction.

For the Competition College it was not obvious that the parties' bidding decisions would be led by anything else than their own strategy, given that they would remain competitors in the Belgian mobile market.

The Competition College noted that in any case, if such collusion would result in the parties bidding less aggressively, this would benefit other bidders, while Telenet had not provided any indication that the parties could bid higher in an attempt to push Telenet out of the market.

Telenet also argued that the network sharing agreement between Proximus and Orange could pave the way for sharing spectrum in the future, or encourage reciprocal roaming. The prospective of such *fall back option* would allow Proximus and Orange to refrain from bidding aggressively during the upcoming spectrum auction.

However, the Competition College found that Telenet's claim was not substantiated. Nothing in the network sharing agreement encouraged such cooperation, nor did it seem to make it more likely compared to a situation in which the parties did not actively share their networks.

IV. THE COMPETITION COLLEGE OF THE BCA AGREED THAT THERE IS A *PRIMA FACIE* CONCERN ON COMPETITION IN THE BELGIAN MOBILE MARKET

Telenet argued before the Competition College that Proximus and Orange's cooperation agreement should be suspended because it would inevitably lead to reduced competition on the Belgian mobile telecoms market.

The Competition College agreed that it was "*not manifestly unreasonable*" that the cooperation would result in a competitively sensitive information exchange and reduced competition in the Belgian mobile market.

A. Doubts Remain on Possible Information Exchanges

For Telenet, competitively sensitive information being exchanged between the parties could in particular affect the future spectrum auction, even if Orange and Proximus would not actually coordinate their bids. As spectrum planning is closely linked to network configuration, the parties would necessarily adapt their bidding behavior based on the information received while cooperating and maximize the synergies derived from the cooperation. The network sharing agreement would therefore increase the information asymmetry between Proximus and Orange on the one hand, and other bidders on the other hand.

Proximus and Orange maintained that their cooperation includes the necessary safeguards. In particular, a clean team was created which members have signed a non-disclosure agreement and have been given the choice, afterwards, to stay with MWingz or work on activities unrelated to the network sharing agreement. The parties have also set up Chinese walls and prepared guidelines on information exchange. MWingz will operate from a separate building, have a separate IT system, and will be regularly audited by an external lawyer.

The Investigation and Prosecution Service explained to the Competition College that it deemed these safeguards to be sufficient. It also noted that MWingz would process the information on network deployment provided by the parties and only circulate it amongst the parties in the form of an operational plan. Therefore, the parties would not receive highly sensitive information on each other's future behavior, which could be problematic.

However, BIPT maintained its concerns regarding the governance of MWingz and possible information exchanges. It had not been able to confirm that Proximus and Orange made all necessary modifications to their agreements in order to alleviate these concerns. This is because the shareholding and the network sharing agreement were signed just days before the hearing before the Competition College.

Although largely redacted, the Collège's decision on interim measures shows that it analyzed the final versions of the agreement and concluded that Proximus and Orange had not addressed all of BIPT's comments on their agreements.

B. The Cooperation May Excessively Restrict Competition

Proximus and Orange maintained that they will remain competitors despite their cooperation, keeping full ownership of their equipment, while remaining free to unilaterally invest in their infrastructure in order to differentiate, notably with regard to coverage and capacity.

Both parties also claimed to remain completely independent to determine their commercial strategy towards both their retail and wholesale customers. Each operator would continue to provide specific offers in terms of service and quality levels.

Without challenging these arguments, the Competition College concluded that it was "*not manifestly unreasonable*" to consider that the implementation of the cooperation might appreciably restrict competition between Proximus and Orange in the Belgian mobile market.

Firstly, the parties jointly account for a large part of the retail mobile market in Belgium i.e. 75 percent by revenue, of which 40-50 percent for Proximus. Market share considerations also played an important role in the European Commission's reasoning in the Czech case. The Competition College agreed that this made it likely that the cooperation would have anticompetitive effects.

Secondly, the cooperation has a wide scope in terms of technologies involved. BIPT expressed doubts on the necessity for Proximus and Orange to cooperate on their already fully rolled out 2G, 3G and 4G networks, and on their future 5G networks. Telenet argued that actively sharing networks with regard to these (legacy) technologies would significantly reduce competition on infrastructure between the parties. By contrast, the active network sharing agreement in the Czech Republic that DG COMP is challenging is “*without any prejudice to any future assessment of network agreements involving emerging technologies such as 5G, which may have very different characteristics [than current and legacy technologies]*” (DG COMP press release of August 7, 2019).

Thirdly, the Competition College acknowledged the argument that the cooperation raises prima facie concerns because it covers the whole territory of Belgium without differentiating between densely and less-densely populated areas. As also recognized by DG COMP in the Czech case, infrastructure-based competition is more feasible in densely populated areas, and network sharing harder to justify.

The Competition College also explained that, for the same reasons, the cooperation could restrict competition between Proximus and Orange on the one hand and between parties and third parties such as Telenet on the other hand. It also pointed to “*the uncertainty on the effect of decommissioning of sites and infrastructure pooling for third parties already on the market or wishing to enter the market.*”

The Competition College further held that it was “*not manifestly unreasonable*” to consider that MWingz’ management would try to steer the parties’ requirements to promote an optimal construction of the consolidated networks. The reasons for this remark are confidential.

Finally, the Competition College considered that it was impossible at this early stage to evaluate the possibility that the cooperation could benefit from an exemption based on efficiencies despite its anticompetitive effect. The Competition College nevertheless recognized that the cooperation between Proximus and Orange did not go as far as sharing core network or backhaul, and could allow for a faster roll out of 5G technology and better mobile coverage in rural areas.

C. A Two-Month Suspension is Urgent, Necessary and Proportionate to Avoid Damage to the General Economic Interest

Interim measures can only be granted if there is an urgent need. This can either be due to the risk of serious, immediate and hardly reparable damage to the complainant or to the risk of an important harm to the general economic interest. In addition, interim measures must be adequate to prevent the damage, and must not go beyond what is strictly necessary for this purpose.

After characterizing a prima facie case that Proximus and Orange’s network sharing agreement restricts competition, the Competition College established that the general economic interest argument was sufficiently important and seriously threatened by Proximus and Orange’s cooperation to justify imposing interim measures.

The Competition College also recognized that preserving infrastructure competition may also protect competition in the wholesale market and eventually MVNO’s abilities to compete. It further noted that it could not be excluded that the cooperation might raise barriers to entry on the Belgian mobile market while the entry of a fourth MNO to increase competition remains a sensitive issue in Belgium.

However, the Competition College considered that it would not be proportionate to suspend the cooperation until the BCA decides on the case, which could take years (as is the case for DG COMP’s investigation in the Czech case).

In order to strike a balance between the need to preserve competition and Proximus and Orange’s interest to move forward with their cooperation, the Competition College welcomed BIPT’s suggestion to suspend Proximus and Orange’s cooperation for two months during which period BIPT would finish reviewing the terms of the cooperation agreement and tackle the most pressing points of contention.

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